



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Methods: 149

Sample # 230811

Regular PT Scheme

Labs Reporting: 73

Grade 4-3-4

Statistical Summary

Issue Date : 09/30/2023

Method Code	Analyte & Method Sample # 230811	# 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 (%)	4	4	0.3472	0.1418	0.3472		0.1418	0.0886	40.83%		0.0263	4.69%
001.99	Ammoniacal N, Other (%)	15	13	0.4663	0.2685	0.3961		0.1619	0.0561	40.88%		0.0216	4.60%
002.99	Nitrate N, Other (%)	1		2.549									
003.10	Water Insoluble N, Method I (%)	4	4	1.967	0.3521	1.967		0.3521	0.2200	17.90%		0.1014	3.61%
003.99	Water Insoluble N, Other (%)	1		2.343									
005.99	Urea N, Other (%)	1		0.0850									
010.11	Total N, Modified Comprehensive (4%)	1		3.964									
010.12	Total N, Salicylic (4%)	5	5	3.844	0.2371	3.844	0.4900	0.2371	0.1326	6.17%	1.13	0.0402	3.27%
010.60	Total N, Combustion (4%)	46	46	4.067	0.1904	4.039	0.4908	0.1067	0.0197	2.64%	0.51	0.0764	3.24%
010.99	Total N, Other (4%)	12	12	3.974	0.5828	4.126	0.4925	0.1781	0.0643	4.32%	0.84	0.0577	3.23%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	3	3	4.132	0.9689	4.132		0.9689	0.6992	23.45%		0.1367	3.23%
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	5	5	4.526	0.3908	4.526		0.3908	0.2185	8.63%		0.1052	3.19%
020.40	Total P2O5, Automated (%)	3	3	4.593	0.7353	4.593		0.7353	0.5306	16.01%		0.0600	3.18%
020.50	Total P2O5, ICP (%)	22	21	4.661	0.4088	4.654		0.4132	0.1127	8.88%		0.0890	3.17%
020.99	Total P2O5, Other (%)	6	5	4.175	0.6897	4.028		0.6586	0.3681	16.35%		0.0400	3.24%
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP	1		0.1950									
040.99	Indirect Available P2O5, Other (3%)	1		4.129									
041.10	Direct Available P2O5, Gravimetric Quinolinium (3%)	2	2	3.935	0.2899								
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA	9	9	3.845	0.2865	3.834	0.6700	0.2987	0.1245	7.79%	1.04	0.0892	3.27%
041.20	Direct Available P2O5, Spectrophotometric (3%)	3	3	4.205	0.2013	4.205	0.6700	0.2013	0.1453	4.79%	0.70	0.0350	3.22%
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext.	7	7	3.768	1.149	3.768	0.6700	1.303	0.6154	34.57%	4.53	0.1297	3.28%
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (3%)	2	2	4.148	0.1025								
041.50	Direct Available P2O5, ICP (3%)	5	5	4.461	0.3516	4.461	0.6700	0.3516	0.1966	7.88%	1.22	0.0820	3.19%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	10	10	4.442	0.2053	4.445	0.6700	0.2261	0.0894	5.09%	0.79	0.0755	3.20%
041.99	Direct Available P2O5, Other (3%)	5	5	3.417	0.2821	3.417	0.6700	0.2821	0.1577	8.26%	0.98	0.2260	3.32%
048.20	Water Soluble P2O5, Spectrophotometric (%)	2	2	0.3450	0.3889								
048.40	Water Soluble P2O5, Automated (%)	1		0.6250									
048.50	Water Soluble P2O5, ICP (%)	1		0.6000									
048.99	Water Soluble P2O5, Other (%)	2	2	2.190	1.407								

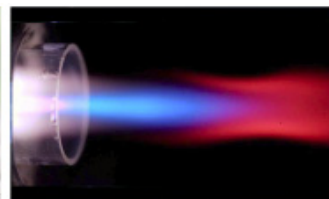
Method Code	Analyte & Method Sample # 230811	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Howitz %RSD
050.00	Soluble K2O, STPB Oxalate (4%)	9	8	3.947	0.3310	4.026	0.4105	0.2823	0.1248	7.01%	1.60	0.0726	3.24%
050.10	Soluble K2O, STPB Citrate (4%)	1		4.450									
050.30	Soluble K2O, AA (Oxalate) (4%)	4	4	4.542	0.1275	4.542	0.4208	0.1275	0.0797	2.81%	0.71	0.0244	3.19%
050.32	Soluble K2O, AA (Citrate-EDTA) (4%)	1		4.360									
050.50	Soluble K2O, ICP (Oxalate) (4%)	7	7	4.611	0.2938	4.595	0.4219	0.2959	0.1398	6.44%	1.63	0.0902	3.18%
050.51	Soluble K2O, ICP (Citrate) (4%)	5	5	4.523	0.7887	4.523	0.4205	0.7887	0.4409	17.44%	4.37	0.0356	3.19%
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	11	11	4.396	0.1737	4.405	0.4181	0.1750	0.0660	3.97%	0.98	0.0697	3.20%
050.60	Soluble K2O, Flame Photometric (Oxalate) (4%)	1		4.435									
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	3	3	4.563	0.0629	4.563	0.4213	0.0629	0.0454	1.38%	0.35	0.0867	3.18%
050.99	Soluble K2O, Other (4%)	32	31	4.306	0.4310	4.256	0.4151	0.2685	0.0603	6.31%	1.51	0.1072	3.22%
060.99	Water (Free), Other (%)	1		5.063									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	3	3	7.813	0.9513	7.813	0.5907	0.9513	0.6866	12.18%	3.75	0.0533	2.94%
101.01	Acid Soluble Ca, AA, organic 965.09 (%)	2	2	6.743	0.7736								
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual ε	1		8.042									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	14	14	7.559	0.8995	7.622	0.5811	0.6610	0.2208	8.67%	2.65	0.2088	2.95%
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (%)	1		7.710									
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	4	4	7.677	0.2905	7.677	0.5839	0.2905	0.1815	3.78%	1.16	0.0873	2.94%
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	13	13	7.520	0.2809	7.502	0.5751	0.2739	0.0949	3.65%	1.11	0.1748	2.95%
101.70	Acid Soluble Ca, Titrimetric (%)	1		7.463									
101.99	Acid Soluble Ca, Other (%)	8	8	7.436	0.5931	7.450	0.5725	0.6405	0.2831	8.60%	2.61	0.0814	2.96%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	5	5	2.187	0.5256	2.187	0.3094	0.5256	0.2938	24.03%	3.96	0.0410	3.56%
121.01	Acid Soluble Mg, AA, organic 965.09 (1%)	2	2	2.069	0.4829								
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual ε	1		1.429									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	15	15	1.914	0.2392	1.959	0.2979	0.1449	0.0468	7.40%	1.13	0.0767	3.61%
121.31	Acid Soluble Mg, ICP, test portion organic 965.09 (1%)	1		2.065									
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1%)	4	4	1.975	0.0958	1.975	0.2988	0.0958	0.0599	4.85%	0.75	0.0255	3.61%
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	15	14	2.076	0.2543	2.013	0.3006	0.1382	0.0462	6.87%	1.07	0.0259	3.60%
121.99	Acid Soluble Mg, Other (1%)	12	12	1.782	0.3125	1.808	0.2904	0.2900	0.1046	16.04%	2.33	0.0667	3.66%
131.00	Water Soluble Mg, AA (%)	2	2	1.326	0.1209								
131.30	Water Soluble Mg, ICP (%)	4	4	1.222	0.1933	1.222		0.1933	0.1208	15.82%		0.0493	3.88%
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	1		2.342									
131.99	Water Soluble Mg, Other (%)	4	4	1.244	0.2167	1.244		0.2167	0.1354	17.41%		0.1167	3.87%
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfu	1		3.330									
143.99	Elemental S, Other (%)	4	4	6.418	0.7589	6.418		0.7589	0.4743	11.83%		0.1522	3.02%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	2	2	3.065	0.0495								
145.99	Sulfate S, HCl soluble, Other (%)	1		2.765									
148.00	Total S, Combustion (5%)	7	7	6.500	0.3055	6.500	0.5250	0.3464	0.1637	5.33%	1.54	0.1303	3.02%
148.01	Total S, Gravimetric - sulfate and elemental (5%)	7	7	5.096	1.129	5.096	0.4548	1.280	0.6048	25.12%	6.56	0.1483	3.13%
148.07	Total S, ICP, test portion as in 2017.02 (5%)	13	12	6.710	0.3713	6.754	0.5377	0.3861	0.1393	5.72%	1.67	0.1461	3.00%
148.99	Total S, Other (5%)	13	12	5.755	1.315	5.754	0.4877	1.435	0.5178	24.94%	6.86	0.0976	3.07%

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149.04	S - HNO3 soluble, ICP (%)	4	4	5.863	1.300	5.863		1.300	0.8123	22.17%		0.1969	3.06%
151.30	Acid Soluble As, ICP (ppm)	5	2	2.514	3.103	0.3843		0.0605	0.0535	15.75%		0.1317	18.47%
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	2	1	1.875	1.591								
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	3	1	13.55	22.60	0.3843		0.0605	0.0757	15.75%		0.0144	18.47%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	0	0.2930	0.1513								
151.99	Acid Soluble As, Other (ppm)	3	1	0.4783	0.0375	0.3843		0.0605	0.0757	15.75%		0.0144	18.47%
165.00	Acid Soluble B, Spectrophotometric (%)	1		0.0115									
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	1		0.0100									
165.99	Acid Soluble B, Other (%)	6	3	0.1820	0.3894	0.3571	0.0566	0.5359	0.3868	150.10%	22.08	0.0303	4.67%
171.99	Water Soluble B, Other (%)	1		0.0116									
181.30	Acid Soluble Cd, ICP (ppm)	6	3	1.091	1.199	1.097		1.750	1.263	159.43%		1.695	15.77%
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	2	1	0.5500	0.6364								
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	4	1	0.3484	0.4442	1.097		1.750	2.187	159.43%		0.0010	15.77%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	0	0.1165	0.0233								
181.99	Acid Soluble Cd, Other (ppm)	2	2	0.1100	0.0566								
190.00	Water Soluble Cl, Titrimetric (%)	1		0.5050									
191.30	Acid Soluble Cr, ICP (ppm)	5	5	38.91	14.59	38.91		14.59	8.155	37.50%		9.321	9.22%
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	2	2	55.53	9.157								
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	5	5	59.00	23.59	59.00		23.59	13.19	39.98%		22.47	8.66%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	44.00	6.148								
191.99	Acid Soluble Cr, Other (ppm)	3	3	32.24	22.04	32.24		22.04	15.91	68.38%		1.403	9.48%
202.30	Acid Soluble Co, ICP (ppm)	5	4	6.466	2.297	6.832	3.0496	2.478	1.548	36.26%	1.89	0.4780	11.98%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	2	2	6.850	3.041								
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	5	4	5.448	3.688	6.746	3.0237	2.630	1.644	38.99%	2.03	0.6534	12.00%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	1	1.470	1.882								
202.99	Acid Soluble Co, Other (ppm)	4	3	10.74	11.99	12.65	4.7945	13.92	10.04	110.04%	6.76	5.425	10.92%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	2	2	0.0171	0.0001								
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	6	6	0.0232	0.0132	0.0188	0.0069	0.0031	0.0016	16.53%	1.05	0.0065	7.28%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	3	3	0.0193	0.0007	0.0193	0.0069	0.0007	0.0005	3.57%	0.23	0.0005	7.25%
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	9	18.43	58.21	0.0187	0.0069	0.0018	0.0008	9.80%	0.62	0.0012	7.28%
221.99	Acid Soluble Cu, Other (%)	4	4	0.0175	0.0022	0.0175	0.0067	0.0021	0.0013	12.30%	0.74	0.0011	7.35%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	2	2	0.0816	0.0135								
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	2	2	0.1500	0.0990								
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	2	2	316.6	447.6								
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	6	5	0.0908	0.0306	0.0898	0.0140	0.0341	0.0191	37.99%	5.69	0.0038	5.75%
241.99	Acid Soluble Fe, Other (%)	3	3	0.0606	0.0257	0.0606	0.0111	0.0257	0.0186	42.47%	5.42	0.0284	6.10%
251.30	Acid Soluble Pb, ICP (ppm)	6	2	2.504	2.133	1.106		0.0760	0.0672	6.87%		0.6701	15.76%
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	2	1	2.900	1.556								
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	5	4	8.761	13.79	10.20		15.48	9.678	151.79%		4.028	11.28%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	1	1.383	1.650								

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251.99	Acid Soluble Pb, Other (ppm)	3	2	4.523	4.746	1.785		0.2333	0.2063	13.07%		0.1000	14.66%
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	1		0.0240									
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	1		0.0266									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	1		0.0200									
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	1		0.0255									
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	1		0.0900									
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	2	2	138.3	195.5								
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	5	5	0.0241	0.0026	0.0241	0.0074	0.0026	0.0014	10.61%	0.80	0.0010	7.01%
261.99	Acid Soluble Mn, Other (%)	3	3	0.0213	0.0045	0.0213	0.0071	0.0045	0.0032	20.92%	1.46	0.0044	7.14%
281.30	Acid Soluble Hg, ICP (ppm)	5	1	0.6752	0.9074	0.0213		0.0045	0.0056	20.92%		0.0008	22.00%
281.99	Acid Soluble Hg, Other (ppm)	5	3	0.0074	0.0029	0.0060		0.0031	0.0022	50.55%		0.0015	22.00%
289.30	Acid Soluble Mo, ICP (ppm)	6	6	4.529	1.395	4.529	2.3587	1.582	0.8074	34.93%	1.56	0.9837	12.74%
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	2	2	6.050	1.344								
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	6	4	5.518	3.236	5.720	2.7159	1.176	0.7351	20.56%	1.01	0.5101	12.30%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	2	1	3.314	4.435								
289.99	Acid Soluble Mo, Other (ppm)	2	2	4.863	2.316								
291.30	Acid Soluble Ni, ICP (ppm)	4	4	19.77	3.872	19.77		3.872	2.420	19.58%		5.885	10.21%
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	2	2	25.28	3.854								
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	5	5	27.87	15.84	27.87		15.84	8.856	56.85%		17.14	9.69%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	19.40	3.033								
291.99	Acid Soluble Ni, Other (ppm)	3	3	31.30	26.73	31.30		26.73	19.29	85.40%		5.107	9.53%
301.30	Acid Soluble Se, ICP (ppm)	4	2	3.739	5.528	0.6525		0.1570	0.1388	24.06%		0.0035	17.06%
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	2	1	5.550	6.293								
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	2	0	0.1400	0.1838								
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	3	2	1.380	1.923	1.957		2.324	2.054	118.75%		0.5084	14.46%
301.99	Acid Soluble Se, Other (ppm)	3	1	0.6633	0.6504	1.957		2.324	2.905	118.75%		0.0168	14.46%
311.00	Sodium, AA (%)	1		0.3400									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	3	3	0.3236	0.0331	0.3236	0.0374	0.0331	0.0239	10.24%	2.07	0.0042	4.74%
311.99	Sodium, Other (%)	2	2	0.3625	0.0389								
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	2	2	0.0325	0.0014								
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	6	6	0.0424	0.0205	0.0405	0.0090	0.0186	0.0095	46.06%	4.80	0.0014	6.48%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	3	3	0.0329	0.0018	0.0329	0.0083	0.0018	0.0013	5.54%	0.51	0.0040	6.69%
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	11	10	28.18	93.36	0.0313	0.0081	0.0030	0.0012	9.68%	0.87	0.0013	6.74%
321.99	Acid Soluble Zn, Other (%)	4	4	0.0326	0.0029	0.0326	0.0083	0.0029	0.0018	8.91%	0.82	0.0115	6.70%
325.99	Water Soluble Zn, Other (%)	1		0.0100									
431.99	Soluble Si in nonliquids, Other (%)	1		0.0070									
441.00	Humic Acids, Gravimetry, Ash-free, alkali dissolved, acid precipitated (%)	4	4	1.976	0.6043	1.976		0.6043	0.3777	30.58%		0.2925	3.61%
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (%)	4	4	1.863	0.1931	1.863		0.1931	0.1207	10.37%		0.1000	3.64%
441.99	Humic Acids, Other (%)	4	4	2.966	1.563	2.966		1.563	0.9768	52.69%		0.2033	3.40%
451.00	Hydrophobic Fulvic Acids, Gravimetry, acid dissolved binds hydrophobic (%)	1		1.730									

Method Code	Analyte & Method Sample # 230811	# 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
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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 usin the Thompson Modification, Analyst,2000,125,385-386.



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Sample # 230811

Regular PT Scheme

Grade 4-3-4

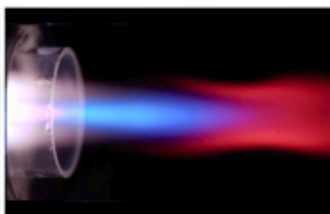
Method Precision Report

Issue Date : 09/30/2023

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
001.99	Ammoniacal N, Other (%)	15	11	0.4178	0.2345	0.2343	0.0139	0.2347	56.07%	3.33%	56.17%	16.86
010.60	Total N, Combustion (4%)	46	43	4.037	0.1045	0.0943	0.0634	0.1137	2.34%	1.57%	2.82%	1.793
010.99	Total N, Other (4%)	12	10	4.179	0.1055	0.1002	0.0463	0.1104	2.40%	1.11%	2.64%	2.383
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	5	5	4.526	0.3908	0.3878	0.0690	0.3939	8.57%	1.53%	8.70%	5.705
020.50	Total P2O5, ICP (%)	22	19	4.670	0.3465	0.3431	0.0681	0.3498	7.35%	1.46%	7.49%	5.140
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA E	9	8	3.829	0.3019	0.2993	0.0562	0.3045	7.82%	1.47%	7.95%	5.420
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (:	7	7	3.768	1.149	1.146	0.1134	1.151	30.41%	3.01%	30.56%	10.16
041.50	Direct Available P2O5, ICP (3%)	5	5	4.461	0.3516	0.3485	0.0661	0.3547	7.81%	1.48%	7.95%	5.366
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	10	9	4.409	0.1873	0.1827	0.0586	0.1918	4.14%	1.33%	4.35%	3.273
041.99	Direct Available P2O5, Other (3%)	5	5	3.417	0.2821	0.2399	0.2099	0.3188	7.02%	6.14%	9.33%	1.519
050.00	Soluble K2O, STPB Oxalate (4%)	9	8	4.026	0.2490	0.2448	0.0639	0.2530	6.08%	1.59%	6.29%	3.961
050.50	Soluble K2O, ICP (Oxalate) (4%)	7	7	4.611	0.2938	0.2882	0.0811	0.2994	6.25%	1.76%	6.49%	3.690
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	11	11	4.396	0.1737	0.1675	0.0653	0.1797	3.81%	1.48%	4.09%	2.753
050.99	Soluble K2O, Other (4%)	32	30	4.244	0.2774	0.2658	0.1124	0.2885	6.26%	2.65%	6.80%	2.568
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	14	13	7.740	0.6142	0.5979	0.1986	0.6300	7.73%	2.57%	8.14%	3.173
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	13	13	7.520	0.2809	0.2568	0.1610	0.3031	3.41%	2.14%	4.03%	1.882
101.99	Acid Soluble Ca, Other (%)	8	7	7.384	0.6211	0.6198	0.0575	0.6225	8.39%	0.78%	8.43%	10.82
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	15	14	1.965	0.1401	0.1327	0.0636	0.1471	6.75%	3.24%	7.49%	2.313
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	15	13	2.021	0.1424	0.1416	0.0211	0.1432	7.01%	1.05%	7.08%	6.772
121.99	Acid Soluble Mg, Other (1%)	12	10	1.867	0.2280	0.2258	0.0454	0.2303	12.09%	2.43%	12.33%	5.068
148.00	Total S, Combustion (5%)	7	7	6.500	0.3055	0.2916	0.1291	0.3188	4.49%	1.99%	4.91%	2.470
148.01	Total S, Gravimetric - sulfate and elemental (5%)	7	7	5.096	1.129	1.126	0.1216	1.132	22.09%	2.39%	22.21%	9.308
148.07	Total S, ICP, test portion as in 2017.02 (5%)	13	11	6.721	0.3384	0.3307	0.1017	0.3460	4.92%	1.51%	5.15%	3.400
148.99	Total S, Other (5%)	13	12	5.704	1.360	1.358	0.0959	1.361	23.81%	1.68%	23.87%	14.20
191.30	Acid Soluble Cr, ICP (ppm)	5	5	38.91	14.59	13.05	9.222	15.98	33.54%	23.70%	41.07%	1.733
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	6	5	0.0179	0.0017		0.0032			17.91%		

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
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	8	0.0183	0.0017	0.0016	0.0007	0.0017	8.60%	3.99%	9.48%	2.375
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	5	5	0.0241	0.0026	0.0025	0.0007	0.0026	10.42%	2.83%	10.80%	3.822
289.30	Acid Soluble Mo, ICP (ppm)	6	6	4.529	1.395	1.255	0.8622	1.523	27.71%	19.04%	33.62%	1.766
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	6	6	0.0424	0.0205	0.0205	0.0009	0.0205	48.42%	2.06%	48.47%	23.52
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	11	9	0.0308	0.0023	0.0022	0.0006	0.0023	7.26%	1.83%	7.49%	4.102

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



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Methods: 149

Sample # 230811

Regular PT Scheme

Labs Reporting: 73

Grade 4-3-4

Lab Values

Issue Date : 09/30/2023

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	Rob R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0389	0.2350	0.0100	0.3472	0.1418	0.0263	4	-0.79		0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0451	0.2450	0.0300	0.3472	0.1418	0.0263	4	-0.72		0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0619	0.3700	0.0400	0.3472	0.1418	0.0263	4	0.16		0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0117	0.5389	0.0250	0.3472	0.1418	0.0263	4	1.35		0
001.99	Ammoniacal N, Other (%)	0605	0.2100	0.0000	0.3961	0.1619	0.0216	13	-1.15	NA	0
001.99	Ammoniacal N, Other (%)	0423	0.2245	0.0010	0.3961	0.1619	0.0216	13	-1.06	NA	0
001.99	Ammoniacal N, Other (%)	0524	0.2900	0.0200	0.3961	0.1619	0.0216	13	-0.66	NA	0
001.99	Ammoniacal N, Other (%)	0220	0.3000	0.0400	0.3961	0.1619	0.0216	13	-0.59	NA	0
001.99	Ammoniacal N, Other (%)	0553	0.3030	0.0160	0.3961	0.1619	0.0216	13	-0.58	NA	0
001.99	Ammoniacal N, Other (%)	0587	0.3300	0.0800	0.3961	0.1619	0.0216	13	-0.41	NA	0
001.99	Ammoniacal N, Other (%)	0619	0.3500	0.0000	0.3961	0.1619	0.0216	13	-0.28	NA	0
001.99	Ammoniacal N, Other (%)	0255	0.4340	0.0000	0.3961	0.1619	0.0216	13	0.23	NA	0
001.99	Ammoniacal N, Other (%)	0559	0.4450	0.0100	0.3961	0.1619	0.0216	13	0.30	NA	0
001.99	Ammoniacal N, Other (%)	0626	0.4450	0.0300	0.3961	0.1619	0.0216	13	0.30	NA	0
001.99	Ammoniacal N, Other (%)	0368	0.5400	0.0300	0.3961	0.1619	0.0216	13	0.89	NA	0
001.99	Ammoniacal N, Other (%)	0558	1.054	0.0102	0.3961	0.1619	0.0216	13	4.06	NA	0
001.99	Ammoniacal N, Other (%)	0415	1.110	0.0125	0.3961	0.1619	0.0216	13	4.41	NA	0
001.99	Ammoniacal N, Other (%)	0572	0.4587	0.1206	0.3961	0.1619	0.0216	13	0.39	NA	1
001.99	Ammoniacal N, Other (%)	0405	< 0.5		0.3961	0.1619	0.0216	13			5
002.99	Nitrate N, Other (%)	0368	2.549	0.0095				1			0
003.10	Water Insoluble N, Method I (%)	0220	1.735	0.0500	1.967	0.3521	0.1014	4	-0.66		0
003.10	Water Insoluble N, Method I (%)	0494	1.739	0.0854	1.967	0.3521	0.1014	4	-0.65		0
003.10	Water Insoluble N, Method I (%)	0451	1.915	0.1700	1.967	0.3521	0.1014	4	-0.15		0
003.10	Water Insoluble N, Method I (%)	0547	2.480	0.1000	1.967	0.3521	0.1014	4	1.46		0
003.99	Water Insoluble N, Other (%)	0626	2.343	0.0220				1			0
005.99	Urea N, Other (%)	0524	0.0850	0.0100				1			0
010.11	Total N, Modified Comprehensive (4%)	0510	3.964	0.0390				1			0
010.12	Total N, Salicylic (4%)	0580	3.430	0.0000	3.844	0.2371	0.0402	5	-1.75		0
010.12	Total N, Salicylic (4%)	0572	3.880	0.0400	3.844	0.2371	0.0402	5	0.15		0
010.12	Total N, Salicylic (4%)	0117	3.925	0.0278	3.844	0.2371	0.0402	5	0.34		0
010.12	Total N, Salicylic (4%)	0415	3.965	0.0527	3.844	0.2371	0.0402	5	0.51		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	Rob R-bar				
010.12	Total N, Salicylic (4%)	0568	4.020	0.0000	3.844	0.2371	0.0402	5	0.74		0
010.60	Total N, Combustion (4%)	0095	3.775	0.0100	4.039	0.1067	0.0764	46	-2.47	OK	0
010.60	Total N, Combustion (4%)	0485	3.870	0.0400	4.039	0.1067	0.0764	46	-1.58	OK	0
010.60	Total N, Combustion (4%)	0260	3.885	0.2700	4.039	0.1067	0.0764	46	-1.44	OK	0
010.60	Total N, Combustion (4%)	0377	3.885	0.1100	4.039	0.1067	0.0764	46	-1.44	OK	0
010.60	Total N, Combustion (4%)	0049	3.930	0.0400	4.039	0.1067	0.0764	46	-1.02	OK	0
010.60	Total N, Combustion (4%)	0102	3.930	0.0800	4.039	0.1067	0.0764	46	-1.02	OK	0
010.60	Total N, Combustion (4%)	0231	3.935	0.0100	4.039	0.1067	0.0764	46	-0.97	OK	0
010.60	Total N, Combustion (4%)	0543	3.940	0.0800	4.039	0.1067	0.0764	46	-0.92	OK	0
010.60	Total N, Combustion (4%)	0035	3.950	0.1000	4.039	0.1067	0.0764	46	-0.83	OK	0
010.60	Total N, Combustion (4%)	0043	3.950	0.0400	4.039	0.1067	0.0764	46	-0.83	OK	0
010.60	Total N, Combustion (4%)	0230	3.965	0.0100	4.039	0.1067	0.0764	46	-0.69	OK	0
010.60	Total N, Combustion (4%)	0055	3.985	0.0900	4.039	0.1067	0.0764	46	-0.50	OK	0
010.60	Total N, Combustion (4%)	0324	3.985	0.1100	4.039	0.1067	0.0764	46	-0.50	OK	0
010.60	Total N, Combustion (4%)	0422	3.990	0.0000	4.039	0.1067	0.0764	46	-0.46	OK	0
010.60	Total N, Combustion (4%)	0255	3.991	0.0440	4.039	0.1067	0.0764	46	-0.45	OK	0
010.60	Total N, Combustion (4%)	0534	3.995	0.0100	4.039	0.1067	0.0764	46	-0.41	OK	0
010.60	Total N, Combustion (4%)	0423	4.000	0.0200	4.039	0.1067	0.0764	46	-0.36	OK	0
010.60	Total N, Combustion (4%)	0626	4.002	0.0410	4.039	0.1067	0.0764	46	-0.35	OK	0
010.60	Total N, Combustion (4%)	0136	4.005	0.1100	4.039	0.1067	0.0764	46	-0.32	OK	0
010.60	Total N, Combustion (4%)	0588	4.012	0.1150	4.039	0.1067	0.0764	46	-0.25	OK	0
010.60	Total N, Combustion (4%)	0220	4.015	0.0300	4.039	0.1067	0.0764	46	-0.22	OK	0
010.60	Total N, Combustion (4%)	0360	4.025	0.0900	4.039	0.1067	0.0764	46	-0.13	OK	0
010.60	Total N, Combustion (4%)	0131	4.031	0.0727	4.039	0.1067	0.0764	46	-0.07	OK	0
010.60	Total N, Combustion (4%)	0405	4.040	0.0600	4.039	0.1067	0.0764	46	0.01	OK	0
010.60	Total N, Combustion (4%)	0587	4.040	0.1400	4.039	0.1067	0.0764	46	0.01	OK	0
010.60	Total N, Combustion (4%)	0619	4.040	0.0200	4.039	0.1067	0.0764	46	0.01	OK	0
010.60	Total N, Combustion (4%)	0389	4.045	0.0100	4.039	0.1067	0.0764	46	0.06	OK	0
010.60	Total N, Combustion (4%)	0040	4.050	0.1000	4.039	0.1067	0.0764	46	0.11	OK	0
010.60	Total N, Combustion (4%)	0521	4.050	0.0000	4.039	0.1067	0.0764	46	0.11	OK	0
010.60	Total N, Combustion (4%)	0472	4.060	0.0000	4.039	0.1067	0.0764	46	0.20	OK	0
010.60	Total N, Combustion (4%)	0547	4.060	0.0800	4.039	0.1067	0.0764	46	0.20	OK	0
010.60	Total N, Combustion (4%)	0354	4.065	0.0500	4.039	0.1067	0.0764	46	0.25	OK	0
010.60	Total N, Combustion (4%)	0291	4.085	0.0100	4.039	0.1067	0.0764	46	0.43	OK	0
010.60	Total N, Combustion (4%)	0073	4.090	0.1000	4.039	0.1067	0.0764	46	0.48	OK	0
010.60	Total N, Combustion (4%)	0451	4.091	0.2540	4.039	0.1067	0.0764	46	0.49	OK	0
010.60	Total N, Combustion (4%)	0234	4.125	0.1500	4.039	0.1067	0.0764	46	0.81	OK	0
010.60	Total N, Combustion (4%)	0023	4.126	0.0150	4.039	0.1067	0.0764	46	0.81	OK	0
010.60	Total N, Combustion (4%)	0042	4.150	0.1000	4.039	0.1067	0.0764	46	1.04	OK	0
010.60	Total N, Combustion (4%)	0612	4.150	0.1000	4.039	0.1067	0.0764	46	1.04	OK	0
010.60	Total N, Combustion (4%)	0025	4.165	0.0700	4.039	0.1067	0.0764	46	1.18	OK	0
010.60	Total N, Combustion (4%)	0029	4.193	0.0910	4.039	0.1067	0.0764	46	1.44	OK	0
010.60	Total N, Combustion (4%)	0527	4.219	0.2370	4.039	0.1067	0.0764	46	1.68	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	Rob R-bar				
010.60	Total N, Combustion (4%)	0501	4.250	0.0200	4.039	0.1067	0.0764	46	1.98	OK	0
010.60	Total N, Combustion (4%)	0452	4.335	0.1100	4.039	0.1067	0.0764	46	2.78	OK	0
010.60	Total N, Combustion (4%)	0368	4.760	0.2280	4.039	0.1067	0.0764	46	6.76	High	0
010.60	Total N, Combustion (4%)	0421	4.855	0.2300	4.039	0.1067	0.0764	46	7.65	High	0
010.99	Total N, Other (4%)	0558	2.202	0.0276	4.126	0.1781	0.0577	12	-10.80	Low	0
010.99	Total N, Other (4%)	0518	3.700	0.2000	4.126	0.1781	0.0577	12	-2.39	OK	0
010.99	Total N, Other (4%)	0444	4.050	0.1000	4.126	0.1781	0.0577	12	-0.43	OK	0
010.99	Total N, Other (4%)	0524	4.052	0.0125	4.126	0.1781	0.0577	12	-0.42	OK	0
010.99	Total N, Other (4%)	0584	4.070	0.0800	4.126	0.1781	0.0577	12	-0.31	OK	0
010.99	Total N, Other (4%)	0513	4.115	0.0700	4.126	0.1781	0.0577	12	-0.06	OK	0
010.99	Total N, Other (4%)	0619	4.175	0.0100	4.126	0.1781	0.0577	12	0.28	OK	0
010.99	Total N, Other (4%)	0565	4.190	0.0200	4.126	0.1781	0.0577	12	0.36	OK	0
010.99	Total N, Other (4%)	0562	4.250	0.1000	4.126	0.1781	0.0577	12	0.70	OK	0
010.99	Total N, Other (4%)	0600	4.250	0.1000	4.126	0.1781	0.0577	12	0.70	OK	0
010.99	Total N, Other (4%)	0559	4.295	0.0100	4.126	0.1781	0.0577	12	0.95	OK	0
010.99	Total N, Other (4%)	0605	4.345	0.0300	4.126	0.1781	0.0577	12	1.23	OK	0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0444	3.050	0.1000	4.132	0.9689	0.1367	3	-1.12		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0619	4.425	0.2900	4.132	0.9689	0.1367	3	0.30		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0626	4.920	0.0200	4.132	0.9689	0.1367	3	0.81		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	4.080	0.0800	4.526	0.3908	0.1052	5	-1.14		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	4.290	0.2000	4.526	0.3908	0.1052	5	-0.60		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0580	4.390	0.0000	4.526	0.3908	0.1052	5	-0.35		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0510	4.901	0.0356	4.526	0.3908	0.1052	5	0.96		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0626	4.970	0.0000	4.526	0.3908	0.1052	5	1.14		0
020.40	Total P2O5, Automated (%)	0042	3.750	0.1000	4.593	0.7353	0.0600	3	-1.15		0
020.40	Total P2O5, Automated (%)	0626	4.930	0.0200	4.593	0.7353	0.0600	3	0.46		0
020.40	Total P2O5, Automated (%)	0035	5.100	0.0000	4.593	0.7353	0.0600	3	0.69		0
020.50	Total P2O5, ICP (%)	0552	3.670	0.0000	4.654	0.4132	0.0890	21	-2.38	NA	0
020.50	Total P2O5, ICP (%)	0619	4.080	0.0000	4.654	0.4132	0.0890	21	-1.39	NA	0
020.50	Total P2O5, ICP (%)	0501	4.140	0.2200	4.654	0.4132	0.0890	21	-1.24	NA	0
020.50	Total P2O5, ICP (%)	0588	4.287	0.0450	4.654	0.4132	0.0890	21	-0.89	NA	0
020.50	Total P2O5, ICP (%)	0368	4.316	0.1521	4.654	0.4132	0.0890	21	-0.82	NA	0
020.50	Total P2O5, ICP (%)	0307	4.355	0.1700	4.654	0.4132	0.0890	21	-0.72	NA	0
020.50	Total P2O5, ICP (%)	0255	4.373	0.0620	4.654	0.4132	0.0890	21	-0.68	NA	0
020.50	Total P2O5, ICP (%)	0472	4.445	0.0300	4.654	0.4132	0.0890	21	-0.51	NA	0
020.50	Total P2O5, ICP (%)	0423	4.645	0.0900	4.654	0.4132	0.0890	21	-0.02	NA	0
020.50	Total P2O5, ICP (%)	0422	4.683	0.0344	4.654	0.4132	0.0890	21	0.07	NA	0
020.50	Total P2O5, ICP (%)	0524	4.746	0.1376	4.654	0.4132	0.0890	21	0.22	NA	0
020.50	Total P2O5, ICP (%)	0234	4.765	0.0700	4.654	0.4132	0.0890	21	0.27	NA	0
020.50	Total P2O5, ICP (%)	0605	4.790	0.1000	4.654	0.4132	0.0890	21	0.33	NA	0
020.50	Total P2O5, ICP (%)	0389	4.810	0.0000	4.654	0.4132	0.0890	21	0.38	NA	0
020.50	Total P2O5, ICP (%)	0433	4.890	0.0200	4.654	0.4132	0.0890	21	0.57	NA	0
020.50	Total P2O5, ICP (%)	0587	4.890	0.0600	4.654	0.4132	0.0890	21	0.57	NA	0

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			Value	Range	Rob Mean	Rob SD	Rob R-bar				
020.50	Total P2O5, ICP (%)	0451	4.979	0.5020	4.654	0.4132	0.0890	21	0.79	NA	0
020.50	Total P2O5, ICP (%)	0626	5.030	0.0400	4.654	0.4132	0.0890	21	0.91	NA	0
020.50	Total P2O5, ICP (%)	0231	5.060	0.1200	4.654	0.4132	0.0890	21	0.98	NA	0
020.50	Total P2O5, ICP (%)	0527	5.153	0.0455	4.654	0.4132	0.0890	21	1.21	NA	0
020.50	Total P2O5, ICP (%)	0260	5.270	0.0600	4.654	0.4132	0.0890	21	1.49	NA	0
020.50	Total P2O5, ICP (%)	0612	5.175	0.6900	4.654	0.4132	0.0890	21	1.26	NA	1
020.99	Total P2O5, Other (%)	0559	3.235	0.0100	4.028	0.6586	0.0400	5	-1.05		0
020.99	Total P2O5, Other (%)	0619	3.670	0.0000	4.028	0.6586	0.0400	5	-0.47		0
020.99	Total P2O5, Other (%)	0513	3.850	0.0200	4.028	0.6586	0.0400	5	-0.24		0
020.99	Total P2O5, Other (%)	0587	4.515	0.0100	4.028	0.6586	0.0400	5	0.65		0
020.99	Total P2O5, Other (%)	0572	4.870	0.1200	4.028	0.6586	0.0400	5	1.12		0
020.99	Total P2O5, Other (%)	0515	4.907	1.096	4.028	0.6586	0.0400	5	1.17		1
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (	0405	0.1950	0.0300				1			0
040.99	Indirect Available P2O5, Other (3%)	0572	4.129	0.8540				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (3%)	0494	3.730	0.0800				2			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (3%)	0102	4.140	0.1800				2			0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0405	3.430	0.0000	3.834	0.2987	0.0892	9	-1.25	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0055	3.540	0.0800	3.834	0.2987	0.0892	9	-0.91	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0513	3.715	0.0700	3.834	0.2987	0.0892	9	-0.37	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0220	3.730	0.0600	3.834	0.2987	0.0892	9	-0.32	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0485	3.820	0.1000	3.834	0.2987	0.0892	9	-0.04	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0073	3.975	0.3100	3.834	0.2987	0.0892	9	0.44	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0117	4.000	0.0618	3.834	0.2987	0.0892	9	0.51	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0072	4.014	0.1170	3.834	0.2987	0.0892	9	0.55	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA I	0049	4.385	0.0900	3.834	0.2987	0.0892	9	1.70	OK	0
041.20	Direct Available P2O5, Spectrophotometric (3%)	0626	4.030	0.0400	4.205	0.2013	0.0350	3	-0.87		0
041.20	Direct Available P2O5, Spectrophotometric (3%)	0452	4.160	0.0000	4.205	0.2013	0.0350	3	-0.22		0
041.20	Direct Available P2O5, Spectrophotometric (3%)	0553	4.425	0.0300	4.205	0.2013	0.0350	3	1.09		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0230	2.440	0.1200	3.768	1.303	0.1297	7	-0.92	Low	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0095	2.630	0.3400	3.768	1.303	0.1297	7	-0.79	Low	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0558	3.471	0.0280	3.768	1.303	0.1297	7	-0.21	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0472	3.565	0.0100	3.768	1.303	0.1297	7	-0.14	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0055	3.795	0.2100	3.768	1.303	0.1297	7	0.02	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0354	4.785	0.0700	3.768	1.303	0.1297	7	0.71	High	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (	0568	5.690	0.0000	3.768	1.303	0.1297	7	1.33	High	0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (3%)	0626	4.075	0.1100				2			0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (3%)	0029	4.220	0.1000				2			0
041.50	Direct Available P2O5, ICP (3%)	0626	4.025	0.0700	4.461	0.3516	0.0820	5	-1.24		0
041.50	Direct Available P2O5, ICP (3%)	0605	4.305	0.1300	4.461	0.3516	0.0820	5	-0.44		0
041.50	Direct Available P2O5, ICP (3%)	0131	4.385	0.0700	4.461	0.3516	0.0820	5	-0.22		0
041.50	Direct Available P2O5, ICP (3%)	0291	4.635	0.0100	4.461	0.3516	0.0820	5	0.49		0
041.50	Direct Available P2O5, ICP (3%)	0421	4.955	0.1300	4.461	0.3516	0.0820	5	1.40		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0025	4.075	0.1900	4.445	0.2261	0.0755	10	-1.52	OK	0

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041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0360	4.205	0.0300	4.445	0.2261	0.0755	10	-0.99	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0136	4.320	0.0200	4.445	0.2261	0.0755	10	-0.51	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0423	4.400	0.0400	4.445	0.2261	0.0755	10	-0.18	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0043	4.430	0.0600	4.445	0.2261	0.0755	10	-0.06	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0040	4.450	0.1000	4.445	0.2261	0.0755	10	0.02	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0117	4.535	0.0324	4.445	0.2261	0.0755	10	0.37	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0494	4.595	0.0900	4.445	0.2261	0.0755	10	0.62	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0023	4.668	0.0090	4.445	0.2261	0.0755	10	0.92	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (3%)	0377	4.740	0.3200	4.445	0.2261	0.0755	10	1.21	OK	0
041.99	Direct Available P2O5, Other (3%)	0562	3.205	0.1100	3.417	0.2821	0.2260	5	-0.75		0
041.99	Direct Available P2O5, Other (3%)	0600	3.205	0.1100	3.417	0.2821	0.2260	5	-0.75		0
041.99	Direct Available P2O5, Other (3%)	0518	3.350	0.3000	3.417	0.2821	0.2260	5	-0.24		0
041.99	Direct Available P2O5, Other (3%)	0584	3.435	0.5700	3.417	0.2821	0.2260	5	0.06		0
041.99	Direct Available P2O5, Other (3%)	0405	3.890	0.0400	3.417	0.2821	0.2260	5	1.68		0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0472	0.0700	0.0000				2			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0626	0.6200	0.0200				2			0
048.40	Water Soluble P2O5, Automated (%)	0626	0.6250	0.0100				1			0
048.50	Water Soluble P2O5, ICP (%)	0626	0.6000	0.0000				1			0
048.99	Water Soluble P2O5, Other (%)	0572	1.195	1.110				2			0
048.99	Water Soluble P2O5, Other (%)	0565	3.185	0.0300				2			0
050.00	Soluble K2O, STPB Oxalate (4%)	0220	3.630	0.0200	4.026	0.2823	0.0726	8	-1.28	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0072	3.830	0.1000	4.026	0.2823	0.0726	8	-0.63	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0494	3.935	0.1300	4.026	0.2823	0.0726	8	-0.29	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0405	3.955	0.0100	4.026	0.2823	0.0726	8	-0.23	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0444	4.000	0.0000	4.026	0.2823	0.0726	8	-0.08	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0102	4.165	0.1900	4.026	0.2823	0.0726	8	0.45	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0619	4.315	0.0300	4.026	0.2823	0.0726	8	0.94	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0055	4.375	0.0300	4.026	0.2823	0.0726	8	1.13	OK	0
050.00	Soluble K2O, STPB Oxalate (4%)	0049	3.320	0.4400	4.026	0.2823	0.0726	8	-2.29	Low	1
050.10	Soluble K2O, STPB Citrate (4%)	0035	4.450	0.1000				1			0
050.30	Soluble K2O, AA (Oxalate) (4%)	0040	4.400	0.0000	4.542	0.1275	0.0244	4	-1.11		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0415	4.528	0.0244	4.542	0.1275	0.0244	4	-0.11		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0580	4.530	0.0000	4.542	0.1275	0.0244	4	-0.09		0
050.30	Soluble K2O, AA (Oxalate) (4%)	0073	4.710	0.0000	4.542	0.1275	0.0244	4	1.32		0
050.32	Soluble K2O, AA (Citrate-EDTA) (4%)	0472	4.360	0.0400				1			0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0619	4.375	0.0100	4.595	0.2959	0.0902	7	-0.67	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0422	4.376	0.0012	4.595	0.2959	0.0902	7	-0.67	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0231	4.450	0.0200	4.595	0.2959	0.0902	7	-0.44	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0055	4.455	0.1700	4.595	0.2959	0.0902	7	-0.43	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0230	4.600	0.0000	4.595	0.2959	0.0902	7	0.02	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0086	4.869	0.1198	4.595	0.2959	0.0902	7	0.84	OK	0
050.50	Soluble K2O, ICP (Oxalate) (4%)	0324	5.150	0.2200	4.595	0.2959	0.0902	7	1.70	High	0
050.51	Soluble K2O, ICP (Citrate) (4%)	0131	3.550	0.1000	4.523	0.7887	0.0356	5	-1.23		0

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050.51	Soluble K2O, ICP (Citrate) (4%)	0368	4.287	0.0022	4.523	0.7887	0.0356	5	-0.30		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0452	4.405	0.0300	4.523	0.7887	0.0356	5	-0.15		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0291	4.645	0.0100	4.523	0.7887	0.0356	5	0.15		0
050.51	Soluble K2O, ICP (Citrate) (4%)	0568	5.730	0.0000	4.523	0.7887	0.0356	5	1.53		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0485	4.040	0.2000	4.405	0.1750	0.0697	11	-1.95	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0354	4.145	0.0500	4.405	0.1750	0.0697	11	-1.39	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0023	4.243	0.0590	4.405	0.1750	0.0697	11	-0.87	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0025	4.415	0.0300	4.405	0.1750	0.0697	11	0.05	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0360	4.450	0.0200	4.405	0.1750	0.0697	11	0.24	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0117	4.463	0.0160	4.405	0.1750	0.0697	11	0.31	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0043	4.480	0.0600	4.405	0.1750	0.0697	11	0.40	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0423	4.505	0.0500	4.405	0.1750	0.0697	11	0.53	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0377	4.515	0.1300	4.405	0.1750	0.0697	11	0.59	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0494	4.540	0.1400	4.405	0.1750	0.0697	11	0.72	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (4%)	0136	4.560	0.0600	4.405	0.1750	0.0697	11	0.83	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (4%)	0510	4.435	0.2220				1			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0029	4.505	0.0900	4.563	0.0629	0.0867	3	-0.93		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0513	4.555	0.0700	4.563	0.0629	0.0867	3	-0.13		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (4%)	0095	4.630	0.1000	4.563	0.0629	0.0867	3	1.06		0
050.99	Soluble K2O, Other (4%)	0042	3.550	0.1000	4.256	0.2685	0.1072	31	-2.63	Low	0
050.99	Soluble K2O, Other (4%)	0501	3.725	0.3500	4.256	0.2685	0.1072	31	-1.98	Low	0
050.99	Soluble K2O, Other (4%)	0562	3.940	0.0800	4.256	0.2685	0.1072	31	-1.18	OK	0
050.99	Soluble K2O, Other (4%)	0600	3.940	0.0800	4.256	0.2685	0.1072	31	-1.18	OK	0
050.99	Soluble K2O, Other (4%)	0534	3.980	0.1200	4.256	0.2685	0.1072	31	-1.03	OK	0
050.99	Soluble K2O, Other (4%)	0518	4.050	0.3000	4.256	0.2685	0.1072	31	-0.77	OK	0
050.99	Soluble K2O, Other (4%)	0588	4.068	0.0530	4.256	0.2685	0.1072	31	-0.70	OK	0
050.99	Soluble K2O, Other (4%)	0389	4.075	0.1100	4.256	0.2685	0.1072	31	-0.68	OK	0
050.99	Soluble K2O, Other (4%)	0605	4.075	0.1100	4.256	0.2685	0.1072	31	-0.68	OK	0
050.99	Soluble K2O, Other (4%)	0626	4.095	0.0100	4.256	0.2685	0.1072	31	-0.60	OK	0
050.99	Soluble K2O, Other (4%)	0451	4.099	0.2060	4.256	0.2685	0.1072	31	-0.59	OK	0
050.99	Soluble K2O, Other (4%)	0584	4.135	0.0700	4.256	0.2685	0.1072	31	-0.45	OK	0
050.99	Soluble K2O, Other (4%)	0521	4.180	0.0000	4.256	0.2685	0.1072	31	-0.28	OK	0
050.99	Soluble K2O, Other (4%)	0559	4.195	0.0100	4.256	0.2685	0.1072	31	-0.23	OK	0
050.99	Soluble K2O, Other (4%)	0558	4.234	0.0160	4.256	0.2685	0.1072	31	-0.08	OK	0
050.99	Soluble K2O, Other (4%)	0255	4.254	0.1450	4.256	0.2685	0.1072	31	-0.01	OK	0
050.99	Soluble K2O, Other (4%)	0552	4.270	0.0400	4.256	0.2685	0.1072	31	0.05	OK	0
050.99	Soluble K2O, Other (4%)	0565	4.285	0.0300	4.256	0.2685	0.1072	31	0.11	OK	0
050.99	Soluble K2O, Other (4%)	0619	4.315	0.0300	4.256	0.2685	0.1072	31	0.22	OK	0
050.99	Soluble K2O, Other (4%)	0612	4.320	0.7200	4.256	0.2685	0.1072	31	0.24	OK	0
050.99	Soluble K2O, Other (4%)	0572	4.385	0.1700	4.256	0.2685	0.1072	31	0.48	OK	0
050.99	Soluble K2O, Other (4%)	0513	4.430	0.0800	4.256	0.2685	0.1072	31	0.65	OK	0
050.99	Soluble K2O, Other (4%)	0234	4.435	0.2300	4.256	0.2685	0.1072	31	0.67	OK	0
050.99	Soluble K2O, Other (4%)	0307	4.475	0.4500	4.256	0.2685	0.1072	31	0.81	OK	0

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050.99	Soluble K2O, Other (4%)	0553	4.505	0.0100	4.256	0.2685	0.1072	31	0.93	OK	0
050.99	Soluble K2O, Other (4%)	0433	4.510	0.0200	4.256	0.2685	0.1072	31	0.94	OK	0
050.99	Soluble K2O, Other (4%)	0421	4.515	0.0100	4.256	0.2685	0.1072	31	0.96	OK	0
050.99	Soluble K2O, Other (4%)	0524	4.553	0.0979	4.256	0.2685	0.1072	31	1.11	OK	0
050.99	Soluble K2O, Other (4%)	0587	4.620	0.0600	4.256	0.2685	0.1072	31	1.35	OK	0
050.99	Soluble K2O, Other (4%)	0527	4.645	0.0399	4.256	0.2685	0.1072	31	1.45	OK	0
050.99	Soluble K2O, Other (4%)	0260	4.770	0.3200	4.256	0.2685	0.1072	31	1.91	High	0
050.99	Soluble K2O, Other (4%)	0515	6.153	1.395	4.256	0.2685	0.1072	31	7.06	High	1
060.99	Water (Free), Other (%)	0510	5.063	0.1897				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0626	7.025	0.0900	7.813	0.9513	0.0533	3	-0.83		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0485	7.545	0.0100	7.813	0.9513	0.0533	3	-0.28		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0553	8.870	0.0600	7.813	0.9513	0.0533	3	1.11		0
101.01	Acid Soluble Ca, AA, organic 965.09 (%)	0415	6.196	0.2732				2			0
101.01	Acid Soluble Ca, AA, organic 965.09 (%)	0580	7.290	0.0000				2			0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual at	0558	8.042	0.0239				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0444	5.200	0.8000	7.622	0.6610	0.2088	14	-3.66	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0231	7.050	0.0200	7.622	0.6610	0.2088	14	-0.87	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0255	7.073	0.2000	7.622	0.6610	0.2088	14	-0.83	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0220	7.410	0.0400	7.622	0.6610	0.2088	14	-0.32	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0568	7.410	0.0000	7.622	0.6610	0.2088	14	-0.32	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0324	7.440	0.4600	7.622	0.6610	0.2088	14	-0.28	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0354	7.505	0.0300	7.622	0.6610	0.2088	14	-0.18	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0451	7.506	0.0780	7.622	0.6610	0.2088	14	-0.18	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0360	7.580	0.0400	7.622	0.6610	0.2088	14	-0.06	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0377	7.715	0.4900	7.622	0.6610	0.2088	14	0.14	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0035	7.720	0.7200	7.622	0.6610	0.2088	14	0.15	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0291	8.440	0.0200	7.622	0.6610	0.2088	14	1.24	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0452	8.730	0.0600	7.622	0.6610	0.2088	14	1.68	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0433	9.041	0.0210	7.622	0.6610	0.2088	14	2.15	High	0
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (%)	0619	7.710	0.1600				1			0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0405	7.251	0.1300	7.677	0.2905	0.0873	4	-1.47		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0423	7.752	0.0310	7.677	0.2905	0.0873	4	0.26		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0023	7.812	0.0780	7.677	0.2905	0.0873	4	0.46		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (%)	0095	7.895	0.1100	7.677	0.2905	0.0873	4	0.75		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0055	7.200	0.0000	7.502	0.2739	0.1748	13	-1.10	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0494	7.262	0.1603	7.502	0.2739	0.1748	13	-0.88	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0177	7.302	0.0650	7.502	0.2739	0.1748	13	-0.73	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0626	7.315	0.2100	7.502	0.2739	0.1748	13	-0.68	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0040	7.340	0.0400	7.502	0.2739	0.1748	13	-0.59	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0043	7.390	0.1000	7.502	0.2739	0.1748	13	-0.41	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0086	7.396	0.4262	7.502	0.2739	0.1748	13	-0.39	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0421	7.430	0.1400	7.502	0.2739	0.1748	13	-0.26	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0136	7.635	0.2300	7.502	0.2739	0.1748	13	0.49	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	Rob R-bar				
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0472	7.750	0.0200	7.502	0.2739	0.1748	13	0.91	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0630	7.785	0.2900	7.502	0.2739	0.1748	13	1.03	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0527	7.807	0.0016	7.502	0.2739	0.1748	13	1.11	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0612	8.150	0.5000	7.502	0.2739	0.1748	13	2.37	High	0
101.70	Acid Soluble Ca, Titrimetric (%)	0510	7.463	0.1486				1			0
101.99	Acid Soluble Ca, Other (%)	0368	6.376	0.0450	7.450	0.6405	0.0814	8	-1.53	Low	0
101.99	Acid Soluble Ca, Other (%)	0042	6.885	0.0300	7.450	0.6405	0.0814	8	-0.81	OK	0
101.99	Acid Soluble Ca, Other (%)	0513	7.050	0.0400	7.450	0.6405	0.0814	8	-0.57	OK	0
101.99	Acid Soluble Ca, Other (%)	0587	7.695	0.0100	7.450	0.6405	0.0814	8	0.35	OK	0
101.99	Acid Soluble Ca, Other (%)	0619	7.700	0.1400	7.450	0.6405	0.0814	8	0.36	OK	0
101.99	Acid Soluble Ca, Other (%)	0572	7.795	0.3700	7.450	0.6405	0.0814	8	0.49	OK	0
101.99	Acid Soluble Ca, Other (%)	0552	7.975	0.0500	7.450	0.6405	0.0814	8	0.75	OK	0
101.99	Acid Soluble Ca, Other (%)	0605	8.010	0.1400	7.450	0.6405	0.0814	8	0.80	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	0040	1.900	0.0000	2.187	0.5256	0.0410	5	-0.55		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	0485	1.950	0.1000	2.187	0.5256	0.0410	5	-0.45		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	0626	1.955	0.0100	2.187	0.5256	0.0410	5	-0.44		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	0029	2.006	0.0040	2.187	0.5256	0.0410	5	-0.34		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1%)	0553	3.125	0.0500	2.187	0.5256	0.0410	5	1.78		0
121.01	Acid Soluble Mg, AA, organic 965.09 (1%)	0415	1.727	0.2258				2			0
121.01	Acid Soluble Mg, AA, organic 965.09 (1%)	0580	2.410	0.0000				2			0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual a	0558	1.429	0.0137				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0444	1.200	0.2000	1.959	0.1449	0.0767	15	-5.23	Low	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0234	1.610	0.0200	1.959	0.1449	0.0767	15	-2.41	Low	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0451	1.860	0.0400	1.959	0.1449	0.0767	15	-0.68	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0255	1.866	0.0730	1.959	0.1449	0.0767	15	-0.64	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0513	1.885	0.0300	1.959	0.1449	0.0767	15	-0.51	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0324	1.920	0.2000	1.959	0.1449	0.0767	15	-0.27	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0354	1.955	0.0100	1.959	0.1449	0.0767	15	-0.03	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0035	1.960	0.1200	1.959	0.1449	0.0767	15	0.01	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0360	1.970	0.0400	1.959	0.1449	0.0767	15	0.08	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0377	1.980	0.2000	1.959	0.1449	0.0767	15	0.15	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0291	2.055	0.0100	1.959	0.1449	0.0767	15	0.66	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0231	2.060	0.0800	1.959	0.1449	0.0767	15	0.70	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0220	2.095	0.0500	1.959	0.1449	0.0767	15	0.94	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0433	2.142	0.0010	1.959	0.1449	0.0767	15	1.26	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1%)	0568	2.150	0.0000	1.959	0.1449	0.0767	15	1.32	OK	0
121.31	Acid Soluble Mg, ICP, test portion organic 965.09 (1%)	0619	2.065	0.0300				1			0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1%)	0423	1.888	0.0270	1.975	0.0958	0.0255	4	-0.91		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1%)	0405	1.897	0.0150	1.975	0.0958	0.0255	4	-0.82		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1%)	0023	2.056	0.0200	1.975	0.0958	0.0255	4	0.84		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1%)	0095	2.060	0.0400	1.975	0.0958	0.0255	4	0.89		0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0177	1.837	0.0034	2.013	0.1382	0.0259	14	-1.27	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0055	1.845	0.0100	2.013	0.1382	0.0259	14	-1.21	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	Rob R-bar				
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0494	1.897	0.0511	2.013	0.1382	0.0259	14	-0.84	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0630	1.936	0.0720	2.013	0.1382	0.0259	14	-0.56	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0421	1.965	0.0100	2.013	0.1382	0.0259	14	-0.35	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0043	1.970	0.0200	2.013	0.1382	0.0259	14	-0.31	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0626	1.995	0.0300	2.013	0.1382	0.0259	14	-0.13	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0612	2.000	0.2000	2.013	0.1382	0.0259	14	-0.09	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0136	2.010	0.0200	2.013	0.1382	0.0259	14	-0.02	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0260	2.065	0.0100	2.013	0.1382	0.0259	14	0.38	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0086	2.069	0.0031	2.013	0.1382	0.0259	14	0.41	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0527	2.149	0.0144	2.013	0.1382	0.0259	14	0.98	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0452	2.220	0.0400	2.013	0.1382	0.0259	14	1.50	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0472	2.320	0.0000	2.013	0.1382	0.0259	14	2.22	High	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1%)	0515	2.862	1.116	2.013	0.1382	0.0259	14	6.15	High	1
121.99	Acid Soluble Mg, Other (1%)	0042	1.065	0.1300	1.808	0.2900	0.0667	12	-2.56	Low	0
121.99	Acid Soluble Mg, Other (1%)	0515	1.507	0.1300	1.808	0.2900	0.0667	12	-1.04	Low	0
121.99	Acid Soluble Mg, Other (1%)	0600	1.550	0.1000	1.808	0.2900	0.0667	12	-0.89	OK	0
121.99	Acid Soluble Mg, Other (1%)	0368	1.606	0.0413	1.808	0.2900	0.0667	12	-0.70	OK	0
121.99	Acid Soluble Mg, Other (1%)	0501	1.645	0.2500	1.808	0.2900	0.0667	12	-0.56	OK	0
121.99	Acid Soluble Mg, Other (1%)	0389	1.830	0.0200	1.808	0.2900	0.0667	12	0.08	OK	0
121.99	Acid Soluble Mg, Other (1%)	0524	1.992	0.0670	1.808	0.2900	0.0667	12	0.64	OK	0
121.99	Acid Soluble Mg, Other (1%)	0605	1.995	0.0100	1.808	0.2900	0.0667	12	0.65	OK	0
121.99	Acid Soluble Mg, Other (1%)	0552	2.020	0.0200	1.808	0.2900	0.0667	12	0.73	OK	0
121.99	Acid Soluble Mg, Other (1%)	0619	2.020	0.0600	1.808	0.2900	0.0667	12	0.73	OK	0
121.99	Acid Soluble Mg, Other (1%)	0587	2.055	0.0100	1.808	0.2900	0.0667	12	0.85	OK	0
121.99	Acid Soluble Mg, Other (1%)	0572	2.100	0.0600	1.808	0.2900	0.0667	12	1.01	High	0
131.00	Water Soluble Mg, AA (%)	0626	1.240	0.0200				2			0
131.00	Water Soluble Mg, AA (%)	0029	1.411	0.0280				2			0
131.30	Water Soluble Mg, ICP (%)	0619	1.011	0.0380	1.222	0.1933	0.0493	4	-1.09		0
131.30	Water Soluble Mg, ICP (%)	0405	1.135	0.0900	1.222	0.1933	0.0493	4	-0.45		0
131.30	Water Soluble Mg, ICP (%)	0626	1.280	0.0200	1.222	0.1933	0.0493	4	0.30		0
131.30	Water Soluble Mg, ICP (%)	0220	1.460	0.0000	1.222	0.1933	0.0493	4	1.23		0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0510	2.342	0.0204				1			0
131.99	Water Soluble Mg, Other (%)	0619	0.9920	0.0000	1.244	0.2167	0.1167	4	-1.16		0
131.99	Water Soluble Mg, Other (%)	0600	1.140	0.0800	1.244	0.2167	0.1167	4	-0.48		0
131.99	Water Soluble Mg, Other (%)	0605	1.385	0.0300	1.244	0.2167	0.1167	4	0.65		0
131.99	Water Soluble Mg, Other (%)	0572	1.460	0.2400	1.244	0.2167	0.1167	4	1.00		0
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur	0485	3.330	0.4000				1			0
143.99	Elemental S, Other (%)	0368	5.310	0.0548	6.418	0.7589	0.1522	4	-1.46		0
143.99	Elemental S, Other (%)	0255	6.565	0.3040	6.418	0.7589	0.1522	4	0.19		0
143.99	Elemental S, Other (%)	0389	6.800	0.2400	6.418	0.7589	0.1522	4	0.50		0
143.99	Elemental S, Other (%)	0291	6.995	0.0100	6.418	0.7589	0.1522	4	0.76		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0485	3.030	0.3600				2			0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0405	3.100	0.0800				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
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145.99	Sulfate S, HCl soluble, Other (%)	0553	2.765	0.0700				1			0
148.00	Total S, Combustion (5%)	0626	6.045	0.0300	6.500	0.3464	0.1303	7	-1.19	OK	0
148.00	Total S, Combustion (5%)	0049	6.335	0.0700	6.500	0.3464	0.1303	7	-0.43	OK	0
148.00	Total S, Combustion (5%)	0029	6.340	0.1750	6.500	0.3464	0.1303	7	-0.42	OK	0
148.00	Total S, Combustion (5%)	0405	6.470	0.0400	6.500	0.3464	0.1303	7	-0.08	OK	0
148.00	Total S, Combustion (5%)	0073	6.550	0.1800	6.500	0.3464	0.1303	7	0.13	OK	0
148.00	Total S, Combustion (5%)	0451	6.825	0.1300	6.500	0.3464	0.1303	7	0.85	OK	0
148.00	Total S, Combustion (5%)	0025	6.937	0.3820	6.500	0.3464	0.1303	7	1.14	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0324	3.335	0.2700	5.096	1.280	0.1483	7	-1.24	Low	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0580	4.230	0.0000	5.096	1.280	0.1483	7	-0.61	Low	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0230	4.725	0.1500	5.096	1.280	0.1483	7	-0.26	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0584	5.070	0.0800	5.096	1.280	0.1483	7	-0.02	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0534	5.475	0.0500	5.096	1.280	0.1483	7	0.27	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0485	6.360	0.0200	5.096	1.280	0.1483	7	0.89	High	0
148.01	Total S, Gravimetric - sulfate and elemental (5%)	0095	6.480	0.3200	5.096	1.280	0.1483	7	0.98	High	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0513	6.210	0.0400	6.754	0.3861	0.1461	12	-1.41	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0472	6.390	0.0200	6.754	0.3861	0.1461	12	-0.94	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0521	6.440	0.0000	6.754	0.3861	0.1461	12	-0.81	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0136	6.455	0.1300	6.754	0.3861	0.1461	12	-0.77	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0421	6.735	0.0100	6.754	0.3861	0.1461	12	-0.05	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0260	6.755	0.3300	6.754	0.3861	0.1461	12	0.00	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0040	6.800	0.0000	6.754	0.3861	0.1461	12	0.12	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0023	6.806	0.1140	6.754	0.3861	0.1461	12	0.13	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0494	6.823	0.2125	6.754	0.3861	0.1461	12	0.18	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0043	7.150	0.2000	6.754	0.3861	0.1461	12	1.03	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0612	7.150	0.7000	6.754	0.3861	0.1461	12	1.03	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0527	7.366	0.0414	6.754	0.3861	0.1461	12	1.58	High	0
148.07	Total S, ICP, test portion as in 2017.02 (5%)	0515	6.150	1.751	6.754	0.3861	0.1461	12	-1.57	Low	1
148.99	Total S, Other (5%)	0354	3.290	0.1400	5.754	1.435	0.0976	12	-1.72	Low	0
148.99	Total S, Other (5%)	0587	3.315	0.0300	5.754	1.435	0.0976	12	-1.70	Low	0
148.99	Total S, Other (5%)	0559	4.895	0.0100	5.754	1.435	0.0976	12	-0.60	Low	0
148.99	Total S, Other (5%)	0562	5.265	0.1300	5.754	1.435	0.0976	12	-0.34	Low	0
148.99	Total S, Other (5%)	0600	5.265	0.1300	5.754	1.435	0.0976	12	-0.34	Low	0
148.99	Total S, Other (5%)	0605	6.030	0.2800	5.754	1.435	0.0976	12	0.19	OK	0
148.99	Total S, Other (5%)	0433	6.059	0.0660	5.754	1.435	0.0976	12	0.21	OK	0
148.99	Total S, Other (5%)	0035	6.350	0.0600	5.754	1.435	0.0976	12	0.42	High	0
148.99	Total S, Other (5%)	0572	6.450	0.2600	5.754	1.435	0.0976	12	0.49	High	0
148.99	Total S, Other (5%)	0220	7.030	0.0400	5.754	1.435	0.0976	12	0.89	High	0
148.99	Total S, Other (5%)	0558	7.160	0.0235	5.754	1.435	0.0976	12	0.98	High	0
148.99	Total S, Other (5%)	0452	7.340	0.1000	5.754	1.435	0.0976	12	1.11	High	0
148.99	Total S, Other (5%)	0377	6.370	0.6600	5.754	1.435	0.0976	12	0.43	High	1
149.04	S - HNO3 soluble, ICP (%)	0524	3.939	0.3423	5.863	1.300	0.1969	4	-1.48		0
149.04	S - HNO3 soluble, ICP (%)	0231	6.230	0.0200	5.863	1.300	0.1969	4	0.28		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	Rob R-bar				
149.04	S - HNO3 soluble, ICP (%)	0423	6.557	0.0780	5.863	1.300	0.1969	4	0.53		0
149.04	S - HNO3 soluble, ICP (%)	0086	6.728	0.3472	5.863	1.300	0.1969	4	0.67		0
151.30	Acid Soluble As, ICP (ppm)	0630	0.3415	0.2490				2			0
151.30	Acid Soluble As, ICP (ppm)	0524	0.4271	0.0144				2			0
151.30	Acid Soluble As, ICP (ppm)	0255	0.0000	0.0000				2			4
151.30	Acid Soluble As, ICP (ppm)	0035	< 5.6					2			5
151.30	Acid Soluble As, ICP (ppm)	0605	< 6.2					2			5
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0220	0.7500	0.3000				1			0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0405	< 3					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	39.64	73.94				1			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	< 1					1			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	< 0.186					0			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	< 0.4					0			5
151.99	Acid Soluble As, Other (ppm)	0572	0.4350	0.0500				1			0
151.99	Acid Soluble As, Other (ppm)	0220	< 0.5					1			5
151.99	Acid Soluble As, Other (ppm)	0626	< 0.5					1			5
165.00	Acid Soluble B, Spectrophotometric (%)	0553	0.0115	0.0010				1			0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	< 0.01					0			5
165.99	Acid Soluble B, Other (%)	0524	0.0026	0.0001	0.3571	0.5359	0.0303	3	-0.54		0
165.99	Acid Soluble B, Other (%)	0552	0.0950	0.0300	0.3571	0.5359	0.0303	3	-0.40		0
165.99	Acid Soluble B, Other (%)	0515	0.9736	0.0608	0.3571	0.5359	0.0303	3	0.93		0
165.99	Acid Soluble B, Other (%)	0421	0.0000	0.0000	0.3571	0.5359	0.0303	3			4
165.99	Acid Soluble B, Other (%)	0527	< 0.01		0.3571	0.5359	0.0303	3			5
165.99	Acid Soluble B, Other (%)	0572	< 0.011		0.3571	0.5359	0.0303	3			5
171.99	Water Soluble B, Other (%)	0572	< 0.0116					0			5
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.0781	0.0020	1.097	1.750	1.695	3	-0.47		0
181.30	Acid Soluble Cd, ICP (ppm)	0630	0.0965	0.0010	1.097	1.750	1.695	3	-0.46		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	3.118	5.083	1.097	1.750	1.695	3	0.94		0
181.30	Acid Soluble Cd, ICP (ppm)	0035	< 0.401		1.097	1.750	1.695	3			5
181.30	Acid Soluble Cd, ICP (ppm)	0626	< 1		1.097	1.750	1.695	3			5
181.30	Acid Soluble Cd, ICP (ppm)	0605	< 1.85		1.097	1.750	1.695	3			5
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0220	0.1000	0.0000				1			0
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0405	< 1					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0086	0.2034	0.0103				1			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	< 0.19					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	< 1					1			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	< 0.133					0			5
181.99	Acid Soluble Cd, Other (ppm)	0572	0.0700	0.0200				2			0
181.99	Acid Soluble Cd, Other (ppm)	0220	0.1500	0.1000				2			0
190.00	Water Soluble Cl, Titrimetric (%)	0553	0.5050	0.0100				1			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	Rob R-bar				
191.30	Acid Soluble Cr, ICP (ppm)	0626	16.41	0.9500	38.91	14.59	9.321	5	-1.54		0
191.30	Acid Soluble Cr, ICP (ppm)	0035	36.20	11.20	38.91	14.59	9.321	5	-0.19		0
191.30	Acid Soluble Cr, ICP (ppm)	0524	38.15	2.216	38.91	14.59	9.321	5	-0.05		0
191.30	Acid Soluble Cr, ICP (ppm)	0630	51.62	26.11	38.91	14.59	9.321	5	0.87		0
191.30	Acid Soluble Cr, ICP (ppm)	0605	52.16	6.130	38.91	14.59	9.321	5	0.91		0
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0220	49.05	4.900				2			0
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0405	62.00	0.0000				2			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	37.05	7.730	59.00	23.59	22.47	5	-0.93		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	45.03	0.7263	59.00	23.59	22.47	5	-0.59		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0494	57.12	3.240	59.00	23.59	22.47	5	-0.08		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0086	57.52	4.235	59.00	23.59	22.47	5	-0.06		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	98.28	96.44	59.00	23.59	22.47	5	1.67		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	39.65	1.300				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	48.35	9.630				2			0
191.99	Acid Soluble Cr, Other (ppm)	0626	17.74	1.180	32.24	22.04	1.403	3	-0.66		0
191.99	Acid Soluble Cr, Other (ppm)	0572	21.37	0.4300	32.24	22.04	1.403	3	-0.49		0
191.99	Acid Soluble Cr, Other (ppm)	0220	57.60	2.600	32.24	22.04	1.403	3	1.15		0
202.30	Acid Soluble Co, ICP (ppm)	0035	4.490	0.8200	6.832	2.478	0.4780	4	-0.95		0
202.30	Acid Soluble Co, ICP (ppm)	0524	4.912	0.1980	6.832	2.478	0.4780	4	-0.78		0
202.30	Acid Soluble Co, ICP (ppm)	0605	8.685	0.5100	6.832	2.478	0.4780	4	0.75		0
202.30	Acid Soluble Co, ICP (ppm)	0630	9.242	0.3840	6.832	2.478	0.4780	4	0.97		0
202.30	Acid Soluble Co, ICP (ppm)	0626	< 5		6.832	2.478	0.4780	4			5
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0220	4.700	0.8000				2			0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0405	9.000	0.0000				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	3.280	1.020	6.746	2.630	0.6534	4	-1.32		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	6.124	0.6204	6.746	2.630	0.6534	4	-0.24		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0494	8.740	0.8000	6.746	2.630	0.6534	4	0.76		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0086	8.838	0.1732	6.746	2.630	0.6534	4	0.80		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	< 0.26		6.746	2.630	0.6534	4			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	2.800	0.0000				1			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	< 0.139					1			5
202.99	Acid Soluble Co, Other (ppm)	0572	2.820	0.0000	12.65	13.92	5.425	3	-0.71		0
202.99	Acid Soluble Co, Other (ppm)	0220	6.550	0.3000	12.65	13.92	5.425	3	-0.44		0
202.99	Acid Soluble Co, Other (ppm)	0255	28.58	10.55	12.65	13.92	5.425	3	1.14		0
202.99	Acid Soluble Co, Other (ppm)	0626	< 5		12.65	13.92	5.425	3			5
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0553	0.0170	0.0000				2			0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0626	0.0171	0.0008				2			0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	0.0150	0.0100	0.0188	0.0031	0.0065	6	-1.09	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0035	0.0180	0.0000	0.0188	0.0031	0.0065	6	-0.22	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0234	0.0183	0.0005	0.0188	0.0031	0.0065	6	-0.15	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0185	0.0010	0.0188	0.0031	0.0065	6	-0.08	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0433	0.0195	0.0010	0.0188	0.0031	0.0065	6	0.21	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0552	0.0500	0.0200	0.0188	0.0031	0.0065	6	8.96	High	0

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			Value	Range	Rob Mean	Rob SD	Rob R-bar				
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0405	0.0187	0.0005	0.0193	0.0007	0.0005	3	-0.87		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0220	0.0191	0.0004	0.0193	0.0007	0.0005	3	-0.22		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0095	0.0200	0.0000	0.0193	0.0007	0.0005	3	1.09		0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0630	0.0151	0.0001	0.0187	0.0018	0.0012	9	-1.84	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0136	0.0170	0.0001	0.0187	0.0018	0.0012	9	-0.88	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0626	0.0178	0.0008	0.0187	0.0018	0.0012	9	-0.45	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0043	0.0185	0.0000	0.0187	0.0018	0.0012	9	-0.10	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	0.0188	0.0001	0.0187	0.0018	0.0012	9	0.03	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0494	0.0193	0.0016	0.0187	0.0018	0.0012	9	0.31	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0260	0.0199	0.0023	0.0187	0.0018	0.0012	9	0.58	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0472	0.0200	0.0000	0.0187	0.0018	0.0012	9	0.66	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0515	0.0212	0.0333	0.0187	0.0018	0.0012	9	1.24	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0086	184.1	3.324	0.0187	0.0018	0.0012	9	92779.50	High	1
221.99	Acid Soluble Cu, Other (%)	0515	0.0148	0.0012	0.0175	0.0021	0.0011	4	-1.24		0
221.99	Acid Soluble Cu, Other (%)	0524	0.0172	0.0001	0.0175	0.0021	0.0011	4	-0.15		0
221.99	Acid Soluble Cu, Other (%)	0368	0.0180	0.0019	0.0175	0.0021	0.0011	4	0.22		0
221.99	Acid Soluble Cu, Other (%)	0572	0.0200	0.0000	0.0175	0.0021	0.0011	4	1.17		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	0.0720	0.0020				2			0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0626	0.0912	0.0021				2			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	0.0800	0.0200				2			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0552	0.2200	0.0800				2			0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0095	0.0750	0.0100				2			0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	633.1	5.700				2			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0472	0.0300	0.0000	0.0898	0.0341	0.0038	5	-1.53		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0626	0.0930	0.0009	0.0898	0.0341	0.0038	5	0.08		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0494	0.1083	0.0105	0.0898	0.0341	0.0038	5	0.47		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0630	0.1087	0.0025	0.0898	0.0341	0.0038	5	0.48		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	0.1092	0.0011	0.0898	0.0341	0.0038	5	0.50		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	0.0959	0.1652	0.0898	0.0341	0.0038	5	0.16		1
241.99	Acid Soluble Fe, Other (%)	0515	0.0314	0.0484	0.0606	0.0257	0.0284	3	-1.13		0
241.99	Acid Soluble Fe, Other (%)	0524	0.0704	0.0084	0.0606	0.0257	0.0284	3	0.38		0
241.99	Acid Soluble Fe, Other (%)	0572	0.0800	0.0000	0.0606	0.0257	0.0284	3	0.75		0
251.30	Acid Soluble Pb, ICP (ppm)	0524	1.052	0.0111				2			0
251.30	Acid Soluble Pb, ICP (ppm)	0630	1.160	1.329				2			0
251.30	Acid Soluble Pb, ICP (ppm)	0255	0.0000	0.0000				2			4
251.30	Acid Soluble Pb, ICP (ppm)	0035	< 2.81					2			5
251.30	Acid Soluble Pb, ICP (ppm)	0605	< 5					2			5
251.30	Acid Soluble Pb, ICP (ppm)	0626	< 5					2			5
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0220	1.800	0.0000				1			0
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0405	< 4					1			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0494	1.180	0.0200	10.20	15.48	4.028	4	-0.58		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	1.574	0.0684	10.20	15.48	4.028	4	-0.56		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0086	4.748	0.9934	10.20	15.48	4.028	4	-0.35		0

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			Value	Range	Rob Mean	Rob SD	Rob R-bar				
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	33.31	15.03	10.20	15.48	4.028	4	1.49		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	< 3		10.20	15.48	4.028	4			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	2.550	0.7000				1			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	< 0.216					1			5
251.99	Acid Soluble Pb, Other (ppm)	0572	1.620	0.0000				2			0
251.99	Acid Soluble Pb, Other (ppm)	0220	1.950	0.1000				2			0
251.99	Acid Soluble Pb, Other (ppm)	0626	< 10					2			5
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	0553	0.0240	0.0000				1			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0626	0.0266	0.0011				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0354	0.0200	0.0000				1			0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	0324	0.0255	0.0010				1			0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0552	0.0900	0.0000				1			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0095	0.0250	0.0100				2			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0423	276.6	7.900				2			0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0472	0.0200	0.0000	0.0241	0.0026	0.0010	5	-1.59		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0494	0.0235	0.0017	0.0241	0.0026	0.0010	5	-0.24		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0527	0.0246	0.0003	0.0241	0.0026	0.0010	5	0.19		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0626	0.0258	0.0008	0.0241	0.0026	0.0010	5	0.68		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0260	0.0265	0.0010	0.0241	0.0026	0.0010	5	0.96		0
261.99	Acid Soluble Mn, Other (%)	0515	0.0164	0.0025	0.0213	0.0045	0.0044	3	-1.11		0
261.99	Acid Soluble Mn, Other (%)	0524	0.0225	0.0008	0.0213	0.0045	0.0044	3	0.27		0
261.99	Acid Soluble Mn, Other (%)	0572	0.0250	0.0100	0.0213	0.0045	0.0044	3	0.83		0
281.30	Acid Soluble Hg, ICP (ppm)	0630	0.0250	0.0040				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0515	< 0.1					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)	0415	0.0030	0.0000	0.0060	0.0031	0.0015	3	-0.99		0
281.99	Acid Soluble Hg, Other (ppm)	0626	0.0060	0.0004	0.0060	0.0031	0.0015	3	-0.01		0
281.99	Acid Soluble Hg, Other (ppm)	0524	0.0091	0.0026	0.0060	0.0031	0.0015	3	1.01		0
281.99	Acid Soluble Hg, Other (ppm)	0572	< 0.009		0.0060	0.0031	0.0015	3			5
281.99	Acid Soluble Hg, Other (ppm)	0220	< 0.01		0.0060	0.0031	0.0015	3			5
289.30	Acid Soluble Mo, ICP (ppm)	0524	2.512	0.0423	4.529	1.582	0.9837	6	-1.14	OK	0
289.30	Acid Soluble Mo, ICP (ppm)	0234	3.000	0.0000	4.529	1.582	0.9837	6	-0.86	OK	0
289.30	Acid Soluble Mo, ICP (ppm)	0255	5.047	1.226	4.529	1.582	0.9837	6	0.29	OK	0
289.30	Acid Soluble Mo, ICP (ppm)	0433	5.500	1.000	4.529	1.582	0.9837	6	0.55	OK	0
289.30	Acid Soluble Mo, ICP (ppm)	0035	5.540	0.1200	4.529	1.582	0.9837	6	0.57	OK	0
289.30	Acid Soluble Mo, ICP (ppm)	0630	5.575	2.530	4.529	1.582	0.9837	6	0.59	OK	0
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0220	5.100	0.6000				2			0
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0405	7.000	0.0000				2			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0136	4.725	0.5900	5.720	1.176	0.5101	4	-0.72		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	4.899	0.3532	5.720	1.176	0.5101	4	-0.59		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0086	5.980	0.1670	5.720	1.176	0.5101	4	0.19		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	Rob R-bar				
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0494	7.275	0.9300	5.720	1.176	0.5101	4	1.12		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	< 0.23		5.720	1.176	0.5101	4			5
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0626	< 10		5.720	1.176	0.5101	4			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	6.450	0.5000				1			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	< 0.178					1			5
289.99	Acid Soluble Mo, Other (ppm)	0572	3.225	0.0100				2			0
289.99	Acid Soluble Mo, Other (ppm)	0220	6.500	0.2000				2			0
291.30	Acid Soluble Ni, ICP (ppm)	0035	14.20	4.400	19.77	3.872	5.885	4	-1.44		0
291.30	Acid Soluble Ni, ICP (ppm)	0630	20.09	16.19	19.77	3.872	5.885	4	0.08		0
291.30	Acid Soluble Ni, ICP (ppm)	0605	22.36	2.800	19.77	3.872	5.885	4	0.67		0
291.30	Acid Soluble Ni, ICP (ppm)	0524	22.44	0.1509	19.77	3.872	5.885	4	0.69		0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0220	22.55	3.300				2			0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0405	28.00	0.0000				2			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	15.85	3.880	27.87	15.84	17.14	5	-0.76		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	18.65	0.8825	27.87	15.84	17.14	5	-0.58		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0494	24.36	2.920	27.87	15.84	17.14	5	-0.22		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0086	25.15	0.6328	27.87	15.84	17.14	5	-0.17		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	55.34	77.36	27.87	15.84	17.14	5	1.73		0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	17.25	0.5000				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	21.54	8.940				2			0
291.99	Acid Soluble Ni, Other (ppm)	0572	7.360	0.5400	31.30	26.73	5.107	3	-0.90		0
291.99	Acid Soluble Ni, Other (ppm)	0220	26.40	1.000	31.30	26.73	5.107	3	-0.18		0
291.99	Acid Soluble Ni, Other (ppm)	0255	60.15	13.78	31.30	26.73	5.107	3	1.08		0
301.30	Acid Soluble Se, ICP (ppm)	0630	0.5415	0.0050				2			0
301.30	Acid Soluble Se, ICP (ppm)	0524	0.7636	0.0019				2			0
301.30	Acid Soluble Se, ICP (ppm)	0605	< 1.65					2			5
301.30	Acid Soluble Se, ICP (ppm)	0035	< 12					2			5
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0220	1.100	0.0000				1			0
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0405	< 10					1			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.01					0			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	< 0.27					0			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0626	0.3137	0.0168				2			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	3.600	1.000				2			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	< 0.226					2			5
301.99	Acid Soluble Se, Other (ppm)	0220	1.300	0.0000				1			0
301.99	Acid Soluble Se, Other (ppm)	0255	0.0000	0.0000				1			4
301.99	Acid Soluble Se, Other (ppm)	0572	< 0.69					1			5
311.00	Sodium, AA (%)	0553	0.3400	0.0080				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	0.2895	0.0030	0.3236	0.0331	0.0042	3	-1.03		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0494	0.3256	0.0058	0.3236	0.0331	0.0042	3	0.06		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.3557	0.0039	0.3236	0.0331	0.0042	3	0.97		0
311.99	Sodium, Other (%)	0572	0.3350	0.0100				2			0
311.99	Sodium, Other (%)	0354	0.3900	0.0000				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	Rob R-bar				
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0626	0.0315	0.0006				2			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0553	0.0335	0.0010				2			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0234	0.0259	0.0004	0.0405	0.0186	0.0014	6	-0.70	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0354	0.0300	0.0000	0.0405	0.0186	0.0014	6	-0.50	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0035	0.0310	0.0020	0.0405	0.0186	0.0014	6	-0.45	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0255	0.0355	0.0010	0.0405	0.0186	0.0014	6	-0.24	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0433	0.0520	0.0020	0.0405	0.0186	0.0014	6	0.55	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0552	0.0800	0.0000	0.0405	0.0186	0.0014	6	1.89	High	0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0220	0.0316	0.0015	0.0329	0.0018	0.0040	3	-0.76		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0405	0.0323	0.0005	0.0329	0.0018	0.0040	3	-0.37		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0095	0.0350	0.0100	0.0329	0.0018	0.0040	3	1.13		0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0494	0.0280	0.0003	0.0313	0.0030	0.0013	10	-1.04	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0527	0.0290	0.0004	0.0313	0.0030	0.0013	10	-0.71	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0136	0.0290	0.0000	0.0313	0.0030	0.0013	10	-0.71	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0421	0.0300	0.0000	0.0313	0.0030	0.0013	10	-0.41	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0472	0.0300	0.0000	0.0313	0.0030	0.0013	10	-0.41	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0626	0.0314	0.0011	0.0313	0.0030	0.0013	10	0.01	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0043	0.0315	0.0010	0.0313	0.0030	0.0013	10	0.05	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0260	0.0340	0.0000	0.0313	0.0030	0.0013	10	0.82	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0630	0.0346	0.0018	0.0313	0.0030	0.0013	10	1.00	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0515	0.0471	0.0356	0.0313	0.0030	0.0013	10	4.84	High	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0086	309.7	4.711	0.0313	0.0030	0.0013	10	94985.52	High	1
321.99	Acid Soluble Zn, Other (%)	0572	0.0300	0.0000	0.0326	0.0029	0.0115	4	-0.90		0
321.99	Acid Soluble Zn, Other (%)	0515	0.0305	0.0115	0.0326	0.0029	0.0115	4	-0.74		0
321.99	Acid Soluble Zn, Other (%)	0524	0.0339	0.0000	0.0326	0.0029	0.0115	4	0.44		0
321.99	Acid Soluble Zn, Other (%)	0368	0.0361	0.0000	0.0326	0.0029	0.0115	4	1.20		0
325.99	Water Soluble Zn, Other (%)	0572	0.0100	0.0200				0			4
431.99	Soluble Si in nonliquids, Other (%)	0572	< 0.007					0			5
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipi	0136	1.100	0.2400	1.976	0.6043	0.2925	4	-1.45		0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipi	0501	2.060	0.3600	1.976	0.6043	0.2925	4	0.14		0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipi	0626	2.315	0.1900	1.976	0.6043	0.2925	4	0.56		0
441.00	Humic Acids, Gravimetry,Ash-free, alkali dissolved, acid precipi	0220	2.430	0.3800	1.976	0.6043	0.2925	4	0.75		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (%)	0562	1.750	0.1000	1.863	0.1931	0.1000	4	-0.58		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (%)	0600	1.750	0.1000	1.863	0.1931	0.1000	4	-0.58		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (%)	0619	1.800	0.0000	1.863	0.1931	0.1000	4	-0.32		0
441.10	Humic Acids, Gravimetry, alkali dissolved, acid precipitated (%)	0565	2.150	0.1000	1.863	0.1931	0.1000	4	1.49		0
441.99	Humic Acids, Other (%)	0572	1.800	0.4400	2.966	1.563	0.2033	4	-0.75		0
441.99	Humic Acids, Other (%)	0559	2.155	0.0100	2.966	1.563	0.2033	4	-0.52		0
441.99	Humic Acids, Other (%)	0626	2.660	0.1600	2.966	1.563	0.2033	4	-0.20		0
441.99	Humic Acids, Other (%)	0619	5.250	0.0000	2.966	1.563	0.2033	4	1.46		0
451.00	Hydrophobic Fulvic Acids, Gravimetry, acid dissolved binds hyd	0626	1.730	0.1600				1			0

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)

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	Rob R-bar				

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. Identical duplicates not included in calculation of Rob R-bar. 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