

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 190911

Grade 10-45-10

Statistical Summary

Methods: 139

Labs Reporting: 98

Issue Date : 10/31/2019

Method Code	Analyte & Method Sample # 190911	# 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 (%)	9	9	8.545	1.110	8.801		0.1526	0.0636	1.73%		0.0769	2.88%
001.99	Ammoniacal N, Other (%)	28	27	8.825	0.3437	8.822		0.3130	0.0753	3.55%		0.0801	2.88%
005.00	Urea N, Urease (as N) (%)	3	3	1.389	0.3688	1.389		0.3688	0.2661	26.55%		0.0417	3.81%
005.99	Urea N, Other (%)	14	12	1.376	0.2949	1.377		0.3332	0.1202	24.20%		0.0642	3.81%
007.00	Urea, Urease (as Urea) (%)	3	3	2.048	0.6169	2.048		0.6169	0.4452	30.12%		0.1767	3.59%
010.11	Total N, Modified Comprehensive (10%)	8	7	10.28	0.4015	10.28	0.5842	0.4553	0.2151	4.43%	1.82	0.0902	2.82%
010.12	Total N, Salicylic (10%)	2	2	10.76	1.114								
010.17	Total N, Comprehensive (10%)	1		10.42									
010.60	Total N, Combustion (10%)	58	56	10.42	0.5105	10.40	0.5861	0.4079	0.0681	3.92%	1.62	0.2435	2.81%
010.99	Total N, Other (10%)	19	18	10.19	0.4483	10.19	0.5829	0.4573	0.1347	4.49%	1.83	0.1494	2.82%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	4	4	45.66	0.1869	45.66		0.1869	0.1168	0.41%		0.3575	2.25%
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	21	20	45.34	0.6586	45.35		0.7177	0.2006	1.58%		0.1340	2.25%
020.40	Total P2O5, Automated (%)	2	2	45.38	0.1874								
020.50	Total P2O5, ICP (%)	23	22	44.40	3.665	44.72		2.722	0.7253	6.09%		0.9121	2.26%
020.99	Total P2O5, Other (%)	5	5	47.28	4.508	47.28		4.508	2.520	9.53%		0.2143	2.24%
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	5	5	44.64	0.7808	44.64	0.9729	0.7808	0.4365	1.75%	1.87	0.3800	2.26%
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext... (45%)	6	6	45.30	0.7201	45.44	0.9887	0.4612	0.2353	1.02%	1.09	0.5012	2.25%
041.20	Direct Available P2O5, Spectrophotometric (45%)	2	2	44.30	1.206								
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	9	8	45.22	1.012	45.05	0.9811	0.7010	0.3098	1.56%	1.66	0.1491	2.25%
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (45%)	4	4	45.40	2.068	45.40	0.9880	2.068	1.293	4.56%	4.88	0.8036	2.25%
041.50	Direct Available P2O5, ICP (45%)	3	3	45.17	1.037	45.17	0.9834	1.037	0.7487	2.30%	2.46	0.4473	2.25%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	8	8	44.84	0.8768	44.84	0.9768	0.9943	0.4394	2.22%	2.37	0.6183	2.26%
041.99	Direct Available P2O5, Other (45%)	11	10	45.16	0.3469	45.16	0.9832	0.3934	0.1555	0.87%	0.93	0.1220	2.25%
048.10	Water Soluble P2O5, Gravimetric Quinolinium (%)	1		44.45									
048.20	Water Soluble P2O5, Spectrophotometric (%)	2	2	43.99	2.676								
048.50	Water Soluble P2O5, ICP (%)	1		44.31									
048.99	Water Soluble P2O5, Other (%)	1		45.17									
050.00	Soluble K2O, STPB Oxalate (10%)	10	9	11.15	0.5640	11.16	0.7523	0.6107	0.2544	5.47%	1.89	0.1100	2.78%
050.30	Soluble K2O, AA (Oxalate) (10%)	4	4	10.91	0.4990	10.91	0.7411	0.4990	0.3119	4.57%	1.57	0.3450	2.79%
050.31	Soluble K2O, AA (Citrate) (10%)	2	2	10.44	0.5162								
050.50	Soluble K2O, ICP (Oxalate) (10%)	10	10	11.34	1.001	11.32	0.7594	1.103	0.4360	9.74%	3.38	0.6133	2.78%
050.51	Soluble K2O, ICP (Citrate) (10%)	4	4	11.13	1.079	11.13	0.7507	1.079	0.6747	9.70%	3.35	0.1058	2.78%
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	9	9	11.14	1.438	11.27	0.7570	1.319	0.5494	11.70%	4.06	0.5679	2.78%

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050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	6	6	10.30	0.8045	10.30	0.7135	0.9123	0.4655	8.86%	2.98	0.2270	2.82%
050.61	Soluble K2O, Flame Photometric (Citrate) (10%)	2	2	10.80	0.7778								
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	6	6	11.01	0.8878	11.01	0.7456	1.007	0.5138	9.14%	3.15	0.3253	2.79%
050.99	Soluble K2O, Other (10%)	41	40	10.88	1.021	10.78	0.7353	0.8795	0.1738	8.16%	2.79	0.3379	2.80%
060.00	Water (Free), Vacuum Oven (%)	2	2	0.2936	0.2596								
060.99	Water (Free), Other (%)	2	2	0.5475	0.0884								
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	1		0.0025									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	4	4	0.0294	0.0078	0.0294	0.2015	0.0078	0.0049	26.55%	0.09	0.0028	6.80%
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	5	5	0.0280	0.0054	0.0280	0.2014	0.0054	0.0030	19.32%	0.06	0.0029	6.85%
101.99	Acid Soluble Ca, Other (%)	2	2	0.6403	0.8630								
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	5	5	0.0466	0.0072	0.0466	0.2023	0.0072	0.0040	15.39%	0.08	0.0057	6.35%
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	7	6	0.0456	0.0051	0.0456	0.2023	0.0058	0.0030	12.67%	0.07	0.0015	6.37%
121.99	Acid Soluble Mg, Other (%)	5	5	0.2047	0.2290	0.2047	0.2102	0.2290	0.1280	111.87%	2.54	0.0418	5.08%
131.00	Water Soluble Mg, AA (%)	1		0.0385									
143.99	Elemental S, Other (%)	5	5	3.801	0.2508	3.801		0.2508	0.1402	6.60%		0.0326	3.27%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	2	2	3.935	0.2546								
148.01	Total S, Gravimetric - sulfate and elemental (%)	2	2	4.024	0.1284								
148.04	Total S, ICP, w/Br digestion (%)	1		3.194									
148.07	Total S, ICP, test portion as in 2017.02 (%)	7	6	4.068	0.5579	4.045	0.4023	0.5792	0.2956	14.32%	3.36	0.1515	3.24%
148.99	Total S, Other (%)	4	4	4.260	0.6853	4.260	0.4130	0.6853	0.4283	16.09%	3.87	0.1550	3.22%
149.04	S - HNO3 soluble, ICP (%)	1		4.135									
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	2	0	0.0800									
151.30	Acid Soluble As, ICP (ppm)	8	6	15.90	1.763	15.90		1.999	1.020	12.57%		0.5525	10.55%
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	1		16.91									
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	5	5	15.55	2.379	15.55		2.379	1.330	15.30%		2.220	10.58%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	1		8.890									
151.99	Acid Soluble As, Other (ppm)	3	3	16.30	2.605	16.30		2.605	1.880	15.99%		0.3300	10.51%
165.00	Acid Soluble B, Spectrophotometric (0.02%)	9	7	0.0222	0.0042	0.0219	0.0063	0.0041	0.0019	18.73%	1.52	0.0008	7.11%
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	14	14	0.0193	0.0021	0.0195	0.0059	0.0019	0.0006	9.74%	0.75	0.0013	7.24%
165.99	Acid Soluble B, Other (0.02%)	16	15	0.0211	0.0022	0.0208	0.0061	0.0019	0.0006	9.21%	0.73	0.0023	7.16%
171.10	Water Soluble B, Spectrophotometric (%)	4	4	0.0183	0.0014	0.0183		0.0014	0.0009	7.83%		0.0008	7.31%
171.99	Water Soluble B, Other (%)	6	6	0.0223	0.0061	0.0202		0.0015	0.0008	7.61%		0.0003	7.19%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	2	1	0.4990									
181.30	Acid Soluble Cd, ICP (ppm)	9	5	0.3926	0.4249	0.3926		0.4249	0.2376	108.24%		0.0279	18.41%
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	3	0	0.0000		0.3926		0.4249		108.24%		0.0000	18.41%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	1		0.0000									
181.99	Acid Soluble Cd, Other (ppm)	3	2	0.3350	0.4455	0.3350		0.4455	0.3938	132.98%		0.0500	18.86%
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	2	1	12.08									
191.30	Acid Soluble Cr, ICP (ppm)	9	8	12.72	1.753	12.72		1.988	0.8787	15.63%		0.5673	10.91%
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	3	3	12.48	3.239	12.48		3.239	2.338	25.97%		3.267	10.94%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	1		9.866									
191.99	Acid Soluble Cr, Other (ppm)	4	3	13.82	2.349	13.82		2.349	1.695	16.99%		0.1133	10.77%
202.00	Acid Soluble Co, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.0100									
202.30	Acid Soluble Co, ICP (ppm)	4	2	0.5524	0.2345	0.5524	1.1657	0.2345	0.2073	42.46%	0.47	0.1269	17.49%

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202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	5	2	0.4440	0.2559	0.4440	1.1332	0.2559	0.2262	57.64%	0.53	0.1378	18.08%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	1		0.0000									
202.99	Acid Soluble Co, Other (ppm)	4	3	0.4992	0.3493	0.4992	1.1498	0.3493	0.2521	69.98%	0.71	0.0783	17.76%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	7	6	0.0502	0.0008	0.0502	0.0100	0.0009	0.0005	1.86%	0.22	0.0014	6.27%
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	1		0.0431									
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	19	18	0.0550	0.0456	0.0449	0.0095	0.0089	0.0026	19.89%	2.19	0.0075	6.38%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.05%)	4	4	0.0506	0.0035	0.0506	0.0101	0.0035	0.0022	6.93%	0.81	0.0008	6.27%
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	13	12	0.0501	0.0105	0.0508	0.0101	0.0102	0.0037	20.12%	2.36	0.0065	6.26%
221.99	Acid Soluble Cu, Other (0.05%)	13	12	0.0468	0.0107	0.0480	0.0098	0.0087	0.0031	18.17%	2.07	0.0025	6.32%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	9	9	0.1056	0.0063	0.1056	0.0156	0.0072	0.0030	6.79%	1.07	0.0047	5.61%
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.1%)	1		0.1153									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	21	20	0.0987	0.0111	0.0986	0.0149	0.0123	0.0034	12.43%	1.92	0.0092	5.67%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.1%)	3	3	0.1201	0.0221	0.1201	0.0170	0.0221	0.0159	18.37%	3.02	0.0013	5.50%
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	15	14	0.1024	0.0128	0.1027	0.0153	0.0121	0.0040	11.74%	1.84	0.0156	5.63%
241.99	Acid Soluble Fe, Other (0.1%)	11	11	0.0984	0.0240	0.0988	0.0149	0.0264	0.0100	26.77%	4.14	0.0101	5.67%
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	2	1	0.5740									
251.30	Acid Soluble Pb, ICP (ppm)	7	5	1.204	1.937	1.204		1.937	1.083	160.91%		0.0587	15.56%
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	5	3	2.147	2.336	2.147		2.336	1.686	108.76%		1.037	14.26%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	1		0.0000									
251.99	Acid Soluble Pb, Other (ppm)	3	2	0.5375	0.5127	0.5375		0.5127	0.4531	95.38%		0.0050	17.56%
261.11	Acid Soluble Mn, AA, total Mn (0.05%)	1		0.0522									
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.05%)	4	4	0.0549	0.0053	0.0549	0.0105	0.0053	0.0033	9.59%	1.17	0.0013	6.19%
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	1		0.0536									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	7	6	0.0555	0.0080	0.0555	0.0106	0.0091	0.0046	16.38%	2.01	0.0007	6.18%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	5	5	0.0552	0.0049	0.0552	0.0105	0.0049	0.0027	8.82%	1.08	0.0040	6.19%
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	6	5	0.0568	0.0145	0.0568	0.0107	0.0145	0.0081	25.57%	3.17	0.0026	6.16%
261.33	Acid Soluble Mn, ICP, test portion organic 965.09 (0.05%)	1		0.0604									
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.05%)	2	2	0.0545	0.0102								
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	12	12	0.0539	0.0068	0.0540	0.0104	0.0060	0.0022	11.10%	1.34	0.0071	6.21%
261.99	Acid Soluble Mn, Other (0.05%)	12	12	0.0505	0.0086	0.0512	0.0101	0.0068	0.0024	13.27%	1.56	0.0029	6.26%
271.00	Water Soluble Mn, AA (%)	2	2	0.0538	0.0011								
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	1		0.0360									
281.00	Acid Soluble Hg, AA (ppm)	3	0	0.0019		0.0538		0.0011		1.97%		0.0000	24.84%
281.30	Acid Soluble Hg, ICP (ppm)	3	1	0.0017		0.0538		0.0011	0.0013	1.97%		0.0004	24.84%
281.99	Acid Soluble Hg, Other (ppm)	3	1	0.0200		0.0538		0.0011	0.0013	1.97%		0.0000	24.84%
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (5ppm)	2	2	21.06	25.43								
289.30	Acid Soluble Mo, ICP (5ppm)	10	7	4.075	2.285	4.075	2.2226	2.591	1.224	63.57%	2.72	0.5863	12.95%
289.32	Acid Soluble Mo, ICP, 2006.03 (5ppm)	2	2	4.500	2.404								
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	9	6	2.365	1.942	2.365	1.7094	2.203	1.124	93.15%	3.00	0.0097	14.05%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (5ppm)	1		0.0000									
289.99	Acid Soluble Mo, Other (5ppm)	2	1	6.250									
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.6000									
291.30	Acid Soluble Ni, ICP (ppm)	10	7	1.483	0.2894	1.473		0.3054	0.1443	20.74%		0.0261	15.09%
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	5	3	1.585	0.1750	1.585		0.1750	0.1263	11.04%		0.0961	14.93%

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291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	1		0.0000									
291.99	Acid Soluble Ni, Other (ppm)	4	3	11.56	16.78	11.56		16.78	12.11	145.16%		8.521	11.07%
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.0800									
301.30	Acid Soluble Se, ICP (ppm)	3	1	0.8350		11.56		16.78	20.98	145.16%		0.4900	11.07%
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	2	0	0.0000									
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	1		0.0000									
301.99	Acid Soluble Se, Other (ppm)	4	3	0.2487	0.2664	0.2487		0.2664	0.1922	107.11%		0.0647	19.72%
311.33	Sodium, ICP, test portion as in 2017.02 (%)	4	4	0.0498	0.0124	0.0498	0.0100	0.0124	0.0077	24.91%	2.89	0.0059	6.28%
311.99	Sodium, Other (%)	2	2	0.0425	0.0035								
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	6	5	0.0509	0.0051	0.0509	0.0101	0.0051	0.0029	10.07%	1.18	0.0004	6.26%
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	1		0.1472									
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	21	20	0.0974	0.2302	0.0466	0.0097	0.0085	0.0024	18.19%	2.04	0.0161	6.34%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.05%)	3	3	0.0528	0.0054	0.0528	0.0103	0.0054	0.0039	10.18%	1.22	0.0007	6.23%
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	13	12	0.0483	0.0070	0.0491	0.0099	0.0046	0.0017	9.38%	1.08	0.0049	6.30%
321.99	Acid Soluble Zn, Other (0.05%)	10	10	0.0553	0.0322	0.0480	0.0098	0.0145	0.0057	30.24%	3.45	0.0074	6.32%
325.00	Water Soluble Zn, AA (%)	5	5	0.0598	0.0192	0.0598		0.0192	0.0108	32.18%		0.0140	6.11%
325.30	Water Soluble Zn, ICP (%)	5	5	0.0529	0.0126	0.0529		0.0126	0.0070	23.78%		0.0024	6.23%
325.99	Water Soluble Zn, Other (%)	1		0.0503									

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

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 190911

Method Precision Report

Grade 10-45-10

Issue Date : 10/31/2019

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 (%)	9	8	8.903	0.2997	0.2968	0.0584	0.3025	3.33%	0.66%	3.40%	5.179
001.99	Ammoniacal N, Other (%)	28	26	8.790	0.2964	0.2923	0.0696	0.3005	3.33%	0.79%	3.42%	4.319
005.99	Urea N, Other (%)	14	11	1.422	0.2602	0.2587	0.0398	0.2617	18.19%	2.80%	18.40%	6.571
010.60	Total N, Combustion (10%)	58	51	10.39	0.4062	0.3840	0.1873	0.4272	3.70%	1.80%	4.11%	2.281
010.99	Total N, Other (10%)	19	18	10.19	0.4483	0.4363	0.1454	0.4599	4.28%	1.43%	4.51%	3.163
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	21	19	45.34	0.6766	0.6729	0.1004	0.6803	1.48%	0.22%	1.50%	6.774
020.50	Total P2O5, ICP (%)	23	21	44.91	2.846	2.791	0.7910	2.901	6.21%	1.76%	6.46%	3.667
041.99	Direct Available P2O5, Other (45%)	11	10	45.16	0.3469	0.3377	0.1123	0.3559	0.75%	0.25%	0.79%	3.168
050.00	Soluble K2O, STPB Oxalate (10%)	10	8	11.05	0.5154	0.5134	0.0647	0.5175	4.65%	0.59%	4.68%	8.002
050.50	Soluble K2O, ICP (Oxalate) (10%)	10	9	11.43	1.009	0.9689	0.4002	1.048	8.47%	3.50%	9.17%	2.619
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	9	9	11.14	1.438	1.390	0.5254	1.486	12.48%	4.72%	13.34%	2.828
050.99	Soluble K2O, Other (10%)	41	39	10.79	0.8451	0.8117	0.3328	0.8773	7.53%	3.09%	8.13%	2.636
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	14	12	0.0195	0.0014	0.0011	0.0012	0.0017	5.87%	6.40%	8.68%	1.356
165.99	Acid Soluble B, Other (0.02%)	16	13	0.0205	0.0016	0.0013	0.0013	0.0019	6.54%	6.45%	9.18%	1.425
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	19	17	0.0444	0.0080	0.0074	0.0041	0.0085	16.72%	9.24%	19.10%	2.068
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	13	12	0.0501	0.0105	0.0096	0.0061	0.0114	19.18%	12.17%	22.71%	1.867
221.99	Acid Soluble Cu, Other (0.05%)	13	10	0.0499	0.0067	0.0066	0.0017	0.0069	13.28%	3.47%	13.72%	3.952
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	9	9	0.1056	0.0063	0.0053	0.0049	0.0072	5.00%	4.66%	6.83%	1.467
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	21	19	0.0984	0.0113	0.0100	0.0073	0.0124	10.20%	7.46%	12.64%	1.695
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	15	13	0.1032	0.0130	0.0097	0.0122	0.0156	9.41%	11.79%	15.09%	1.280
241.99	Acid Soluble Fe, Other (0.1%)	11	11	0.0984	0.0240	0.0231	0.0094	0.0250	23.47%	9.58%	25.35%	2.646
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	12	12	0.0539	0.0068	0.0048	0.0069	0.0084	8.88%	12.71%	15.51%	1.220
261.99	Acid Soluble Mn, Other (0.05%)	12	10	0.0524	0.0062	0.0059	0.0028	0.0065	11.25%	5.42%	12.48%	2.305
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	21	19	0.0459	0.0071	0.0067	0.0035	0.0076	14.54%	7.71%	16.45%	2.134
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	13	10	0.0507	0.0033	0.0016	0.0041	0.0044	3.13%	8.18%	8.76%	1.071
321.99	Acid Soluble Zn, Other (0.05%)	10	9	0.0456	0.0109	0.0102	0.0055	0.0116	22.31%	12.06%	25.36%	2.102

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

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 190911

Grade 10-45-10

Lab Values

Methods: 139

Labs Reporting: 98

Issue Date : 10/31/2019

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0230	5.680	0.1200	8.801	0.1526	0.0769	9	-18.88	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0486	8.675	0.1300	8.801	0.1526	0.0769	9	-0.76	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0231	8.735	0.0900	8.801	0.1526	0.0769	9	-0.40	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0444	8.775	0.0900	8.801	0.1526	0.0769	9	-0.16	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0451	8.795	0.1100	8.801	0.1526	0.0769	9	-0.04	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0389	8.840	0.0200	8.801	0.1526	0.0769	9	0.24	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0526	8.861	0.0218	8.801	0.1526	0.0769	9	0.36	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0481	8.925	0.0900	8.801	0.1526	0.0769	9	0.75	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0117	9.620	0.0200	8.801	0.1526	0.0769	9	4.96	NA	0
001.99	Ammoniacal N, Other (%)	0096	7.995	0.0100	8.822	0.3130	0.0801	27	-2.64	NA	0
001.99	Ammoniacal N, Other (%)	0519	8.490	0.0200	8.822	0.3130	0.0801	27	-1.06	NA	0
001.99	Ammoniacal N, Other (%)	0560	8.495	0.0300	8.822	0.3130	0.0801	27	-1.04	NA	0
001.99	Ammoniacal N, Other (%)	0415	8.500	0.0003	8.822	0.3130	0.0801	27	-1.03	NA	0
001.99	Ammoniacal N, Other (%)	0420	8.520	0.2000	8.822	0.3130	0.0801	27	-0.96	NA	0
001.99	Ammoniacal N, Other (%)	0535	8.550	0.1000	8.822	0.3130	0.0801	27	-0.87	NA	0
001.99	Ammoniacal N, Other (%)	0540	8.575	0.0500	8.822	0.3130	0.0801	27	-0.79	NA	0
001.99	Ammoniacal N, Other (%)	0544	8.610	0.0400	8.822	0.3130	0.0801	27	-0.68	NA	0
001.99	Ammoniacal N, Other (%)	0394	8.619	0.0580	8.822	0.3130	0.0801	27	-0.65	NA	0
001.99	Ammoniacal N, Other (%)	0533	8.660	0.1200	8.822	0.3130	0.0801	27	-0.52	NA	0
001.99	Ammoniacal N, Other (%)	0559	8.700	0.0400	8.822	0.3130	0.0801	27	-0.39	NA	0
001.99	Ammoniacal N, Other (%)	0510	8.782	0.0140	8.822	0.3130	0.0801	27	-0.13	NA	0
001.99	Ammoniacal N, Other (%)	0553	8.795	0.1900	8.822	0.3130	0.0801	27	-0.09	NA	0
001.99	Ammoniacal N, Other (%)	0527	8.800	0.0800	8.822	0.3130	0.0801	27	-0.07	NA	0
001.99	Ammoniacal N, Other (%)	0532	8.800	0.0400	8.822	0.3130	0.0801	27	-0.07	NA	0
001.99	Ammoniacal N, Other (%)	0538	8.820	0.0400	8.822	0.3130	0.0801	27	-0.01	NA	0
001.99	Ammoniacal N, Other (%)	0546	8.830	0.1200	8.822	0.3130	0.0801	27	0.03	NA	0
001.99	Ammoniacal N, Other (%)	0476	8.968	0.0268	8.822	0.3130	0.0801	27	0.47	NA	0
001.99	Ammoniacal N, Other (%)	0522	8.980	0.1600	8.822	0.3130	0.0801	27	0.51	NA	0
001.99	Ammoniacal N, Other (%)	0027	9.030	0.2130	8.822	0.3130	0.0801	27	0.66	NA	0
001.99	Ammoniacal N, Other (%)	0255	9.075	0.1300	8.822	0.3130	0.0801	27	0.81	NA	0
001.99	Ammoniacal N, Other (%)	0549	9.085	0.0300	8.822	0.3130	0.0801	27	0.84	NA	0
001.99	Ammoniacal N, Other (%)	0220	9.095	0.0900	8.822	0.3130	0.0801	27	0.87	NA	0
001.99	Ammoniacal N, Other (%)	0545	9.220	0.0400	8.822	0.3130	0.0801	27	1.27	NA	0
001.99	Ammoniacal N, Other (%)	0405	9.265	0.1300	8.822	0.3130	0.0801	27	1.42	NA	0
001.99	Ammoniacal N, Other (%)	0550	9.280	0.0200	8.822	0.3130	0.0801	27	1.46	NA	0
001.99	Ammoniacal N, Other (%)	0524	9.743	0.1699	8.822	0.3130	0.0801	27	2.94	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.99	Ammoniacal N, Other (%)	0520	9.130	0.5800	8.822	0.3130	0.0801	27	0.99	NA	1
005.00	Urea N, Urease (as N) (%)	0389	1.023	0.0150	1.389	0.3688	0.0417	3	-0.99		0
005.00	Urea N, Urease (as N) (%)	0405	1.385	0.0300	1.389	0.3688	0.0417	3	-0.01		0
005.00	Urea N, Urease (as N) (%)	0486	1.760	0.0800	1.389	0.3688	0.0417	3	1.01		0
005.99	Urea N, Other (%)	0027	0.8700	0.2600	1.377	0.3332	0.0642	12	-1.52	NA	0
005.99	Urea N, Other (%)	0532	0.9800	0.0800	1.377	0.3332	0.0642	12	-1.19	NA	0
005.99	Urea N, Other (%)	0538	1.000	0.0800	1.377	0.3332	0.0642	12	-1.13	NA	0
005.99	Urea N, Other (%)	0549	1.175	0.0500	1.377	0.3332	0.0642	12	-0.61	NA	0
005.99	Urea N, Other (%)	0519	1.470	0.0000	1.377	0.3332	0.0642	12	0.28	NA	0
005.99	Urea N, Other (%)	0533	1.475	0.0100	1.377	0.3332	0.0642	12	0.29	NA	0
005.99	Urea N, Other (%)	0560	1.485	0.0100	1.377	0.3332	0.0642	12	0.32	NA	0
005.99	Urea N, Other (%)	0536	1.505	0.0500	1.377	0.3332	0.0642	12	0.38	NA	0
005.99	Urea N, Other (%)	0535	1.550	0.1000	1.377	0.3332	0.0642	12	0.52	NA	0
005.99	Urea N, Other (%)	0545	1.570	0.0200	1.377	0.3332	0.0642	12	0.58	NA	0
005.99	Urea N, Other (%)	0029	1.635	0.0700	1.377	0.3332	0.0642	12	0.77	NA	0
005.99	Urea N, Other (%)	0559	1.800	0.0400	1.377	0.3332	0.0642	12	1.27	NA	0
005.99	Urea N, Other (%)	0546	1.240	0.6600	1.377	0.3332	0.0642	12	-0.41	NA	1
005.99	Urea N, Other (%)	0526	9.988	0.0078	1.377	0.3332	0.0642	12	25.85	NA	2
007.00	Urea, Urease (as Urea) (%)	0117	1.665	0.0100	2.048	0.6169	0.1767	3	-0.62		0
007.00	Urea, Urease (as Urea) (%)	0105	1.720	0.1600	2.048	0.6169	0.1767	3	-0.53		0
007.00	Urea, Urease (as Urea) (%)	0231	2.760	0.3600	2.048	0.6169	0.1767	3	1.15		0
010.11	Total N, Modified Comprehensive (10%)	0309	9.630	0.0000	10.28	0.4553	0.0902	7	-1.29	Low	0
010.11	Total N, Modified Comprehensive (10%)	0540	9.940	0.0800	10.28	0.4553	0.0902	7	-0.68	OK	0
010.11	Total N, Modified Comprehensive (10%)	0535	10.10	0.2000	10.28	0.4553	0.0902	7	-0.36	OK	0
010.11	Total N, Modified Comprehensive (10%)	0510	10.49	0.0717	10.28	0.4553	0.0902	7	0.42	OK	0
010.11	Total N, Modified Comprehensive (10%)	0220	10.50	0.0500	10.28	0.4553	0.0902	7	0.43	OK	0
010.11	Total N, Modified Comprehensive (10%)	0105	10.54	0.2100	10.28	0.4553	0.0902	7	0.51	OK	0
010.11	Total N, Modified Comprehensive (10%)	0416	10.77	0.0200	10.28	0.4553	0.0902	7	0.97	OK	0
010.11	Total N, Modified Comprehensive (10%)	0546	10.07	0.7800	10.28	0.4553	0.0902	7	-0.42	OK	1
010.12	Total N, Salicylic (10%)	0117	9.975	0.4500				2			0
010.12	Total N, Salicylic (10%)	0498	11.55	0.7000				2			0
010.17	Total N, Comprehensive (10%)	0526	10.42	0.1341				1			0
010.60	Total N, Combustion (10%)	0035	8.950	0.1000	10.40	0.4079	0.2435	56	-3.56	Low	0
010.60	Total N, Combustion (10%)	0043	9.470	0.1200	10.40	0.4079	0.2435	56	-2.29	Low	0
010.60	Total N, Combustion (10%)	0481	9.555	0.0500	10.40	0.4079	0.2435	56	-2.08	Low	0
010.60	Total N, Combustion (10%)	0356	9.570	0.4200	10.40	0.4079	0.2435	56	-2.04	Low	0
010.60	Total N, Combustion (10%)	0550	9.920	0.0200	10.40	0.4079	0.2435	56	-1.19	OK	0
010.60	Total N, Combustion (10%)	0117	9.925	0.1500	10.40	0.4079	0.2435	56	-1.17	OK	0
010.60	Total N, Combustion (10%)	0482	10.00	0.2000	10.40	0.4079	0.2435	56	-0.99	OK	0
010.60	Total N, Combustion (10%)	0444	10.01	0.0400	10.40	0.4079	0.2435	56	-0.96	OK	0
010.60	Total N, Combustion (10%)	0037	10.02	0.2820	10.40	0.4079	0.2435	56	-0.95	OK	0
010.60	Total N, Combustion (10%)	0360	10.08	0.1930	10.40	0.4079	0.2435	56	-0.78	OK	0
010.60	Total N, Combustion (10%)	0177	10.10	0.0900	10.40	0.4079	0.2435	56	-0.76	OK	0
010.60	Total N, Combustion (10%)	0230	10.10	0.4000	10.40	0.4079	0.2435	56	-0.74	OK	0
010.60	Total N, Combustion (10%)	0292	10.13	0.0600	10.40	0.4079	0.2435	56	-0.67	OK	0
010.60	Total N, Combustion (10%)	0070	10.15	0.0700	10.40	0.4079	0.2435	56	-0.63	OK	0
010.60	Total N, Combustion (10%)	0042	10.15	0.5000	10.40	0.4079	0.2435	56	-0.62	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total N, Combustion (10%)	0034	10.16	0.4300	10.40	0.4079	0.2435	56	-0.61	OK	0
010.60	Total N, Combustion (10%)	0131	10.18	0.0560	10.40	0.4079	0.2435	56	-0.55	OK	0
010.60	Total N, Combustion (10%)	0023	10.20	0.0600	10.40	0.4079	0.2435	56	-0.50	OK	0
010.60	Total N, Combustion (10%)	0472	10.20	0.2800	10.40	0.4079	0.2435	56	-0.50	OK	0
010.60	Total N, Combustion (10%)	0561	10.22	0.1100	10.40	0.4079	0.2435	56	-0.46	OK	0
010.60	Total N, Combustion (10%)	0389	10.23	0.0500	10.40	0.4079	0.2435	56	-0.44	OK	0
010.60	Total N, Combustion (10%)	0255	10.24	1.015	10.40	0.4079	0.2435	56	-0.41	OK	0
010.60	Total N, Combustion (10%)	0543	10.27	0.2330	10.40	0.4079	0.2435	56	-0.33	OK	0
010.60	Total N, Combustion (10%)	0106	10.27	0.4200	10.40	0.4079	0.2435	56	-0.33	OK	0
010.60	Total N, Combustion (10%)	0451	10.28	0.2400	10.40	0.4079	0.2435	56	-0.30	OK	0
010.60	Total N, Combustion (10%)	0055	10.28	0.0200	10.40	0.4079	0.2435	56	-0.29	OK	0
010.60	Total N, Combustion (10%)	0527	10.29	0.5180	10.40	0.4079	0.2435	56	-0.28	OK	0
010.60	Total N, Combustion (10%)	0325	10.35	0.5000	10.40	0.4079	0.2435	56	-0.13	OK	0
010.60	Total N, Combustion (10%)	0234	10.35	0.1000	10.40	0.4079	0.2435	56	-0.13	OK	0
010.60	Total N, Combustion (10%)	0029	10.40	0.0700	10.40	0.4079	0.2435	56	-0.02	OK	0
010.60	Total N, Combustion (10%)	0073	10.40	0.4400	10.40	0.4079	0.2435	56	-0.01	OK	0
010.60	Total N, Combustion (10%)	0547	10.44	0.0000	10.40	0.4079	0.2435	56	0.09	OK	0
010.60	Total N, Combustion (10%)	0525	10.46	0.2500	10.40	0.4079	0.2435	56	0.13	OK	0
010.60	Total N, Combustion (10%)	0095	10.49	0.1100	10.40	0.4079	0.2435	56	0.20	OK	0
010.60	Total N, Combustion (10%)	0486	10.50	0.0800	10.40	0.4079	0.2435	56	0.24	OK	0
010.60	Total N, Combustion (10%)	0040	10.55	0.5000	10.40	0.4079	0.2435	56	0.36	OK	0
010.60	Total N, Combustion (10%)	0231	10.58	0.1900	10.40	0.4079	0.2435	56	0.42	OK	0
010.60	Total N, Combustion (10%)	0324	10.60	0.2000	10.40	0.4079	0.2435	56	0.48	OK	0
010.60	Total N, Combustion (10%)	0405	10.60	0.0200	10.40	0.4079	0.2435	56	0.48	OK	0
010.60	Total N, Combustion (10%)	0523	10.60	0.0000	10.40	0.4079	0.2435	56	0.48	OK	0
010.60	Total N, Combustion (10%)	0542	10.63	0.2140	10.40	0.4079	0.2435	56	0.54	OK	0
010.60	Total N, Combustion (10%)	0390	10.67	0.0600	10.40	0.4079	0.2435	56	0.65	OK	0
010.60	Total N, Combustion (10%)	0534	10.68	0.0200	10.40	0.4079	0.2435	56	0.68	OK	0
010.60	Total N, Combustion (10%)	0169	10.70	0.1600	10.40	0.4079	0.2435	56	0.73	OK	0
010.60	Total N, Combustion (10%)	0027	10.75	0.1000	10.40	0.4079	0.2435	56	0.85	OK	0
010.60	Total N, Combustion (10%)	0421	10.76	0.2800	10.40	0.4079	0.2435	56	0.87	OK	0
010.60	Total N, Combustion (10%)	0516	10.85	0.1000	10.40	0.4079	0.2435	56	1.09	OK	0
010.60	Total N, Combustion (10%)	0102	10.87	0.0300	10.40	0.4079	0.2435	56	1.13	OK	0
010.60	Total N, Combustion (10%)	0555	10.87	0.9500	10.40	0.4079	0.2435	56	1.13	OK	0
010.60	Total N, Combustion (10%)	0485	10.91	0.6230	10.40	0.4079	0.2435	56	1.24	OK	0
010.60	Total N, Combustion (10%)	0096	11.00	0.5300	10.40	0.4079	0.2435	56	1.45	High	0
010.60	Total N, Combustion (10%)	0443	11.09	0.0200	10.40	0.4079	0.2435	56	1.68	High	0
010.60	Total N, Combustion (10%)	0450	11.10	0.2000	10.40	0.4079	0.2435	56	1.71	High	0
010.60	Total N, Combustion (10%)	0420	11.64	0.4300	10.40	0.4079	0.2435	56	3.02	High	0
010.60	Total N, Combustion (10%)	0377	11.75	0.4400	10.40	0.4079	0.2435	56	3.30	High	0
010.60	Total N, Combustion (10%)	0025	11.79	0.8900	10.40	0.4079	0.2435	56	3.39	High	0
010.60	Total N, Combustion (10%)	0086	10.62	1.385	10.40	0.4079	0.2435	56	0.52	OK	1
010.60	Total N, Combustion (10%)	0422	17.45	0.1000	10.40	0.4079	0.2435	56	17.27	High	2
010.99	Total N, Other (10%)	0481	9.290	0.2200	10.19	0.4573	0.1494	18	-1.97	Low	0
010.99	Total N, Other (10%)	0544	9.710	0.0000	10.19	0.4573	0.1494	18	-1.05	OK	0
010.99	Total N, Other (10%)	0532	9.785	0.0900	10.19	0.4573	0.1494	18	-0.89	OK	0
010.99	Total N, Other (10%)	0371	9.800	0.0800	10.19	0.4573	0.1494	18	-0.86	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.99	Total N, Other (10%)	0538	9.850	0.1000	10.19	0.4573	0.1494	18	-0.75	OK	0
010.99	Total N, Other (10%)	0420	9.940	0.1000	10.19	0.4573	0.1494	18	-0.55	OK	0
010.99	Total N, Other (10%)	0519	9.950	0.0200	10.19	0.4573	0.1494	18	-0.53	OK	0
010.99	Total N, Other (10%)	0533	10.05	0.0500	10.19	0.4573	0.1494	18	-0.32	OK	0
010.99	Total N, Other (10%)	0493	10.10	0.1000	10.19	0.4573	0.1494	18	-0.20	OK	0
010.99	Total N, Other (10%)	0518	10.20	0.2000	10.19	0.4573	0.1494	18	0.02	OK	0
010.99	Total N, Other (10%)	0522	10.22	0.0700	10.19	0.4573	0.1494	18	0.05	OK	0
010.99	Total N, Other (10%)	0553	10.35	0.5000	10.19	0.4573	0.1494	18	0.35	OK	0
010.99	Total N, Other (10%)	0513	10.52	0.0800	10.19	0.4573	0.1494	18	0.72	OK	0
010.99	Total N, Other (10%)	0537	10.58	0.3000	10.19	0.4573	0.1494	18	0.85	OK	0
010.99	Total N, Other (10%)	0524	10.61	0.4544	10.19	0.4573	0.1494	18	0.91	OK	0
010.99	Total N, Other (10%)	0476	10.63	0.2548	10.19	0.4573	0.1494	18	0.95	OK	0
010.99	Total N, Other (10%)	0545	10.79	0.0200	10.19	0.4573	0.1494	18	1.31	High	0
010.99	Total N, Other (10%)	0559	11.08	0.0500	10.19	0.4573	0.1494	18	1.93	High	0
010.99	Total N, Other (10%)	0520	10.72	0.9000	10.19	0.4573	0.1494	18	1.16	OK	1
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0049	45.50	0.6700	45.66	0.1869	0.3575	4	-0.88		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0493	45.50	0.2000	45.66	0.1869	0.3575	4	-0.85		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0157	45.80	0.4000	45.66	0.1869	0.3575	4	0.76		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0444	45.84	0.1600	45.66	0.1869	0.3575	4	0.97		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0309	44.04	0.0100	45.35	0.7177	0.1340	20	-1.84	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0230	44.25	0.1000	45.35	0.7177	0.1340	20	-1.54	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0522	44.30	0.1200	45.35	0.7177	0.1340	20	-1.47	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0231	45.02	0.0000	45.35	0.7177	0.1340	20	-0.46	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0510	45.04	0.0557	45.35	0.7177	0.1340	20	-0.43	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0561	45.05	0.0600	45.35	0.7177	0.1340	20	-0.42	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	45.11	0.1700	45.35	0.7177	0.1340	20	-0.35	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0027	45.20	0.0600	45.35	0.7177	0.1340	20	-0.21	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0292	45.21	0.0800	45.35	0.7177	0.1340	20	-0.20	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0420	45.32	0.7700	45.35	0.7177	0.1340	20	-0.05	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0394	45.35	0.0700	45.35	0.7177	0.1340	20	-0.01	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0450	45.37	0.0400	45.35	0.7177	0.1340	20	0.02	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0476	45.39	0.0946	45.35	0.7177	0.1340	20	0.06	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0371	45.40	0.4000	45.35	0.7177	0.1340	20	0.07	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0416	45.93	0.0000	45.35	0.7177	0.1340	20	0.80	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0534	45.94	0.0600	45.35	0.7177	0.1340	20	0.82	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0356	46.01	0.2900	45.35	0.7177	0.1340	20	0.91	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0550	46.14	0.0000	45.35	0.7177	0.1340	20	1.10	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0169	46.33	0.1000	45.35	0.7177	0.1340	20	1.36	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0481	46.40	0.2000	45.35	0.7177	0.1340	20	1.46	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	46.10	2.200	45.35	0.7177	0.1340	20	1.04	NA	1
020.40	Total P2O5, Automated (%)	0035	45.25	0.1000				2			0
020.40	Total P2O5, Automated (%)	0096	45.52	0.0700				2			0
020.50	Total P2O5, ICP (%)	0543	33.69	3.160	44.72	2.722	0.9121	22	-4.05	NA	0
020.50	Total P2O5, ICP (%)	0451	37.76	0.2600	44.72	2.722	0.9121	22	-2.56	NA	0
020.50	Total P2O5, ICP (%)	0552	40.91	0.5700	44.72	2.722	0.9121	22	-1.40	NA	0
020.50	Total P2O5, ICP (%)	0390	41.40	1.530	44.72	2.722	0.9121	22	-1.22	NA	0
020.50	Total P2O5, ICP (%)	0472	42.03	0.1400	44.72	2.722	0.9121	22	-0.99	NA	0

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020.50	Total P2O5, ICP (%)	0516	43.43	0.4000	44.72	2.722	0.9121	22	-0.48	NA	0
020.50	Total P2O5, ICP (%)	0524	43.70	0.7254	44.72	2.722	0.9121	22	-0.38	NA	0
020.50	Total P2O5, ICP (%)	0525	44.60	0.6300	44.72	2.722	0.9121	22	-0.05	NA	0
020.50	Total P2O5, ICP (%)	0527	44.93	0.1660	44.72	2.722	0.9121	22	0.08	NA	0
020.50	Total P2O5, ICP (%)	0523	45.10	1.600	44.72	2.722	0.9121	22	0.14	NA	0
020.50	Total P2O5, ICP (%)	0433	45.13	0.0200	44.72	2.722	0.9121	22	0.15	NA	0
020.50	Total P2O5, ICP (%)	0546	45.24	0.8330	44.72	2.722	0.9121	22	0.19	NA	0
020.50	Total P2O5, ICP (%)	0555	45.25	0.6900	44.72	2.722	0.9121	22	0.19	NA	0
020.50	Total P2O5, ICP (%)	0444	45.42	0.0700	44.72	2.722	0.9121	22	0.25	NA	0
020.50	Total P2O5, ICP (%)	0547	45.60	0.4000	44.72	2.722	0.9121	22	0.32	NA	0
020.50	Total P2O5, ICP (%)	0482	45.80	1.600	44.72	2.722	0.9121	22	0.40	NA	0
020.50	Total P2O5, ICP (%)	0521	45.91	0.0000	44.72	2.722	0.9121	22	0.44	NA	0
020.50	Total P2O5, ICP (%)	0255	46.50	2.221	44.72	2.722	0.9121	22	0.65	NA	0
020.50	Total P2O5, ICP (%)	0042	47.00	1.800	44.72	2.722	0.9121	22	0.84	NA	0
020.50	Total P2O5, ICP (%)	0234	47.10	0.4000	44.72	2.722	0.9121	22	0.87	NA	0
020.50	Total P2O5, ICP (%)	0422	49.38	2.760	44.72	2.722	0.9121	22	1.71	NA	0
020.50	Total P2O5, ICP (%)	0542	50.91	0.0900	44.72	2.722	0.9121	22	2.27	NA	0
020.50	Total P2O5, ICP (%)	0389	25.21	29.87	44.72	2.722	0.9121	22	-7.17	NA	1
020.99	Total P2O5, Other (%)	0520	43.31	0.3100	47.28	4.508	0.2143	5	-0.88		0
020.99	Total P2O5, Other (%)	0559	45.15	0.0400	47.28	4.508	0.2143	5	-0.47		0
020.99	Total P2O5, Other (%)	0513	45.24	0.0300	47.28	4.508	0.2143	5	-0.45		0
020.99	Total P2O5, Other (%)	0515	47.94	0.5413	47.28	4.508	0.2143	5	0.15		0
020.99	Total P2O5, Other (%)	0443	54.79	0.1500	47.28	4.508	0.2143	5	1.66		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	0041	43.30	1.400	44.64	0.7808	0.3800	5	-1.72		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	0086	44.80	0.0417	44.64	0.7808	0.3800	5	0.20		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	0102	44.80	0.0000	44.64	0.7808	0.3800	5	0.20		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	0040	45.00	0.4000	44.64	0.7808	0.3800	5	0.46		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (45%)	0177	45.32	0.0584	44.64	0.7808	0.3800	5	0.87		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0117	43.90	1.600	45.44	0.4612	0.5012	6	-2.97	Low	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0513	45.26	0.0600	45.44	0.4612	0.5012	6	-0.34	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0485	45.46	0.3774	45.44	0.4612	0.5012	6	0.05	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0493	45.50	0.1000	45.44	0.4612	0.5012	6	0.12	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0073	45.77	0.8500	45.44	0.4612	0.5012	6	0.63	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (45%)	0055	45.89	0.0200	45.44	0.4612	0.5012	6	0.87	OK	0
041.20	Direct Available P2O5, Spectrophotometric (45%)	0027	43.45	0.3300				2			0
041.20	Direct Available P2O5, Spectrophotometric (45%)	0553	45.15	0.7000				2			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0231	44.15	0.3000	45.05	0.7010	0.1491	8	-1.18	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0522	44.65	0.3200	45.05	0.7010	0.1491	8	-0.53	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0544	44.66	0.0700	45.05	0.7010	0.1491	8	-0.52	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0394	44.94	0.2430	45.05	0.7010	0.1491	8	-0.14	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0472	44.95	0.0000	45.05	0.7010	0.1491	8	-0.13	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0177	45.34	0.1101	45.05	0.7010	0.1491	8	0.38	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0055	45.63	0.1500	45.05	0.7010	0.1491	8	0.75	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0526	47.47	0.0000	45.05	0.7010	0.1491	8	3.15	High	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (45%)	0106	44.55	1.280	45.05	0.7010	0.1491	8	-0.66	OK	1
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (45%)	0095	42.55	0.6100	45.40	2.068	0.8036	4	-1.38		0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (45%)	0037	45.74	1.057	45.40	2.068	0.8036	4	0.16		0

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041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (45%)	0029	45.83	1.040	45.40	2.068	0.8036	4	0.21		0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (45%)	0034	47.49	0.5074	45.40	2.068	0.8036	4	1.01		0
041.50	Direct Available P2O5, ICP (45%)	0131	44.41	0.5420	45.17	1.037	0.4473	3	-0.74		0
041.50	Direct Available P2O5, ICP (45%)	0325	44.75	0.7000	45.17	1.037	0.4473	3	-0.40		0
041.50	Direct Available P2O5, ICP (45%)	0421	46.35	0.1000	45.17	1.037	0.4473	3	1.14		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0136	43.40	0.4000	44.84	0.9943	0.6183	8	-1.32	Low	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0486	43.88	0.0100	44.84	0.9943	0.6183	8	-0.89	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0377	44.58	0.1100	44.84	0.9943	0.6183	8	-0.24	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0025	44.90	0.4000	44.84	0.9943	0.6183	8	0.06	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0043	45.02	2.280	44.84	0.9943	0.6183	8	0.17	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0117	45.40	0.2266	44.84	0.9943	0.6183	8	0.51	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0023	45.45	0.7000	44.84	0.9943	0.6183	8	0.56	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (45%)	0360	46.10	0.8200	44.84	0.9943	0.6183	8	1.16	High	0
041.99	Direct Available P2O5, Other (45%)	0532	44.68	0.2400	45.16	0.3934	0.1220	10	-1.13	OK	0
041.99	Direct Available P2O5, Other (45%)	0538	44.76	0.3200	45.16	0.3934	0.1220	10	-0.95	OK	0
041.99	Direct Available P2O5, Other (45%)	0519	44.91	0.0200	45.16	0.3934	0.1220	10	-0.59	OK	0
041.99	Direct Available P2O5, Other (45%)	0560	45.07	0.0600	45.16	0.3934	0.1220	10	-0.21	OK	0
041.99	Direct Available P2O5, Other (45%)	0405	45.16	0.0300	45.16	0.3934	0.1220	10	-0.01	OK	0
041.99	Direct Available P2O5, Other (45%)	0518	45.18	0.2500	45.16	0.3934	0.1220	10	0.04	OK	0
041.99	Direct Available P2O5, Other (45%)	0540	45.18	0.0500	45.16	0.3934	0.1220	10	0.04	OK	0
041.99	Direct Available P2O5, Other (45%)	0535	45.25	0.1000	45.16	0.3934	0.1220	10	0.21	OK	0
041.99	Direct Available P2O5, Other (45%)	0545	45.68	0.0500	45.16	0.3934	0.1220	10	1.22	OK	0
041.99	Direct Available P2O5, Other (45%)	0549	45.75	0.1000	45.16	0.3934	0.1220	10	1.39	OK	0
041.99	Direct Available P2O5, Other (45%)	0537	45.09	1.400	45.16	0.3934	0.1220	10	-0.17	OK	1
048.10	Water Soluble P2O5, Gravimetric Quinolinium (%)	0444	44.45	0.1300				1			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0420	42.10	0.5000				2			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0394	45.88	0.4130				2			0
048.50	Water Soluble P2O5, ICP (%)	0444	44.31	0.2200				1			0
048.99	Water Soluble P2O5, Other (%)	0513	45.17	0.0200				1			0
050.00	Soluble K2O, STPB Oxalate (10%)	0544	10.13	0.1000	11.16	0.6107	0.1100	9	-1.56	Low	0
050.00	Soluble K2O, STPB Oxalate (10%)	0055	10.58	0.0400	11.16	0.6107	0.1100	9	-0.88	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0102	10.80	0.0000	11.16	0.6107	0.1100	9	-0.55	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0220	11.10	0.0000	11.16	0.6107	0.1100	9	-0.09	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0550	11.33	0.0600	11.16	0.6107	0.1100	9	0.25	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0416	11.36	0.0600	11.16	0.6107	0.1100	9	0.30	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0231	11.42	0.1600	11.16	0.6107	0.1100	9	0.39	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0405	11.70	0.1500	11.16	0.6107	0.1100	9	0.81	OK	0
050.00	Soluble K2O, STPB Oxalate (10%)	0522	11.93	0.4200	11.16	0.6107	0.1100	9	1.16	High	0
050.00	Soluble K2O, STPB Oxalate (10%)	0049	10.16	0.9000	11.16	0.6107	0.1100	9	-1.52	Low	1
050.30	Soluble K2O, AA (Oxalate) (10%)	0309	10.26	0.0900	10.91	0.4990	0.3450	4	-1.32		0
050.30	Soluble K2O, AA (Oxalate) (10%)	0040	10.80	0.2000	10.91	0.4990	0.3450	4	-0.23		0
050.30	Soluble K2O, AA (Oxalate) (10%)	0356	11.25	0.9900	10.91	0.4990	0.3450	4	0.67		0
050.30	Soluble K2O, AA (Oxalate) (10%)	0136	11.35	0.1000	10.91	0.4990	0.3450	4	0.88		0
050.31	Soluble K2O, AA (Citrate) (10%)	0472	10.07	0.0000				2			0
050.31	Soluble K2O, AA (Citrate) (10%)	0498	10.80	0.2000				2			0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0420	9.794	0.8120	11.32	1.103	0.6133	10	-1.29	Low	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0390	10.34	0.0500	11.32	1.103	0.6133	10	-0.83	Low	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.50	Soluble K2O, ICP (Oxalate) (10%)	0324	10.45	1.900	11.32	1.103	0.6133	10	-0.73	Low	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0117	11.07	0.9690	11.32	1.103	0.6133	10	-0.21	OK	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0444	11.10	0.2000	11.32	1.103	0.6133	10	-0.19	OK	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0230	11.50	0.6000	11.32	1.103	0.6133	10	0.15	OK	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0055	11.67	0.1100	11.32	1.103	0.6133	10	0.29	OK	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0106	11.98	0.6900	11.32	1.103	0.6133	10	0.55	OK	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0292	12.34	0.2100	11.32	1.103	0.6133	10	0.86	High	0
050.50	Soluble K2O, ICP (Oxalate) (10%)	0086	13.12	0.5920	11.32	1.103	0.6133	10	1.52	High	0
050.51	Soluble K2O, ICP (Citrate) (10%)	0555	9.800	0.0400	11.13	1.079	0.1058	4	-1.23		0
050.51	Soluble K2O, ICP (Citrate) (10%)	0070	11.10	0.2000	11.13	1.079	0.1058	4	-0.02		0
050.51	Soluble K2O, ICP (Citrate) (10%)	0547	11.16	0.1000	11.13	1.079	0.1058	4	0.03		0
050.51	Soluble K2O, ICP (Citrate) (10%)	0131	12.44	0.0830	11.13	1.079	0.1058	4	1.22		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0543	8.136	1.676	11.27	1.319	0.5679	9	-2.19	Low	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0485	10.27	0.4540	11.27	1.319	0.5679	9	-0.70	Low	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0486	10.37	0.3400	11.27	1.319	0.5679	9	-0.63	Low	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0360	11.06	0.5300	11.27	1.319	0.5679	9	-0.15	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0117	11.38	0.1512	11.27	1.319	0.5679	9	0.08	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0377	11.76	0.0600	11.27	1.319	0.5679	9	0.35	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0025	11.80	1.000	11.27	1.319	0.5679	9	0.37	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0023	12.45	0.7000	11.27	1.319	0.5679	9	0.83	High	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (10%)	0043	13.03	0.2000	11.27	1.319	0.5679	9	1.23	High	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0443	9.065	0.2700	10.30	0.9123	0.2270	6	-1.21	Low	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0526	9.980	0.0131	10.30	0.9123	0.2270	6	-0.31	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0510	10.18	0.0134	10.30	0.9123	0.2270	6	-0.11	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0476	10.23	0.1857	10.30	0.9123	0.2270	6	-0.07	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0520	10.98	0.8500	10.30	0.9123	0.2270	6	0.66	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (10%)	0169	11.37	0.0300	10.30	0.9123	0.2270	6	1.04	High	0
050.61	Soluble K2O, Flame Photometric (Citrate) (10%)	0535	10.25	0.1000				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (10%)	0035	11.35	0.1000				2			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0037	9.855	0.4930	11.01	1.007	0.3253	6	-1.02	Low	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0535	10.25	0.1000	11.01	1.007	0.3253	6	-0.67	Low	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0513	10.86	0.1400	11.01	1.007	0.3253	6	-0.14	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0029	11.13	0.3900	11.01	1.007	0.3253	6	0.10	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0034	11.82	0.4790	11.01	1.007	0.3253	6	0.72	High	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (10%)	0095	12.17	0.3500	11.01	1.007	0.3253	6	1.02	High	0
050.99	Soluble K2O, Other (10%)	0521	9.247	0.0000	10.78	0.8795	0.3379	40	-1.75	Low	0
050.99	Soluble K2O, Other (10%)	0481	9.550	0.0800	10.78	0.8795	0.3379	40	-1.40	Low	0
050.99	Soluble K2O, Other (10%)	0519	9.930	0.0200	10.78	0.8795	0.3379	40	-0.97	Low	0
050.99	Soluble K2O, Other (10%)	0536	9.950	0.1000	10.78	0.8795	0.3379	40	-0.95	Low	0
050.99	Soluble K2O, Other (10%)	0549	9.990	0.0200	10.78	0.8795	0.3379	40	-0.90	Low	0
050.99	Soluble K2O, Other (10%)	0523	9.995	0.1100	10.78	0.8795	0.3379	40	-0.90	Low	0
050.99	Soluble K2O, Other (10%)	0560	10.08	0.2400	10.78	0.8795	0.3379	40	-0.80	OK	0
050.99	Soluble K2O, Other (10%)	0325	10.10	1.000	10.78	0.8795	0.3379	40	-0.78	OK	0
050.99	Soluble K2O, Other (10%)	0533	10.16	0.2400	10.78	0.8795	0.3379	40	-0.71	OK	0
050.99	Soluble K2O, Other (10%)	0493	10.20	0.1000	10.78	0.8795	0.3379	40	-0.66	OK	0
050.99	Soluble K2O, Other (10%)	0540	10.23	0.0500	10.78	0.8795	0.3379	40	-0.64	OK	0
050.99	Soluble K2O, Other (10%)	0535	10.25	0.1000	10.78	0.8795	0.3379	40	-0.61	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.99	Soluble K2O, Other (10%)	0553	10.25	0.3000	10.78	0.8795	0.3379	40	-0.61	OK	0
050.99	Soluble K2O, Other (10%)	0421	10.35	0.1000	10.78	0.8795	0.3379	40	-0.49	OK	0
050.99	Soluble K2O, Other (10%)	0518	10.35	0.1000	10.78	0.8795	0.3379	40	-0.49	OK	0
050.99	Soluble K2O, Other (10%)	0525	10.39	0.3000	10.78	0.8795	0.3379	40	-0.45	OK	0
050.99	Soluble K2O, Other (10%)	0515	10.41	0.3566	10.78	0.8795	0.3379	40	-0.43	OK	0
050.99	Soluble K2O, Other (10%)	0545	10.46	0.0400	10.78	0.8795	0.3379	40	-0.37	OK	0
050.99	Soluble K2O, Other (10%)	0538	10.55	0.5000	10.78	0.8795	0.3379	40	-0.27	OK	0
050.99	Soluble K2O, Other (10%)	0546	10.71	0.7850	10.78	0.8795	0.3379	40	-0.09	OK	0
050.99	Soluble K2O, Other (10%)	0394	10.72	0.1950	10.78	0.8795	0.3379	40	-0.08	OK	0
050.99	Soluble K2O, Other (10%)	0552	10.73	1.160	10.78	0.8795	0.3379	40	-0.06	OK	0
050.99	Soluble K2O, Other (10%)	0537	10.87	0.4500	10.78	0.8795	0.3379	40	0.09	OK	0
050.99	Soluble K2O, Other (10%)	0450	10.88	0.5100	10.78	0.8795	0.3379	40	0.10	OK	0
050.99	Soluble K2O, Other (10%)	0389	10.88	0.1350	10.78	0.8795	0.3379	40	0.11	OK	0
050.99	Soluble K2O, Other (10%)	0532	10.89	1.170	10.78	0.8795	0.3379	40	0.11	OK	0
050.99	Soluble K2O, Other (10%)	0177	10.90	0.2046	10.78	0.8795	0.3379	40	0.13	OK	0
050.99	Soluble K2O, Other (10%)	0234	11.00	1.000	10.78	0.8795	0.3379	40	0.25	OK	0
050.99	Soluble K2O, Other (10%)	0559	11.00	0.0600	10.78	0.8795	0.3379	40	0.25	OK	0
050.99	Soluble K2O, Other (10%)	0482	11.10	0.8000	10.78	0.8795	0.3379	40	0.36	OK	0
050.99	Soluble K2O, Other (10%)	0371	11.16	0.4900	10.78	0.8795	0.3379	40	0.42	OK	0
050.99	Soluble K2O, Other (10%)	0042	11.25	0.7000	10.78	0.8795	0.3379	40	0.53	OK	0
050.99	Soluble K2O, Other (10%)	0433	11.93	0.0200	10.78	0.8795	0.3379	40	1.30	High	0
050.99	Soluble K2O, Other (10%)	0027	12.23	0.3600	10.78	0.8795	0.3379	40	1.64	High	0
050.99	Soluble K2O, Other (10%)	0451	12.27	0.4300	10.78	0.8795	0.3379	40	1.68	High	0
050.99	Soluble K2O, Other (10%)	0255	12.30	0.3990	10.78	0.8795	0.3379	40	1.72	High	0
050.99	Soluble K2O, Other (10%)	0542	12.32	0.0600	10.78	0.8795	0.3379	40	1.75	High	0
050.99	Soluble K2O, Other (10%)	0561	12.49	0.3300	10.78	0.8795	0.3379	40	1.93	High	0
050.99	Soluble K2O, Other (10%)	0527	12.63	0.1990	10.78	0.8795	0.3379	40	2.10	High	0
050.99	Soluble K2O, Other (10%)	0516	14.51	0.3000	10.78	0.8795	0.3379	40	4.24	High	0
050.99	Soluble K2O, Other (10%)	0524	13.71	2.874	10.78	0.8795	0.3379	40	3.33	High	1
060.00	Water (Free), Vacuum Oven (%)	0513	0.1100	0.0000				2			0
060.00	Water (Free), Vacuum Oven (%)	0416	0.4771	0.0046				2			0
060.99	Water (Free), Other (%)	0513	0.4850	0.0100				2			0
060.99	Water (Free), Other (%)	0510	0.6101	0.0055				2			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0553	0.0025	0.0010				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0049	0.0186	0.0011	0.0294	0.0078	0.0028	4	-1.39		0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0482	0.0300	0.0000	0.0294	0.0078	0.0028	4	0.08		0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0096	0.0320	0.0000	0.0294	0.0078	0.0028	4	0.33		0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0035	0.0370	0.0100	0.0294	0.0078	0.0028	4	0.98		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0421	0.0200	0.0000	0.0280	0.0054	0.0029	5	-1.48		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0034	0.0275	0.0010	0.0280	0.0054	0.0029	5	-0.10		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0527	0.0277	0.0023	0.0280	0.0054	0.0029	5	-0.07		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0086	0.0300	0.0013	0.0280	0.0054	0.0029	5	0.36		0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0055	0.0350	0.0100	0.0280	0.0054	0.0029	5	1.29		0
101.99	Acid Soluble Ca, Other (%)	0389	0.0300	0.0000				2			0
101.99	Acid Soluble Ca, Other (%)	0552	1.251	0.2790				2			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0482	0.0400	0.0000	0.0466	0.0072	0.0057	5	-0.92		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0049	0.0410	0.0001	0.0466	0.0072	0.0057	5	-0.78		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0035	0.0460	0.0020	0.0466	0.0072	0.0057	5	-0.08		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0096	0.0480	0.0000	0.0466	0.0072	0.0057	5	0.20		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0390	0.0579	0.0264	0.0466	0.0072	0.0057	5	1.58		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0055	0.0400	0.0000	0.0456	0.0058	0.0015	6	-0.87	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0421	0.0420	0.0000	0.0456	0.0058	0.0015	6	-0.56	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0034	0.0440	0.0020	0.0456	0.0058	0.0015	6	-0.25	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0086	0.0450	0.0001	0.0456	0.0058	0.0015	6	-0.11	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0527	0.0487	0.0008	0.0456	0.0058	0.0015	6	0.47	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0106	0.0542	0.0063	0.0456	0.0058	0.0015	6	1.31	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0515	0.0578	0.0281	0.0456	0.0058	0.0015	6	1.87	OK	1
121.99	Acid Soluble Mg, Other (%)	0389	0.0400	0.0000	0.2047	0.2290	0.0418	5	-0.72		0
121.99	Acid Soluble Mg, Other (%)	0524	0.0435	0.0089	0.2047	0.2290	0.0418	5	-0.70		0
121.99	Acid Soluble Mg, Other (%)	0516	0.1050	0.0700	0.2047	0.2290	0.0418	5	-0.44		0
121.99	Acid Soluble Mg, Other (%)	0523	0.2500	0.1000	0.2047	0.2290	0.0418	5	0.20		0
121.99	Acid Soluble Mg, Other (%)	0552	0.5850	0.0300	0.2047	0.2290	0.0418	5	1.66		0
131.00	Water Soluble Mg, AA (%)	0553	0.0385	0.0030				1			0
143.99	Elemental S, Other (%)	0390	3.470	0.0000	3.801	0.2508	0.0326	5	-1.32		0
143.99	Elemental S, Other (%)	0481	3.695	0.0500	3.801	0.2508	0.0326	5	-0.42		0
143.99	Elemental S, Other (%)	0389	3.835	0.0100	3.801	0.2508	0.0326	5	0.14		0
143.99	Elemental S, Other (%)	0472	3.845	0.0300	3.801	0.2508	0.0326	5	0.18		0
143.99	Elemental S, Other (%)	0255	4.159	0.0730	3.801	0.2508	0.0326	5	1.43		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0550	3.755	0.0100				2			0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0405	4.115	0.1300				2			0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0526	3.933	0.0000				2			0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0405	4.115	0.1300				2			0
148.04	Total S, ICP, w/Br digestion (%)	0521	3.194	0.0000				1			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0546	3.575	0.2175	4.045	0.5792	0.1515	6	-0.72	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0394	3.620	0.0036	4.045	0.5792	0.1515	6	-0.65	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0086	3.852	0.1269	4.045	0.5792	0.1515	6	-0.30	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0421	3.945	0.0100	4.045	0.5792	0.1515	6	-0.15	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0527	4.364	0.3110	4.045	0.5792	0.1515	6	0.49	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0043	5.050	0.2400	4.045	0.5792	0.1515	6	1.55	High	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0515	3.273	1.586	4.045	0.5792	0.1515	6	-1.19	Low	1
148.99	Total S, Other (%)	0523	3.430	0.1200	4.260	0.6853	0.1550	4	-1.21		0
148.99	Total S, Other (%)	0482	4.135	0.3500	4.260	0.6853	0.1550	4	-0.18		0
148.99	Total S, Other (%)	0096	4.385	0.0900	4.260	0.6853	0.1550	4	0.18		0
148.99	Total S, Other (%)	0516	5.090	0.0600	4.260	0.6853	0.1550	4	1.21		0
149.04	S - HNO3 soluble, ICP (%)	0524	4.135	0.9710				1			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.08					0			5
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0526	< 50					0			5
151.30	Acid Soluble As, ICP (ppm)	0444	13.80	1.100	15.90	1.999	0.5525	6	-0.94	NA	0
151.30	Acid Soluble As, ICP (ppm)	0450	14.50	1.000	15.90	1.999	0.5525	6	-0.63	NA	0
151.30	Acid Soluble As, ICP (ppm)	0524	15.35	0.7070	15.90	1.999	0.5525	6	-0.25	NA	0
151.30	Acid Soluble As, ICP (ppm)	0255	16.02	0.4080	15.90	1.999	0.5525	6	0.05	NA	0
151.30	Acid Soluble As, ICP (ppm)	0394	17.15	0.1000	15.90	1.999	0.5525	6	0.56	NA	0
151.30	Acid Soluble As, ICP (ppm)	0096	18.60	0.0000	15.90	1.999	0.5525	6	1.20	NA	0
151.30	Acid Soluble As, ICP (ppm)	0027	< 0.002		15.90	1.999	0.5525	6			5

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
151.30	Acid Soluble As, ICP (ppm)	0555	< 0.5		15.90	1.999	0.5525	6			5
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0521	16.91	0.0000				1			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	11.69	9.360	15.55	2.379	2.220	5	-1.62		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	15.26	0.3110	15.55	2.379	2.220	5	-0.12		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	15.82	0.3820	15.55	2.379	2.220	5	0.11		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	17.30	0.8000	15.55	2.379	2.220	5	0.74		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0037	17.67	0.2490	15.55	2.379	2.220	5	0.89		0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	8.890	4.050				1			0
151.99	Acid Soluble As, Other (ppm)	0220	14.30	0.4000	16.30	2.605	0.3300	3	-0.77		0
151.99	Acid Soluble As, Other (ppm)	0481	15.35	0.5000	16.30	2.605	0.3300	3	-0.36		0
151.99	Acid Soluble As, Other (ppm)	0519	19.25	0.0900	16.30	2.605	0.3300	3	1.13		0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0055	0.0170	0.0020	0.0219	0.0041	0.0008	7	-1.08	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0550	0.0199	0.0004	0.0219	0.0041	0.0008	7	-0.44	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0534	0.0200	0.0000	0.0219	0.0041	0.0008	7	-0.42	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0535	0.0209	0.0002	0.0219	0.0041	0.0008	7	-0.22	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0540	0.0230	0.0020	0.0219	0.0041	0.0008	7	0.24	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0029	0.0245	0.0010	0.0219	0.0041	0.0008	7	0.57	OK	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0498	0.0300	0.0000	0.0219	0.0041	0.0008	7	1.78	High	0
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0309	0.0150	0.0100	0.0219	0.0041	0.0008	7	-1.52	Low	1
165.00	Acid Soluble B, Spectrophotometric (0.02%)	0481	< 0.02		0.0219	0.0041	0.0008	7			5
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0377	0.0140	0.0000	0.0195	0.0019	0.0013	14	-2.89	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0106	0.0165	0.0030	0.0195	0.0019	0.0013	14	-1.57	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0324	0.0175	0.0030	0.0195	0.0019	0.0013	14	-1.04	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0521	0.0183	0.0000	0.0195	0.0019	0.0013	14	-0.62	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0049	0.0196	0.0014	0.0195	0.0019	0.0013	14	0.06	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0043	0.0200	0.0040	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0102	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0136	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0234	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0389	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0433	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0444	0.0200	0.0000	0.0195	0.0019	0.0013	14	0.27	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0086	0.0220	0.0055	0.0195	0.0019	0.0013	14	1.30	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (0.02%)	0394	0.0221	0.0012	0.0195	0.0019	0.0013	14	1.38	OK	0
165.99	Acid Soluble B, Other (0.02%)	0524	0.0187	0.0035	0.0208	0.0019	0.0023	15	-1.12	OK	0
165.99	Acid Soluble B, Other (0.02%)	0360	0.0190	0.0000	0.0208	0.0019	0.0023	15	-0.93	OK	0
165.99	Acid Soluble B, Other (0.02%)	0117	0.0194	0.0020	0.0208	0.0019	0.0023	15	-0.72	OK	0
165.99	Acid Soluble B, Other (0.02%)	0231	0.0200	0.0000	0.0208	0.0019	0.0023	15	-0.41	OK	0
165.99	Acid Soluble B, Other (0.02%)	0421	0.0200	0.0000	0.0208	0.0019	0.0023	15	-0.41	OK	0
165.99	Acid Soluble B, Other (0.02%)	0482	0.0200	0.0000	0.0208	0.0019	0.0023	15	-0.41	OK	0
165.99	Acid Soluble B, Other (0.02%)	0486	0.0200	0.0000	0.0208	0.0019	0.0023	15	-0.41	OK	0
165.99	Acid Soluble B, Other (0.02%)	0516	0.0200	0.0000	0.0208	0.0019	0.0023	15	-0.41	OK	0
165.99	Acid Soluble B, Other (0.02%)	0546	0.0202	0.0002	0.0208	0.0019	0.0023	15	-0.31	OK	0
165.99	Acid Soluble B, Other (0.02%)	0255	0.0205	0.0010	0.0208	0.0019	0.0023	15	-0.15	OK	0
165.99	Acid Soluble B, Other (0.02%)	0390	0.0209	0.0049	0.0208	0.0019	0.0023	15	0.03	OK	0
165.99	Acid Soluble B, Other (0.02%)	0527	0.0222	0.0010	0.0208	0.0019	0.0023	15	0.74	OK	0
165.99	Acid Soluble B, Other (0.02%)	0472	0.0250	0.0100	0.0208	0.0019	0.0023	15	2.20	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165.99	Acid Soluble B, Other (0.02%)	0520	0.0250	0.0100	0.0208	0.0019	0.0023	15	2.20	OK	0
165.99	Acid Soluble B, Other (0.02%)	0515	0.0251	0.0017	0.0208	0.0019	0.0023	15	2.23	OK	0
165.99	Acid Soluble B, Other (0.02%)	0552	0.3150	0.3300	0.0208	0.0019	0.0023	15	153.70	High	2
171.10	Water Soluble B, Spectrophotometric (%)	0526	0.0162	0.0016	0.0183	0.0014	0.0008	4	-1.45		0
171.10	Water Soluble B, Spectrophotometric (%)	0537	0.0185	0.0010	0.0183	0.0014	0.0008	4	0.16		0
171.10	Water Soluble B, Spectrophotometric (%)	0553	0.0190	0.0000	0.0183	0.0014	0.0008	4	0.51		0
171.10	Water Soluble B, Spectrophotometric (%)	0535	0.0194	0.0004	0.0183	0.0014	0.0008	4	0.79		0
171.99	Water Soluble B, Other (%)	0027	0.0180	0.0000	0.0202	0.0015	0.0003	6	-1.30	NA	0
171.99	Water Soluble B, Other (%)	0519	0.0200	0.0000	0.0202	0.0015	0.0003	6	-0.14	NA	0
171.99	Water Soluble B, Other (%)	0532	0.0200	0.0000	0.0202	0.0015	0.0003	6	-0.14	NA	0
171.99	Water Soluble B, Other (%)	0560	0.0203	0.0001	0.0202	0.0015	0.0003	6	0.00	NA	0
171.99	Water Soluble B, Other (%)	0394	0.0208	0.0005	0.0202	0.0015	0.0003	6	0.29	NA	0
171.99	Water Soluble B, Other (%)	0543	0.0345	0.0010	0.0202	0.0015	0.0003	6	8.24	NA	0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	0.4990	0.0000				1			0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0526	< 0.0028					1			5
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.0349	0.0116	0.3926	0.4249	0.0279	5	-0.73		0
181.30	Acid Soluble Cd, ICP (ppm)	0389	0.0700	0.0000	0.3926	0.4249	0.0279	5	-0.66		0
181.30	Acid Soluble Cd, ICP (ppm)	0394	0.3405	0.0150	0.3926	0.4249	0.0279	5	-0.11		0
181.30	Acid Soluble Cd, ICP (ppm)	0035	0.4275	0.0930	0.3926	0.4249	0.0279	5	0.07		0
181.30	Acid Soluble Cd, ICP (ppm)	0482	1.090	0.0200	0.3926	0.4249	0.0279	5	1.43		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.8945	1.495	0.3926	0.4249	0.0279	5	1.03		1
181.30	Acid Soluble Cd, ICP (ppm)	0450	0.0000	0.0000	0.3926	0.4249	0.0279	5			4
181.30	Acid Soluble Cd, ICP (ppm)	0027	< 0.002		0.3926	0.4249	0.0279	5			5
181.30	Acid Soluble Cd, ICP (ppm)	0555	< 0.5		0.3926	0.4249	0.0279	5			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				0			4
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001					0			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	< 5					0			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
181.99	Acid Soluble Cd, Other (ppm)	0519	0.0200	0.0000				2			0
181.99	Acid Soluble Cd, Other (ppm)	0220	0.6500	0.1000				2			0
181.99	Acid Soluble Cd, Other (ppm)	0481	< 0.5					2			5
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	12.08	0.0900				1			0
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0526	< 0.0054					1			5
191.30	Acid Soluble Cr, ICP (ppm)	0096	10.60	0.0000	12.72	1.988	0.5673	8	-0.98	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	11.00	2.000	12.72	1.988	0.5673	8	-0.79	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	11.64	1.088	12.72	1.988	0.5673	8	-0.50	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0444	12.13	0.5200	12.72	1.988	0.5673	8	-0.27	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0389	12.33	0.1300	12.72	1.988	0.5673	8	-0.18	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	14.35	0.3000	12.72	1.988	0.5673	8	0.75	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0394	14.40	0.2000	12.72	1.988	0.5673	8	0.77	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0482	15.35	0.3000	12.72	1.988	0.5673	8	1.21	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0555	< 0.5		12.72	1.988	0.5673	8			5
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	9.559	0.1850	12.48	3.239	3.267	3	-0.90		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	11.91	0.2860	12.48	3.239	3.267	3	-0.18		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	15.96	9.329	12.48	3.239	3.267	3	1.08		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	9.866	5.258				1			0
191.99	Acid Soluble Cr, Other (ppm)	0520	11.23	0.0300	13.82	2.349	0.1133	3	-1.11		0

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191.99	Acid Soluble Cr, Other (ppm)	0220	14.45	0.3000	13.82	2.349	0.1133	3	0.27		0
191.99	Acid Soluble Cr, Other (ppm)	0519	15.80	0.0100	13.82	2.349	0.1133	3	0.84		0
191.99	Acid Soluble Cr, Other (ppm)	0481	< 25		13.82	2.349	0.1133	3			5
202.00	Acid Soluble Co, AA, test portion 2006.03 modified w/dual acid (ppm)	0526	< 0.01					0			5
202.30	Acid Soluble Co, ICP (ppm)	0389	0.3865	0.1390				2			0
202.30	Acid Soluble Co, ICP (ppm)	0524	0.7182	0.1148				2			0
202.30	Acid Soluble Co, ICP (ppm)	0027	< 0.002					2			5
202.30	Acid Soluble Co, ICP (ppm)	0555	< 0.5					2			5
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0546	0.2631	0.2255				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0550	0.6250	0.0500				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				2			4
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	< 0.0001					2			5
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	< 2					2			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
202.99	Acid Soluble Co, Other (ppm)	0519	0.2950	0.0100	0.4992	0.3493	0.0783	3	-0.58		0
202.99	Acid Soluble Co, Other (ppm)	0220	0.3000	0.0000	0.4992	0.3493	0.0783	3	-0.57		0
202.99	Acid Soluble Co, Other (ppm)	0255	0.9025	0.2250	0.4992	0.3493	0.0783	3	1.15		0
202.99	Acid Soluble Co, Other (ppm)	0481	< 10		0.4992	0.3493	0.0783	3			5
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0535	0.0495	0.0010	0.0502	0.0009	0.0014	6	-0.71	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0553	0.0495	0.0010	0.0502	0.0009	0.0014	6	-0.71	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0040	0.0500	0.0055	0.0502	0.0009	0.0014	6	-0.28	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0498	0.0500	0.0000	0.0502	0.0009	0.0014	6	-0.23	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0534	0.0510	0.0000	0.0502	0.0009	0.0014	6	0.72	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0540	0.0515	0.0010	0.0502	0.0009	0.0014	6	1.20	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.05%)	0550	0.2200	0.3601	0.0502	0.0009	0.0014	6	161.60	High	2
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	0526	0.0431	0.0000				1			0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0255	0.0350	0.0080	0.0449	0.0089	0.0075	18	-1.11	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0377	0.0360	0.0000	0.0449	0.0089	0.0075	18	-0.99	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0035	0.0384	0.0095	0.0449	0.0089	0.0075	18	-0.73	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0023	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0102	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0231	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0324	0.0400	0.0100	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0433	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0472	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0482	0.0400	0.0000	0.0449	0.0089	0.0075	18	-0.55	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0049	0.0443	0.0019	0.0449	0.0089	0.0075	18	-0.07	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0371	0.0450	0.0100	0.0449	0.0089	0.0075	18	0.01	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0360	0.0483	0.0035	0.0449	0.0089	0.0075	18	0.38	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0444	0.0545	0.0010	0.0449	0.0089	0.0075	18	1.08	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0095	0.0550	0.0100	0.0449	0.0089	0.0075	18	1.13	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0234	0.0550	0.0100	0.0449	0.0089	0.0075	18	1.13	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0096	0.0629	0.0002	0.0449	0.0089	0.0075	18	2.02	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0552	0.2350	0.0700	0.0449	0.0089	0.0075	18	21.29	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.05%)	0450	303.0	18.00	0.0449	0.0089	0.0075	18	33931.17	High	2
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.05%)	0220	0.0465	0.0010	0.0506	0.0035	0.0008	4	-1.16		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.05%)	0394	0.0490	0.0011	0.0506	0.0035	0.0008	4	-0.46		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.05%)	0043	0.0525	0.0010	0.0506	0.0035	0.0008	4	0.55		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.05%)	0521	0.0543	0.0000	0.0506	0.0035	0.0008	4	1.07		0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0543	0.0270	0.0080	0.0508	0.0102	0.0065	12	-2.33	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0055	0.0400	0.0000	0.0508	0.0102	0.0065	12	-1.06	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0117	0.0439	0.0050	0.0508	0.0102	0.0065	12	-0.68	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0106	0.0465	0.0182	0.0508	0.0102	0.0065	12	-0.42	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0527	0.0491	0.0008	0.0508	0.0102	0.0065	12	-0.17	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0136	0.0500	0.0000	0.0508	0.0102	0.0065	12	-0.08	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0486	0.0500	0.0000	0.0508	0.0102	0.0065	12	-0.08	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0086	0.0527	0.0120	0.0508	0.0102	0.0065	12	0.18	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0546	0.0558	0.0026	0.0508	0.0102	0.0065	12	0.49	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0037	0.0560	0.0100	0.0508	0.0102	0.0065	12	0.51	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0561	0.0650	0.0100	0.0508	0.0102	0.0065	12	1.39	High	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0555	0.0655	0.0110	0.0508	0.0102	0.0065	12	1.43	High	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.05%)	0515	0.0677	0.0626	0.0508	0.0102	0.0065	12	1.65	High	1
221.99	Acid Soluble Cu, Other (0.05%)	0516	0.0200	0.0000	0.0480	0.0087	0.0025	12	-3.21	Low	0
221.99	Acid Soluble Cu, Other (0.05%)	0389	0.0400	0.0000	0.0480	0.0087	0.0025	12	-0.92	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0481	0.0400	0.0000	0.0480	0.0087	0.0025	12	-0.92	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0524	0.0421	0.0126	0.0480	0.0087	0.0025	12	-0.68	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0515	0.0454	0.0035	0.0480	0.0087	0.0025	12	-0.31	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0220	0.0474	0.0013	0.0480	0.0087	0.0025	12	-0.08	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0519	0.0500	0.0000	0.0480	0.0087	0.0025	12	0.23	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0532	0.0525	0.0030	0.0480	0.0087	0.0025	12	0.51	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0560	0.0530	0.0020	0.0480	0.0087	0.0025	12	0.57	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0390	0.0540	0.0054	0.0480	0.0087	0.0025	12	0.69	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0523	0.0570	0.0020	0.0480	0.0087	0.0025	12	1.03	OK	0
221.99	Acid Soluble Cu, Other (0.05%)	0520	0.0600	0.0000	0.0480	0.0087	0.0025	12	1.37	High	0
221.99	Acid Soluble Cu, Other (0.05%)	0027	0.2645	0.4110	0.0480	0.0087	0.0025	12	24.81	High	2
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0550	0.0974	0.0003	0.1056	0.0072	0.0047	9	-1.06	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0498	0.1000	0.0000	0.1056	0.0072	0.0047	9	-0.72	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0535	0.1010	0.0020	0.1056	0.0072	0.0047	9	-0.59	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0553	0.1015	0.0010	0.1056	0.0072	0.0047	9	-0.53	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0540	0.1055	0.0110	0.1056	0.0072	0.0047	9	-0.02	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0356	0.1060	0.0140	0.1056	0.0072	0.0047	9	0.05	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0534	0.1100	0.0000	0.1056	0.0072	0.0047	9	0.56	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0029	0.1143	0.0037	0.1056	0.0072	0.0047	9	1.11	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (0.1%)	0040	0.1150	0.0100	0.1056	0.0072	0.0047	9	1.21	OK	0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.1%)	0526	0.1153	0.0000				1			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0377	0.0830	0.0020	0.0986	0.0123	0.0092	20	-1.27	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0023	0.0850	0.0100	0.0986	0.0123	0.0092	20	-1.11	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0231	0.0850	0.0100	0.0986	0.0123	0.0092	20	-1.11	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0472	0.0850	0.0100	0.0986	0.0123	0.0092	20	-1.11	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0049	0.0889	0.0007	0.0986	0.0123	0.0092	20	-0.79	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0035	0.0890	0.0060	0.0986	0.0123	0.0092	20	-0.78	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0371	0.0900	0.0200	0.0986	0.0123	0.0092	20	-0.70	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0095	0.0950	0.0100	0.0986	0.0123	0.0092	20	-0.29	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0102	0.0950	0.0100	0.0986	0.0123	0.0092	20	-0.29	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0433	0.1000	0.0000	0.0986	0.0123	0.0092	20	0.12	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0444	0.1000	0.0000	0.0986	0.0123	0.0092	20	0.12	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0482	0.1000	0.0000	0.0986	0.0123	0.0092	20	0.12	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0255	0.1020	0.0220	0.0986	0.0123	0.0092	20	0.28	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0234	0.1050	0.0300	0.0986	0.0123	0.0092	20	0.53	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0157	0.1059	0.0122	0.0986	0.0123	0.0092	20	0.60	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0390	0.1070	0.0060	0.0986	0.0123	0.0092	20	0.69	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0360	0.1115	0.0090	0.0986	0.0123	0.0092	20	1.06	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0324	0.1120	0.0160	0.0986	0.0123	0.0092	20	1.10	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0096	0.1150	0.0100	0.0986	0.0123	0.0092	20	1.34	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0555	0.1200	0.0000	0.0986	0.0123	0.0092	20	1.75	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (0.1%)	0552	0.8500	0.1600	0.0986	0.0123	0.0092	20	61.32	High	2
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.1%)	0220	0.1045	0.0010	0.1201	0.0221	0.0013	3	-0.71		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.1%)	0394	0.1104	0.0028	0.1201	0.0221	0.0013	3	-0.44		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (0.1%)	0521	0.1453	0.0000	0.1201	0.0221	0.0013	3	1.14		0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0561	0.0750	0.0100	0.1027	0.0121	0.0156	14	-2.30	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0106	0.0858	0.0462	0.1027	0.0121	0.0156	14	-1.41	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0543	0.0925	0.0710	0.1027	0.0121	0.0156	14	-0.85	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0117	0.0963	0.0085	0.1027	0.0121	0.0156	14	-0.54	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0034	0.0985	0.0170	0.1027	0.0121	0.0156	14	-0.35	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0136	0.1000	0.0000	0.1027	0.0121	0.0156	14	-0.23	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0043	0.1010	0.0060	0.1027	0.0121	0.0156	14	-0.14	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0527	0.1060	0.0020	0.1027	0.0121	0.0156	14	0.27	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0177	0.1061	0.0049	0.1027	0.0121	0.0156	14	0.27	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0055	0.1100	0.0000	0.1027	0.0121	0.0156	14	0.60	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0486	0.1100	0.0000	0.1027	0.0121	0.0156	14	0.60	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0546	0.1132	0.0052	0.1027	0.0121	0.0156	14	0.87	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0086	0.1136	0.0260	0.1027	0.0121	0.0156	14	0.90	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0037	0.1260	0.0220	0.1027	0.0121	0.0156	14	1.93	High	0
241.33	Acid Soluble Fe, ICP, 2017.02 (0.1%)	0515	0.2080	0.2237	0.1027	0.0121	0.0156	14	8.73	High	1
241.99	Acid Soluble Fe, Other (0.1%)	0516	0.0550	0.0100	0.0988	0.0264	0.0101	11	-1.55	Low	0
241.99	Acid Soluble Fe, Other (0.1%)	0520	0.0750	0.0100	0.0988	0.0264	0.0101	11	-0.84	Low	0
241.99	Acid Soluble Fe, Other (0.1%)	0481	0.0800	0.0000	0.0988	0.0264	0.0101	11	-0.67	Low	0
241.99	Acid Soluble Fe, Other (0.1%)	0389	0.0900	0.0000	0.0988	0.0264	0.0101	11	-0.31	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0532	0.0945	0.0030	0.0988	0.0264	0.0101	11	-0.15	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0524	0.0953	0.0271	0.0988	0.0264	0.0101	11	-0.13	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0519	0.1050	0.0100	0.0988	0.0264	0.0101	11	0.22	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0560	0.1065	0.0030	0.0988	0.0264	0.0101	11	0.27	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0027	0.1125	0.0250	0.0988	0.0264	0.0101	11	0.49	OK	0
241.99	Acid Soluble Fe, Other (0.1%)	0523	0.1320	0.0140	0.0988	0.0264	0.0101	11	1.18	High	0
241.99	Acid Soluble Fe, Other (0.1%)	0515	0.1369	0.0091	0.0988	0.0264	0.0101	11	1.35	High	0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	0.5740	0.1500				1			0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0526	< 0.013					1			5
251.30	Acid Soluble Pb, ICP (ppm)	0389	0.0995	0.0550	1.204	1.937	0.0587	5	-0.50		0
251.30	Acid Soluble Pb, ICP (ppm)	0524	0.2297	0.0207	1.204	1.937	0.0587	5	-0.44		0
251.30	Acid Soluble Pb, ICP (ppm)	0450	0.4000	0.0000	1.204	1.937	0.0587	5	-0.36		0
251.30	Acid Soluble Pb, ICP (ppm)	0394	0.6400	0.0380	1.204	1.937	0.0587	5	-0.25		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251.30	Acid Soluble Pb, ICP (ppm)	0482	4.650	0.1800	1.204	1.937	0.0587	5	1.55		0
251.30	Acid Soluble Pb, ICP (ppm)	0255	0.7135	0.6770	1.204	1.937	0.0587	5	-0.22		1
251.30	Acid Soluble Pb, ICP (ppm)	0555	< 0.5		1.204	1.937	0.0587	5			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	0.2500	0.0800	2.147	2.336	1.037	3	-0.81		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0086	1.436	0.0000	2.147	2.336	1.037	3	-0.30		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	4.756	3.030	2.147	2.336	1.037	3	1.12		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	< 0.0001		2.147	2.336	1.037	3			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	< 5		2.147	2.336	1.037	3			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
251.99	Acid Soluble Pb, Other (ppm)	0519	0.1750	0.0100				2			0
251.99	Acid Soluble Pb, Other (ppm)	0220	0.9000	0.0000				2			0
251.99	Acid Soluble Pb, Other (ppm)	0481	< 0.5					2			5
261.11	Acid Soluble Mn, AA, total Mn (0.05%)	0550	0.0522	0.0004				1			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.05%)	0535	0.0495	0.0010	0.0549	0.0053	0.0013	4	-1.03		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.05%)	0540	0.0515	0.0010	0.0549	0.0053	0.0013	4	-0.65		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.05%)	0029	0.0583	0.0001	0.0549	0.0053	0.0013	4	0.63		0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (0.05%)	0040	0.0605	0.0030	0.0549	0.0053	0.0013	4	1.06		0
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	0526	0.0536	0.0000				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0102	0.0500	0.0000	0.0555	0.0091	0.0007	6	-0.54	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0433	0.0500	0.0000	0.0555	0.0091	0.0007	6	-0.54	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0472	0.0500	0.0000	0.0555	0.0091	0.0007	6	-0.54	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0444	0.0525	0.0010	0.0555	0.0091	0.0007	6	-0.30	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0390	0.0615	0.0021	0.0555	0.0091	0.0007	6	0.58	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0096	0.0692	0.0009	0.0555	0.0091	0.0007	6	1.34	High	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (0.05%)	0035	0.0481	0.0076	0.0555	0.0091	0.0007	6	-0.73	OK	1
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	0231	0.0500	0.0000	0.0552	0.0049	0.0040	5	-1.07		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	0234	0.0500	0.0000	0.0552	0.0049	0.0040	5	-1.07		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	0324	0.0570	0.0160	0.0552	0.0049	0.0040	5	0.37		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	0360	0.0590	0.0040	0.0552	0.0049	0.0040	5	0.78		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (0.05%)	0482	0.0600	0.0000	0.0552	0.0049	0.0040	5	0.99		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0377	0.0410	0.0000	0.0568	0.0145	0.0026	5	-0.95		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0049	0.0498	0.0029	0.0568	0.0145	0.0026	5	-0.42		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0371	0.0550	0.0100	0.0568	0.0145	0.0026	5	-0.11		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0220	0.0580	0.0000	0.0568	0.0145	0.0026	5	0.08		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0555	0.0800	0.0000	0.0568	0.0145	0.0026	5	1.40		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (0.05%)	0552	0.4650	0.2900	0.0568	0.0145	0.0026	5	24.56		1
261.33	Acid Soluble Mn, ICP, test portion organic 965.09 (0.05%)	0086	0.0604	0.0127				1			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.05%)	0394	0.0473	0.0008				2			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (0.05%)	0521	0.0617	0.0000				2			0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0561	0.0400	0.0000	0.0540	0.0060	0.0071	12	-2.33	Low	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0527	0.0484	0.0178	0.0540	0.0060	0.0071	12	-0.93	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0023	0.0500	0.0000	0.0540	0.0060	0.0071	12	-0.66	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0136	0.0500	0.0000	0.0540	0.0060	0.0071	12	-0.66	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0106	0.0525	0.0196	0.0540	0.0060	0.0071	12	-0.25	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0117	0.0535	0.0076	0.0540	0.0060	0.0071	12	-0.08	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0034	0.0550	0.0080	0.0540	0.0060	0.0071	12	0.17	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0043	0.0550	0.0100	0.0540	0.0060	0.0071	12	0.17	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0055	0.0550	0.0100	0.0540	0.0060	0.0071	12	0.17	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0486	0.0600	0.0000	0.0540	0.0060	0.0071	12	1.01	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0546	0.0604	0.0019	0.0540	0.0060	0.0071	12	1.06	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (0.05%)	0037	0.0670	0.0100	0.0540	0.0060	0.0071	12	2.17	High	0
261.99	Acid Soluble Mn, Other (0.05%)	0516	0.0300	0.0000	0.0512	0.0068	0.0029	12	-3.12	Low	0
261.99	Acid Soluble Mn, Other (0.05%)	0515	0.0418	0.0074	0.0512	0.0068	0.0029	12	-1.38	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0095	0.0500	0.0000	0.0512	0.0068	0.0029	12	-0.17	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0389	0.0500	0.0000	0.0512	0.0068	0.0029	12	-0.17	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0481	0.0500	0.0000	0.0512	0.0068	0.0029	12	-0.17	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0519	0.0500	0.0000	0.0512	0.0068	0.0029	12	-0.17	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0560	0.0506	0.0003	0.0512	0.0068	0.0029	12	-0.09	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0524	0.0518	0.0124	0.0512	0.0068	0.0029	12	0.10	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0255	0.0525	0.0090	0.0512	0.0068	0.0029	12	0.20	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0532	0.0549	0.0006	0.0512	0.0068	0.0029	12	0.55	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0520	0.0600	0.0000	0.0512	0.0068	0.0029	12	1.30	OK	0
261.99	Acid Soluble Mn, Other (0.05%)	0523	0.0645	0.0050	0.0512	0.0068	0.0029	12	1.97	High	0
271.00	Water Soluble Mn, AA (%)	0356	0.0530	0.0100				2			0
271.00	Water Soluble Mn, AA (%)	0553	0.0545	0.0010				2			0
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	0543	0.0360	0.0040				1			0
281.00	Acid Soluble Hg, AA (ppm)	0550	< 0.0019					0			5
281.00	Acid Soluble Hg, AA (ppm)	0117	< 0.2					0			5
281.00	Acid Soluble Hg, AA (ppm)	0526	< 60					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0394	0.0017	0.0004				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0515	0.0000	0.0000				1			4
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.0001					1			5
281.99	Acid Soluble Hg, Other (ppm)	0519	0.0200	0.0000				1			0
281.99	Acid Soluble Hg, Other (ppm)	0220	< 0.01					1			5
281.99	Acid Soluble Hg, Other (ppm)	0481	< 0.5					1			5
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (5ppm)	0550	3.080	0.0800				2			0
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (5ppm)	0526	39.05	0.0000				2			0
289.30	Acid Soluble Mo, ICP (5ppm)	0516	1.500	1.000	4.075	2.591	0.5863	7	-0.90	Low	0
289.30	Acid Soluble Mo, ICP (5ppm)	0102	2.300	0.2000	4.075	2.591	0.5863	7	-0.62	OK	0
289.30	Acid Soluble Mo, ICP (5ppm)	0524	2.667	0.6240	4.075	2.591	0.5863	7	-0.49	OK	0
289.30	Acid Soluble Mo, ICP (5ppm)	0049	3.195	1.210	4.075	2.591	0.5863	7	-0.31	OK	0
289.30	Acid Soluble Mo, ICP (5ppm)	0519	4.765	0.0700	4.075	2.591	0.5863	7	0.24	OK	0
289.30	Acid Soluble Mo, ICP (5ppm)	0234	6.500	1.000	4.075	2.591	0.5863	7	0.85	High	0
289.30	Acid Soluble Mo, ICP (5ppm)	0096	7.600	0.0000	4.075	2.591	0.5863	7	1.23	High	0
289.30	Acid Soluble Mo, ICP (5ppm)	0035	4.180	4.240	4.075	2.591	0.5863	7	0.04	OK	1
289.30	Acid Soluble Mo, ICP (5ppm)	0255	0.0000	0.0000	4.075	2.591	0.5863	7			4
289.30	Acid Soluble Mo, ICP (5ppm)	0027	< 0.002		4.075	2.591	0.5863	7			5
289.32	Acid Soluble Mo, ICP, 2006.03 (5ppm)	0394	2.800	0.6000				2			0
289.32	Acid Soluble Mo, ICP, 2006.03 (5ppm)	0220	6.200	0.4000				2			0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0106	0.0003	0.0001	2.365	2.203	0.0097	6	-0.96	Low	0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0543	0.0505	0.0330	2.365	2.203	0.0097	6	-0.94	Low	0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0527	2.450	0.0100	2.365	2.203	0.0097	6	0.03	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0086	3.187	0.0152	2.365	2.203	0.0097	6	0.33	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0486	4.000	0.0000	2.365	2.203	0.0097	6	0.66	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0136	4.500	0.0000	2.365	2.203	0.0097	6	0.86	High	0
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0546	5.600	2.438	2.365	2.203	0.0097	6	1.31	High	1
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0515	0.0000	0.0000	2.365	2.203	0.0097	6			4
289.33	Acid Soluble Mo, ICP, 2017.02 (5ppm)	0117	< 5		2.365	2.203	0.0097	6			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (5ppm)	0515	0.0000	0.0000				0			4
289.99	Acid Soluble Mo, Other (5ppm)	0220	6.250	0.1000				1			0
289.99	Acid Soluble Mo, Other (5ppm)	0481	< 62.5					1			5
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.6					0			5
291.30	Acid Soluble Ni, ICP (ppm)	0444	1.165	0.0100	1.473	0.3054	0.0261	7	-0.91	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0389	1.251	0.0300	1.473	0.3054	0.0261	7	-0.66	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	1.303	0.0624	1.473	0.3054	0.0261	7	-0.50	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0482	1.460	0.0200	1.473	0.3054	0.0261	7	-0.04	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0096	1.500	0.0000	1.473	0.3054	0.0261	7	0.08	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0394	1.700	0.0600	1.473	0.3054	0.0261	7	0.67	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	2.000	0.0000	1.473	0.3054	0.0261	7	1.56	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	3.290	1.560	1.473	0.3054	0.0261	7	5.38	NA	1
291.30	Acid Soluble Ni, ICP (ppm)	0027	< 0.002		1.473	0.3054	0.0261	7			5
291.30	Acid Soluble Ni, ICP (ppm)	0555	< 0.5		1.473	0.3054	0.0261	7			5
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0086	1.468	0.1454	1.585	0.1750	0.0961	3	-0.67		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	1.501	0.1000	1.585	0.1750	0.0961	3	-0.48		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	1.787	0.0430	1.585	0.1750	0.0961	3	1.15		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	0.0000	0.0000	1.585	0.1750	0.0961	3			4
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	< 5		1.585	0.1750	0.0961	3			5
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
291.99	Acid Soluble Ni, Other (ppm)	0519	1.745	0.0100	11.56	16.78	8.521	3	-0.58		0
291.99	Acid Soluble Ni, Other (ppm)	0220	2.000	0.6000	11.56	16.78	8.521	3	-0.57		0
291.99	Acid Soluble Ni, Other (ppm)	0255	30.94	24.95	11.56	16.78	8.521	3	1.15		0
291.99	Acid Soluble Ni, Other (ppm)	0481	< 10		11.56	16.78	8.521	3			5
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.08					0			5
301.30	Acid Soluble Se, ICP (ppm)	0524	0.8350	0.4900				1			0
301.30	Acid Soluble Se, ICP (ppm)	0027	< 0.002					1			5
301.30	Acid Soluble Se, ICP (ppm)	0555	< 0.5					1			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				0			4
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.001					0			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
301.99	Acid Soluble Se, Other (ppm)	0519	0.0100	0.0000	0.2487	0.2664	0.0647	3	-0.90		0
301.99	Acid Soluble Se, Other (ppm)	0220	0.2000	0.0000	0.2487	0.2664	0.0647	3	-0.18		0
301.99	Acid Soluble Se, Other (ppm)	0255	0.5360	0.1940	0.2487	0.2664	0.0647	3	1.08		0
301.99	Acid Soluble Se, Other (ppm)	0481	< 0.5		0.2487	0.2664	0.0647	3			5
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.0408	0.0003	0.0498	0.0124	0.0059	4	-0.73		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0086	0.0438	0.0083	0.0498	0.0124	0.0059	4	-0.48		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	0.0465	0.0050	0.0498	0.0124	0.0059	4	-0.26		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0034	0.0680	0.0100	0.0498	0.0124	0.0059	4	1.47		0
311.99	Sodium, Other (%)	0482	0.0400	0.0000				2			0
311.99	Sodium, Other (%)	0096	0.0450	0.0000				2			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0550	0.0447	0.0000	0.0509	0.0051	0.0004	5	-1.06		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0498	0.0500	0.0000	0.0509	0.0051	0.0004	5	-0.16		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0535	0.0505	0.0010	0.0509	0.0051	0.0004	5	-0.07		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0540	0.0505	0.0010	0.0509	0.0051	0.0004	5	-0.07		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0534	0.0590	0.0000	0.0509	0.0051	0.0004	5	1.37		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (0.05%)	0040	0.0500	0.0060	0.0509	0.0051	0.0004	5	-0.16		1
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (0.05%)	0526	0.1472	0.0000				1			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0377	0.0330	0.0020	0.0466	0.0085	0.0161	20	-1.61	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0023	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0102	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0231	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0292	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0472	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0482	0.0400	0.0000	0.0466	0.0085	0.0161	20	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0049	0.0410	0.0019	0.0466	0.0085	0.0161	20	-0.67	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0035	0.0418	0.0089	0.0466	0.0085	0.0161	20	-0.58	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0371	0.0450	0.0100	0.0466	0.0085	0.0161	20	-0.19	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0324	0.0495	0.0110	0.0466	0.0085	0.0161	20	0.34	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0095	0.0500	0.0000	0.0466	0.0085	0.0161	20	0.40	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0234	0.0500	0.0000	0.0466	0.0085	0.0161	20	0.40	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0433	0.0500	0.0000	0.0466	0.0085	0.0161	20	0.40	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0360	0.0507	0.0047	0.0466	0.0085	0.0161	20	0.47	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0390	0.0511	0.0015	0.0466	0.0085	0.0161	20	0.52	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0255	0.0530	0.0120	0.0466	0.0085	0.0161	20	0.75	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0096	0.0587	0.0003	0.0466	0.0085	0.0161	20	1.42	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0444	0.0590	0.0000	0.0466	0.0085	0.0161	20	1.46	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0552	1.075	0.2700	0.0466	0.0085	0.0161	20	121.24	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (0.05%)	0450	500.5	19.00	0.0466	0.0085	0.0161	20	59002.94	High	2
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.05%)	0220	0.0485	0.0010	0.0528	0.0054	0.0007	3	-0.79		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.05%)	0394	0.0510	0.0012	0.0528	0.0054	0.0007	3	-0.33		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (0.05%)	0521	0.0588	0.0000	0.0528	0.0054	0.0007	3	1.12		0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0561	0.0300	0.0000	0.0491	0.0046	0.0049	12	-4.15	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0106	0.0420	0.0218	0.0491	0.0046	0.0049	12	-1.54	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0117	0.0450	0.0049	0.0491	0.0046	0.0049	12	-0.90	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0034	0.0500	0.0080	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0043	0.0500	0.0000	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0055	0.0500	0.0000	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0136	0.0500	0.0000	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0421	0.0500	0.0000	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0486	0.0500	0.0000	0.0491	0.0046	0.0049	12	0.20	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0527	0.0515	0.0017	0.0491	0.0046	0.0049	12	0.51	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0086	0.0524	0.0115	0.0491	0.0046	0.0049	12	0.71	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0037	0.0585	0.0110	0.0491	0.0046	0.0049	12	2.04	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (0.05%)	0515	0.0800	0.0601	0.0491	0.0046	0.0049	12	6.70	High	1
321.99	Acid Soluble Zn, Other (0.05%)	0516	0.0300	0.0000	0.0480	0.0145	0.0074	10	-1.15	Low	0
321.99	Acid Soluble Zn, Other (0.05%)	0524	0.0326	0.0157	0.0480	0.0145	0.0074	10	-0.99	Low	0
321.99	Acid Soluble Zn, Other (0.05%)	0389	0.0400	0.0000	0.0480	0.0145	0.0074	10	-0.51	OK	0
321.99	Acid Soluble Zn, Other (0.05%)	0515	0.0443	0.0046	0.0480	0.0145	0.0074	10	-0.24	OK	0
321.99	Acid Soluble Zn, Other (0.05%)	0481	0.0450	0.0020	0.0480	0.0145	0.0074	10	-0.19	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.99	Acid Soluble Zn, Other (0.05%)	0027	0.0470	0.0080	0.0480	0.0145	0.0074	10	-0.06	OK	0
321.99	Acid Soluble Zn, Other (0.05%)	0523	0.0515	0.0030	0.0480	0.0145	0.0074	10	0.22	OK	0
321.99	Acid Soluble Zn, Other (0.05%)	0519	0.0550	0.0100	0.0480	0.0145	0.0074	10	0.45	OK	0
321.99	Acid Soluble Zn, Other (0.05%)	0520	0.0650	0.0100	0.0480	0.0145	0.0074	10	1.09	High	0
321.99	Acid Soluble Zn, Other (0.05%)	0532	0.1422	0.0203	0.0480	0.0145	0.0074	10	6.03	High	0
325.00	Water Soluble Zn, AA (%)	0553	0.0495	0.0010	0.0598	0.0192	0.0140	5	-0.54		0
325.00	Water Soluble Zn, AA (%)	0540	0.0500	0.0000	0.0598	0.0192	0.0140	5	-0.51		0
325.00	Water Soluble Zn, AA (%)	0535	0.0505	0.0010	0.0598	0.0192	0.0140	5	-0.48		0
325.00	Water Soluble Zn, AA (%)	0027	0.0550	0.0020	0.0598	0.0192	0.0140	5	-0.25		0
325.00	Water Soluble Zn, AA (%)	0356	0.0940	0.0660	0.0598	0.0192	0.0140	5	1.78		0
325.30	Water Soluble Zn, ICP (%)	0543	0.0350	0.0060	0.0529	0.0126	0.0024	5	-1.42		0
325.30	Water Soluble Zn, ICP (%)	0444	0.0500	0.0020	0.0529	0.0126	0.0024	5	-0.23		0
325.30	Water Soluble Zn, ICP (%)	0394	0.0532	0.0016	0.0529	0.0126	0.0024	5	0.02		0
325.30	Water Soluble Zn, ICP (%)	0546	0.0563	0.0026	0.0529	0.0126	0.0024	5	0.27		0
325.30	Water Soluble Zn, ICP (%)	0555	0.0700	0.0000	0.0529	0.0126	0.0024	5	1.36		0
325.99	Water Soluble Zn, Other (%)	0560	0.0503	0.0004				1			0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower, Green indicates within the IA range. Method codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.