

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 191211

Grade 8-4-6 Liquid

Statistical Summary

Methods: 126

Labs Reporting: 95

Issue Date : 01/31/2020

Method Code	Analyte & Method Sample # 191211	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Howitz %RSD
001.10	Ammoniacal N, Magnesium Oxide Method (%)	8	8	0.9211	0.1566	0.9177		0.1697	0.0750	18.49%		0.0263	4.05%
001.99	Ammoniacal N, Other (%)	28	27	1.104	0.3595	1.074		0.3135	0.0754	29.20%		0.0479	3.96%
005.00	Urea N, Urease (as N) (%)	3	3	6.291	1.831	6.291		1.831	1.321	29.10%		0.7067	3.03%
005.99	Urea N, Other (%)	17	16	7.365	0.7643	7.264		0.5006	0.1564	6.89%		0.0675	2.97%
007.99	Urea, Other (%)	4	4	7.130	0.5247	7.130		0.5247	0.3279	7.36%		0.1147	2.98%
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	1		1.240									
009.99	Ammoniacal Plus Nitrate N, Other (%)	1		8.180									
010.11	Total N, Modified Comprehensive (8%)	6	6	8.557	0.6779	8.557	0.5611	0.7687	0.3923	8.98%	3.19	0.0921	2.90%
010.12	Total N, Salicylic (8%)	3	3	8.722	0.2754	8.722	0.5644	0.2754	0.1988	3.16%	1.14	0.0367	2.89%
010.60	Total N, Combustion (8%)	58	54	9.119	0.3125	9.131	0.5713	0.2286	0.0389	2.50%	0.93	0.1250	2.87%
010.99	Total N, Other (8%)	17	17	8.680	0.7732	8.571	0.5614	0.5235	0.1587	6.11%	2.17	0.1966	2.89%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	3	3	4.000	0.1387	4.000		0.1387	0.1001	3.47%		0.1267	3.25%
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	21	20	4.024	0.1959	4.008		0.1679	0.0469	4.19%		0.0537	3.25%
020.40	Total P2O5, Automated (%)	3	3	4.007	0.0511	4.007		0.0511	0.0369	1.27%		0.1133	3.25%
020.50	Total P2O5, ICP (%)	22	22	4.080	0.4311	4.026		0.2527	0.0674	6.28%		0.1537	3.24%
020.99	Total P2O5, Other (%)	3	3	4.587	1.042	4.587		1.042	0.7523	22.73%		0.0509	3.18%
040.99	Indirect Available P2O5, Other (4%)	1		4.210									
041.10	Direct Available P2O5, Gravimetric Quinolinium (4%)	3	3	4.013	0.0552	4.013	0.6700	0.0552	0.0398	1.38%	0.19	0.0750	3.24%
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	7	7	4.030	0.1468	4.030	0.6700	0.1664	0.0786	4.13%	0.58	0.0961	3.24%
041.20	Direct Available P2O5, Spectrophotometric (4%)	2	2	3.935	0.0849								
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	8	8	4.014	0.1594	4.014	0.6700	0.1807	0.0799	4.50%	0.63	0.1033	3.24%
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (4%)	2	2	3.986	0.0727								
041.50	Direct Available P2O5, ICP (4%)	4	4	4.115	0.2751	4.115	0.6700	0.2751	0.1719	6.69%	0.96	0.1939	3.23%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	12	12	4.070	0.8134	3.965	0.6700	0.2148	0.0775	5.42%	0.75	0.0728	3.25%
041.99	Direct Available P2O5, Other (4%)	12	12	4.101	0.1824	4.062	0.6700	0.0782	0.0282	1.93%	0.27	0.0789	3.24%
048.20	Water Soluble P2O5, Spectrophotometric (%)	1		3.975									
048.50	Water Soluble P2O5, ICP (%)	1		3.960									
048.99	Water Soluble P2O5, Other (%)	2	2	4.023	0.0743								
050.00	Soluble K2O, STPB Oxalate (6%)	11	11	6.307	0.2755	6.292	0.4875	0.2761	0.1041	4.39%	1.32	0.1766	3.03%
050.30	Soluble K2O, AA (Oxalate) (6%)	4	4	6.178	0.1792	6.178	0.4807	0.1792	0.1120	2.90%	0.87	0.2450	3.04%
050.31	Soluble K2O, AA (Citrate) (6%)	1		5.855									
050.50	Soluble K2O, ICP (Oxalate) (6%)	7	7	6.184	0.2811	6.184	0.4810	0.3187	0.1506	5.15%	1.54	0.2186	3.04%
050.51	Soluble K2O, ICP (Citrate) (6%)	4	4	6.381	0.3338	6.381	0.4928	0.3338	0.2086	5.23%	1.58	0.0408	3.03%

Method Code	Analyte & Method Sample # 191211	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Howitz %RSD
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	13	13	5.915	0.6450	6.109	0.4765	0.2003	0.0694	3.28%	0.98	0.1113	3.05%
050.60	Soluble K2O, Flame Photometric (Oxalate) (6%)	3	3	6.284	0.3606	6.284	0.4870	0.3606	0.2602	5.74%	1.72	0.1313	3.03%
050.61	Soluble K2O, Flame Photometric (Citrate) (6%)	2	2	6.030	0.0212								
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	5	5	6.332	0.2572	6.332	0.4899	0.2572	0.1438	4.06%	1.22	0.0992	3.03%
050.99	Soluble K2O, Other (6%)	40	38	6.138	0.3574	6.090	0.4754	0.1989	0.0403	3.27%	0.97	0.0973	3.05%
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	1		0.0010									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	3	2	0.0043	0.0011	0.0043	0.2002	0.0011	0.0009	24.96%	0.01	0.0005	9.10%
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	2	2	0.0056	0.0043								
101.99	Acid Soluble Ca, Other (%)	1		0.0000									
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	1		0.0020									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	1		0.0100									
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	5	5	0.0029	0.0022	0.0029	0.2001	0.0022	0.0013	77.21%	0.03	0.0007	9.63%
121.99	Acid Soluble Mg, Other (%)	4	3	0.0288	0.0474	0.0288	0.2014	0.0474	0.0342	164.49%	0.55	0.0291	6.82%
143.99	Elemental S, Other (%)	2	2	0.0185	0.0050								
148.07	Total S, ICP, test portion as in 2017.02 (%)	3	2	0.0253	0.0033	0.0253	0.2013	0.0033	0.0029	13.14%	0.04	0.0133	6.96%
148.99	Total S, Other (%)	3	3	0.0663	0.0459	0.0663	0.2033	0.0459	0.0332	69.25%	0.53	0.0173	6.02%
149.04	S - HNO3 soluble, ICP (%)	1		0.0169									
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.0800									
151.30	Acid Soluble As, ICP (ppm)	4	4	0.8656	0.0924	0.8656		0.0924	0.0577	10.67%		0.1443	16.35%
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	4	2	1.062	0.3493	1.062		0.3493	0.3088	32.89%		0.2228	15.85%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	2	2.583	0.2998								
151.99	Acid Soluble As, Other (ppm)	3	1	1.085		2.583		0.2998	0.3748	11.61%		0.0100	13.87%
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	5	5	0.0970	0.0057	0.0970	0.0176	0.0057	0.0032	5.91%	0.76	0.0024	5.68%
165.99	Acid Soluble B, Other (%)	9	9	0.1070	0.0181	0.1055	0.0188	0.0170	0.0071	16.14%	2.11	0.0078	5.61%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		143.8									
181.30	Acid Soluble Cd, ICP (ppm)	6	5	0.1676	0.0655	0.1676		0.0655	0.0366	39.09%		0.0076	20.93%
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	4	1	0.1400		0.1676		0.0655	0.0819	39.09%		0.0000	20.93%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	0	0.0000									
181.99	Acid Soluble Cd, Other (ppm)	4	3	0.1580	0.0598	0.1580		0.0598	0.0432	37.85%		0.0147	21.12%
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	1		2.069									
191.30	Acid Soluble Cr, ICP (ppm)	9	8	2.788	1.520	2.787		1.719	0.7599	61.70%		0.1862	13.71%
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	4	4	6.258	2.953	6.258		2.953	1.846	47.19%		0.9943	12.14%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	2.525	1.563								
191.99	Acid Soluble Cr, Other (ppm)	3	3	3.132	1.156	3.132		1.156	0.8343	36.92%		0.2567	13.47%
202.30	Acid Soluble Co, ICP (ppm)	3	3	0.8427	0.0325	0.8427	1.2528	0.0325	0.0235	3.86%	0.06	0.0345	16.41%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	1		0.3940									
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	5	4	0.9753	0.3454	0.9753	1.2926	0.3454	0.2158	35.41%	0.62	0.7595	16.06%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	3	3	0.9195	0.1329	0.9195	1.2759	0.1329	0.0959	14.46%	0.24	0.4263	16.20%
202.99	Acid Soluble Co, Other (ppm)	4	3	0.9030	0.0912	0.9030	1.2709	0.0912	0.0658	10.10%	0.17	0.0127	16.24%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	12	11	0.2074	0.0158	0.2079	0.0258	0.0146	0.0055	7.02%	1.32	0.0106	5.07%
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	19	18	0.2002	0.0183	0.2003	0.0250	0.0168	0.0050	8.41%	1.57	0.0025	5.09%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	5	5	0.2060	0.0153	0.2060	0.0256	0.0153	0.0086	7.45%	1.40	0.0062	5.07%
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	13	12	0.2087	0.0196	0.2052	0.0255	0.0118	0.0043	5.76%	1.08	0.0054	5.08%
221.99	Acid Soluble Cu, Other (0.2%)	15	15	0.2147	0.0233	0.2104	0.0260	0.0151	0.0049	7.17%	1.35	0.0102	5.06%

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241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	1		0.0030									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	2	1	0.0027									
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	1		19.18									
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	3	3	0.0054	0.0050	0.0054	0.0055	0.0050	0.0036	92.88%	2.12	0.0000	8.77%
241.99	Acid Soluble Fe, Other (%)	4	4	0.0064	0.0068	0.0064	0.0056	0.0068	0.0042	105.70%	2.80	0.0030	8.55%
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	1		1.500									
251.30	Acid Soluble Pb, ICP (ppm)	9	7	1.073	1.243	0.8177		0.7418	0.3505	90.73%		0.0687	16.49%
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	6	5	1.481	1.021	1.481		1.021	0.5710	68.96%		0.2363	15.08%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	1	2.686									
251.99	Acid Soluble Pb, Other (ppm)	2	1	9.310									
261.11	Acid Soluble Mn, AA, total Mn (1%)	2	2	0.9883	0.0011								
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	10	10	1.112	0.1720	1.076	0.1126	0.0864	0.0342	8.03%	1.79	0.0405	3.96%
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	8	7	1.070	0.0508	1.070	0.1120	0.0576	0.0272	5.38%	1.20	0.0086	3.96%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1%)	3	3	1.112	0.1446	1.112	0.1162	0.1446	0.1044	13.01%	2.90	0.1300	3.94%
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	5	5	1.079	0.0375	1.079	0.1129	0.0375	0.0210	3.47%	0.77	0.0380	3.95%
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	5	5	1.075	0.0737	1.075	0.1125	0.0737	0.0412	6.85%	1.53	0.0197	3.96%
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	14	13	1.041	0.0538	1.040	0.1090	0.0563	0.0195	5.41%	1.20	0.0313	3.98%
261.99	Acid Soluble Mn, Other (1%)	15	15	1.081	0.1303	1.072	0.1122	0.1261	0.0407	11.77%	2.62	0.0336	3.96%
271.00	Water Soluble Mn, AA (%)	4	4	1.026	0.0896	1.026		0.0896	0.0560	8.73%		0.0518	3.98%
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	1		1.050									
271.99	Water Soluble Mn, Other (%)	1		1.031									
281.00	Acid Soluble Hg, AA (ppm)	2	0	0.0010									
281.30	Acid Soluble Hg, ICP (ppm)	4	1	0.0030		1.026		0.0896	0.1120	8.73%		0.0020	15.94%
281.99	Acid Soluble Hg, Other (ppm)	2	1	0.0070									
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.1000									
289.30	Acid Soluble Mo, ICP (ppm)	5	5	3.811	4.723	3.811	2.1434	4.723	2.640	123.92%	5.13	0.6419	13.08%
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	2	0	0.0000									
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	3	1	0.2230		3.811	2.1434	4.723	5.904	123.92%	5.13	0.0020	13.08%
289.99	Acid Soluble Mo, Other (ppm)	1		0.6000									
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	1		1.276									
291.30	Acid Soluble Ni, ICP (ppm)	7	7	0.9874	0.6929	0.9702		0.7464	0.3526	76.92%		0.2739	16.07%
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	4	3	1.832	0.7408	1.832		0.7408	0.5347	40.43%		0.9554	14.60%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	3	3	1.672	0.6225	1.672		0.6225	0.4492	37.24%		0.9037	14.81%
291.99	Acid Soluble Ni, Other (ppm)	5	4	2.705	2.902	2.705		2.902	1.814	107.32%		0.2965	13.77%
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)	2	1	4.425									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	3	2	7.053	4.514	7.053		4.514	3.990	64.00%		1.591	11.92%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	2	1	5.703									
301.99	Acid Soluble Se, Other (ppm)	3	2	0.4070	0.0099	0.4070		0.0099	0.0087	2.43%		0.0150	18.31%
311.33	Sodium, ICP, test portion as in 2017.02 (%)	6	6	0.0724	0.0061	0.0724	0.0122	0.0069	0.0035	9.56%	1.32	0.0065	5.94%
311.99	Sodium, Other (%)	3	3	0.0955	0.0256	0.0955	0.0146	0.0256	0.0184	26.76%	4.09	0.0150	5.70%
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	13	12	1.067	0.0859	1.067	0.1117	0.0974	0.0352	9.13%	2.03	0.0335	3.96%
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	22	21	0.9900	0.0804	1.001	0.1051	0.0643	0.0175	6.43%	1.43	0.0322	4.00%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	5	5	1.078	0.1012	1.078	0.1128	0.1012	0.0566	9.39%	2.09	0.0247	3.95%

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321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	13	12	0.9914	0.0325	0.9914	0.1041	0.0369	0.0133	3.72%	0.83	0.0338	4.00%
321.99	Acid Soluble Zn, Other (1%)	12	11	1.055	0.0724	1.051	0.1101	0.0723	0.0273	6.88%	1.53	0.0279	3.97%
325.00	Water Soluble Zn, AA (%)	4	3	1.063	0.0252	1.063		0.0252	0.0182	2.37%		0.1067	3.96%
325.30	Water Soluble Zn, ICP (%)	1		1.062									
325.99	Water Soluble Zn, Other (%)	2	2	0.9415	0.1153								

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 # 191211

Method Precision Report

Grade 8-4-6 Liquid

Issue Date : 01/31/2020

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.99	Ammoniacal N, Other (%)	28	24	1.019	0.2609	0.2594	0.0406	0.2625	25.45%	3.98%	25.76%	6.472
005.99	Urea N, Other (%)	17	15	7.232	0.5678	0.5663	0.0583	0.5693	7.83%	0.81%	7.87%	9.769
010.60	Total N, Combustion (8%)	58	49	9.141	0.2200	0.2069	0.1058	0.2324	2.26%	1.16%	2.54%	2.196
010.99	Total N, Other (8%)	17	15	8.552	0.4249	0.4102	0.1570	0.4392	4.80%	1.84%	5.14%	2.797
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	21	18	3.990	0.1486	0.1463	0.0365	0.1508	3.67%	0.92%	3.78%	4.127
020.50	Total P2O5, ICP (%)	22	20	3.980	0.2137	0.1827	0.1567	0.2407	4.59%	3.94%	6.05%	1.536
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	8	8	4.014	0.1594	0.1443	0.0956	0.1731	3.60%	2.38%	4.31%	1.811
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	12	11	3.859	0.3684	0.3647	0.0736	0.3721	9.45%	1.91%	9.64%	5.052
041.99	Direct Available P2O5, Other (4%)	12	11	4.051	0.0611	0.0324	0.0733	0.0801	0.80%	1.81%	1.98%	1.093
050.00	Soluble K2O, STPB Oxalate (6%)	11	11	6.307	0.2755	0.2506	0.1617	0.2983	3.97%	2.56%	4.73%	1.845
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	13	12	6.066	0.3598	0.3493	0.1218	0.3700	5.76%	2.01%	6.10%	3.037
050.99	Soluble K2O, Other (6%)	40	36	6.092	0.2367	0.2290	0.0848	0.2442	3.76%	1.39%	4.01%	2.879
165.99	Acid Soluble B, Other (%)	9	9	0.1070	0.0181	0.0171	0.0084	0.0190	15.94%	7.85%	17.77%	2.264
191.30	Acid Soluble Cr, ICP (ppm)	9	8	2.788	1.520	1.514	0.1930	1.526	54.28%	6.92%	54.72%	7.907
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	12	11	0.2074	0.0158	0.0143	0.0095	0.0172	6.89%	4.60%	8.28%	1.801
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	19	17	0.1997	0.0187	0.0186	0.0018	0.0187	9.33%	0.92%	9.37%	10.14
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	13	10	0.2031	0.0095	0.0091	0.0039	0.0099	4.48%	1.94%	4.88%	2.522
221.99	Acid Soluble Cu, Other (0.2%)	15	14	0.2100	0.0152	0.0143	0.0073	0.0160	6.80%	3.49%	7.64%	2.192
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	10	9	1.061	0.0648	0.0595	0.0363	0.0697	5.61%	3.42%	6.57%	1.919
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	14	13	1.041	0.0538	0.0503	0.0271	0.0571	4.83%	2.60%	5.49%	2.110
261.99	Acid Soluble Mn, Other (1%)	15	14	1.087	0.1329	0.1316	0.0262	0.1342	12.11%	2.41%	12.35%	5.128
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	13	12	1.067	0.0859	0.0831	0.0309	0.0887	7.78%	2.90%	8.31%	2.867
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	22	18	1.013	0.0500	0.0460	0.0278	0.0537	4.54%	2.74%	5.31%	1.935
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	13	11	0.9924	0.0339	0.0280	0.0272	0.0390	2.82%	2.74%	3.93%	1.435
321.99	Acid Soluble Zn, Other (1%)	12	10	1.060	0.0743	0.0722	0.0250	0.0764	6.81%	2.35%	7.20%	3.058

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 # 191211
Grade 8-4-6 Liquid

Lab Values

Methods: 126

Labs Reporting: 95

Issue Date : 01/31/2020

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0444	0.7350	0.0100	0.9177	0.1697	0.0263	8	-0.98	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0481	0.7350	0.0300	0.9177	0.1697	0.0263	8	-0.98	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0389	0.8640	0.0000	0.9177	0.1697	0.0263	8	-0.29	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0309	0.8900	0.0000	0.9177	0.1697	0.0263	8	-0.15	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0451	0.9350	0.0300	0.9177	0.1697	0.0263	8	0.09	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0456	0.9500	0.1000	0.9177	0.1697	0.0263	8	0.17	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0498	1.060	0.0400	0.9177	0.1697	0.0263	8	0.77	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0117	1.200	0.0000	0.9177	0.1697	0.0263	8	1.52	NA	0
001.99	Ammoniacal N, Other (%)	0524	0.4852	0.1763	1.074	0.3135	0.0479	27	-1.88	NA	0
001.99	Ammoniacal N, Other (%)	0423	0.6400	0.0200	1.074	0.3135	0.0479	27	-1.38	NA	0
001.99	Ammoniacal N, Other (%)	0394	0.6980	0.0100	1.074	0.3135	0.0479	27	-1.20	NA	0
001.99	Ammoniacal N, Other (%)	0027	0.7150	0.0100	1.074	0.3135	0.0479	27	-1.14	NA	0
001.99	Ammoniacal N, Other (%)	0096	0.7250	0.0300	1.074	0.3135	0.0479	27	-1.11	NA	0
001.99	Ammoniacal N, Other (%)	0553	0.7640	0.0080	1.074	0.3135	0.0479	27	-0.99	NA	0
001.99	Ammoniacal N, Other (%)	0546	0.7800	0.0000	1.074	0.3135	0.0479	27	-0.94	NA	0
001.99	Ammoniacal N, Other (%)	0550	0.8920	0.0240	1.074	0.3135	0.0479	27	-0.58	NA	0
001.99	Ammoniacal N, Other (%)	0558	1.005	0.0100	1.074	0.3135	0.0479	27	-0.22	NA	0
001.99	Ammoniacal N, Other (%)	0532	1.040	0.0400	1.074	0.3135	0.0479	27	-0.11	NA	0
001.99	Ammoniacal N, Other (%)	0506	1.050	0.0000	1.074	0.3135	0.0479	27	-0.08	NA	0
001.99	Ammoniacal N, Other (%)	0540	1.050	0.0200	1.074	0.3135	0.0479	27	-0.08	NA	0
001.99	Ammoniacal N, Other (%)	0510	1.092	0.0002	1.074	0.3135	0.0479	27	0.06	NA	0
001.99	Ammoniacal N, Other (%)	0533	1.107	0.0110	1.074	0.3135	0.0479	27	0.10	NA	0
001.99	Ammoniacal N, Other (%)	0537	1.120	0.1000	1.074	0.3135	0.0479	27	0.15	NA	0
001.99	Ammoniacal N, Other (%)	0549	1.125	0.1500	1.074	0.3135	0.0479	27	0.16	NA	0
001.99	Ammoniacal N, Other (%)	0538	1.135	0.0500	1.074	0.3135	0.0479	27	0.20	NA	0
001.99	Ammoniacal N, Other (%)	0368	1.162	0.0110	1.074	0.3135	0.0479	27	0.28	NA	0
001.99	Ammoniacal N, Other (%)	0536	1.185	0.0300	1.074	0.3135	0.0479	27	0.35	NA	0
001.99	Ammoniacal N, Other (%)	0531	1.225	0.0500	1.074	0.3135	0.0479	27	0.48	NA	0
001.99	Ammoniacal N, Other (%)	0255	1.235	0.0300	1.074	0.3135	0.0479	27	0.51	NA	0
001.99	Ammoniacal N, Other (%)	0551	1.240	0.0400	1.074	0.3135	0.0479	27	0.53	NA	0
001.99	Ammoniacal N, Other (%)	0405	1.365	0.0300	1.074	0.3135	0.0479	27	0.93	NA	0
001.99	Ammoniacal N, Other (%)	0522	1.405	0.1900	1.074	0.3135	0.0479	27	1.06	NA	0
001.99	Ammoniacal N, Other (%)	0220	1.620	0.0400	1.074	0.3135	0.0479	27	1.74	NA	0
001.99	Ammoniacal N, Other (%)	0476	1.851	0.1933	1.074	0.3135	0.0479	27	2.48	NA	0
001.99	Ammoniacal N, Other (%)	0559	2.090	0.0200	1.074	0.3135	0.0479	27	3.24	NA	0
001.99	Ammoniacal N, Other (%)	0029	8.000	0.1000	1.074	0.3135	0.0479	27	22.09	NA	2

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				
005.00	Urea N, Urease (as N) (%)	0389	4.226	1.920	6.291	1.831	0.7067	3	-1.13		0
005.00	Urea N, Urease (as N) (%)	0368	6.932	0.0501	6.291	1.831	0.7067	3	0.35		0
005.00	Urea N, Urease (as N) (%)	0444	7.715	0.1500	6.291	1.831	0.7067	3	0.78		0
005.99	Urea N, Other (%)	0559	6.075	0.0100	7.264	0.5006	0.0675	16	-2.38	NA	0
005.99	Urea N, Other (%)	0538	6.900	0.1000	7.264	0.5006	0.0675	16	-0.73	NA	0
005.99	Urea N, Other (%)	0533	6.915	0.0100	7.264	0.5006	0.0675	16	-0.70	NA	0
005.99	Urea N, Other (%)	0560	6.936	0.0280	7.264	0.5006	0.0675	16	-0.66	NA	0
005.99	Urea N, Other (%)	0551	7.050	0.1000	7.264	0.5006	0.0675	16	-0.43	NA	0
005.99	Urea N, Other (%)	0394	7.060	0.0400	7.264	0.5006	0.0675	16	-0.41	NA	0
005.99	Urea N, Other (%)	0532	7.085	0.0900	7.264	0.5006	0.0675	16	-0.36	NA	0
005.99	Urea N, Other (%)	0531	7.100	0.1000	7.264	0.5006	0.0675	16	-0.33	NA	0
005.99	Urea N, Other (%)	0540	7.125	0.0500	7.264	0.5006	0.0675	16	-0.28	NA	0
005.99	Urea N, Other (%)	0309	7.200	0.0400	7.264	0.5006	0.0675	16	-0.13	NA	0
005.99	Urea N, Other (%)	0405	7.255	0.1700	7.264	0.5006	0.0675	16	-0.02	NA	0
005.99	Urea N, Other (%)	0029	7.470	0.0000	7.264	0.5006	0.0675	16	0.41	NA	0
005.99	Urea N, Other (%)	0558	7.570	0.1600	7.264	0.5006	0.0675	16	0.61	NA	0
005.99	Urea N, Other (%)	0546	8.345	0.0500	7.264	0.5006	0.0675	16	2.16	NA	0
005.99	Urea N, Other (%)	0027	8.395	0.0100	7.264	0.5006	0.0675	16	2.26	NA	0
005.99	Urea N, Other (%)	0476	9.361	0.1226	7.264	0.5006	0.0675	16	4.19	NA	0
005.99	Urea N, Other (%)	0506	7.050	0.8200	7.264	0.5006	0.0675	16	-0.43	NA	1
007.99	Urea, Other (%)	0536	6.825	0.1300	7.130	0.5247	0.1147	4	-0.58		0
007.99	Urea, Other (%)	0549	6.875	0.1500	7.130	0.5247	0.1147	4	-0.49		0
007.99	Urea, Other (%)	0537	6.903	0.0286	7.130	0.5247	0.1147	4	-0.43		0
007.99	Urea, Other (%)	0220	7.915	0.1500	7.130	0.5247	0.1147	4	1.50		0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0444	1.240	0.0600				1			0
009.99	Ammoniacal Plus Nitrate N, Other (%)	0518	8.180	0.0600				1			0
010.11	Total N, Modified Comprehensive (8%)	0456	7.550	0.3000	8.557	0.7687	0.0921	6	-1.17	Low	0
010.11	Total N, Modified Comprehensive (8%)	0540	8.080	0.0800	8.557	0.7687	0.0921	6	-0.55	OK	0
010.11	Total N, Modified Comprehensive (8%)	0531	8.325	0.0500	8.557	0.7687	0.0921	6	-0.27	OK	0
010.11	Total N, Modified Comprehensive (8%)	0510	9.012	0.0725	8.557	0.7687	0.0921	6	0.53	OK	0
010.11	Total N, Modified Comprehensive (8%)	0416	9.180	0.0400	8.557	0.7687	0.0921	6	0.72	High	0
010.11	Total N, Modified Comprehensive (8%)	0105	9.195	0.0100	8.557	0.7687	0.0921	6	0.74	High	0
010.12	Total N, Salicylic (8%)	0534	8.500	0.0000	8.722	0.2754	0.0367	3	-0.80		0
010.12	Total N, Salicylic (8%)	0117	8.635	0.0700	8.722	0.2754	0.0367	3	-0.31		0
010.12	Total N, Salicylic (8%)	0481	9.030	0.0400	8.722	0.2754	0.0367	3	1.12		0
010.60	Total N, Combustion (8%)	0521	8.000	0.0171	9.131	0.2286	0.1250	54	-4.95	Low	0
010.60	Total N, Combustion (8%)	0482	8.300	0.2800	9.131	0.2286	0.1250	54	-3.64	Low	0
010.60	Total N, Combustion (8%)	0102	8.655	0.4300	9.131	0.2286	0.1250	54	-2.08	OK	0
010.60	Total N, Combustion (8%)	0034	8.667	0.0790	9.131	0.2286	0.1250	54	-2.03	OK	0
010.60	Total N, Combustion (8%)	0423	8.755	0.0700	9.131	0.2286	0.1250	54	-1.65	OK	0
010.60	Total N, Combustion (8%)	0450	8.800	0.0000	9.131	0.2286	0.1250	54	-1.45	OK	0
010.60	Total N, Combustion (8%)	0354	8.810	0.0200	9.131	0.2286	0.1250	54	-1.40	OK	0
010.60	Total N, Combustion (8%)	0501	8.820	0.0400	9.131	0.2286	0.1250	54	-1.36	OK	0
010.60	Total N, Combustion (8%)	0324	8.845	0.6100	9.131	0.2286	0.1250	54	-1.25	OK	0
010.60	Total N, Combustion (8%)	0072	8.900	0.3800	9.131	0.2286	0.1250	54	-1.01	OK	0
010.60	Total N, Combustion (8%)	0542	8.945	0.0300	9.131	0.2286	0.1250	54	-0.81	OK	0
010.60	Total N, Combustion (8%)	0095	8.955	0.4100	9.131	0.2286	0.1250	54	-0.77	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 (8%)	0444	8.955	0.0900	9.131	0.2286	0.1250	54	-0.77	OK	0
010.60	Total N, Combustion (8%)	0368	8.967	0.0110	9.131	0.2286	0.1250	54	-0.72	OK	0
010.60	Total N, Combustion (8%)	0472	8.970	0.2200	9.131	0.2286	0.1250	54	-0.70	OK	0
010.60	Total N, Combustion (8%)	0452	9.030	0.0400	9.131	0.2286	0.1250	54	-0.44	OK	0
010.60	Total N, Combustion (8%)	0086	9.040	0.1400	9.131	0.2286	0.1250	54	-0.40	OK	0
010.60	Total N, Combustion (8%)	0027	9.050	0.2400	9.131	0.2286	0.1250	54	-0.35	OK	0
010.60	Total N, Combustion (8%)	0377	9.094	0.1870	9.131	0.2286	0.1250	54	-0.16	OK	0
010.60	Total N, Combustion (8%)	0547	9.115	0.0100	9.131	0.2286	0.1250	54	-0.07	OK	0
010.60	Total N, Combustion (8%)	0220	9.120	0.0800	9.131	0.2286	0.1250	54	-0.05	OK	0
010.60	Total N, Combustion (8%)	0055	9.123	0.0320	9.131	0.2286	0.1250	54	-0.04	OK	0
010.60	Total N, Combustion (8%)	0114	9.130	0.1800	9.131	0.2286	0.1250	54	0.00	OK	0
010.60	Total N, Combustion (8%)	0451	9.148	0.2570	9.131	0.2286	0.1250	54	0.07	OK	0
010.60	Total N, Combustion (8%)	0325	9.150	0.1000	9.131	0.2286	0.1250	54	0.08	OK	0
010.60	Total N, Combustion (8%)	0029	9.154	0.0849	9.131	0.2286	0.1250	54	0.10	OK	0
010.60	Total N, Combustion (8%)	0106	9.160	0.1600	9.131	0.2286	0.1250	54	0.13	OK	0
010.60	Total N, Combustion (8%)	0136	9.170	0.1400	9.131	0.2286	0.1250	54	0.17	OK	0
010.60	Total N, Combustion (8%)	0255	9.183	0.2790	9.131	0.2286	0.1250	54	0.22	OK	0
010.60	Total N, Combustion (8%)	0494	9.185	0.0500	9.131	0.2286	0.1250	54	0.24	OK	0
010.60	Total N, Combustion (8%)	0527	9.188	0.0040	9.131	0.2286	0.1250	54	0.25	OK	0
010.60	Total N, Combustion (8%)	0105	9.190	0.0200	9.131	0.2286	0.1250	54	0.26	OK	0
010.60	Total N, Combustion (8%)	0073	9.195	0.0300	9.131	0.2286	0.1250	54	0.28	OK	0
010.60	Total N, Combustion (8%)	0405	9.200	0.0400	9.131	0.2286	0.1250	54	0.30	OK	0
010.60	Total N, Combustion (8%)	0525	9.215	0.0700	9.131	0.2286	0.1250	54	0.37	OK	0
010.60	Total N, Combustion (8%)	0035	9.220	0.0000	9.131	0.2286	0.1250	54	0.39	OK	0
010.60	Total N, Combustion (8%)	0177	9.223	0.1380	9.131	0.2286	0.1250	54	0.40	OK	0
010.60	Total N, Combustion (8%)	0231	9.235	0.0300	9.131	0.2286	0.1250	54	0.45	OK	0
010.60	Total N, Combustion (8%)	0356	9.240	0.0400	9.131	0.2286	0.1250	54	0.48	OK	0
010.60	Total N, Combustion (8%)	0040	9.250	0.1000	9.131	0.2286	0.1250	54	0.52	OK	0
010.60	Total N, Combustion (8%)	0025	9.271	0.0120	9.131	0.2286	0.1250	54	0.61	OK	0
010.60	Total N, Combustion (8%)	0043	9.275	0.1100	9.131	0.2286	0.1250	54	0.63	OK	0
010.60	Total N, Combustion (8%)	0169	9.290	0.0600	9.131	0.2286	0.1250	54	0.70	OK	0
010.60	Total N, Combustion (8%)	0543	9.290	0.2000	9.131	0.2286	0.1250	54	0.70	OK	0
010.60	Total N, Combustion (8%)	0292	9.315	0.0100	9.131	0.2286	0.1250	54	0.80	OK	0
010.60	Total N, Combustion (8%)	0390	9.340	0.0200	9.131	0.2286	0.1250	54	0.91	OK	0
010.60	Total N, Combustion (8%)	0485	9.381	0.2320	9.131	0.2286	0.1250	54	1.09	OK	0
010.60	Total N, Combustion (8%)	0037	9.395	0.0290	9.131	0.2286	0.1250	54	1.15	OK	0
010.60	Total N, Combustion (8%)	0550	9.400	0.7600	9.131	0.2286	0.1250	54	1.18	OK	0
010.60	Total N, Combustion (8%)	0023	9.400	0.0000	9.131	0.2286	0.1250	54	1.18	OK	0
010.60	Total N, Combustion (8%)	0481	9.410	0.0000	9.131	0.2286	0.1250	54	1.22	OK	0
010.60	Total N, Combustion (8%)	0360	9.450	0.1200	9.131	0.2286	0.1250	54	1.40	OK	0
010.60	Total N, Combustion (8%)	0096	9.885	0.0500	9.131	0.2286	0.1250	54	3.30	High	0
010.60	Total N, Combustion (8%)	0561	9.985	0.0100	9.131	0.2286	0.1250	54	3.74	High	0
010.60	Total N, Combustion (8%)	0234	8.500	1.000	9.131	0.2286	0.1250	54	-2.76	Low	1
010.60	Total N, Combustion (8%)	0422	8.700	1.000	9.131	0.2286	0.1250	54	-1.89	OK	1
010.60	Total N, Combustion (8%)	0516	9.300	1.140	9.131	0.2286	0.1250	54	0.74	OK	1
010.60	Total N, Combustion (8%)	0041	0.6750	0.2500	9.131	0.2286	0.1250	54	-37.00	Low	2
010.99	Total N, Other (8%)	0549	8.000	0.3000	8.571	0.5235	0.1966	17	-1.09	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				
010.99	Total N, Other (8%)	0536	8.010	0.1600	8.571	0.5235	0.1966	17	-1.07	OK	0
010.99	Total N, Other (8%)	0537	8.012	0.0897	8.571	0.5235	0.1966	17	-1.07	OK	0
010.99	Total N, Other (8%)	0506	8.060	0.7400	8.571	0.5235	0.1966	17	-0.98	OK	0
010.99	Total N, Other (8%)	0532	8.120	0.1200	8.571	0.5235	0.1966	17	-0.86	OK	0
010.99	Total N, Other (8%)	0531	8.275	0.0500	8.571	0.5235	0.1966	17	-0.56	OK	0
010.99	Total N, Other (8%)	0551	8.290	0.1400	8.571	0.5235	0.1966	17	-0.54	OK	0
010.99	Total N, Other (8%)	0553	8.425	0.5500	8.571	0.5235	0.1966	17	-0.28	OK	0
010.99	Total N, Other (8%)	0493	8.550	0.1000	8.571	0.5235	0.1966	17	-0.04	OK	0
010.99	Total N, Other (8%)	0558	8.575	0.1700	8.571	0.5235	0.1966	17	0.01	OK	0
010.99	Total N, Other (8%)	0524	8.829	0.2310	8.571	0.5235	0.1966	17	0.49	OK	0
010.99	Total N, Other (8%)	0559	8.970	0.0200	8.571	0.5235	0.1966	17	0.76	OK	0
010.99	Total N, Other (8%)	0522	8.980	0.3800	8.571	0.5235	0.1966	17	0.78	OK	0
010.99	Total N, Other (8%)	0513	9.015	0.0100	8.571	0.5235	0.1966	17	0.85	OK	0
010.99	Total N, Other (8%)	0556	9.100	0.2000	8.571	0.5235	0.1966	17	1.01	OK	0
010.99	Total N, Other (8%)	0371	9.135	0.0100	8.571	0.5235	0.1966	17	1.08	High	0
010.99	Total N, Other (8%)	0476	11.21	0.0707	8.571	0.5235	0.1966	17	5.04	High	0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0095	3.840	0.0400	4.000	0.1387	0.1267	3	-1.15		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0493	4.075	0.0500	4.000	0.1387	0.1267	3	0.54		0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0114	4.085	0.2900	4.000	0.1387	0.1267	3	0.61		0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0416	3.715	0.0500	4.008	0.1679	0.0537	20	-1.75	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0371	3.770	0.0200	4.008	0.1679	0.0537	20	-1.42	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0522	3.780	0.0100	4.008	0.1679	0.0537	20	-1.36	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0498	3.850	0.1000	4.008	0.1679	0.0537	20	-0.94	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0309	3.895	0.0300	4.008	0.1679	0.0537	20	-0.67	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0550	3.960	0.1200	4.008	0.1679	0.0537	20	-0.29	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0481	3.965	0.0100	4.008	0.1679	0.0537	20	-0.26	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0169	3.985	0.0500	4.008	0.1679	0.0537	20	-0.14	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0177	3.988	0.0130	4.008	0.1679	0.0537	20	-0.12	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0561	4.005	0.0500	4.008	0.1679	0.0537	20	-0.02	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0493	4.025	0.0500	4.008	0.1679	0.0537	20	0.10	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0510	4.028	0.0109	4.008	0.1679	0.0537	20	0.12	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0231	4.055	0.0500	4.008	0.1679	0.0537	20	0.28	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0450	4.055	0.2300	4.008	0.1679	0.0537	20	0.28	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0356	4.085	0.0700	4.008	0.1679	0.0537	20	0.46	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0534	4.110	0.0000	4.008	0.1679	0.0537	20	0.61	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0292	4.120	0.0200	4.008	0.1679	0.0537	20	0.67	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	4.210	0.0400	4.008	0.1679	0.0537	20	1.20	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	4.275	0.0500	4.008	0.1679	0.0537	20	1.59	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0476	4.600	0.1000	4.008	0.1679	0.0537	20	3.52	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0027	4.170	0.5200	4.008	0.1679	0.0537	20	0.96	NA	1
020.40	Total P2O5, Automated (%)	0035	3.970	0.0800	4.007	0.0511	0.1133	3	-0.72		0
020.40	Total P2O5, Automated (%)	0096	3.985	0.2100	4.007	0.0511	0.1133	3	-0.42		0
020.40	Total P2O5, Automated (%)	0456	4.065	0.0500	4.007	0.0511	0.1133	3	1.14		0
020.50	Total P2O5, ICP (%)	0422	3.500	0.6400	4.026	0.2527	0.1537	22	-2.08	NA	0
020.50	Total P2O5, ICP (%)	0472	3.620	0.2800	4.026	0.2527	0.1537	22	-1.61	NA	0
020.50	Total P2O5, ICP (%)	0543	3.660	0.0600	4.026	0.2527	0.1537	22	-1.45	NA	0
020.50	Total P2O5, ICP (%)	0255	3.755	0.2310	4.026	0.2527	0.1537	22	-1.08	NA	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
020.50	Total P2O5, ICP (%)	0389	3.870	0.0400	4.026	0.2527	0.1537	22	-0.62	NA	0
020.50	Total P2O5, ICP (%)	0482	3.960	0.5400	4.026	0.2527	0.1537	22	-0.26	NA	0
020.50	Total P2O5, ICP (%)	0546	3.965	0.0060	4.026	0.2527	0.1537	22	-0.24	NA	0
020.50	Total P2O5, ICP (%)	0521	3.971	0.2281	4.026	0.2527	0.1537	22	-0.22	NA	0
020.50	Total P2O5, ICP (%)	0547	3.980	0.0000	4.026	0.2527	0.1537	22	-0.18	NA	0
020.50	Total P2O5, ICP (%)	0234	4.000	0.0000	4.026	0.2527	0.1537	22	-0.10	NA	0
020.50	Total P2O5, ICP (%)	0451	4.010	0.0400	4.026	0.2527	0.1537	22	-0.06	NA	0
020.50	Total P2O5, ICP (%)	0452	4.050	0.0200	4.026	0.2527	0.1537	22	0.09	NA	0
020.50	Total P2O5, ICP (%)	0501	4.065	0.0100	4.026	0.2527	0.1537	22	0.15	NA	0
020.50	Total P2O5, ICP (%)	0390	4.075	0.0100	4.026	0.2527	0.1537	22	0.19	NA	0
020.50	Total P2O5, ICP (%)	0368	4.096	0.0263	4.026	0.2527	0.1537	22	0.28	NA	0
020.50	Total P2O5, ICP (%)	0524	4.097	0.2428	4.026	0.2527	0.1537	22	0.28	NA	0
020.50	Total P2O5, ICP (%)	0231	4.125	0.0300	4.026	0.2527	0.1537	22	0.39	NA	0
020.50	Total P2O5, ICP (%)	0444	4.170	0.0000	4.026	0.2527	0.1537	22	0.57	NA	0
020.50	Total P2O5, ICP (%)	0527	4.230	0.0150	4.026	0.2527	0.1537	22	0.80	NA	0
020.50	Total P2O5, ICP (%)	0525	4.395	0.1700	4.026	0.2527	0.1537	22	1.46	NA	0
020.50	Total P2O5, ICP (%)	0516	4.438	0.7030	4.026	0.2527	0.1537	22	1.63	NA	0
020.50	Total P2O5, ICP (%)	0433	5.725	0.0900	4.026	0.2527	0.1537	22	6.72	NA	0
020.99	Total P2O5, Other (%)	0513	3.975	0.0100	4.587	1.042	0.0509	3	-0.59		0
020.99	Total P2O5, Other (%)	0559	3.995	0.0100	4.587	1.042	0.0509	3	-0.57		0
020.99	Total P2O5, Other (%)	0515	5.791	0.1326	4.587	1.042	0.0509	3	1.15		0
040.99	Indirect Available P2O5, Other (4%)	0405	4.210	0.0400				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (4%)	0102	3.950	0.1000	4.013	0.0552	0.0750	3	-1.15		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (4%)	0041	4.040	0.1000	4.013	0.0552	0.0750	3	0.48		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (4%)	0086	4.050	0.0250	4.013	0.0552	0.0750	3	0.67		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0220	3.840	0.0800	4.030	0.1664	0.0961	7	-1.03	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0073	3.925	0.1700	4.030	0.1664	0.0961	7	-0.57	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0513	3.960	0.0200	4.030	0.1664	0.0961	7	-0.38	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0117	4.015	0.0500	4.030	0.1664	0.0961	7	-0.08	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0055	4.040	0.0600	4.030	0.1664	0.0961	7	0.05	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0485	4.152	0.0405	4.030	0.1664	0.0961	7	0.66	OK	0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext. (4%)	0072	4.279	0.2525	4.030	0.1664	0.0961	7	1.35	OK	0
041.20	Direct Available P2O5, Spectrophotometric (4%)	0553	3.875	0.0700				2			0
041.20	Direct Available P2O5, Spectrophotometric (4%)	0027	3.995	0.0500				2			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0055	3.865	0.0100	4.014	0.1807	0.1033	8	-0.75	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0037	3.871	0.0870	4.014	0.1807	0.1033	8	-0.73	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0106	3.885	0.1100	4.014	0.1807	0.1033	8	-0.65	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0472	3.885	0.2700	4.014	0.1807	0.1033	8	-0.65	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0394	4.045	0.0090	4.014	0.1807	0.1033	8	0.16	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0231	4.115	0.1900	4.014	0.1807	0.1033	8	0.51	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0522	4.180	0.0200	4.014	0.1807	0.1033	8	0.84	OK	0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (4%)	0354	4.265	0.1300	4.014	0.1807	0.1033	8	1.27	OK	0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (4%)	0029	3.935	0.1100				2			0
041.40	Direct Available P2O5, Automated, Citrate-EDTA Ext. (4%)	0034	4.038	0.0333				2			0
041.50	Direct Available P2O5, ICP (4%)	0231	3.905	0.1300	4.115	0.2751	0.1939	4	-0.76		0
041.50	Direct Available P2O5, ICP (4%)	0368	3.986	0.0146	4.115	0.2751	0.1939	4	-0.47		0
041.50	Direct Available P2O5, ICP (4%)	0325	4.050	0.5000	4.115	0.2751	0.1939	4	-0.23		0

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041.50	Direct Available P2O5, ICP (4%)	0131	4.518	0.1310	4.115	0.2751	0.1939	4	1.46		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0072	2.840	0.2040	3.965	0.2148	0.0728	12	-5.23	Low	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0377	3.600	0.0000	3.965	0.2148	0.0728	12	-1.70	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0486	3.840	0.0000	3.965	0.2148	0.0728	12	-0.58	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0405	3.940	0.0800	3.965	0.2148	0.0728	12	-0.12	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0136	3.975	0.0900	3.965	0.2148	0.0728	12	0.05	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0025	3.975	0.0500	3.965	0.2148	0.0728	12	0.05	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0040	4.000	0.0000	3.965	0.2148	0.0728	12	0.16	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0423	4.000	0.1000	3.965	0.2148	0.0728	12	0.16	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0043	4.035	0.1900	3.965	0.2148	0.0728	12	0.33	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0494	4.045	0.1100	3.965	0.2148	0.0728	12	0.37	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0360	4.195	0.0500	3.965	0.2148	0.0728	12	1.07	OK	0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (4%)	0023	6.400	0.0000	3.965	0.2148	0.0728	12	11.34	High	0
041.99	Direct Available P2O5, Other (4%)	0537	3.972	0.1612	4.062	0.0782	0.0789	12	-1.14	OK	0
041.99	Direct Available P2O5, Other (4%)	0538	3.975	0.1300	4.062	0.0782	0.0789	12	-1.11	OK	0
041.99	Direct Available P2O5, Other (4%)	0506	3.980	0.0000	4.062	0.0782	0.0789	12	-1.05	OK	0
041.99	Direct Available P2O5, Other (4%)	0531	4.025	0.0100	4.062	0.0782	0.0789	12	-0.47	OK	0
041.99	Direct Available P2O5, Other (4%)	0536	4.035	0.0300	4.062	0.0782	0.0789	12	-0.34	OK	0
041.99	Direct Available P2O5, Other (4%)	0560	4.041	0.0060	4.062	0.0782	0.0789	12	-0.27	OK	0
041.99	Direct Available P2O5, Other (4%)	0533	4.055	0.1700	4.062	0.0782	0.0789	12	-0.09	OK	0
041.99	Direct Available P2O5, Other (4%)	0551	4.110	0.0200	4.062	0.0782	0.0789	12	0.61	OK	0
041.99	Direct Available P2O5, Other (4%)	0540	4.115	0.1900	4.062	0.0782	0.0789	12	0.68	OK	0
041.99	Direct Available P2O5, Other (4%)	0549	4.125	0.0500	4.062	0.0782	0.0789	12	0.81	OK	0
041.99	Direct Available P2O5, Other (4%)	0532	4.130	0.0800	4.062	0.0782	0.0789	12	0.87	OK	0
041.99	Direct Available P2O5, Other (4%)	0518	4.650	0.1000	4.062	0.0782	0.0789	12	7.52	OK	0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0394	3.975	0.0100				1			0
048.50	Water Soluble P2O5, ICP (%)	0444	3.960	0.0400				1			0
048.99	Water Soluble P2O5, Other (%)	0558	3.970	0.0200				2			0
048.99	Water Soluble P2O5, Other (%)	0556	4.075	0.1500				2			0
050.00	Soluble K2O, STPB Oxalate (6%)	0220	6.010	0.0000	6.292	0.2761	0.1766	11	-0.95	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0494	6.055	0.0700	6.292	0.2761	0.1766	11	-0.80	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0114	6.080	0.1600	6.292	0.2761	0.1766	11	-0.72	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0405	6.090	0.0600	6.292	0.2761	0.1766	11	-0.68	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0522	6.230	0.1600	6.292	0.2761	0.1766	11	-0.21	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0231	6.240	0.0000	6.292	0.2761	0.1766	11	-0.18	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0416	6.320	0.1600	6.292	0.2761	0.1766	11	0.10	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0072	6.329	0.2028	6.292	0.2761	0.1766	11	0.13	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0055	6.450	0.2600	6.292	0.2761	0.1766	11	0.54	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0102	6.700	0.4000	6.292	0.2761	0.1766	11	1.38	OK	0
050.00	Soluble K2O, STPB Oxalate (6%)	0550	6.875	0.4700	6.292	0.2761	0.1766	11	1.98	High	0
050.30	Soluble K2O, AA (Oxalate) (6%)	0309	6.025	0.1500	6.178	0.1792	0.2450	4	-0.85		0
050.30	Soluble K2O, AA (Oxalate) (6%)	0356	6.100	0.7000	6.178	0.1792	0.2450	4	-0.43		0
050.30	Soluble K2O, AA (Oxalate) (6%)	0040	6.150	0.1000	6.178	0.1792	0.2450	4	-0.15		0
050.30	Soluble K2O, AA (Oxalate) (6%)	0073	6.435	0.0300	6.178	0.1792	0.2450	4	1.44		0
050.31	Soluble K2O, AA (Citrate) (6%)	0472	5.855	0.0900				1			0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0390	5.755	0.2500	6.184	0.3187	0.2186	7	-1.22	OK	0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0292	5.900	0.0400	6.184	0.3187	0.2186	7	-0.80	OK	0

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050.50	Soluble K2O, ICP (Oxalate) (6%)	0422	6.115	0.2700	6.184	0.3187	0.2186	7	-0.19	OK	0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0324	6.185	0.5700	6.184	0.3187	0.2186	7	0.00	OK	0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0106	6.405	0.0700	6.184	0.3187	0.2186	7	0.63	OK	0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0055	6.445	0.1700	6.184	0.3187	0.2186	7	0.74	OK	0
050.50	Soluble K2O, ICP (Oxalate) (6%)	0444	6.480	0.1600	6.184	0.3187	0.2186	7	0.84	OK	0
050.51	Soluble K2O, ICP (Citrate) (6%)	0547	5.990	0.0400	6.381	0.3338	0.0408	4	-1.17		0
050.51	Soluble K2O, ICP (Citrate) (6%)	0452	6.320	0.0200	6.381	0.3338	0.0408	4	-0.18		0
050.51	Soluble K2O, ICP (Citrate) (6%)	0368	6.411	0.0503	6.381	0.3338	0.0408	4	0.09		0
050.51	Soluble K2O, ICP (Citrate) (6%)	0131	6.802	0.0530	6.381	0.3338	0.0408	4	1.26		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0023	4.100	0.0000	6.109	0.2003	0.1113	13	-10.03	Low	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0543	4.990	0.1400	6.109	0.2003	0.1113	13	-5.59	Low	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0136	5.910	0.1800	6.109	0.2003	0.1113	13	-0.99	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0360	6.040	0.0600	6.109	0.2003	0.1113	13	-0.35	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0377	6.120	0.0000	6.109	0.2003	0.1113	13	0.05	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0423	6.135	0.0700	6.109	0.2003	0.1113	13	0.13	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0025	6.145	0.0100	6.109	0.2003	0.1113	13	0.18	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0043	6.145	0.0300	6.109	0.2003	0.1113	13	0.18	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0494	6.170	0.3600	6.109	0.2003	0.1113	13	0.30	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0354	6.210	0.0400	6.109	0.2003	0.1113	13	0.50	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0486	6.260	0.0800	6.109	0.2003	0.1113	13	0.75	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0072	6.266	0.3856	6.109	0.2003	0.1113	13	0.78	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (6%)	0485	6.401	0.0910	6.109	0.2003	0.1113	13	1.45	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (6%)	0510	5.997	0.0024	6.284	0.3606	0.1313	3	-0.79		0
050.60	Soluble K2O, Flame Photometric (Oxalate) (6%)	0169	6.165	0.0300	6.284	0.3606	0.1313	3	-0.33		0
050.60	Soluble K2O, Flame Photometric (Oxalate) (6%)	0476	6.688	0.3615	6.284	0.3606	0.1313	3	1.12		0
050.61	Soluble K2O, Flame Photometric (Citrate) (6%)	0456	6.015	0.1700				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (6%)	0035	6.045	0.0700				2			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	0513	6.015	0.0700	6.332	0.2572	0.0992	5	-1.23		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	0037	6.137	0.0290	6.332	0.2572	0.0992	5	-0.76		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	0034	6.365	0.0272	6.332	0.2572	0.0992	5	0.13		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	0029	6.505	0.0500	6.332	0.2572	0.0992	5	0.67		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (6%)	0095	6.640	0.3200	6.332	0.2572	0.0992	5	1.20		0
050.99	Soluble K2O, Other (6%)	0498	5.500	0.0000	6.090	0.1989	0.0973	38	-2.97	Low	0
050.99	Soluble K2O, Other (6%)	0525	5.725	0.1500	6.090	0.1989	0.0973	38	-1.84	OK	0
050.99	Soluble K2O, Other (6%)	0325	5.800	0.2000	6.090	0.1989	0.0973	38	-1.46	OK	0
050.99	Soluble K2O, Other (6%)	0096	5.825	0.1700	6.090	0.1989	0.0973	38	-1.33	OK	0
050.99	Soluble K2O, Other (6%)	0481	5.885	0.0700	6.090	0.1989	0.0973	38	-1.03	OK	0
050.99	Soluble K2O, Other (6%)	0518	5.910	0.0000	6.090	0.1989	0.0973	38	-0.91	OK	0
050.99	Soluble K2O, Other (6%)	0371	5.925	0.0100	6.090	0.1989	0.0973	38	-0.83	OK	0
050.99	Soluble K2O, Other (6%)	0394	5.940	0.0800	6.090	0.1989	0.0973	38	-0.76	OK	0
050.99	Soluble K2O, Other (6%)	0558	5.945	0.0700	6.090	0.1989	0.0973	38	-0.73	OK	0
050.99	Soluble K2O, Other (6%)	0533	5.985	0.0100	6.090	0.1989	0.0973	38	-0.53	OK	0
050.99	Soluble K2O, Other (6%)	0234	6.000	0.0000	6.090	0.1989	0.0973	38	-0.45	OK	0
050.99	Soluble K2O, Other (6%)	0536	6.010	0.0800	6.090	0.1989	0.0973	38	-0.40	OK	0
050.99	Soluble K2O, Other (6%)	0561	6.010	0.0600	6.090	0.1989	0.0973	38	-0.40	OK	0
050.99	Soluble K2O, Other (6%)	0537	6.013	0.0194	6.090	0.1989	0.0973	38	-0.39	OK	0
050.99	Soluble K2O, Other (6%)	0433	6.015	0.0300	6.090	0.1989	0.0973	38	-0.38	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 (6%)	0532	6.020	0.0800	6.090	0.1989	0.0973	38	-0.35	OK	0
050.99	Soluble K2O, Other (6%)	0493	6.025	0.0300	6.090	0.1989	0.0973	38	-0.33	OK	0
050.99	Soluble K2O, Other (6%)	0538	6.050	0.0600	6.090	0.1989	0.0973	38	-0.20	OK	0
050.99	Soluble K2O, Other (6%)	0540	6.055	0.1300	6.090	0.1989	0.0973	38	-0.18	OK	0
050.99	Soluble K2O, Other (6%)	0560	6.086	0.0620	6.090	0.1989	0.0973	38	-0.02	OK	0
050.99	Soluble K2O, Other (6%)	0559	6.115	0.0100	6.090	0.1989	0.0973	38	0.12	OK	0
050.99	Soluble K2O, Other (6%)	0506	6.130	0.0000	6.090	0.1989	0.0973	38	0.20	OK	0
050.99	Soluble K2O, Other (6%)	0515	6.134	0.4402	6.090	0.1989	0.0973	38	0.22	OK	0
050.99	Soluble K2O, Other (6%)	0549	6.145	0.1100	6.090	0.1989	0.0973	38	0.27	OK	0
050.99	Soluble K2O, Other (6%)	0551	6.145	0.0300	6.090	0.1989	0.0973	38	0.27	OK	0
050.99	Soluble K2O, Other (6%)	0531	6.150	0.1000	6.090	0.1989	0.0973	38	0.30	OK	0
050.99	Soluble K2O, Other (6%)	0177	6.157	0.0463	6.090	0.1989	0.0973	38	0.34	OK	0
050.99	Soluble K2O, Other (6%)	0451	6.200	0.0200	6.090	0.1989	0.0973	38	0.55	OK	0
050.99	Soluble K2O, Other (6%)	0501	6.210	0.1600	6.090	0.1989	0.0973	38	0.60	OK	0
050.99	Soluble K2O, Other (6%)	0389	6.215	0.0100	6.090	0.1989	0.0973	38	0.63	OK	0
050.99	Soluble K2O, Other (6%)	0255	6.237	0.3350	6.090	0.1989	0.0973	38	0.73	OK	0
050.99	Soluble K2O, Other (6%)	0521	6.273	0.3416	6.090	0.1989	0.0973	38	0.92	OK	0
050.99	Soluble K2O, Other (6%)	0553	6.300	0.2000	6.090	0.1989	0.0973	38	1.05	OK	0
050.99	Soluble K2O, Other (6%)	0527	6.488	0.0343	6.090	0.1989	0.0973	38	2.00	OK	0
050.99	Soluble K2O, Other (6%)	0556	6.600	0.2000	6.090	0.1989	0.0973	38	2.56	High	0
050.99	Soluble K2O, Other (6%)	0027	6.610	0.0600	6.090	0.1989	0.0973	38	2.61	High	0
050.99	Soluble K2O, Other (6%)	0546	6.618	0.0470	6.090	0.1989	0.0973	38	2.65	High	0
050.99	Soluble K2O, Other (6%)	0516	7.778	0.2400	6.090	0.1989	0.0973	38	8.48	High	0
050.99	Soluble K2O, Other (6%)	0524	6.209	0.6978	6.090	0.1989	0.0973	38	0.59	OK	1
050.99	Soluble K2O, Other (6%)	0482	6.440	0.8800	6.090	0.1989	0.0973	38	1.76	OK	1
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0553	0.0010	0.0000				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0096	0.0035	0.0010				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0035	0.0050	0.0000				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					2			5
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0136	0.0025	0.0010				2			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0527	0.0087	0.0007				2			0
101.99	Acid Soluble Ca, Other (%)	0389	0.0000	0.0000				0			4
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	0553	0.0020	0.0000				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					0			5
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0136	0.0010	0.0000	0.0029	0.0022	0.0007	5	-0.85		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0086	0.0012	0.0002	0.0029	0.0022	0.0007	5	-0.76		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0527	0.0017	0.0001	0.0029	0.0022	0.0007	5	-0.56		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0106	0.0051	0.0006	0.0029	0.0022	0.0007	5	0.97		0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0515	0.0056	0.0026	0.0029	0.0022	0.0007	5	1.20		0
121.99	Acid Soluble Mg, Other (%)	0389	0.0014	0.0001	0.0288	0.0474	0.0291	3	-0.58		0
121.99	Acid Soluble Mg, Other (%)	0515	0.0016	0.0001	0.0288	0.0474	0.0291	3	-0.58		0
121.99	Acid Soluble Mg, Other (%)	0516	0.0835	0.0870	0.0288	0.0474	0.0291	3	1.15		0
121.99	Acid Soluble Mg, Other (%)	0524	0.0000	0.0000	0.0288	0.0474	0.0291	3			4
143.99	Elemental S, Other (%)	0472	0.0150	0.0100				2			0
143.99	Elemental S, Other (%)	0389	0.0220	0.0000				2			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0546	0.0230	0.0083				2			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0515	0.0277	0.0183				2			0

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			Value	Range	Rob Mean	Rob SD	R-bar				
148.07	Total S, ICP, test portion as in 2017.02 (%)	0527	< 0.001					2			5
148.99	Total S, Other (%)	0096	0.0140	0.0000	0.0663	0.0459	0.0173	3	-1.14		0
148.99	Total S, Other (%)	0354	0.0850	0.0100	0.0663	0.0459	0.0173	3	0.41		0
148.99	Total S, Other (%)	0516	0.1000	0.0420	0.0663	0.0459	0.0173	3	0.73		0
149.04	S - HNO3 soluble, ICP (%)	0524	0.0169	0.0021				1			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.08					0			5
151.30	Acid Soluble As, ICP (ppm)	0501	0.7915	0.0610	0.8656	0.0924	0.1443	4	-0.80		0
151.30	Acid Soluble As, ICP (ppm)	0255	0.8215	0.2950	0.8656	0.0924	0.1443	4	-0.48		0
151.30	Acid Soluble As, ICP (ppm)	0450	0.8500	0.1000	0.8656	0.0924	0.1443	4	-0.17		0
151.30	Acid Soluble As, ICP (ppm)	0524	0.9995	0.1210	0.8656	0.0924	0.1443	4	1.45		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	0.8150	0.0500				2			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	1.309	0.3955				2			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				2			4
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	< 10					2			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	2.371	0.8500				2			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	2.795	0.3900				2			0
151.99	Acid Soluble As, Other (ppm)	0506	1.085	0.0100				1			0
151.99	Acid Soluble As, Other (ppm)	0405	< 3					1			5
151.99	Acid Soluble As, Other (ppm)	0027	< 10					1			5
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	0.0900	0.0000	0.0970	0.0057	0.0024	5	-1.22		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0106	0.0918	0.0080	0.0970	0.0057	0.0024	5	-0.91		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0444	0.1000	0.0000	0.0970	0.0057	0.0024	5	0.52		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0546	0.1002	0.0002	0.0970	0.0057	0.0024	5	0.56		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0451	0.1030	0.0040	0.0970	0.0057	0.0024	5	1.05		0
165.99	Acid Soluble B, Other (%)	0472	0.0900	0.0000	0.1055	0.0170	0.0078	9	-0.84	OK	0
165.99	Acid Soluble B, Other (%)	0423	0.0935	0.0030	0.1055	0.0170	0.0078	9	-0.65	OK	0
165.99	Acid Soluble B, Other (%)	0086	0.0936	0.0058	0.1055	0.0170	0.0078	9	-0.65	OK	0
165.99	Acid Soluble B, Other (%)	0368	0.0976	0.0020	0.1055	0.0170	0.0078	9	-0.43	OK	0
165.99	Acid Soluble B, Other (%)	0524	0.0982	0.0008	0.1055	0.0170	0.0078	9	-0.40	OK	0
165.99	Acid Soluble B, Other (%)	0482	0.1050	0.0100	0.1055	0.0170	0.0078	9	-0.03	OK	0
165.99	Acid Soluble B, Other (%)	0527	0.1149	0.0016	0.1055	0.0170	0.0078	9	0.51	OK	0
165.99	Acid Soluble B, Other (%)	0516	0.1260	0.0240	0.1055	0.0170	0.0078	9	1.11	High	0
165.99	Acid Soluble B, Other (%)	0515	0.1440	0.0233	0.1055	0.0170	0.0078	9	2.08	High	0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	143.8	0.4700				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.1175	0.0170	0.1676	0.0655	0.0076	5	-0.67		0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.1233	0.0100	0.1676	0.0655	0.0076	5	-0.59		0
181.30	Acid Soluble Cd, ICP (ppm)	0501	0.1480	0.0000	0.1676	0.0655	0.0076	5	-0.26		0
181.30	Acid Soluble Cd, ICP (ppm)	0394	0.1707	0.0002	0.1676	0.0655	0.0076	5	0.04		0
181.30	Acid Soluble Cd, ICP (ppm)	0389	0.2785	0.0110	0.1676	0.0655	0.0076	5	1.48		0
181.30	Acid Soluble Cd, ICP (ppm)	0450	0.1500	0.1000	0.1676	0.0655	0.0076	5	-0.23		1
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	0.1400	0.0000				1			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				1			4
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	< 5					1			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					0			5
181.99	Acid Soluble Cd, Other (ppm)	0405	0.0950	0.0100	0.1580	0.0598	0.0147	3	-1.05		0

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			Value	Range	Rob Mean	Rob SD	R-bar				
181.99	Acid Soluble Cd, Other (ppm)	0220	0.1650	0.0300	0.1580	0.0598	0.0147	3	0.12		0
181.99	Acid Soluble Cd, Other (ppm)	0506	0.2140	0.0040	0.1580	0.0598	0.0147	3	0.94		0
181.99	Acid Soluble Cd, Other (ppm)	0027	< 10		0.1580	0.0598	0.0147	3			5
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	2,069	6.000				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0394	0.9226	0.0279	2.787	1.719	0.1862	8	-0.99	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0096	1.700	0.0000	2.787	1.719	0.1862	8	-0.58	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	2.000	0.0000	2.787	1.719	0.1862	8	-0.42	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0501	2.030	0.0600	2.787	1.719	0.1862	8	-0.40	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	2.169	0.5863	2.787	1.719	0.1862	8	-0.33	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0389	3.996	0.2350	2.787	1.719	0.1862	8	0.64	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0482	4.110	0.1800	2.787	1.719	0.1862	8	0.70	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	5.380	0.4000	2.787	1.719	0.1862	8	1.38	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0027	< 10		2.787	1.719	0.1862	8			5
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	1.905	0.1070	6.258	2.953	0.9943	4	-1.47		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	7.255	2.908	6.258	2.953	0.9943	4	0.34		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	7.390	0.7800	6.258	2.953	0.9943	4	0.38		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	8.481	0.1820	6.258	2.953	0.9943	4	0.75		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	1.420	0.3800				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	3.630	1.022				2			0
191.99	Acid Soluble Cr, Other (ppm)	0405	2.050	0.1000	3.132	1.156	0.2567	3	-0.94		0
191.99	Acid Soluble Cr, Other (ppm)	0506	2.995	0.1700	3.132	1.156	0.2567	3	-0.12		0
191.99	Acid Soluble Cr, Other (ppm)	0220	4.350	0.5000	3.132	1.156	0.2567	3	1.05		0
202.30	Acid Soluble Co, ICP (ppm)	0035	0.8060	0.0540	0.8427	0.0325	0.0345	3	-1.13		0
202.30	Acid Soluble Co, ICP (ppm)	0389	0.8540	0.0020	0.8427	0.0325	0.0345	3	0.35		0
202.30	Acid Soluble Co, ICP (ppm)	0524	0.8680	0.0474	0.8427	0.0325	0.0345	3	0.78		0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0423	0.3940	0.0120				1			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0546	0.6937	0.2172	0.9753	0.3454	0.7595	4	-0.82		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0086	0.7758	0.0163	0.9753	0.3454	0.7595	4	-0.58		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	0.9678	0.0019	0.9753	0.3454	0.7595	4	-0.02		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	1.464	2.802	0.9753	0.3454	0.7595	4	1.41		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0550	< 0.09		0.9753	0.3454	0.7595	4			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	0.7775	0.9870	0.9195	0.1329	0.4263	3	-1.07		0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	0.9400	0.2000	0.9195	0.1329	0.4263	3	0.15		0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0501	1.041	0.0920	0.9195	0.1329	0.4263	3	0.91		0
202.99	Acid Soluble Co, Other (ppm)	0255	0.8190	0.0180	0.9030	0.0912	0.0127	3	-0.92		0
202.99	Acid Soluble Co, Other (ppm)	0220	0.8900	0.0200	0.9030	0.0912	0.0127	3	-0.14		0
202.99	Acid Soluble Co, Other (ppm)	0405	1.000	0.0000	0.9030	0.0912	0.0127	3	1.06		0
202.99	Acid Soluble Co, Other (ppm)	0027	< 10		0.9030	0.0912	0.0127	3			5
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0513	0.1750	0.0100	0.2079	0.0146	0.0106	11	-2.26	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0550	0.1990	0.0180	0.2079	0.0146	0.0106	11	-0.61	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0498	0.2000	0.0000	0.2079	0.0146	0.0106	11	-0.54	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0534	0.2000	0.0000	0.2079	0.0146	0.0106	11	-0.54	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0029	0.2030	0.0058	0.2079	0.0146	0.0106	11	-0.34	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0485	0.2032	0.0192	0.2079	0.0146	0.0106	11	-0.33	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0040	0.2058	0.0016	0.2079	0.0146	0.0106	11	-0.15	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0536	0.2200	0.0200	0.2079	0.0146	0.0106	11	0.83	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0551	0.2200	0.0200	0.2079	0.0146	0.0106	11	0.83	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0537	0.2205	0.0190	0.2079	0.0146	0.0106	11	0.86	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0553	0.2345	0.0030	0.2079	0.0146	0.0106	11	1.82	High	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (0.2%)	0540	0.2600	0.0800	0.2079	0.0146	0.0106	11	3.57	High	1
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0095	0.1600	0.0000	0.2003	0.0168	0.0025	18	-2.39	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0255	0.1785	0.0070	0.2003	0.0168	0.0025	18	-1.29	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0102	0.1790	0.0044	0.2003	0.0168	0.0025	18	-1.26	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0324	0.1805	0.0050	0.2003	0.0168	0.0025	18	-1.17	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0450	0.1900	0.0000	0.2003	0.0168	0.0025	18	-0.61	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0023	0.2000	0.0000	0.2003	0.0168	0.0025	18	-0.02	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0234	0.2000	0.0000	0.2003	0.0168	0.0025	18	-0.02	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0354	0.2000	0.0000	0.2003	0.0168	0.0025	18	-0.02	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0433	0.2000	0.0020	0.2003	0.0168	0.0025	18	-0.02	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0472	0.2000	0.0000	0.2003	0.0168	0.0025	18	-0.02	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0451	0.2030	0.0000	0.2003	0.0168	0.0025	18	0.16	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0360	0.2055	0.0010	0.2003	0.0168	0.0025	18	0.31	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0035	0.2085	0.0030	0.2003	0.0168	0.0025	18	0.49	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0096	0.2091	0.0029	0.2003	0.0168	0.0025	18	0.52	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0049	0.2100	0.0200	0.2003	0.0168	0.0025	18	0.58	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0231	0.2200	0.0000	0.2003	0.0168	0.0025	18	1.17	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0444	0.2200	0.0000	0.2003	0.0168	0.0025	18	1.17	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0371	0.2400	0.0000	0.2003	0.0168	0.0025	18	2.36	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (0.2%)	0482	0.2300	0.0600	0.2003	0.0168	0.0025	18	1.77	High	1
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	0521	0.1883	0.0111	0.2060	0.0153	0.0062	5	-1.16		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	0394	0.1992	0.0011	0.2060	0.0153	0.0062	5	-0.45		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	0220	0.2000	0.0000	0.2060	0.0153	0.0062	5	-0.39		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	0043	0.2150	0.0100	0.2060	0.0153	0.0062	5	0.59		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (0.2%)	0423	0.2275	0.0090	0.2060	0.0153	0.0062	5	1.40		0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0055	0.1900	0.0000	0.2052	0.0118	0.0054	12	-1.29	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0486	0.1900	0.0000	0.2052	0.0118	0.0054	12	-1.29	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0106	0.1934	0.0034	0.2052	0.0118	0.0054	12	-1.00	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0117	0.2028	0.0001	0.2052	0.0118	0.0054	12	-0.21	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0177	0.2034	0.0062	0.2052	0.0118	0.0054	12	-0.16	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0086	0.2038	0.0114	0.2052	0.0118	0.0054	12	-0.12	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0527	0.2051	0.0017	0.2052	0.0118	0.0054	12	-0.02	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0136	0.2095	0.0230	0.2052	0.0118	0.0054	12	0.36	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0546	0.2116	0.0012	0.2052	0.0118	0.0054	12	0.54	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0037	0.2135	0.0050	0.2052	0.0118	0.0054	12	0.70	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0027	0.2170	0.0100	0.2052	0.0118	0.0054	12	0.99	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0515	0.2645	0.0027	0.2052	0.0118	0.0054	12	5.01	High	0
221.33	Acid Soluble Cu, ICP, 2017.02 (0.2%)	0543	0.3150	0.0900	0.2052	0.0118	0.0054	12	9.28	High	1
221.99	Acid Soluble Cu, Other (0.2%)	0524	0.1974	0.0237	0.2104	0.0151	0.0102	15	-0.87	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0559	0.1975	0.0010	0.2104	0.0151	0.0102	15	-0.86	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0481	0.2000	0.0000	0.2104	0.0151	0.0102	15	-0.69	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0027	0.2015	0.0110	0.2104	0.0151	0.0102	15	-0.59	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0390	0.2040	0.0020	0.2104	0.0151	0.0102	15	-0.43	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0560	0.2040	0.0100	0.2104	0.0151	0.0102	15	-0.43	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0389	0.2050	0.0035	0.2104	0.0151	0.0102	15	-0.36	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
221.99	Acid Soluble Cu, Other (0.2%)	0506	0.2050	0.0100	0.2104	0.0151	0.0102	15	-0.36	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0558	0.2050	0.0100	0.2104	0.0151	0.0102	15	-0.36	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0501	0.2055	0.0150	0.2104	0.0151	0.0102	15	-0.33	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0368	0.2072	0.0010	0.2104	0.0151	0.0102	15	-0.21	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0516	0.2270	0.0080	0.2104	0.0151	0.0102	15	1.10	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0405	0.2315	0.0030	0.2104	0.0151	0.0102	15	1.40	OK	0
221.99	Acid Soluble Cu, Other (0.2%)	0515	0.2498	0.0142	0.2104	0.0151	0.0102	15	2.61	High	0
221.99	Acid Soluble Cu, Other (0.2%)	0532	0.2800	0.0400	0.2104	0.0151	0.0102	15	4.61	High	0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	0546	0.0030	0.0011				1			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0035	0.0027	0.0004				1			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					1			5
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	19.18	1.460				1			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	0.0021	0.0001	0.0054	0.0050	0.0000	3	-0.67		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0136	0.0030	0.0000	0.0054	0.0050	0.0000	3	-0.48		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	0.0112	0.0000	0.0054	0.0050	0.0000	3	1.15		0
241.99	Acid Soluble Fe, Other (%)	0524	0.0021	0.0002	0.0064	0.0068	0.0030	4	-0.64		0
241.99	Acid Soluble Fe, Other (%)	0389	0.0027	0.0001	0.0064	0.0068	0.0030	4	-0.56		0
241.99	Acid Soluble Fe, Other (%)	0515	0.0045	0.0047	0.0064	0.0068	0.0030	4	-0.29		0
241.99	Acid Soluble Fe, Other (%)	0516	0.0165	0.0070	0.0064	0.0068	0.0030	4	1.48		0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 1.5					0			5
251.30	Acid Soluble Pb, ICP (ppm)	0389	0.2030	0.0100	0.8177	0.7418	0.0687	7	-0.75	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0394	0.4217	0.2666	0.8177	0.7418	0.0687	7	-0.48	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0255	0.4530	0.0520	0.8177	0.7418	0.0687	7	-0.44	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0450	0.5500	0.1000	0.8177	0.7418	0.0687	7	-0.33	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0501	0.6085	0.0110	0.8177	0.7418	0.0687	7	-0.25	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0524	1.557	0.0113	0.8177	0.7418	0.0687	7	0.90	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0482	3.715	0.0300	0.8177	0.7418	0.0687	7	3.53	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0035	5.245	1.150	0.8177	0.7418	0.0687	7	5.40	NA	1
251.30	Acid Soluble Pb, ICP (ppm)	0027	< 10		0.8177	0.7418	0.0687	7			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	0.4750	0.0100	1.481	1.021	0.2363	5	-0.86		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	0.5236	0.0163	1.481	1.021	0.2363	5	-0.82		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0086	1.565	0.7840	1.481	1.021	0.2363	5	0.07		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0037	1.937	0.2100	1.481	1.021	0.2363	5	0.39		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	2.906	0.1610	1.481	1.021	0.2363	5	1.22		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	< 5		1.481	1.021	0.2363	5			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	2.686	1.125				1			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.8					1			5
251.99	Acid Soluble Pb, Other (ppm)	0506	9.310	0.4600				1			0
251.99	Acid Soluble Pb, Other (ppm)	0405	< 2					1			5
261.11	Acid Soluble Mn, AA, total Mn (1%)	0553	0.9875	0.0150				2			0
261.11	Acid Soluble Mn, AA, total Mn (1%)	0550	0.9890	0.1620				2			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0513	0.9500	0.0200	1.076	0.0864	0.0405	10	-1.35	Low	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0537	0.9700	0.0600	1.076	0.0864	0.0405	10	-1.14	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0540	1.025	0.0300	1.076	0.0864	0.0405	10	-0.55	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0029	1.081	0.0630	1.076	0.0864	0.0405	10	0.05	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0485	1.084	0.0003	1.076	0.0864	0.0405	10	0.08	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0531	1.100	0.1000	1.076	0.0864	0.0405	10	0.26	OK	0

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261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0534	1.100	0.0000	1.076	0.0864	0.0405	10	0.26	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0040	1.109	0.0020	1.076	0.0864	0.0405	10	0.36	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0551	1.135	0.0700	1.076	0.0864	0.0405	10	0.64	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1%)	0536	1.570	0.0600	1.076	0.0864	0.0405	10	5.32	High	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0023	1.000	0.0000	1.070	0.0576	0.0086	7	-1.10	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0096	1.021	0.0065	1.070	0.0576	0.0086	7	-0.77	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0390	1.065	0.0100	1.070	0.0576	0.0086	7	-0.08	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0472	1.075	0.0100	1.070	0.0576	0.0086	7	0.07	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0035	1.080	0.0200	1.070	0.0576	0.0086	7	0.15	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0354	1.095	0.0100	1.070	0.0576	0.0086	7	0.39	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0433	1.156	0.0040	1.070	0.0576	0.0086	7	1.35	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1%)	0102	1.082	0.0770	1.070	0.0576	0.0086	7	0.18	OK	1
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1%)	0234	1.000	0.0000	1.112	0.1446	0.1300	3	-0.77		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1%)	0360	1.060	0.0000	1.112	0.1446	0.1300	3	-0.36		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1%)	0482	1.275	0.3900	1.112	0.1446	0.1300	3	1.13		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	0451	1.030	0.0200	1.079	0.0375	0.0380	5	-1.31		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	0371	1.050	0.0200	1.079	0.0375	0.0380	5	-0.77		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	0231	1.090	0.0000	1.079	0.0375	0.0380	5	0.29		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	0049	1.110	0.1200	1.079	0.0375	0.0380	5	0.83		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1%)	0444	1.115	0.0300	1.079	0.0375	0.0380	5	0.96		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	0220	1.015	0.0100	1.075	0.0737	0.0197	5	-0.81		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	0394	1.019	0.0056	1.075	0.0737	0.0197	5	-0.75		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	0034	1.055	0.0302	1.075	0.0737	0.0197	5	-0.27		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	0521	1.090	0.0427	1.075	0.0737	0.0197	5	0.20		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1%)	0423	1.195	0.0100	1.075	0.0737	0.0197	5	1.63		0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0486	0.9450	0.0100	1.040	0.0563	0.0313	13	-1.69	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0106	0.9816	0.0603	1.040	0.0563	0.0313	13	-1.04	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0543	1.000	0.0800	1.040	0.0563	0.0313	13	-0.71	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0561	1.005	0.0300	1.040	0.0563	0.0313	13	-0.63	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0055	1.020	0.0200	1.040	0.0563	0.0313	13	-0.36	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0086	1.038	0.0440	1.040	0.0563	0.0313	13	-0.04	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0527	1.047	0.0066	1.040	0.0563	0.0313	13	0.12	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0177	1.049	0.0295	1.040	0.0563	0.0313	13	0.15	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0136	1.050	0.0400	1.040	0.0563	0.0313	13	0.17	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0546	1.054	0.0091	1.040	0.0563	0.0313	13	0.24	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0043	1.075	0.0500	1.040	0.0563	0.0313	13	0.62	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0117	1.124	0.0034	1.040	0.0563	0.0313	13	1.49	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0037	1.142	0.0240	1.040	0.0563	0.0313	13	1.81	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1%)	0515	1.943	1.141	1.040	0.0563	0.0313	13	16.03	High	1
261.99	Acid Soluble Mn, Other (1%)	0558	0.9450	0.0100	1.072	0.1261	0.0336	15	-1.00	Low	0
261.99	Acid Soluble Mn, Other (1%)	0095	0.9550	0.0500	1.072	0.1261	0.0336	15	-0.92	Low	0
261.99	Acid Soluble Mn, Other (1%)	0481	0.9600	0.0000	1.072	0.1261	0.0336	15	-0.88	OK	0
261.99	Acid Soluble Mn, Other (1%)	0255	0.9625	0.0030	1.072	0.1261	0.0336	15	-0.86	OK	0
261.99	Acid Soluble Mn, Other (1%)	0524	0.9947	0.1462	1.072	0.1261	0.0336	15	-0.61	OK	0
261.99	Acid Soluble Mn, Other (1%)	0506	1.015	0.0300	1.072	0.1261	0.0336	15	-0.45	OK	0
261.99	Acid Soluble Mn, Other (1%)	0501	1.030	0.0200	1.072	0.1261	0.0336	15	-0.33	OK	0
261.99	Acid Soluble Mn, Other (1%)	0559	1.039	0.0010	1.072	0.1261	0.0336	15	-0.26	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				
261.99	Acid Soluble Mn, Other (1%)	0389	1.072	0.0030	1.072	0.1261	0.0336	15	0.00	OK	0
261.99	Acid Soluble Mn, Other (1%)	0368	1.100	0.0132	1.072	0.1261	0.0336	15	0.23	OK	0
261.99	Acid Soluble Mn, Other (1%)	0532	1.105	0.0300	1.072	0.1261	0.0336	15	0.27	OK	0
261.99	Acid Soluble Mn, Other (1%)	0027	1.128	0.1030	1.072	0.1261	0.0336	15	0.44	OK	0
261.99	Acid Soluble Mn, Other (1%)	0516	1.247	0.0510	1.072	0.1261	0.0336	15	1.39	High	0
261.99	Acid Soluble Mn, Other (1%)	0405	1.280	0.0200	1.072	0.1261	0.0336	15	1.65	High	0
261.99	Acid Soluble Mn, Other (1%)	0515	1.378	0.0238	1.072	0.1261	0.0336	15	2.43	High	0
271.00	Water Soluble Mn, AA (%)	0537	0.9305	0.0890	1.026	0.0896	0.0518	4	-1.06		0
271.00	Water Soluble Mn, AA (%)	0536	0.9900	0.0400	1.026	0.0896	0.0518	4	-0.40		0
271.00	Water Soluble Mn, AA (%)	0356	1.040	0.0600	1.026	0.0896	0.0518	4	0.16		0
271.00	Water Soluble Mn, AA (%)	0027	1.142	0.0180	1.026	0.0896	0.0518	4	1.30		0
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	0444	1.050	0.0000				1			0
271.99	Water Soluble Mn, Other (%)	0560	1.031	0.0770				1			0
281.00	Acid Soluble Hg, AA (ppm)	0550	< 0.001					0			5
281.00	Acid Soluble Hg, AA (ppm)	0117	< 0.2					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0501	0.0030	0.0020				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0450	0.0000	0.0000				1			4
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)	0368	0.0070	0.0002				1			0
281.99	Acid Soluble Hg, Other (ppm)	0220	< 0.01					1			5
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.1					0			5
289.30	Acid Soluble Mo, ICP (ppm)	0450	0.1000	0.0000	3.811	4.723	0.6419	5	-0.79		0
289.30	Acid Soluble Mo, ICP (ppm)	0524	0.1658	0.1186	3.811	4.723	0.6419	5	-0.77		0
289.30	Acid Soluble Mo, ICP (ppm)	0255	0.9905	0.2910	3.811	4.723	0.6419	5	-0.60		0
289.30	Acid Soluble Mo, ICP (ppm)	0096	7.800	2.800	3.811	4.723	0.6419	5	0.84		0
289.30	Acid Soluble Mo, ICP (ppm)	0516	10.00	0.0000	3.811	4.723	0.6419	5	1.31		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				0			4
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	< 0.0001					0			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0501	0.2230	0.0020				1			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				1			4
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					1			5
289.99	Acid Soluble Mo, Other (ppm)	0405	< 0.6					0			5
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	1,276	139.0				1			0
291.30	Acid Soluble Ni, ICP (ppm)	0389	0.2330	0.0600	0.9702	0.7464	0.2739	7	-0.89	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	0.4243	0.5144	0.9702	0.7464	0.2739	7	-0.66	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0394	0.4996	0.3128	0.9702	0.7464	0.2739	7	-0.57	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	1.000	0.0000	0.9702	0.7464	0.2739	7	0.04	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0096	1.050	0.1000	0.9702	0.7464	0.2739	7	0.10	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0482	1.495	0.3100	0.9702	0.7464	0.2739	7	0.64	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	2.210	0.6200	0.9702	0.7464	0.2739	7	1.50	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	1.016	0.0411	1.832	0.7408	0.9554	3	-1.10		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	2.020	0.0440	1.832	0.7408	0.9554	3	0.25		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	2.462	2.781	1.832	0.7408	0.9554	3	0.85		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	< 5		1.832	0.7408	0.9554	3			5
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0501	1.295	0.0300	1.672	0.6225	0.9037	3	-0.60		0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	1.330	0.6610	1.672	0.6225	0.9037	3	-0.55		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
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291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	2.390	2.020	1.672	0.6225	0.9037	3	1.15		0
291.99	Acid Soluble Ni, Other (ppm)	0255	0.2280	0.2060	2.705	2.902	0.2965	4	-0.85		0
291.99	Acid Soluble Ni, Other (ppm)	0405	1.300	0.0000	2.705	2.902	0.2965	4	-0.48		0
291.99	Acid Soluble Ni, Other (ppm)	0220	2.450	0.7000	2.705	2.902	0.2965	4	-0.09		0
291.99	Acid Soluble Ni, Other (ppm)	0506	6.840	0.2800	2.705	2.902	0.2965	4	1.42		0
291.99	Acid Soluble Ni, Other (ppm)	0027	< 10		2.705	2.902	0.2965	4			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	4.425	2.170				1			0
301.30	Acid Soluble Se, ICP (ppm)	0027	< 10					1			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	3.861	1.714				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0037	10.25	1.468				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.001					2			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	5.703	0.5180				1			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 1.4					1			5
301.99	Acid Soluble Se, Other (ppm)	0220	0.4000	0.0200				2			0
301.99	Acid Soluble Se, Other (ppm)	0255	0.4140	0.0100				2			0
301.99	Acid Soluble Se, Other (ppm)	0405	< 3					2			5
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0136	0.0640	0.0080	0.0724	0.0069	0.0065	6	-1.09	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	0.0675	0.0010	0.0724	0.0069	0.0065	6	-0.64	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0086	0.0709	0.0013	0.0724	0.0069	0.0065	6	-0.20	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.0748	0.0002	0.0724	0.0069	0.0065	6	0.30	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0546	0.0775	0.0162	0.0724	0.0069	0.0065	6	0.65	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	0.0800	0.0120	0.0724	0.0069	0.0065	6	0.97	OK	0
311.99	Sodium, Other (%)	0482	0.0800	0.0200	0.0955	0.0256	0.0150	3	-0.61		0
311.99	Sodium, Other (%)	0096	0.0815	0.0150	0.0955	0.0256	0.0150	3	-0.55		0
311.99	Sodium, Other (%)	0354	0.1250	0.0100	0.0955	0.0256	0.0150	3	1.15		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0485	0.9476	0.0110	1.067	0.0974	0.0335	12	-1.23	Low	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0513	0.9600	0.0200	1.067	0.0974	0.0335	12	-1.10	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0553	0.9850	0.0100	1.067	0.0974	0.0335	12	-0.84	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0040	1.009	0.0230	1.067	0.0974	0.0335	12	-0.60	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0029	1.031	0.0480	1.067	0.0974	0.0335	12	-0.37	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0498	1.035	0.0100	1.067	0.0974	0.0335	12	-0.33	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0534	1.070	0.0000	1.067	0.0974	0.0335	12	0.03	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0540	1.095	0.0500	1.067	0.0974	0.0335	12	0.28	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0536	1.150	0.1000	1.067	0.0974	0.0335	12	0.85	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0537	1.165	0.0700	1.067	0.0974	0.0335	12	1.00	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0551	1.170	0.0400	1.067	0.0974	0.0335	12	1.05	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0531	1.190	0.0200	1.067	0.0974	0.0335	12	1.26	High	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (1%)	0550	1.185	0.2500	1.067	0.0974	0.0335	12	1.21	High	1
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0095	0.7900	0.0200	1.001	0.0643	0.0322	21	-3.27	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0072	0.7968	0.0293	1.001	0.0643	0.0322	21	-3.17	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0255	0.9205	0.0090	1.001	0.0643	0.0322	21	-1.24	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0472	0.9545	0.0090	1.001	0.0643	0.0322	21	-0.72	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0324	0.9570	0.0520	1.001	0.0643	0.0322	21	-0.68	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0444	0.9700	0.0200	1.001	0.0643	0.0322	21	-0.47	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0390	0.9740	0.0020	1.001	0.0643	0.0322	21	-0.41	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0096	0.9758	0.0097	1.001	0.0643	0.0322	21	-0.39	OK	0

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321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0102	0.9767	0.2046	1.001	0.0643	0.0322	21	-0.37	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0292	0.9800	0.0000	1.001	0.0643	0.0322	21	-0.32	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0023	0.9950	0.0100	1.001	0.0643	0.0322	21	-0.09	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0234	1.000	0.0000	1.001	0.0643	0.0322	21	-0.01	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0371	1.005	0.0100	1.001	0.0643	0.0322	21	0.07	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0354	1.030	0.0000	1.001	0.0643	0.0322	21	0.46	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0433	1.045	0.0010	1.001	0.0643	0.0322	21	0.68	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0035	1.060	0.0200	1.001	0.0643	0.0322	21	0.92	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0049	1.065	0.1300	1.001	0.0643	0.0322	21	1.00	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0360	1.070	0.0200	1.001	0.0643	0.0322	21	1.08	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0450	1.070	0.0600	1.001	0.0643	0.0322	21	1.08	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0451	1.075	0.0500	1.001	0.0643	0.0322	21	1.16	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0231	1.080	0.0200	1.001	0.0643	0.0322	21	1.24	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (1%)	0482	1.070	0.3200	1.001	0.0643	0.0322	21	1.08	OK	1
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	0220	0.9750	0.0100	1.078	0.1012	0.0247	5	-1.02		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	0394	1.033	0.0110	1.078	0.1012	0.0247	5	-0.45		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	0034	1.057	0.0328	1.078	0.1012	0.0247	5	-0.21		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	0521	1.081	0.0598	1.078	0.1012	0.0247	5	0.03		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (1%)	0423	1.245	0.0100	1.078	0.1012	0.0247	5	1.65		0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0043	0.9500	0.0000	0.9914	0.0369	0.0338	12	-1.12	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0486	0.9550	0.0100	0.9914	0.0369	0.0338	12	-0.99	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0543	0.9550	0.0900	0.9914	0.0369	0.0338	12	-0.99	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0086	0.9677	0.0145	0.9914	0.0369	0.0338	12	-0.64	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0055	0.9750	0.0100	0.9914	0.0369	0.0338	12	-0.44	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0106	0.9809	0.1315	0.9914	0.0369	0.0338	12	-0.29	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0527	0.9918	0.0081	0.9914	0.0369	0.0338	12	0.01	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0561	1.010	0.0800	0.9914	0.0369	0.0338	12	0.50	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0177	1.010	0.0188	0.9914	0.0369	0.0338	12	0.51	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0117	1.021	0.0000	0.9914	0.0369	0.0338	12	0.80	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0136	1.040	0.0200	0.9914	0.0369	0.0338	12	1.32	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0037	1.041	0.0230	0.9914	0.0369	0.0338	12	1.33	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (1%)	0515	1.313	0.4013	0.9914	0.0369	0.0338	12	8.71	High	1
321.99	Acid Soluble Zn, Other (1%)	0506	0.9500	0.0000	1.051	0.0723	0.0279	11	-1.40	OK	0
321.99	Acid Soluble Zn, Other (1%)	0481	1.000	0.0000	1.051	0.0723	0.0279	11	-0.71	OK	0
321.99	Acid Soluble Zn, Other (1%)	0524	1.006	0.1229	1.051	0.0723	0.0279	11	-0.63	OK	0
321.99	Acid Soluble Zn, Other (1%)	0389	1.016	0.0015	1.051	0.0723	0.0279	11	-0.48	OK	0
321.99	Acid Soluble Zn, Other (1%)	0559	1.020	0.0030	1.051	0.0723	0.0279	11	-0.44	OK	0
321.99	Acid Soluble Zn, Other (1%)	0501	1.020	0.0200	1.051	0.0723	0.0279	11	-0.43	OK	0
321.99	Acid Soluble Zn, Other (1%)	0516	1.071	0.0000	1.051	0.0723	0.0279	11	0.27	OK	0
321.99	Acid Soluble Zn, Other (1%)	0532	1.085	0.0300	1.051	0.0723	0.0279	11	0.47	OK	0
321.99	Acid Soluble Zn, Other (1%)	0027	1.108	0.1040	1.051	0.0723	0.0279	11	0.78	OK	0
321.99	Acid Soluble Zn, Other (1%)	0368	1.129	0.0156	1.051	0.0723	0.0279	11	1.07	OK	0
321.99	Acid Soluble Zn, Other (1%)	0405	1.205	0.0100	1.051	0.0723	0.0279	11	2.12	High	0
321.99	Acid Soluble Zn, Other (1%)	0515	1.548	0.2715	1.051	0.0723	0.0279	11	6.87	High	1
325.00	Water Soluble Zn, AA (%)	0556	1.040	0.1200	1.063	0.0252	0.1067	3	-0.93		0
325.00	Water Soluble Zn, AA (%)	0536	1.060	0.1200	1.063	0.0252	0.1067	3	-0.13		0
325.00	Water Soluble Zn, AA (%)	0537	1.090	0.0800	1.063	0.0252	0.1067	3	1.06		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				
325.00	Water Soluble Zn, AA (%)	0356	< 1		1.063	0.0252	0.1067	3			5
325.30	Water Soluble Zn, ICP (%)	0546	1.062	0.0061				1			0
325.99	Water Soluble Zn, Other (%)	0518	0.8600	0.0200				2			0
325.99	Water Soluble Zn, Other (%)	0560	1.023	0.0540				2			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.