

Method PT For All Labs

Sample # 230213

UAN Solution 32-0-0

Magruder Fertilizer Proficiency Testing Program

Regular PT Scheme Sample Doubles with N Scheme

Statistical Summary

Methods: 42

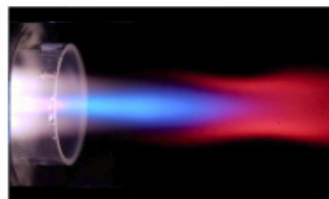
Labs Reporting: 59

Issue Date : 03/31/2023

Method Code	Analyte & Method Sample # 230213	# 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 (%)	10	10	7.933	0.5239	7.813		0.2298	0.0908	2.94%		0.0944	2.94%
001.99	Ammoniacal N, Other (%)	9	9	7.943	1.177	8.044		1.064	0.4433	13.23%		0.1574	2.92%
002.99	Nitrate N, Other (%)	14	13	7.667	1.709	7.375		0.4239	0.1469	5.75%		0.1351	2.96%
005.00	Urea N, Urease (as N) (%)	4	4	17.29	0.7996	17.29		0.7996	0.4997	4.62%		0.1423	2.40%
005.20	Urea N, HPLC(asN),85%acetonitrilemobilephase (%)	1		16.95									
005.99	Urea N, Other (%)	7	6	17.12	0.9832	16.88		0.9278	0.4735	5.50%		0.1600	2.43%
006.10	Biuret N, Spectrophotometric (as N) (%)	1		0.9400									
006.99	Biuret N, Other (%)	1		0.2200									
007.99	Urea, Other (%)	3	3	14.21	3.650	14.21		3.650	2.634	25.69%		0.2000	2.65%
008.10	Biuret, Spectrophotometric (as Biuret) (%)	1		0.8900									
008.99	Biuret, Other (%)	1		0.1715									
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	4	4	16.23	0.7943	16.23		0.7943	0.4964	4.89%		0.2800	2.48%
009.99	Ammoniacal Plus Nitrate N, Other (%)	1		16.39									
010.11	Total N, Modified Comprehensive (32%)	1		17.65									
010.12	Total N, Salicylic (32%)	4	4	30.72	2.097	30.72	0.8672	2.097	1.311	6.83%	5.63	0.9825	1.80%
010.60	Total N, Combustion (32%)	45	44	32.03	0.7143	32.11	0.8800	0.3246	0.0612	1.01%	0.86	0.2401	1.76%
010.99	Total N, Other (32%)	9	9	32.16	0.7231	32.16	0.8800	0.8200	0.3417	2.55%	2.17	0.2178	1.76%
020.50	Total P2O5, ICP (%)	3	2	0.0041	0.0029	0.0056		0.0016	0.0014	28.28%		0.0009	8.72%
041.50	Direct Available P2O5, ICP (%)	1		0.0046									
050.50	Soluble K2O, ICP (Oxalate) (%)	1		0.0027									
050.99	Soluble K2O, Other (%)	2	2	0.0073	0.0025								
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	2	1	0.0057	0.0066								
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	1		0.0115									
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	2	1	0.0073	0.0088								
121.99	Acid Soluble Mg, Other (%)	1		0.0120									
148.07	Total S, ICP, test portion as in 2017.02 (%)	1		0.0110									
148.99	Total S, Other (%)	1		0.0048									
149.04	S - HNO3 soluble, ICP (%)	2	1	0.0025	0.0021								
165.99	Acid Soluble B, Other (%)	1		0.0017									

Method Code	Analyte & Method Sample # 230213	# 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
181.30	Acid Soluble Cd, ICP (ppm)	1		0.0052									
191.30	Acid Soluble Cr, ICP (ppm)	1		0.2669									
202.30	Acid Soluble Co, ICP (ppm)	1		0.0755									
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	1		0.0001									
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	1		0.0007									
241.99	Acid Soluble Fe, Other (%)	1		0.0003									
251.30	Acid Soluble Pb, ICP (ppm)	1		0.0610									
281.99	Acid Soluble Hg, Other (ppm)	1		0.0005									
289.30	Acid Soluble Mo, ICP (ppm)	1		1.570									
291.30	Acid Soluble Ni, ICP (ppm)	1		0.0764									
311.00	Sodium, AA (%)	1		0.0076									
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	1		0.0001									
321.99	Acid Soluble Zn, Other (%)	1		0.0001									

The Method IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Method Assigned Value}$. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting. The Horwitz %RSD is calculated using the Thompson Modification, Analyst,2000,125,385-386.



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Sample # 230213

Regular PT Scheme Sample Doubles with N Scheme

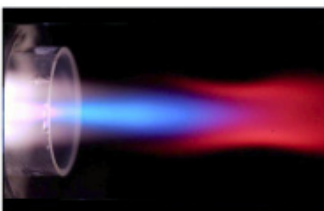
UAN Solution 32-0-0

Method Precision Report

Issue Date : 03/31/2023

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.10	Ammoniacal N, Magnesium Oxide Method (%)	10	8	7.788	0.1798	0.1749	0.0589	0.1846	2.25%	0.76%	2.37%	3.131
001.99	Ammoniacal N, Other (%)	9	9	7.943	1.177	1.174	0.1268	1.181	14.78%	1.60%	14.87%	9.309
002.99	Nitrate N, Other (%)	14	11	7.189	0.6933	0.6915	0.0705	0.6951	9.62%	0.98%	9.67%	9.863
005.99	Urea N, Other (%)	7	6	16.88	0.8182	0.8128	0.1317	0.8234	4.82%	0.78%	4.88%	6.252
010.60	Total N, Combustion (32%)	45	43	32.12	0.4563	0.4275	0.2257	0.4834	1.33%	0.70%	1.50%	2.142
010.99	Total N, Other (32%)	9	8	32.07	0.7214	0.7144	0.1412	0.7282	2.23%	0.44%	2.27%	5.156

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



Method PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Methods: 42

Sample # 230213

Regular PT Scheme Sample Doubles with N Scheme

Labs Reporting: 59

UAN Solution 32-0-0

Lab Values

Issue Date : 03/31/2023

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0547	7.615	0.1300	7.813	0.2298	0.0944	10	-0.80	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0580	7.625	0.0100	7.813	0.2298	0.0944	10	-0.76	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0231	7.675	0.2900	7.813	0.2298	0.0944	10	-0.56	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0136	7.710	0.0400	7.813	0.2298	0.0944	10	-0.42	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0481	7.715	0.0100	7.813	0.2298	0.0944	10	-0.40	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0444	7.750	0.1000	7.813	0.2298	0.0944	10	-0.26	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0389	7.755	0.0500	7.813	0.2298	0.0944	10	-0.24	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0609	8.030	0.1200	7.813	0.2298	0.0944	10	0.88	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0587	8.100	0.1000	7.813	0.2298	0.0944	10	1.16	NA	0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0619	9.350	0.0000	7.813	0.2298	0.0944	10	6.22	NA	0
001.99	Ammoniacal N, Other (%)	0368	5.495	0.1970	8.044	1.064	0.1574	9	-2.21	NA	0
001.99	Ammoniacal N, Other (%)	0371	7.550	0.1000	8.044	1.064	0.1574	9	-0.43	NA	0
001.99	Ammoniacal N, Other (%)	0027	7.665	0.0100	8.044	1.064	0.1574	9	-0.33	NA	0
001.99	Ammoniacal N, Other (%)	0524	7.745	0.0900	8.044	1.064	0.1574	9	-0.26	NA	0
001.99	Ammoniacal N, Other (%)	0593	7.780	0.2600	8.044	1.064	0.1574	9	-0.23	NA	0
001.99	Ammoniacal N, Other (%)	0553	7.875	0.3100	8.044	1.064	0.1574	9	-0.15	NA	0
001.99	Ammoniacal N, Other (%)	0586	8.590	0.1800	8.044	1.064	0.1574	9	0.47	NA	0
001.99	Ammoniacal N, Other (%)	0255	9.100	0.1400	8.044	1.064	0.1574	9	0.92	NA	0
001.99	Ammoniacal N, Other (%)	0619	9.685	0.1300	8.044	1.064	0.1574	9	1.42	NA	0
002.99	Nitrate N, Other (%)	0368	5.297	0.0660	7.375	0.4239	0.1351	13	-4.90	NA	0
002.99	Nitrate N, Other (%)	0553	6.835	0.1300	7.375	0.4239	0.1351	13	-1.28	NA	0
002.99	Nitrate N, Other (%)	0029	6.945	0.0500	7.375	0.4239	0.1351	13	-1.02	NA	0
002.99	Nitrate N, Other (%)	0220	7.260	0.0400	7.375	0.4239	0.1351	13	-0.27	NA	0
002.99	Nitrate N, Other (%)	0231	7.280	0.0200	7.375	0.4239	0.1351	13	-0.23	NA	0
002.99	Nitrate N, Other (%)	0136	7.345	0.4900	7.375	0.4239	0.1351	13	-0.07	NA	0
002.99	Nitrate N, Other (%)	0547	7.435	0.0300	7.375	0.4239	0.1351	13	0.14	NA	0
002.99	Nitrate N, Other (%)	0481	7.445	0.1300	7.375	0.4239	0.1351	13	0.16	NA	0
002.99	Nitrate N, Other (%)	0027	7.530	0.0400	7.375	0.4239	0.1351	13	0.36	NA	0
002.99	Nitrate N, Other (%)	0371	7.550	0.1000	7.375	0.4239	0.1351	13	0.41	NA	0
002.99	Nitrate N, Other (%)	0444	7.650	0.1000	7.375	0.4239	0.1351	13	0.65	NA	0
002.99	Nitrate N, Other (%)	0609	7.855	0.2100	7.375	0.4239	0.1351	13	1.13	NA	0
002.99	Nitrate N, Other (%)	0587	13.20	0.3500	7.375	0.4239	0.1351	13	13.73	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
002.99	Nitrate N, Other (%)	0580	7.720	1.380	7.375	0.4239	0.1351	13	0.81	NA	1
005.00	Urea N, Urease (as N) (%)	0389	16.49	0.0500	17.29	0.7996	0.1423	4	-1.01		0
005.00	Urea N, Urease (as N) (%)	0136	16.78	0.0300	17.29	0.7996	0.1423	4	-0.64		0
005.00	Urea N, Urease (as N) (%)	0368	17.69	0.2093	17.29	0.7996	0.1423	4	0.50		0
005.00	Urea N, Urease (as N) (%)	0231	18.21	0.2800	17.29	0.7996	0.1423	4	1.15		0
005.20	Urea N, HPLC(asN),85%acetonitrilemobilephase (%)	0451	16.95	0.0010				1			0
005.99	Urea N, Other (%)	0619	15.59	0.2000	16.88	0.9278	0.1600	6	-1.24	NA	0
005.99	Urea N, Other (%)	0580	16.42	0.0000	16.88	0.9278	0.1600	6	-0.44	NA	0
005.99	Urea N, Other (%)	0547	16.62	0.3900	16.88	0.9278	0.1600	6	-0.25	NA	0
005.99	Urea N, Other (%)	0029	17.45	0.0500	16.88	0.9278	0.1600	6	0.54	NA	0
005.99	Urea N, Other (%)	0027	17.45	0.0600	16.88	0.9278	0.1600	6	0.55	NA	0
005.99	Urea N, Other (%)	0371	17.75	0.1000	16.88	0.9278	0.1600	6	0.84	NA	0
005.99	Urea N, Other (%)	0524	18.57	1.080	16.88	0.9278	0.1600	6	1.62	NA	1
006.10	Biuret N, Spectrophotometric (as N) (%)	0481	0.9400	0.0000				1			0
006.99	Biuret N, Other (%)	0220	0.2200	0.0000				1			0
007.99	Urea, Other (%)	0587	9.995	0.1300	14.21	3.650	0.2000	3	-1.15		0
007.99	Urea, Other (%)	0444	16.30	0.4000	14.21	3.650	0.2000	3	0.57		0
007.99	Urea, Other (%)	0220	16.34	0.0700	14.21	3.650	0.2000	3	0.58		0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0450	0.8900	0.0200				1			0
008.99	Biuret, Other (%)	0444	0.1715	0.0030				1			0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0444	15.40	0.2000	16.23	0.7943	0.2800	4	-1.05		0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0609	15.89	0.0900	16.23	0.7943	0.2800	4	-0.44		0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0619	16.39	0.3500	16.23	0.7943	0.2800	4	0.19		0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0587	17.26	0.4800	16.23	0.7943	0.2800	4	1.29		0
009.99	Ammoniacal Plus Nitrate N, Other (%)	0619	16.39	0.3500				1			0
010.11	Total N, Modified Comprehensive (32%)	0510	17.65	0.0375				1			0
010.12	Total N, Salicylic (32%)	0117	27.59	2.098	30.72	2.097	0.9825	4	-1.50		0
010.12	Total N, Salicylic (32%)	0481	31.56	0.7000	30.72	2.097	0.9825	4	0.40		0
010.12	Total N, Salicylic (32%)	0580	31.77	0.0000	30.72	2.097	0.9825	4	0.50		0
010.12	Total N, Salicylic (32%)	0619	31.98	0.1500	30.72	2.097	0.9825	4	0.60		0
010.60	Total N, Combustion (32%)	0494	30.86	0.5300	32.11	0.3246	0.2401	44	-3.87	Low	0
010.60	Total N, Combustion (32%)	0035	31.25	0.1000	32.11	0.3246	0.2401	44	-2.65	OK	0
010.60	Total N, Combustion (32%)	0234	31.34	0.0100	32.11	0.3246	0.2401	44	-2.39	OK	0
010.60	Total N, Combustion (32%)	0055	31.53	0.2500	32.11	0.3246	0.2401	44	-1.81	OK	0
010.60	Total N, Combustion (32%)	0402	31.65	0.0290	32.11	0.3246	0.2401	44	-1.43	OK	0
010.60	Total N, Combustion (32%)	0593	31.65	1.000	32.11	0.3246	0.2401	44	-1.42	OK	0
010.60	Total N, Combustion (32%)	0423	31.79	0.2000	32.11	0.3246	0.2401	44	-0.99	OK	0
010.60	Total N, Combustion (32%)	0102	31.83	0.0700	32.11	0.3246	0.2401	44	-0.88	OK	0
010.60	Total N, Combustion (32%)	0025	31.83	0.7600	32.11	0.3246	0.2401	44	-0.87	OK	0
010.60	Total N, Combustion (32%)	0472	31.89	0.1800	32.11	0.3246	0.2401	44	-0.68	OK	0
010.60	Total N, Combustion (32%)	0255	31.90	0.6200	32.11	0.3246	0.2401	44	-0.64	OK	0
010.60	Total N, Combustion (32%)	0220	31.97	0.0800	32.11	0.3246	0.2401	44	-0.44	OK	0
010.60	Total N, Combustion (32%)	0451	31.97	0.1400	32.11	0.3246	0.2401	44	-0.44	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total N, Combustion (32%)	0619	31.98	0.1500	32.11	0.3246	0.2401	44	-0.42	OK	0
010.60	Total N, Combustion (32%)	0422	31.98	0.0200	32.11	0.3246	0.2401	44	-0.41	OK	0
010.60	Total N, Combustion (32%)	0027	31.99	0.2200	32.11	0.3246	0.2401	44	-0.38	OK	0
010.60	Total N, Combustion (32%)	0086	32.03	0.0080	32.11	0.3246	0.2401	44	-0.25	OK	0
010.60	Total N, Combustion (32%)	0291	32.04	0.0100	32.11	0.3246	0.2401	44	-0.24	OK	0
010.60	Total N, Combustion (32%)	0231	32.05	0.0200	32.11	0.3246	0.2401	44	-0.19	OK	0
010.60	Total N, Combustion (32%)	0588	32.05	0.3000	32.11	0.3246	0.2401	44	-0.19	OK	0
010.60	Total N, Combustion (32%)	0527	32.06	0.4080	32.11	0.3246	0.2401	44	-0.15	OK	0
010.60	Total N, Combustion (32%)	0157	32.10	0.2000	32.11	0.3246	0.2401	44	-0.04	OK	0
010.60	Total N, Combustion (32%)	0450	32.10	0.2000	32.11	0.3246	0.2401	44	-0.04	OK	0
010.60	Total N, Combustion (32%)	0136	32.17	0.0100	32.11	0.3246	0.2401	44	0.16	OK	0
010.60	Total N, Combustion (32%)	0452	32.18	0.1500	32.11	0.3246	0.2401	44	0.19	OK	0
010.60	Total N, Combustion (32%)	0485	32.18	0.5000	32.11	0.3246	0.2401	44	0.21	OK	0
010.60	Total N, Combustion (32%)	0324	32.20	0.2000	32.11	0.3246	0.2401	44	0.27	OK	0
010.60	Total N, Combustion (32%)	0040	32.25	0.1000	32.11	0.3246	0.2401	44	0.43	OK	0
010.60	Total N, Combustion (32%)	0586	32.29	0.0100	32.11	0.3246	0.2401	44	0.53	OK	0
010.60	Total N, Combustion (32%)	0043	32.31	0.0100	32.11	0.3246	0.2401	44	0.60	OK	0
010.60	Total N, Combustion (32%)	0523	32.31	0.0050	32.11	0.3246	0.2401	44	0.60	OK	0
010.60	Total N, Combustion (32%)	0029	32.31	0.7400	32.11	0.3246	0.2401	44	0.61	OK	0
010.60	Total N, Combustion (32%)	0360	32.32	0.0200	32.11	0.3246	0.2401	44	0.64	OK	0
010.60	Total N, Combustion (32%)	0368	32.34	0.1070	32.11	0.3246	0.2401	44	0.71	OK	0
010.60	Total N, Combustion (32%)	0023	32.37	0.7550	32.11	0.3246	0.2401	44	0.78	OK	0
010.60	Total N, Combustion (32%)	0177	32.37	0.2640	32.11	0.3246	0.2401	44	0.80	OK	0
010.60	Total N, Combustion (32%)	0543	32.38	0.7900	32.11	0.3246	0.2401	44	0.81	OK	0
010.60	Total N, Combustion (32%)	0481	32.39	0.2500	32.11	0.3246	0.2401	44	0.84	OK	0
010.60	Total N, Combustion (32%)	0624	32.43	0.0480	32.11	0.3246	0.2401	44	0.98	OK	0
010.60	Total N, Combustion (32%)	0114	32.48	0.5300	32.11	0.3246	0.2401	44	1.12	OK	0
010.60	Total N, Combustion (32%)	0095	32.53	0.2400	32.11	0.3246	0.2401	44	1.29	OK	0
010.60	Total N, Combustion (32%)	0389	32.79	0.0200	32.11	0.3246	0.2401	44	2.09	OK	0
010.60	Total N, Combustion (32%)	0049	32.84	0.0700	32.11	0.3246	0.2401	44	2.23	OK	0
010.60	Total N, Combustion (32%)	0260	33.80	0.0000	32.11	0.3246	0.2401	44	5.20	High	0
010.60	Total N, Combustion (32%)	0073	28.40	3.600	32.11	0.3246	0.2401	44	-11.44	Low	1
010.99	Total N, Other (32%)	0524	31.06	0.3800	32.16	0.8200	0.2178	9	-1.23	Low	0
010.99	Total N, Other (32%)	0587	31.25	0.1100	32.16	0.8200	0.2178	9	-1.03	Low	0
010.99	Total N, Other (32%)	0444	31.70	0.2000	32.16	0.8200	0.2178	9	-0.51	OK	0
010.99	Total N, Other (32%)	0619	31.98	0.1500	32.16	0.8200	0.2178	9	-0.20	OK	0
010.99	Total N, Other (32%)	0534	32.05	0.3000	32.16	0.8200	0.2178	9	-0.12	OK	0
010.99	Total N, Other (32%)	0559	32.82	0.0100	32.16	0.8200	0.2178	9	0.74	OK	0
010.99	Total N, Other (32%)	0371	32.85	0.1000	32.16	0.8200	0.2178	9	0.78	OK	0
010.99	Total N, Other (32%)	0518	32.85	0.7000	32.16	0.8200	0.2178	9	0.78	OK	0
010.99	Total N, Other (32%)	0562	32.87	0.0100	32.16	0.8200	0.2178	9	0.80	OK	0
020.50	Total P2O5, ICP (%)	0524	0.0045	0.0010				2			0
020.50	Total P2O5, ICP (%)	0422	0.0068	0.0007				2			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020.50	Total P2O5, ICP (%)	0588	< 0.001					2			5
041.50	Direct Available P2O5, ICP (%)	0624	0.0046	0.0001				1			0
050.50	Soluble K2O, ICP (Oxalate) (%)	0422	0.0027	0.0040				1			0
050.99	Soluble K2O, Other (%)	0624	0.0055	0.0040				2			0
050.99	Soluble K2O, Other (%)	0524	0.0090	0.0020				2			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0624	0.0104	0.0012				1			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0588	< 0.001					1			5
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	0553	0.0115	0.0000				1			0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0624	0.0135	0.0010				1			0
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0588	< 0.001					1			5
121.99	Acid Soluble Mg, Other (%)	0524	0.0120	0.0000				1			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0624	0.0110	0.0020				1			0
148.99	Total S, Other (%)	0422	0.0048	0.0009				1			0
149.04	S - HNO3 soluble, ICP (%)	0524	0.0040	0.0000				1			0
149.04	S - HNO3 soluble, ICP (%)	0588	< 0.001					1			5
165.99	Acid Soluble B, Other (%)	0624	0.0017	0.0000				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.0052	0.0008				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0524	0.2669	0.0141				1			0
202.30	Acid Soluble Co, ICP (ppm)	0524	0.0755	0.0159				1			0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0624	0.0001	0.0000				1			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0624	0.0007	0.0001				1			0
241.99	Acid Soluble Fe, Other (%)	0524	0.0003	0.0001				1			0
251.30	Acid Soluble Pb, ICP (ppm)	0524	0.0610	0.0008				1			0
281.99	Acid Soluble Hg, Other (ppm)	0524	0.0005	0.0001				1			0
289.30	Acid Soluble Mo, ICP (ppm)	0524	1.570	0.0256				1			0
291.30	Acid Soluble Ni, ICP (ppm)	0524	0.0764	0.0015				1			0
311.00	Sodium, AA (%)	0553	0.0076	0.0019				1			0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0624	0.0001	0.0000				1			0
321.99	Acid Soluble Zn, Other (%)	0524	0.0001	0.0000				1			0

Interpreting Z Scores and Flags:

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Zero range not used in R-bar calculations. LabResults!R.LabResults!Q19 IA Status describes where your result is relative to the Assigned Value $\pm$ IA. Red indicates Higher or Lower and Green indicates within the IA range about the Robust mean. Method codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely