Method Proficiency For All Labs (Lab Values)

Sample # 150411

UAN

Statistical Summary

 # Methods: 47

 # Labs Reporting: 71

Issue Date : 05/31/2015

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	7	7	10.29	6.359	8.032		0.6143	0.1642	7.65%		0.1614	2.92%
001.99	Ammoniacal Nitrogen, Other (%)	12	12	8.047	0.5532	7.928		0.3727	0.0761	4.70%		0.1683	2.93%
002.20	Nitrate Nitrogen, Jones Modified (%)	1		14.05									
002.99	Nitrate Nitrogen, Other (%)	11	10	8.988	2.765	8.198		0.4729	0.1057	5.77%		0.1645	2.91%
005.99	Urea Nitrogen, Other (%)	3	3	15.99	0.9501	15.99		0.9501	0.3879	5.94%		0.1400	2.64%
006.10	Biuret Nitrogen, Spectrophotometric (%)	1		0.8850									
006.99	Biuret Nitrogen, Other (%)	1		0.0055									
007.99	Urea, Other (%)	1		34.74									
008.10	Biuret, Spectrophotometric (%)	7	7	0.6343	0.3459	0.7261		0.2267	0.0606	31.22%		0.0200	4.20%
008.99	Biuret, Other (%)	1		1.100									
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	2	2	12.18	5.827								
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	1		15.84									
010.11	Total Nitrogen, Modified Comprehensive (32%)	6	5	28.61	7.256	28.61	0.8800	7.256	2.295	25.36%	1.54%	0.0200	2.41%
010.12	Total Nitrogen, Salicylic (32%)	4	4	29.51	3.803	29.51	0.8800	3.802	1.344	12.89%	1.49%	0.9600	2.40%
010.60	Total Nitrogen, Combustion (32%)	52	52	32.20	0.5143	32.20	0.8800	0.4102	0.0402	1.27%	1.37%	0.3036	2.37%
010.99	Total Nitrogen, Other (32%)	3	3	27.72	7.252	27.72	0.8800	7.252	2.961	26.16%	1.59%	0.2429	2.43%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	1		0.0200									
020.50	Total Phosphorus as P2O5, ICP (%)	1		0.0060									
041.50	Direct Available Phosphorus as P2O5, ICP (%)	1		0.0050									
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA Ext. (%)	1		0.2585									
050.00	Soluble Potassium as K2O, STPB Oxalate (%)	1		21.30									
050.50	Soluble Potassium as K2O, ICP (%)	1		0.0100									
050.52	Soluble Potassium as K2O, ICP (%)	1		0.1740									
050.61	Soluble Potassium as K2O, Flame Photometric (%)	1		20.89									
050.99	Soluble Potassium as K2O, Other (%)	1		0.0100									
060.00	Water (%)	1		0.2850									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	2	2	0.0965	0.0983								
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (%)	2	2	5.646	7.947								
121.99	Acid Soluble Magnesium, Other (%)	1		0.0080									
143.99	Elemental Sulfur, Other (%)	1		0.0015									
148.01	Total Sulfur, Gravimetric - sulfate and elemental (%)	1		23.12									

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
148.99	Total Sulfur, Other (%)	2	1	0.0325									
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (%)	1		0.0035									
181.30	Acid Soluble Cadmium , ICP (ppm)	1		0.5500									
190.00	Water Soluble Chlorine, Titrimetric (%)	1		0.7775									
191.30	Acid Soluble Chromium , ICP (ppm)	1		121.0									
202.30	Acid Soluble Cobalt , ICP (ppm)	1		2.093									
221.30	Acid Soluble Copper , ICP, test portion inorganic... (%)	2	2	0.0015	0.0014								
241.30	Acid Soluble Iron , ICP, test portion inorganic 965.09 (%)	2	2	0.0263	0.0350								
241.99	Acid Soluble Iron , Other (%)	1		0.0002									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (%)	1		0.0016									
289.30	Acid Soluble Molybdenum , ICP (ppm)	1		11.54									
291.30	Acid Soluble Nickel , ICP (ppm)	1		69.63									
311.30	Sodium, Flame Photometric (%)	1		0.1050									
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test ... (%)	1		0.4590									
311.99	Sodium, Other (%)	1		0.0485									
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (%)	3	2	0.0065	0.0050	0.0065		0.0049	0.0025	76.15%		0.0010	8.53%

STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 150411

UAN

Method Precision Report

Issue Date : 05/31/2015

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 Nitrogen, Magnesium Oxide Method	7	6	7.888	0.4215	0.4083	0.1481	0.4343	5.18%	1.88%	5.51%	2.932
001.99	Ammoniacal Nitrogen, Other	12	10	7.851	0.3113	0.3035	0.0982	0.3190	3.87%	1.25%	4.06%	3.250
002.99	Nitrate Nitrogen, Other	11	9	8.119	0.3546	0.3406	0.1398	0.3682	4.19%	1.72%	4.53%	2.634
008.10	Biuret, Spectrophotometric	7	7	0.6343	0.3459	0.3456	0.0200	0.3462	54.49%	3.15%	54.58%	17.31
010.11	Total Nitrogen, Modified Comprehensive	6	4	31.85	0.5476	0.5473	0.0250	0.5479	1.72%	0.08%	1.72%	21.91
010.60	Total Nitrogen, Combustion	52	47	32.16	0.4063	0.3639	0.2557	0.4447	1.13%	0.80%	1.38%	1.739

Method Proficiency For All Labs (Lab Values) — **# Methods: 47**

Sample # 150411 — **Lab Values** — **# Labs Reporting: 71**

UAN — **Issue Date : 05/31/2015**

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0498	7.400	0.2000	8.032	0.6143	0.1614	7	-1.03	4%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0230	7.410	0.4400	8.032	0.6143	0.1614	7	-1.01	4%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	7.885	0.0100	8.032	0.6143	0.1614	7	-0.24	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0456	7.940	0.0200	8.032	0.6143	0.1614	7	-0.15	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0481	8.320	0.1600	8.032	0.6143	0.1614	7	0.47	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0452	8.370	0.0600	8.032	0.6143	0.1614	7	0.55	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0389	24.68	0.2400	8.032	0.6143	0.1614	7	27.10	104%	0
001.99	Ammoniacal Nitrogen, Other (%)	0368	7.360	0.0000	7.928	0.3727	0.1683	12	-1.53	4%	0
001.99	Ammoniacal Nitrogen, Other (%)	0501	7.595	0.0900	7.928	0.3727	0.1683	12	-0.89	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0482	7.665	0.1700	7.928	0.3727	0.1683	12	-0.71	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0027	7.738	0.3000	7.928	0.3727	0.1683	12	-0.51	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	7.805	0.1100	7.928	0.3727	0.1683	12	-0.33	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0169	7.815	0.0300	7.928	0.3727	0.1683	12	-0.30	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0486	7.915	0.0500	7.928	0.3727	0.1683	12	-0.04	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0510	8.005	0.0500	7.928	0.3727	0.1683	12	0.21	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0513	8.120	0.0600	7.928	0.3727	0.1683	12	0.51	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0506	8.495	0.2100	7.928	0.3727	0.1683	12	1.52	4%	0
001.99	Ammoniacal Nitrogen, Other (%)	0487	8.700	0.6000	7.928	0.3727	0.1683	12	2.07	5%	0
001.99	Ammoniacal Nitrogen, Other (%)	0420	9.345	0.3500	7.928	0.3727	0.1683	12	3.80	9%	0
002.20	Nitrate Nitrogen, Jones Modified (%)	0230	14.05	0.5000			0.5000	1			
002.99	Nitrate Nitrogen, Other (%)	0027	7.640	0.0100	8.198	0.4729	0.1645	10	-1.18	3%	0
002.99	Nitrate Nitrogen, Other (%)	0371	7.745	0.0500	8.198	0.4729	0.1645	10	-0.96	3%	0
002.99	Nitrate Nitrogen, Other (%)	0486	7.830	0.1800	8.198	0.4729	0.1645	10	-0.78	2%	0
002.99	Nitrate Nitrogen, Other (%)	0513	7.920	0.0053	8.198	0.4729	0.1645	10	-0.59	2%	0
002.99	Nitrate Nitrogen, Other (%)	0420	8.170	0.0800	8.198	0.4729	0.1645	10	-0.06	0%	0
002.99	Nitrate Nitrogen, Other (%)	0452	8.270	0.1400	8.198	0.4729	0.1645	10	0.15	0%	0
002.99	Nitrate Nitrogen, Other (%)	0501	8.340	0.0800	8.198	0.4729	0.1645	10	0.30	1%	0
002.99	Nitrate Nitrogen, Other (%)	0506	8.495	0.2100	8.198	0.4729	0.1645	10	0.63	2%	0
002.99	Nitrate Nitrogen, Other (%)	0482	8.665	0.4900	8.198	0.4729	0.1645	10	0.99	3%	0
002.99	Nitrate Nitrogen, Other (%)	0498	16.80	0.4000	8.198	0.4729	0.1645	10	18.19	52%	0
002.99	Nitrate Nitrogen, Other (%)	0368	0.0000	0.0000	8.198	0.4729	0.1645	10	-17.34	50%	4
005.99	Urea Nitrogen, Other (%)	0506	15.05	0.1000	15.99	0.9501	0.1400	3	-0.99	3%	0
005.99	Urea Nitrogen, Other (%)	0513	15.98	0.0400	15.99	0.9501	0.1400	3	-0.01	0%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
005.99	Urea Nitrogen, Other (%)	0027	16.95	0.2800	15.99	0.9501	0.1400	3	1.01	3%	0
006.10	Biuret Nitrogen, Spectrophotometric (as N) (%)	0405	0.8850	0.0100			0.0100	1			
006.99	Biuret Nitrogen, Other (%)	0506	0.0055	0.0010			0.0010	1			
007.99	Urea, Other (%)	0513	34.74	0.0800			0.0800	1			
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0510	0.1100	0.0000	0.7261	0.2267	0.0200	7	-2.72	42%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0513	0.1900	0.0000	0.7261	0.2267	0.0200	7	-2.37	37%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0498	0.6550	0.0500	0.7261	0.2267	0.0200	7	-0.31	5%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0481	0.8050	0.0500	0.7261	0.2267	0.0200	7	0.35	5%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0415	0.8150	0.0100	0.7261	0.2267	0.0200	7	0.39	6%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0090	0.8800	0.0200	0.7261	0.2267	0.0200	7	0.68	11%	0
008.10	Biuret, Spectrophotometric (as Biuret) (%)	0420	0.9850	0.0100	0.7261	0.2267	0.0200	7	1.14	18%	0
008.99	Biuret, Other (%)	0487	1.100	0.0000			0.0000	1			
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0481	8.060	0.0200	12.18	5.827	0.2900	2	-0.71	17%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0444	16.30	0.5600	12.18	5.827	0.2900	2	0.71	17%	0
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	0513	15.84	0.0105			0.0105	1			
010.11	Total Nitrogen, Modified Comprehensive (32%)	0500	15.66*	0.0000	28.61	7.256	0.0200	5	-1.79	23%	0
010.11	Total Nitrogen, Modified Comprehensive (32%)	0510	31.07*	0.0000	28.61	7.256	0.0200	5	0.34	4%	0
010.11	Total Nitrogen, Modified Comprehensive (32%)	0211	31.88	0.0500	28.61	7.256	0.0200	5	0.45	6%	0
010.11	Total Nitrogen, Modified Comprehensive (32%)	0090	32.18	0.0500	28.61	7.256	0.0200	5	0.49	6%	0
010.11	Total Nitrogen, Modified Comprehensive (32%)	0105	32.28	0.0000	28.61	7.256	0.0200	5	0.51	6%	0
010.11	Total Nitrogen, Modified Comprehensive (32%)	0027	32.33	0.5870	28.61	7.256	0.0200	5	0.51	6%	1
010.12	Total Nitrogen, Salicylic (32%)	0481	23.81*	0.3800	29.51	3.802	0.9600	4	-1.50	10%	0
010.12	Total Nitrogen, Salicylic (32%)	0493	31.28	0.1000	29.51	3.802	0.9600	4	0.47	3%	0
010.12	Total Nitrogen, Salicylic (32%)	0185	31.35	3.160	29.51	3.802	0.9600	4	0.48	3%	0
010.12	Total Nitrogen, Salicylic (32%)	0498	31.60	0.2000	29.51	3.802	0.9600	4	0.55	4%	0
010.60	Total Nitrogen, Combustion (32%)	0483	30.70*	0.2200	32.20	0.4102	0.3036	52	-3.66	2%	0
010.60	Total Nitrogen, Combustion (32%)	0234	31.29	0.4600	32.20	0.4102	0.3036	52	-2.23	1%	0
010.60	Total Nitrogen, Combustion (32%)	0472	31.30	0.0450	32.20	0.4102	0.3036	52	-2.21	1%	0
010.60	Total Nitrogen, Combustion (32%)	0157	31.45	0.1000	32.20	0.4102	0.3036	52	-1.84	1%	0
010.60	Total Nitrogen, Combustion (32%)	0070	31.58	0.8500	32.20	0.4102	0.3036	52	-1.53	1%	0
010.60	Total Nitrogen, Combustion (32%)	0095	31.62	0.5000	32.20	0.4102	0.3036	52	-1.42	1%	0
010.60	Total Nitrogen, Combustion (32%)	0494	31.65	0.0900	32.20	0.4102	0.3036	52	-1.36	1%	0
010.60	Total Nitrogen, Combustion (32%)	0086	31.74	0.3670	32.20	0.4102	0.3036	52	-1.14	1%	0
010.60	Total Nitrogen, Combustion (32%)	0042	31.76	0.4700	32.20	0.4102	0.3036	52	-1.09	1%	0
010.60	Total Nitrogen, Combustion (32%)	0177	31.79	0.1300	32.20	0.4102	0.3036	52	-1.02	1%	0
010.60	Total Nitrogen, Combustion (32%)	0307	31.81	1.060	32.20	0.4102	0.3036	52	-0.96	1%	0
010.60	Total Nitrogen, Combustion (32%)	0105	31.86	0.2600	32.20	0.4102	0.3036	52	-0.84	1%	0
010.60	Total Nitrogen, Combustion (32%)	0275	31.88	0.1400	32.20	0.4102	0.3036	52	-0.79	1%	0
010.60	Total Nitrogen, Combustion (32%)	0028	31.98	0.0800	32.20	0.4102	0.3036	52	-0.54	0%	0
010.60	Total Nitrogen, Combustion (32%)	0043	32.02	0.0800	32.20	0.4102	0.3036	52	-0.45	0%	0
010.60	Total Nitrogen, Combustion (32%)	0291	32.02	0.0000	32.20	0.4102	0.3036	52	-0.45	0%	0
010.60	Total Nitrogen, Combustion (32%)	0486	32.03	0.0200	32.20	0.4102	0.3036	52	-0.42	0%	0
010.60	Total Nitrogen, Combustion (32%)	0035	32.05	0.1500	32.20	0.4102	0.3036	52	-0.39	0%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (32%)	0389	32.06	0.0400	32.20	0.4102	0.3036	52	-0.35	0%	0
010.60	Total Nitrogen, Combustion (32%)	0023	32.07	0.4080	32.20	0.4102	0.3036	52	-0.33	0%	0
010.60	Total Nitrogen, Combustion (32%)	0405	32.10	0.0600	32.20	0.4102	0.3036	52	-0.25	0%	0
010.60	Total Nitrogen, Combustion (32%)	0501	32.13	0.0100	32.20	0.4102	0.3036	52	-0.19	0%	0
010.60	Total Nitrogen, Combustion (32%)	0354	32.14	0.0010	32.20	0.4102	0.3036	52	-0.15	0%	0
010.60	Total Nitrogen, Combustion (32%)	0377	32.16	0.0700	32.20	0.4102	0.3036	52	-0.12	0%	0
010.60	Total Nitrogen, Combustion (32%)	0049	32.17	0.0700	32.20	0.4102	0.3036	52	-0.09	0%	0
010.60	Total Nitrogen, Combustion (32%)	0451	32.23	0.5500	32.20	0.4102	0.3036	52	0.05	0%	0
010.60	Total Nitrogen, Combustion (32%)	0423	32.24	0.0500	32.20	0.4102	0.3036	52	0.08	0%	0
010.60	Total Nitrogen, Combustion (32%)	0325	32.25	0.5000	32.20	0.4102	0.3036	52	0.11	0%	0
010.60	Total Nitrogen, Combustion (32%)	0230	32.26	0.1900	32.20	0.4102	0.3036	52	0.13	0%	0
010.60	Total Nitrogen, Combustion (32%)	0231	32.26	0.0400	32.20	0.4102	0.3036	52	0.14	0%	0
010.60	Total Nitrogen, Combustion (32%)	0452	32.27	0.0100	32.20	0.4102	0.3036	52	0.15	0%	0
010.60	Total Nitrogen, Combustion (32%)	0037	32.29	0.1770	32.20	0.4102	0.3036	52	0.21	0%	0
010.60	Total Nitrogen, Combustion (32%)	0292	32.31	0.0300	32.20	0.4102	0.3036	52	0.25	0%	0
010.60	Total Nitrogen, Combustion (32%)	0072	32.31	0.2400	32.20	0.4102	0.3036	52	0.26	0%	0
010.60	Total Nitrogen, Combustion (32%)	0324	32.31	0.2400	32.20	0.4102	0.3036	52	0.26	0%	0
010.60	Total Nitrogen, Combustion (32%)	0136	32.33	0.0800	32.20	0.4102	0.3036	52	0.31	0%	0
010.60	Total Nitrogen, Combustion (32%)	0444	32.36	0.5600	32.20	0.4102	0.3036	52	0.38	0%	0
010.60	Total Nitrogen, Combustion (32%)	0356	32.38	0.0800	32.20	0.4102	0.3036	52	0.43	0%	0
010.60	Total Nitrogen, Combustion (32%)	0055	32.46	0.1600	32.20	0.4102	0.3036	52	0.63	0%	0
010.60	Total Nitrogen, Combustion (32%)	0368	32.49	0.1750	32.20	0.4102	0.3036	52	0.69	0%	0
010.60	Total Nitrogen, Combustion (32%)	0096	32.50	0.3000	32.20	0.4102	0.3036	52	0.72	0%	0
010.60	Total Nitrogen, Combustion (32%)	0040	32.55	0.1000	32.20	0.4102	0.3036	52	0.84	1%	0
010.60	Total Nitrogen, Combustion (32%)	0025	32.56	0.0900	32.20	0.4102	0.3036	52	0.86	1%	0
010.60	Total Nitrogen, Combustion (32%)	0390	32.60	0.8000	32.20	0.4102	0.3036	52	0.97	1%	0
010.60	Total Nitrogen, Combustion (32%)	0007	32.70	0.6000	32.20	0.4102	0.3036	52	1.21	1%	0
010.60	Total Nitrogen, Combustion (32%)	0233	32.79	1.230	32.20	0.4102	0.3036	52	1.42	1%	0
010.60	Total Nitrogen, Combustion (32%)	0073	32.83	1.250	32.20	0.4102	0.3036	52	1.52	1%	0
010.60	Total Nitrogen, Combustion (32%)	0360	32.86	0.1500	32.20	0.4102	0.3036	52	1.59	1%	0
010.60	Total Nitrogen, Combustion (32%)	0450	33.00	0.8000	32.20	0.4102	0.3036	52	1.94	1%	0
010.60	Total Nitrogen, Combustion (32%)	0029	33.18	1.200	32.20	0.4102	0.3036	52	2.38	2%	0
010.60	Total Nitrogen, Combustion (32%)	0351	33.28	0.4957	32.20	0.4102	0.3036	52	2.62	2%	0
010.60	Total Nitrogen, Combustion (32%)	0489	33.57	0.0100	32.20	0.4102	0.3036	52	3.32	2%	0
010.99	Total Nitrogen, Other (32%)	0487	19.35*	0.3000	27.72	7.252	0.2429	3	-1.15	15%	0
010.99	Total Nitrogen, Other (32%)	0513	31.82	0.0287	27.72	7.252	0.2429	3	0.56	7%	0
010.99	Total Nitrogen, Other (32%)	0506	32.00	0.4000	27.72	7.252	0.2429	3	0.59	8%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	0.0200	0.0200			0.0200	1			
020.50	Total Phosphorus as P2O5, ICP (%)	0389	0.0060	0.0000			0.0000	1			
041.50	Direct Available Phosphorus as P2O5, ICP (%)	0325	0.0050	0.0100			0.0100	0			
041.60	Direct Available Phosphorus as P2O5, Citrate-... (%)	0354	0.2585	0.1090			0.1090	1			
050.00	Soluble Potassium as K2O, STPB Oxalate (%)	0102	21.30	0.0000			0.0000	1			
050.50	Soluble Potassium as K2O, ICP (Oxalate) (%)	0292	0.0100	0.0000			0.0000	1			

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (%)	0354	0.1740	0.0460			0.0460	1			
050.61	Soluble Potassium as K2O, Flame Photometric (... (%)	0456	20.89	0.0200			0.0200	1			
050.99	Soluble Potassium as K2O, Other (%)	0325	0.0100	0.0000			0.0000	1			
060.00	Water (Free), Vacuum Oven (%)	0456	0.2850	0.0100			0.0100	1			
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.0270	0.0100	0.0965	0.0983	0.0050	2	-0.71	36%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0102	0.1660	0.0000	0.0965	0.0983	0.0050	2	0.71	36%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0354	0.0265	0.0150	5.646	7.946	0.0680	2	-0.71	50%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0102	11.26	0.1210	5.646	7.946	0.0680	2	0.71	50%	0
121.99	Acid Soluble Magnesium, Other (%)	0389	0.0080	0.0000			0.0000	1			
143.99	Elemental Sulfur, Other (%)	0389	0.0015	0.0010			0.0010	1			
148.01	Total Sulfur, Gravimetric - sulfate and elem... (%)	0102	23.12	0.0530			0.0530	1			
148.99	Total Sulfur, Other (%)	0354	0.0325	0.0230	5.646	7.946	0.0230	1	-0.71	50%	0
148.99	Total Sulfur, Other (%)	0072	0.0000	0.0000	5.646	7.946	0.0230	1	-0.71	50%	4
165.30	Acid Soluble Boron , ICP, test portion in 98... (%)	0354	0.0035	0.0030			0.0030	1			
181.30	Acid Soluble Cadmium , ICP (ppm)	0389	0.5500	0.1000			0.1000	1			
190.00	Water Soluble Chlorine, Titrimetric (%)	0102	0.7775	0.0030			0.0030	1			
191.30	Acid Soluble Chromium , ICP (ppm)	0102	121.0	0.8140			0.8140	1			
202.30	Acid Soluble Cobalt , ICP (ppm)	0102	2.093	0.0390			0.0390	1			
221.30	Acid Soluble Copper , ICP, test portion inor... (%)	0102	0.0005	0.0000	0.0015	0.0014	0.0005	2	-0.71	33%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (%)	0354	0.0025	0.0010	0.0015	0.0014	0.0005	2	0.71	33%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (%)	0354	0.0015	0.0010	0.0263	0.0350	0.0005	2	-0.71	47%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (%)	0102	0.0510	0.0000	0.0263	0.0350	0.0005	2	0.71	47%	0
241.99	Acid Soluble Iron , Other (%)	0389	0.0002	0.0001			0.0001	1			
261.30	Acid Soluble Manganese , ICP, test portion 9... (%)	0102	0.0016	0.0000			0.0000	1			
289.30	Acid Soluble Molybdenum , ICP (ppm)	0102	11.54	0.0890			0.0890	1			
291.30	Acid Soluble Nickel , ICP (ppm)	0102	69.63	0.4870			0.4870	1			
311.30	Sodium, Flame Photometric (%)	0510	0.1050	0.0100			0.0100	1			
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0102	0.4590	0.0020			0.0020	1			
311.99	Sodium, Other (%)	0354	0.0485	0.0210			0.0210	1			
321.30	Acid Soluble Zinc , ICP, test portion inorga... (%)	0354	0.0030	0.0020	0.0065	0.0049	0.0010	2	-0.71	27%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (%)	0292	0.0100	0.0000	0.0065	0.0049	0.0010	2	0.71	27%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (%)	0072	0.0000	0.0000	0.0065	0.0049	0.0010	2	-1.31	50%	4

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 and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs reporting, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or Analyte 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.