

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 32

Sample # 250411

Regular PT Scheme

Labs Reporting: 73

DAP

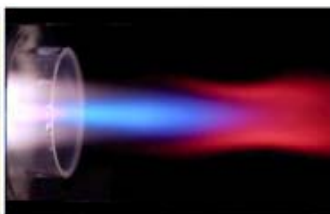
Statistical Summary

Issue Date : 05/31/2025

Analyte Code	Analyte Sample # 250411	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal N (%)	24	23	17.57	0.5295	17.55		0.5799	0.1511	3.30%		0.0949	2.39%
003	Water Insoluble N (%)	1		1.615									
005	Urea N (%)	1		0.0854									
009	Ammoniacal Plus Nitrate N (%)	1		17.86									
010	Total N (18%)	59	57	18.24	3.688	17.76	0.6964	0.2685	0.0445	1.51%	0.90	0.0923	2.37%
020	Total P2O5 (%)	36	34	45.47	5.413	46.31		1.105	0.2368	2.39%		0.2091	1.47%
030	Citrate Insoluble P2O5 (%)	1		0.1300									
040	Indirect Available P2O5 (46%)	3	3	46.10	0.4757	46.10	1.0015	0.4757	0.3433	1.03%	1.11	0.2367	1.47%
041	Direct Available P2O5 (46%)	42	40	45.64	4.081	46.31	1.0047	0.6113	0.1208	1.32%	1.42	0.2682	1.47%
048	Water Soluble P2O5 (%)	10	9	39.22	7.314	41.21		1.093	0.4553	2.65%		0.1132	1.56%
050	Soluble K2O (%)	6	6	0.1412	0.0317	0.1427	0.4100	0.0323	0.0165	22.66%	0.18	0.0058	5.36%
060	Water (Free) (%)	2	2	0.9950	0.3748								
101	Acid Soluble Ca (%)	6	5	0.2771	0.1169	0.2326	0.2116	0.0468	0.0262	20.13%	0.52	0.0073	4.98%
121	Acid Soluble Mg (%)	8	8	0.8234	0.0524	0.8234	0.2412	0.0595	0.0263	7.22%	0.57	0.0066	4.12%
148	Total S (%)	5	5	1.374	0.1738	1.374	0.2687	0.1738	0.0972	12.65%	1.51	0.0118	3.81%
149	S - HNO3 soluble (%)	1		1.389									
151	Acid Soluble As (ppm)	16	14	13.77	4.195	14.49		2.308	0.7712	15.93%		0.7086	10.70%
165	Acid Soluble B (%)	6	6	0.0124	0.0059	0.0124	0.0049	0.0067	0.0034	53.80%	3.21	0.0051	7.74%
181	Acid Soluble Cd (ppm)	16	15	8.528	1.546	8.939		0.9788	0.3159	10.95%		0.2789	11.50%
191	Acid Soluble Cr (ppm)	17	17	129.6	9.925	129.6		11.26	3.412	8.68%		5.380	7.69%
202	Acid Soluble Co (ppm)	17	14	4.373	5.250	3.219	1.9657	0.7112	0.2376	22.09%	0.84	0.1469	13.42%
221	Acid Soluble Cu (%)	15	5	0.0315	0.0806	0.0014	0.0051	0.0019	0.0011	136.08%	0.87	0.0002	10.74%
241	Acid Soluble Fe (%)	8	8	1.038	0.0466	1.035	0.1085	0.0449	0.0198	4.34%	0.96	0.0178	3.98%
251	Acid Soluble Pb (ppm)	15	11	2.677	2.875	1.367		0.9371	0.3532	68.52%		0.0888	15.26%
261	Acid Soluble Mn (%)	7	6	0.0285	0.0049	0.0278	0.0078	0.0026	0.0013	9.31%	0.78	0.0002	6.86%
281	Acid Soluble Hg (ppm)	9	1	0.3799	0.7311	0.0278		0.0026	0.0032	9.31%		0.0000	22.00%
289	Acid Soluble Mo (ppm)	18	17	24.49	34.92	12.80	4.8392	1.942	0.5888	15.18%	0.94	0.5626	10.90%
291	Acid Soluble Ni (ppm)	18	17	29.05	34.33	15.53		2.579	0.7819	16.60%		0.8603	10.59%
301	Acid Soluble Se (ppm)	12	5	2.752	3.633	1.463		1.395	0.7801	95.36%		0.7290	15.11%

Analyte Code	Analyte Sample # 250411	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
311	Sodium (%)	6	6	0.1564	0.0426	0.1595	0.0210	0.0407	0.0208	25.52%	4.53	0.0063	5.27%
321	Acid Soluble Zn (%)	21	18	0.0164	0.0215	0.0114	0.0061	0.0015	0.0004	13.32%	0.58	0.0007	7.84%
325	Water Soluble Zn (%)	1		0.0011									

The Analyte IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Analyte Assigned Value}$. 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.



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Magruder Fertilizer Proficiency Testing Program

Analytes: 32

Sample # 250411

Regular PT Scheme

Labs Reporting: 73

DAP

Lab Values

Issue Date : 05/31/2025

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
001	Ammoniacal N (%)	0524	16.61	0.2477	17.55	0.5799	0.0949	23	-1.62	001.99	0
001	Ammoniacal N (%)	0231	16.63	0.2500	17.55	0.5799	0.0949	23	-1.59	001.10	0
001	Ammoniacal N (%)	0027	16.88	0.0580	17.55	0.5799	0.0949	23	-1.16	001.99	0
001	Ammoniacal N (%)	0563	16.92	0.0800	17.55	0.5799	0.0949	23	-1.08	001.10	0
001	Ammoniacal N (%)	0394	17.00	0.1800	17.55	0.5799	0.0949	23	-0.95	001.99	0
001	Ammoniacal N (%)	0136	17.20	0.0000	17.55	0.5799	0.0949	23	-0.60	001.99	0
001	Ammoniacal N (%)	0389	17.26	0.0500	17.55	0.5799	0.0949	23	-0.51	001.10	0
001	Ammoniacal N (%)	0405	17.34	0.0500	17.55	0.5799	0.0949	23	-0.37	001.99	0
001	Ammoniacal N (%)	0547	17.40	0.0000	17.55	0.5799	0.0949	23	-0.26	001.10	0
001	Ammoniacal N (%)	0371	17.42	0.0200	17.55	0.5799	0.0949	23	-0.22	001.99	0
001	Ammoniacal N (%)	0255	17.48	0.1000	17.55	0.5799	0.0949	23	-0.12	001.99	0
001	Ammoniacal N (%)	0476	17.58	0.0499	17.55	0.5799	0.0949	23	0.06	001.99	0
001	Ammoniacal N (%)	0513	17.68	0.0800	17.55	0.5799	0.0949	23	0.23	001.99	0
001	Ammoniacal N (%)	0600	17.70	0.2000	17.55	0.5799	0.0949	23	0.26	001.99	0
001	Ammoniacal N (%)	0605	17.71	0.0860	17.55	0.5799	0.0949	23	0.27	001.99	0
001	Ammoniacal N (%)	0169	17.85	0.1000	17.55	0.5799	0.0949	23	0.52	001.99	0
001	Ammoniacal N (%)	0517	17.86	0.0900	17.55	0.5799	0.0949	23	0.53	001.99	0
001	Ammoniacal N (%)	0548	17.86	0.0500	17.55	0.5799	0.0949	23	0.53	001.99	0
001	Ammoniacal N (%)	0472	18.00	0.0000	17.55	0.5799	0.0949	23	0.78	001.99	0
001	Ammoniacal N (%)	0559	18.16	0.0100	17.55	0.5799	0.0949	23	1.05	001.99	0
001	Ammoniacal N (%)	0653	18.16	0.0100	17.55	0.5799	0.0949	23	1.05	001.99	0
001	Ammoniacal N (%)	0584	18.47	0.2800	17.55	0.5799	0.0949	23	1.59	001.99	0
001	Ammoniacal N (%)	0545	18.52	0.0400	17.55	0.5799	0.0949	23	1.67	001.99	0
001	Ammoniacal N (%)	0553	18.00	0.4900	17.55	0.5799	0.0949	23	0.77	001.99	1
003	Water Insoluble N (%)	0547	1.615	0.1100				1		003.10	0
005	Urea N (%)	0524	0.0854	0.0057				1		005.99	0
009	Ammoniacal Plus Nitrate N (%)	0517	17.86	0.0900				1		009.10	0
010	Total N (18%)	0027	16.80†	0.1100	17.76	0.2685	0.0923	57	-3.60	010.60	0
010	Total N (18%)	0102	17.16	0.0100	17.76	0.2685	0.0923	57	-2.26	010.60	0
010	Total N (18%)	0422	17.38	0.0100	17.76	0.2685	0.0923	57	-1.44	010.60	0
010	Total N (18%)	0292	17.38	0.0800	17.76	0.2685	0.0923	57	-1.42	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
010	Total N (18%)	0524	17.38	0.1414	17.76	0.2685	0.0923	57	-1.41	010.99	0
010	Total N (18%)	0572	17.40	0.2000	17.76	0.2685	0.0923	57	-1.35	010.60	0
010	Total N (18%)	0371	17.42	0.0200	17.76	0.2685	0.0923	57	-1.27	010.99	0
010	Total N (18%)	0233	17.44	0.2200	17.76	0.2685	0.0923	57	-1.20	010.60	0
010	Total N (18%)	0542	17.50	0.0100	17.76	0.2685	0.0923	57	-0.99	010.60	0
010	Total N (18%)	0234	17.53	0.3900	17.76	0.2685	0.0923	57	-0.88	010.60	0
010	Total N (18%)	0494	17.55	0.1900	17.76	0.2685	0.0923	57	-0.81	010.60	0
010	Total N (18%)	0324	17.55	0.1000	17.76	0.2685	0.0923	57	-0.79	010.60	0
010	Total N (18%)	0117	17.60	0.2000	17.76	0.2685	0.0923	57	-0.60	010.12	0
010	Total N (18%)	0177	17.61	0.2040	17.76	0.2685	0.0923	57	-0.57	010.60	0
010	Total N (18%)	0563	17.63	0.0600	17.76	0.2685	0.0923	57	-0.49	010.12	0
010	Total N (18%)	0043	17.64	0.0100	17.76	0.2685	0.0923	57	-0.47	010.60	0
010	Total N (18%)	0389	17.64	0.0300	17.76	0.2685	0.0923	57	-0.47	010.60	0
010	Total N (18%)	0028	17.64	0.0200	17.76	0.2685	0.0923	57	-0.45	010.60	0
010	Total N (18%)	0035	17.65	0.1000	17.76	0.2685	0.0923	57	-0.42	010.60	0
010	Total N (18%)	0534	17.65	0.1000	17.76	0.2685	0.0923	57	-0.42	010.60	0
010	Total N (18%)	0220	17.66	0.0100	17.76	0.2685	0.0923	57	-0.40	010.60	0
010	Total N (18%)	0231	17.67	0.0100	17.76	0.2685	0.0923	57	-0.36	010.60	0
010	Total N (18%)	0086	17.67	0.0290	17.76	0.2685	0.0923	57	-0.34	010.60	0
010	Total N (18%)	0360	17.68	0.0200	17.76	0.2685	0.0923	57	-0.30	010.60	0
010	Total N (18%)	0040	17.70	0.0000	17.76	0.2685	0.0923	57	-0.23	010.60	0
010	Total N (18%)	0605	17.71	0.0860	17.76	0.2685	0.0923	57	-0.20	010.99	0
010	Total N (18%)	0543	17.72	0.0500	17.76	0.2685	0.0923	57	-0.17	010.60	0
010	Total N (18%)	0095	17.73	0.0400	17.76	0.2685	0.0923	57	-0.12	010.60	0
010	Total N (18%)	0451	17.75	0.1900	17.76	0.2685	0.0923	57	-0.06	010.60	0
010	Total N (18%)	0423	17.76	0.2300	17.76	0.2685	0.0923	57	-0.02	010.60	0
010	Total N (18%)	0034	17.76	0.0800	17.76	0.2685	0.0923	57	-0.01	010.60	0
010	Total N (18%)	0106	17.77	0.0100	17.76	0.2685	0.0923	57	0.01	010.60	0
010	Total N (18%)	0023	17.80	0.1130	17.76	0.2685	0.0923	57	0.16	010.60	0
010	Total N (18%)	0055	17.82	0.0600	17.76	0.2685	0.0923	57	0.22	010.60	0
010	Total N (18%)	0472	17.82	0.0600	17.76	0.2685	0.0923	57	0.22	010.60	0
010	Total N (18%)	0521	17.84	0.0000	17.76	0.2685	0.0923	57	0.28	010.60	0
010	Total N (18%)	0255	17.85	0.3340	17.76	0.2685	0.0923	57	0.32	010.60	0
010	Total N (18%)	0354	17.85	0.1000	17.76	0.2685	0.0923	57	0.33	010.60	0
010	Total N (18%)	0309	17.88	0.0800	17.76	0.2685	0.0923	57	0.44	010.11	0
010	Total N (18%)	0131	17.89	0.1310	17.76	0.2685	0.0923	57	0.48	010.60	0
010	Total N (18%)	0291	17.91	0.0100	17.76	0.2685	0.0923	57	0.53	010.60	0
010	Total N (18%)	0561	17.92	0.0000	17.76	0.2685	0.0923	57	0.59	010.60	0
010	Total N (18%)	0405	17.93	0.0000	17.76	0.2685	0.0923	57	0.63	010.60	0
010	Total N (18%)	0577	17.95	0.0900	17.76	0.2685	0.0923	57	0.68	010.99	0
010	Total N (18%)	0007	17.96	0.2400	17.76	0.2685	0.0923	57	0.74	010.60	0
010	Total N (18%)	0029	17.99	0.0700	17.76	0.2685	0.0923	57	0.83	010.60	0
010	Total N (18%)	0136	18.00	0.2000	17.76	0.2685	0.0923	57	0.89	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
010	Total N (18%)	0527	18.02	0.1510	17.76	0.2685	0.0923	57	0.98	010.60	0
010	Total N (18%)	0538	18.04	0.1200	17.76	0.2685	0.0923	57	1.04	010.99	0
010	Total N (18%)	0377	18.07	0.1700	17.76	0.2685	0.0923	57	1.13	010.60	0
010	Total N (18%)	0049	18.09	0.0150	17.76	0.2685	0.0923	57	1.21	010.60	0
010	Total N (18%)	0452	18.16	0.0740	17.76	0.2685	0.0923	57	1.47	010.60	0
010	Total N (18%)	0600	18.18	0.1500	17.76	0.2685	0.0923	57	1.54	010.99	0
010	Total N (18%)	0025	18.19	0.0400	17.76	0.2685	0.0923	57	1.60	010.60	0
010	Total N (18%)	0559	18.28	0.0100	17.76	0.2685	0.0923	57	1.91	010.99	0
010	Total N (18%)	0653	18.28	0.0100	17.76	0.2685	0.0923	57	1.91	010.99	0
010	Total N (18%)	0402	18.90‡	0.0410	17.76	0.2685	0.0923	57	4.25	010.60	0
010	Total N (18%)	0042	17.70	0.8000	17.76	0.2685	0.0923	57	-0.23	010.60	1
010	Total N (18%)	0612	46.00‡	1.290	17.76	0.2685	0.0923	57	105.16	010.60	1
020	Total P2O5 (%)	0515	39.24	2.660	46.31	1.105	0.2091	34	-6.40	020.99	0
020	Total P2O5 (%)	0389	40.30	0.0000	46.31	1.105	0.2091	34	-5.44	020.50	0
020	Total P2O5 (%)	0543	42.11	0.2590	46.31	1.105	0.2091	34	-3.80	020.50	0
020	Total P2O5 (%)	0042	42.25	0.1000	46.31	1.105	0.2091	34	-3.67	020.50	0
020	Total P2O5 (%)	0157	42.85	2.100	46.31	1.105	0.2091	34	-3.13	020.50	0
020	Total P2O5 (%)	0472	44.74	0.2900	46.31	1.105	0.2091	34	-1.42	020.50	0
020	Total P2O5 (%)	0324	45.15	0.7000	46.31	1.105	0.2091	34	-1.05	020.20	0
020	Total P2O5 (%)	0524	45.72	0.4858	46.31	1.105	0.2091	34	-0.53	020.50	0
020	Total P2O5 (%)	0433	45.87	0.1600	46.31	1.105	0.2091	34	-0.40	020.50	0
020	Total P2O5 (%)	0527	46.20	0.1320	46.31	1.105	0.2091	34	-0.10	020.50	0
020	Total P2O5 (%)	0600	46.23	0.2500	46.31	1.105	0.2091	34	-0.08	020.99	0
020	Total P2O5 (%)	0559	46.25	0.0100	46.31	1.105	0.2091	34	-0.06	020.99	0
020	Total P2O5 (%)	0653	46.25	0.0100	46.31	1.105	0.2091	34	-0.06	020.99	0
020	Total P2O5 (%)	0309	46.29	0.0800	46.31	1.105	0.2091	34	-0.02	020.20	0
020	Total P2O5 (%)	0402	46.40	0.0840	46.31	1.105	0.2091	34	0.08	020.50	0
020	Total P2O5 (%)	0534	46.42	0.0500	46.31	1.105	0.2091	34	0.10	020.20	0
020	Total P2O5 (%)	0292	46.42	0.0000	46.31	1.105	0.2091	34	0.10	020.20	0
020	Total P2O5 (%)	0451	46.43	0.1800	46.31	1.105	0.2091	34	0.11	020.50	0
020	Total P2O5 (%)	0405	46.48	0.0200	46.31	1.105	0.2091	34	0.16	020.20	0
020	Total P2O5 (%)	0563	46.49	0.0200	46.31	1.105	0.2091	34	0.16	020.20	0
020	Total P2O5 (%)	0169	46.57	0.2000	46.31	1.105	0.2091	34	0.24	020.20	0
020	Total P2O5 (%)	0548	46.63	0.2500	46.31	1.105	0.2091	34	0.29	020.20	0
020	Total P2O5 (%)	0561	46.69	0.1100	46.31	1.105	0.2091	34	0.34	020.20	0
020	Total P2O5 (%)	0234	46.73	0.0500	46.31	1.105	0.2091	34	0.38	020.50	0
020	Total P2O5 (%)	0513	46.78	0.0700	46.31	1.105	0.2091	34	0.42	020.99	0
020	Total P2O5 (%)	0517	46.83	0.1500	46.31	1.105	0.2091	34	0.47	020.20	0
020	Total P2O5 (%)	0231	46.84	0.0800	46.31	1.105	0.2091	34	0.48	020.20	0
020	Total P2O5 (%)	0291	47.03	0.1000	46.31	1.105	0.2091	34	0.65	020.50	0
020	Total P2O5 (%)	0035	47.10	0.2000	46.31	1.105	0.2091	34	0.72	020.40	0
020	Total P2O5 (%)	0394	47.41	0.6480	46.31	1.105	0.2091	34	0.99	020.20	0
020	Total P2O5 (%)	0476	47.43	0.2317	46.31	1.105	0.2091	34	1.02	020.20	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
020	Total P2O5 (%)	0255	48.53	1.374	46.31	1.105	0.2091	34	2.01	020.50	0
020	Total P2O5 (%)	0422	48.95	0.2749	46.31	1.105	0.2091	34	2.39	020.50	0
020	Total P2O5 (%)	0371	54.70	0.4000	46.31	1.105	0.2091	34	7.60	020.20	0
020	Total P2O5 (%)	0542	52.38	3.894	46.31	1.105	0.2091	34	5.50	020.50	1
020	Total P2O5 (%)	0612	18.20	0.1700	46.31	1.105	0.2091	34	-25.45	020.50	2
030	Citrate Insoluble P2O5 (%)	0405	0.1300	0.0000				1		030.20	0
040	Indirect Available P2O5 (46%)	0547	45.55	0.3000	46.10	0.4757	0.2367	3	-1.15	040.50	0
040	Indirect Available P2O5 (46%)	0405	46.35	0.0100	46.10	0.4757	0.2367	3	0.52	040.99	0
040	Indirect Available P2O5 (46%)	0572	46.40	0.4000	46.10	0.4757	0.2367	3	0.63	040.99	0
041	Direct Available P2O5 (46%)	0521	42.78†	0.0000	46.31	0.6113	0.2682	40	-5.78	041.50	0
041	Direct Available P2O5 (46%)	0025	44.35†	0.9000	46.31	0.6113	0.2682	40	-3.21	041.51	0
041	Direct Available P2O5 (46%)	0106	44.78†	1.610	46.31	0.6113	0.2682	40	-2.52	041.21	0
041	Direct Available P2O5 (46%)	0472	45.00†	0.1000	46.31	0.6113	0.2682	40	-2.15	041.21	0
041	Direct Available P2O5 (46%)	0423	45.32	0.1500	46.31	0.6113	0.2682	40	-1.63	041.51	0
041	Direct Available P2O5 (46%)	0055	45.55	0.0400	46.31	0.6113	0.2682	40	-1.25	041.21	0
041	Direct Available P2O5 (46%)	0027	45.64	0.5800	46.31	0.6113	0.2682	40	-1.10	041.20	0
041	Direct Available P2O5 (46%)	0377	45.92	0.1300	46.31	0.6113	0.2682	40	-0.65	041.51	0
041	Direct Available P2O5 (46%)	0007	45.95	0.9000	46.31	0.6113	0.2682	40	-0.60	041.50	0
041	Direct Available P2O5 (46%)	0043	45.95	0.4000	46.31	0.6113	0.2682	40	-0.60	041.51	0
041	Direct Available P2O5 (46%)	0538	46.00	0.0300	46.31	0.6113	0.2682	40	-0.52	041.99	0
041	Direct Available P2O5 (46%)	0049	46.17	0.0300	46.31	0.6113	0.2682	40	-0.24	041.11	0
041	Direct Available P2O5 (46%)	0029	46.18	1.470	46.31	0.6113	0.2682	40	-0.23	041.40	0
041	Direct Available P2O5 (46%)	0600	46.18	0.2500	46.31	0.6113	0.2682	40	-0.23	041.99	0
041	Direct Available P2O5 (46%)	0545	46.22	0.2700	46.31	0.6113	0.2682	40	-0.16	041.99	0
041	Direct Available P2O5 (46%)	0452	46.22	0.2000	46.31	0.6113	0.2682	40	-0.15	041.20	0
041	Direct Available P2O5 (46%)	0055	46.24	0.0850	46.31	0.6113	0.2682	40	-0.13	041.11	0
041	Direct Available P2O5 (46%)	0360	46.26	0.1400	46.31	0.6113	0.2682	40	-0.09	041.51	0
041	Direct Available P2O5 (46%)	0563	46.27	0.0000	46.31	0.6113	0.2682	40	-0.07	041.21	0
041	Direct Available P2O5 (46%)	0494	46.28	0.0700	46.31	0.6113	0.2682	40	-0.06	041.51	0
041	Direct Available P2O5 (46%)	0577	46.29	0.1300	46.31	0.6113	0.2682	40	-0.05	041.99	0
041	Direct Available P2O5 (46%)	0513	46.31	0.0800	46.31	0.6113	0.2682	40	-0.01	041.11	0
041	Direct Available P2O5 (46%)	0517	46.31	0.0800	46.31	0.6113	0.2682	40	-0.01	041.20	0
041	Direct Available P2O5 (46%)	0405	46.42	0.0200	46.31	0.6113	0.2682	40	0.17	041.11	0
041	Direct Available P2O5 (46%)	0136	46.45	0.7000	46.31	0.6113	0.2682	40	0.22	041.51	0
041	Direct Available P2O5 (46%)	0177	46.46	0.1571	46.31	0.6113	0.2682	40	0.25	041.21	0
041	Direct Available P2O5 (46%)	0584	46.47	0.3700	46.31	0.6113	0.2682	40	0.25	041.99	0
041	Direct Available P2O5 (46%)	0177	46.56	0.0760	46.31	0.6113	0.2682	40	0.40	041.10	0
041	Direct Available P2O5 (46%)	0394	46.58	0.2190	46.31	0.6113	0.2682	40	0.43	041.21	0
041	Direct Available P2O5 (46%)	0553	46.64	1.350	46.31	0.6113	0.2682	40	0.52	041.20	0
041	Direct Available P2O5 (46%)	0231	46.72	0.0500	46.31	0.6113	0.2682	40	0.66	041.21	0
041	Direct Available P2O5 (46%)	0040	46.85	0.1000	46.31	0.6113	0.2682	40	0.88	041.10	0
041	Direct Available P2O5 (46%)	0220	46.85	0.1600	46.31	0.6113	0.2682	40	0.88	041.11	0
041	Direct Available P2O5 (46%)	0102	46.92	0.3600	46.31	0.6113	0.2682	40	0.99	041.10	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			#	Magruder PT	Your	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar	Tests	Z Score	Method	
041	Direct Available P2O5 (46%)	0354	47.00	0.2000	46.31	0.6113	0.2682	40	1.12	041.21	0
041	Direct Available P2O5 (46%)	0131	47.03	0.4700	46.31	0.6113	0.2682	40	1.16	041.50	0
041	Direct Available P2O5 (46%)	0494	47.07	0.0900	46.31	0.6113	0.2682	40	1.23	041.10	0
041	Direct Available P2O5 (46%)	0072	47.45‡	0.2563	46.31	0.6113	0.2682	40	1.86	041.51	0
041	Direct Available P2O5 (46%)	0034	47.48‡	0.8800	46.31	0.6113	0.2682	40	1.91	041.40	0
041	Direct Available P2O5 (46%)	0023	48.88‡	0.3660	46.31	0.6113	0.2682	40	4.19	041.51	0
041	Direct Available P2O5 (46%)	0095	46.37	1.890	46.31	0.6113	0.2682	40	0.08	041.21	1
041	Direct Available P2O5 (46%)	0605	20.49†	0.2200	46.31	0.6113	0.2682	40	-42.24	041.50	2
048	Water Soluble P2O5 (%)	0605	18.52	0.3510	41.21	1.093	0.1132	9	-19.16	048.50	0
048	Water Soluble P2O5 (%)	0472	39.68	0.1900	41.21	1.093	0.1132	9	-1.29	048.20	0
048	Water Soluble P2O5 (%)	0394	40.77	0.1620	41.21	1.093	0.1132	9	-0.37	048.20	0
048	Water Soluble P2O5 (%)	0476	41.70	0.0072	41.21	1.093	0.1132	9	0.42	048.20	0
048	Water Soluble P2O5 (%)	0220	41.73	0.0300	41.21	1.093	0.1132	9	0.44	048.20	0
048	Water Soluble P2O5 (%)	0561	41.77	0.0300	41.21	1.093	0.1132	9	0.47	048.20	0
048	Water Soluble P2O5 (%)	0517	41.87	0.0700	41.21	1.093	0.1132	9	0.56	048.20	0
048	Water Soluble P2O5 (%)	0513	41.87	0.0700	41.21	1.093	0.1132	9	0.56	048.99	0
048	Water Soluble P2O5 (%)	0231	41.93	0.1900	41.21	1.093	0.1132	9	0.61	048.20	0
048	Water Soluble P2O5 (%)	0572	42.40	1.760	41.21	1.093	0.1132	9	1.01	048.99	1
050	Soluble K2O (%)	0472	0.0850	0.0100	0.1427	0.0323	0.0058	6	-1.59	050.32	0
050	Soluble K2O (%)	0542	0.1340	0.0140	0.1427	0.0323	0.0058	6	-0.24	050.99	0
050	Soluble K2O (%)	0527	0.1344	0.0022	0.1427	0.0323	0.0058	6	-0.23	050.99	0
050	Soluble K2O (%)	0354	0.1550	0.0000	0.1427	0.0323	0.0058	6	0.34	050.52	0
050	Soluble K2O (%)	0422	0.1678	0.0003	0.1427	0.0323	0.0058	6	0.69	050.50	0
050	Soluble K2O (%)	0524	0.1708	0.0023	0.1427	0.0323	0.0058	6	0.77	050.99	0
060	Water (Free) (%)	0517	0.7300	0.0400				2		060.00	0
060	Water (Free) (%)	0513	1.260	0.0200				2		060.00	0
101	Acid Soluble Ca (%)	0472	0.1800	0.0200	0.2326	0.0468	0.0073	5	-0.98	101.33	0
101	Acid Soluble Ca (%)	0527	0.1927	0.0025	0.2326	0.0468	0.0073	5	-0.74	101.33	0
101	Acid Soluble Ca (%)	0494	0.2422	0.0022	0.2326	0.0468	0.0073	5	0.18	101.33	0
101	Acid Soluble Ca (%)	0035	0.2530	0.0020	0.2326	0.0468	0.0073	5	0.38	101.30	0
101	Acid Soluble Ca (%)	0354	0.2950	0.0100	0.2326	0.0468	0.0073	5	1.16	101.30	0
101	Acid Soluble Ca (%)	0423	< 0.5		0.2326	0.0468	0.0073	5		101.32	5
121	Acid Soluble Mg (%)	0371	0.7700	0.0000	0.8234	0.0595	0.0066	8	-0.82	121.30	0
121	Acid Soluble Mg (%)	0472	0.7800	0.0000	0.8234	0.0595	0.0066	8	-0.67	121.33	0
121	Acid Soluble Mg (%)	0354	0.7850	0.0100	0.8234	0.0595	0.0066	8	-0.59	121.30	0
121	Acid Soluble Mg (%)	0494	0.7988	0.0022	0.8234	0.0595	0.0066	8	-0.38	121.33	0
121	Acid Soluble Mg (%)	0527	0.8091	0.0125	0.8234	0.0595	0.0066	8	-0.22	121.33	0
121	Acid Soluble Mg (%)	0035	0.8450	0.0120	0.8234	0.0595	0.0066	8	0.33	121.30	0
121	Acid Soluble Mg (%)	0524	0.8937	0.0006	0.8234	0.0595	0.0066	8	1.08	121.99	0
121	Acid Soluble Mg (%)	0423	0.9060	0.0020	0.8234	0.0595	0.0066	8	1.27	121.32	0
148	Total S (%)	0422	1.146	0.0070	1.374	0.1738	0.0118	5	-1.32	148.99	0
148	Total S (%)	0472	1.330	0.0000	1.374	0.1738	0.0118	5	-0.25	148.07	0
148	Total S (%)	0354	1.360	0.0000	1.374	0.1738	0.0118	5	-0.08	148.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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148	Total S (%)	0494	1.406	0.0083	1.374	0.1738	0.0118	5	0.18	148.07	0
148	Total S (%)	0371	1.630	0.0200	1.374	0.1738	0.0118	5	1.47	148.99	0
149	S - HNO3 soluble (%)	0524	1.389	0.0991				1		149.04	0
151	Acid Soluble As (ppm)	0220	11.25	0.9000	14.49	2.308	0.7086	14	-1.40	151.32	0
151	Acid Soluble As (ppm)	0220	11.60	0.2000	14.49	2.308	0.7086	14	-1.25	151.99	0
151	Acid Soluble As (ppm)	0494	12.20	1.000	14.49	2.308	0.7086	14	-0.99	151.33	0
151	Acid Soluble As (ppm)	0605	13.23	1.638	14.49	2.308	0.7086	14	-0.55	151.30	0
151	Acid Soluble As (ppm)	0515	13.40	3.200	14.49	2.308	0.7086	14	-0.47	151.33	0
151	Acid Soluble As (ppm)	0027	14.61	0.7330	14.49	2.308	0.7086	14	0.05	151.30	0
151	Acid Soluble As (ppm)	0572	14.80	0.3200	14.49	2.308	0.7086	14	0.13	151.99	0
151	Acid Soluble As (ppm)	0548	14.84	0.5500	14.49	2.308	0.7086	14	0.15	151.33	0
151	Acid Soluble As (ppm)	0524	14.99	0.0478	14.49	2.308	0.7086	14	0.22	151.30	0
151	Acid Soluble As (ppm)	0136	15.00	1.000	14.49	2.308	0.7086	14	0.22	151.33	0
151	Acid Soluble As (ppm)	0527	15.24	0.3419	14.49	2.308	0.7086	14	0.32	151.33	0
151	Acid Soluble As (ppm)	0513	15.80	0.1600	14.49	2.308	0.7086	14	0.57	151.30	0
151	Acid Soluble As (ppm)	0405	18.00	0.0000	14.49	2.308	0.7086	14	1.52	151.32	0
151	Acid Soluble As (ppm)	0563	18.00	0.0000	14.49	2.308	0.7086	14	1.52	151.33	0
151	Acid Soluble As (ppm)	0515	17.29	9.820	14.49	2.308	0.7086	14	1.21	151.34	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	14.49	2.308	0.7086	14		151.30	4
165	Acid Soluble B (%)	0527	0.0050	0.0001	0.0124	0.0067	0.0051	6	-1.00	165.99	0
165	Acid Soluble B (%)	0524	0.0057	0.0002	0.0124	0.0067	0.0051	6	-0.90	165.99	0
165	Acid Soluble B (%)	0423	0.0140	0.0000	0.0124	0.0067	0.0051	6	0.21	165.99	0
165	Acid Soluble B (%)	0371	0.0150	0.0100	0.0124	0.0067	0.0051	6	0.34	165.30	0
165	Acid Soluble B (%)	0472	0.0150	0.0100	0.0124	0.0067	0.0051	6	0.34	165.99	0
165	Acid Soluble B (%)	0354	0.0200	0.0000	0.0124	0.0067	0.0051	6	1.01	165.30	0
181	Acid Soluble Cd (ppm)	0515	5.010	0.3000	8.939	0.9788	0.2789	15	-4.01	181.34	0
181	Acid Soluble Cd (ppm)	0524	6.985	0.2093	8.939	0.9788	0.2789	15	-2.00	181.30	0
181	Acid Soluble Cd (ppm)	0513	7.900	0.0800	8.939	0.9788	0.2789	15	-1.06	181.30	0
181	Acid Soluble Cd (ppm)	0220	8.300	0.8000	8.939	0.9788	0.2789	15	-0.65	181.32	0
181	Acid Soluble Cd (ppm)	0220	8.350	0.3000	8.939	0.9788	0.2789	15	-0.60	181.99	0
181	Acid Soluble Cd (ppm)	0572	8.895	0.0700	8.939	0.9788	0.2789	15	-0.05	181.99	0
181	Acid Soluble Cd (ppm)	0035	8.925	0.1300	8.939	0.9788	0.2789	15	-0.01	181.30	0
181	Acid Soluble Cd (ppm)	0255	9.045	0.3180	8.939	0.9788	0.2789	15	0.11	181.30	0
181	Acid Soluble Cd (ppm)	0527	9.207	0.1126	8.939	0.9788	0.2789	15	0.27	181.33	0
181	Acid Soluble Cd (ppm)	0136	9.450	0.5000	8.939	0.9788	0.2789	15	0.52	181.33	0
181	Acid Soluble Cd (ppm)	0548	9.630	0.0000	8.939	0.9788	0.2789	15	0.71	181.33	0
181	Acid Soluble Cd (ppm)	0394	9.685	0.3213	8.939	0.9788	0.2789	15	0.76	181.30	0
181	Acid Soluble Cd (ppm)	0605	9.821	0.6700	8.939	0.9788	0.2789	15	0.90	181.30	0
181	Acid Soluble Cd (ppm)	0494	9.940	0.0600	8.939	0.9788	0.2789	15	1.02	181.33	0
181	Acid Soluble Cd (ppm)	0405	10.00	0.0000	8.939	0.9788	0.2789	15	1.08	181.32	0
181	Acid Soluble Cd (ppm)	0515	5.308	3.556	8.939	0.9788	0.2789	15	-3.71	181.33	1
191	Acid Soluble Cr (ppm)	0572	113.2	10.12	129.6	11.26	5.380	17	-1.46	191.99	0
191	Acid Soluble Cr (ppm)	0035	114.0	8.000	129.6	11.26	5.380	17	-1.39	191.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
191	Acid Soluble Cr (ppm)	0220	114.0	10.00	129.6	11.26	5.380	17	-1.39	191.32	0
191	Acid Soluble Cr (ppm)	0220	119.5	1.000	129.6	11.26	5.380	17	-0.90	191.99	0
191	Acid Soluble Cr (ppm)	0494	121.0	2.000	129.6	11.26	5.380	17	-0.77	191.33	0
191	Acid Soluble Cr (ppm)	0515	125.0	6.000	129.6	11.26	5.380	17	-0.41	191.33	0
191	Acid Soluble Cr (ppm)	0136	129.4	0.7000	129.6	11.26	5.380	17	-0.03	191.33	0
191	Acid Soluble Cr (ppm)	0527	130.9	1.324	129.6	11.26	5.380	17	0.11	191.33	0
191	Acid Soluble Cr (ppm)	0605	132.9	9.660	129.6	11.26	5.380	17	0.29	191.30	0
191	Acid Soluble Cr (ppm)	0513	135.9	3.900	129.6	11.26	5.380	17	0.55	191.30	0
191	Acid Soluble Cr (ppm)	0563	136.0	2.000	129.6	11.26	5.380	17	0.57	191.33	0
191	Acid Soluble Cr (ppm)	0027	136.5	11.76	129.6	11.26	5.380	17	0.61	191.30	0
191	Acid Soluble Cr (ppm)	0515	136.5	21.00	129.6	11.26	5.380	17	0.61	191.34	0
191	Acid Soluble Cr (ppm)	0405	137.0	0.0000	129.6	11.26	5.380	17	0.65	191.32	0
191	Acid Soluble Cr (ppm)	0394	139.2	3.020	129.6	11.26	5.380	17	0.85	191.30	0
191	Acid Soluble Cr (ppm)	0548	139.5	1.120	129.6	11.26	5.380	17	0.87	191.33	0
191	Acid Soluble Cr (ppm)	0524	143.5	2.798	129.6	11.26	5.380	17	1.23	191.30	0
202	Acid Soluble Co (ppm)	0513	0.7700	0.0600	3.219	0.7112	0.1469	14	-3.44	202.30	0
202	Acid Soluble Co (ppm)	0572	2.515	0.2100	3.219	0.7112	0.1469	14	-0.99	202.99	0
202	Acid Soluble Co (ppm)	0220	2.800	0.2000	3.219	0.7112	0.1469	14	-0.59	202.32	0
202	Acid Soluble Co (ppm)	0563	2.800	0.2000	3.219	0.7112	0.1469	14	-0.59	202.33	0
202	Acid Soluble Co (ppm)	0220	2.800	0.0000	3.219	0.7112	0.1469	14	-0.59	202.99	0
202	Acid Soluble Co (ppm)	0494	2.925	0.0500	3.219	0.7112	0.1469	14	-0.41	202.33	0
202	Acid Soluble Co (ppm)	0527	3.115	0.0192	3.219	0.7112	0.1469	14	-0.15	202.33	0
202	Acid Soluble Co (ppm)	0035	3.220	0.1200	3.219	0.7112	0.1469	14	0.00	202.30	0
202	Acid Soluble Co (ppm)	0136	3.300	0.0000	3.219	0.7112	0.1469	14	0.11	202.33	0
202	Acid Soluble Co (ppm)	0405	3.500	1.000	3.219	0.7112	0.1469	14	0.40	202.32	0
202	Acid Soluble Co (ppm)	0605	3.508	0.2170	3.219	0.7112	0.1469	14	0.41	202.30	0
202	Acid Soluble Co (ppm)	0548	3.860	0.1600	3.219	0.7112	0.1469	14	0.90	202.33	0
202	Acid Soluble Co (ppm)	0524	4.560	0.0872	3.219	0.7112	0.1469	14	1.88	202.30	0
202	Acid Soluble Co (ppm)	0423	12.20	0.0000	3.219	0.7112	0.1469	14	12.63	202.32	0
202	Acid Soluble Co (ppm)	0255	22.07	30.51	3.219	0.7112	0.1469	14	26.50	202.99	1
202	Acid Soluble Co (ppm)	0515	< 0.139		3.219	0.7112	0.1469	14		202.34	5
202	Acid Soluble Co (ppm)	0515	< 0.26		3.219	0.7112	0.1469	14		202.33	5
221	Acid Soluble Cu (%)	0513	0.0001	0.0000	0.0014	0.0019	0.0002	5	-0.68	221.00	0
221	Acid Soluble Cu (%)	0548	0.0001	0.0000	0.0014	0.0019	0.0002	5	-0.68	221.33	0
221	Acid Soluble Cu (%)	0494	0.0006	0.0001	0.0014	0.0019	0.0002	5	-0.45	221.33	0
221	Acid Soluble Cu (%)	0402	0.0017	0.0001	0.0014	0.0019	0.0002	5	0.13	221.30	0
221	Acid Soluble Cu (%)	0538	0.0047	0.0003	0.0014	0.0019	0.0002	5	1.69	221.00	0
221	Acid Soluble Cu (%)	0255	0.0000	0.0000	0.0014	0.0019	0.0002	5		221.30	4
221	Acid Soluble Cu (%)	0371	0.0000	0.0000	0.0014	0.0019	0.0002	5		221.30	4
221	Acid Soluble Cu (%)	0106	0.0000	0.0000	0.0014	0.0019	0.0002	5		221.33	4
221	Acid Soluble Cu (%)	0527	< 0.0001		0.0014	0.0019	0.0002	5		221.33	5
221	Acid Soluble Cu (%)	0405	< 0.0002		0.0014	0.0019	0.0002	5		221.32	5
221	Acid Soluble Cu (%)	0136	< 0.0002		0.0014	0.0019	0.0002	5		221.33	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
221	Acid Soluble Cu (%)	0394	< 0.0002		0.0014	0.0019	0.0002	5		221.33	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0014	0.0019	0.0002	5		221.30	5
221	Acid Soluble Cu (%)	0515	< 0.195		0.0014	0.0019	0.0002	5		221.99	5
221	Acid Soluble Cu (%)	0515	< 0.26		0.0014	0.0019	0.0002	5		221.33	5
241	Acid Soluble Fe (%)	0494	0.9905	0.0190	1.035	0.0449	0.0178	8	-0.90	241.33	0
241	Acid Soluble Fe (%)	0354	0.9950	0.0100	1.035	0.0449	0.0178	8	-0.81	241.30	0
241	Acid Soluble Fe (%)	0527	1.001	0.0145	1.035	0.0449	0.0178	8	-0.68	241.33	0
241	Acid Soluble Fe (%)	0524	1.028	0.0089	1.035	0.0449	0.0178	8	-0.14	241.99	0
241	Acid Soluble Fe (%)	0472	1.040	0.0000	1.035	0.0449	0.0178	8	0.11	241.33	0
241	Acid Soluble Fe (%)	0035	1.045	0.0300	1.035	0.0449	0.0178	8	0.21	241.30	0
241	Acid Soluble Fe (%)	0371	1.075	0.0700	1.035	0.0449	0.0178	8	0.82	241.30	0
241	Acid Soluble Fe (%)	0423	1.129	0.0010	1.035	0.0449	0.0178	8	1.91	241.32	0
251	Acid Soluble Pb (ppm)	0220	0.5000	0.0000	1.367	0.9371	0.0888	11	-0.93	251.32	0
251	Acid Soluble Pb (ppm)	0220	0.6500	0.1000	1.367	0.9371	0.0888	11	-0.77	251.99	0
251	Acid Soluble Pb (ppm)	0513	0.8350	0.0700	1.367	0.9371	0.0888	11	-0.57	251.30	0
251	Acid Soluble Pb (ppm)	0563	0.9200	0.0200	1.367	0.9371	0.0888	11	-0.48	251.33	0
251	Acid Soluble Pb (ppm)	0524	1.032	0.2565	1.367	0.9371	0.0888	11	-0.36	251.30	0
251	Acid Soluble Pb (ppm)	0572	1.085	0.0700	1.367	0.9371	0.0888	11	-0.30	251.99	0
251	Acid Soluble Pb (ppm)	0527	1.098	0.0670	1.367	0.9371	0.0888	11	-0.29	251.33	0
251	Acid Soluble Pb (ppm)	0548	1.115	0.0700	1.367	0.9371	0.0888	11	-0.27	251.33	0
251	Acid Soluble Pb (ppm)	0515	2.261	0.0890	1.367	0.9371	0.0888	11	0.95	251.33	0
251	Acid Soluble Pb (ppm)	0394	5.253	0.0061	1.367	0.9371	0.0888	11	4.15	251.30	0
251	Acid Soluble Pb (ppm)	0405	6.500	1.000	1.367	0.9371	0.0888	11	5.48	251.32	0
251	Acid Soluble Pb (ppm)	0515	9.660	8.480	1.367	0.9371	0.0888	11	8.85	251.34	1
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	1.367	0.9371	0.0888	11		251.30	4
251	Acid Soluble Pb (ppm)	0136	< 3		1.367	0.9371	0.0888	11		251.33	5
251	Acid Soluble Pb (ppm)	0605	< 6.25		1.367	0.9371	0.0888	11		251.30	5
261	Acid Soluble Mn (%)	0354	0.0200	0.0000	0.0278	0.0026	0.0002	6	-2.69	261.30	0
261	Acid Soluble Mn (%)	0527	0.0267	0.0002	0.0278	0.0026	0.0002	6	-0.39	261.35	0
261	Acid Soluble Mn (%)	0035	0.0280	0.0000	0.0278	0.0026	0.0002	6	0.06	261.30	0
261	Acid Soluble Mn (%)	0524	0.0283	0.0000	0.0278	0.0026	0.0002	6	0.16	261.99	0
261	Acid Soluble Mn (%)	0371	0.0300	0.0000	0.0278	0.0026	0.0002	6	0.75	261.32	0
261	Acid Soluble Mn (%)	0472	0.0300	0.0000	0.0278	0.0026	0.0002	6	0.75	261.35	0
261	Acid Soluble Mn (%)	0423	0.0365	0.0010	0.0278	0.0026	0.0002	6	2.98	261.34	1
281	Acid Soluble Hg (ppm)	0524	0.0005	0.0001				1		281.99	0
281	Acid Soluble Hg (ppm)	0513	0.0000	0.0000				1		281.30	4
281	Acid Soluble Hg (ppm)	0527	< 0.001					1		281.30	5
281	Acid Soluble Hg (ppm)	0572	< 0.008					1		281.99	5
281	Acid Soluble Hg (ppm)	0220	< 0.01					1		281.99	5
281	Acid Soluble Hg (ppm)	0563	< 0.05					1		281.30	5
281	Acid Soluble Hg (ppm)	0515	< 0.1					1		281.30	5
281	Acid Soluble Hg (ppm)	0605	< 1.25					1		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2					1		281.30	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
289	Acid Soluble Mo (ppm)	0548	10.42	0.3600	12.80	1.942	0.5626	17	-1.22	289.33	0
289	Acid Soluble Mo (ppm)	0563	10.50	1.000	12.80	1.942	0.5626	17	-1.18	289.33	0
289	Acid Soluble Mo (ppm)	0220	11.00	0.6000	12.80	1.942	0.5626	17	-0.93	289.32	0
289	Acid Soluble Mo (ppm)	0220	11.20	0.0000	12.80	1.942	0.5626	17	-0.82	289.99	0
289	Acid Soluble Mo (ppm)	0255	11.41	0.7000	12.80	1.942	0.5626	17	-0.71	289.30	0
289	Acid Soluble Mo (ppm)	0513	11.44	0.1900	12.80	1.942	0.5626	17	-0.70	289.30	0
289	Acid Soluble Mo (ppm)	0524	12.33	0.4460	12.80	1.942	0.5626	17	-0.24	289.30	0
289	Acid Soluble Mo (ppm)	0136	12.45	0.5000	12.80	1.942	0.5626	17	-0.18	289.33	0
289	Acid Soluble Mo (ppm)	0572	12.78	0.2300	12.80	1.942	0.5626	17	-0.01	289.99	0
289	Acid Soluble Mo (ppm)	0402	13.00	0.0000	12.80	1.942	0.5626	17	0.10	289.30	0
289	Acid Soluble Mo (ppm)	0405	13.00	0.0000	12.80	1.942	0.5626	17	0.10	289.32	0
289	Acid Soluble Mo (ppm)	0527	13.51	0.1364	12.80	1.942	0.5626	17	0.37	289.33	0
289	Acid Soluble Mo (ppm)	0035	13.55	0.7000	12.80	1.942	0.5626	17	0.39	289.30	0
289	Acid Soluble Mo (ppm)	0106	14.50	1.000	12.80	1.942	0.5626	17	0.88	289.33	0
289	Acid Soluble Mo (ppm)	0494	15.05	0.7000	12.80	1.942	0.5626	17	1.16	289.33	0
289	Acid Soluble Mo (ppm)	0423	18.90	0.2000	12.80	1.942	0.5626	17	3.14	289.33	0
289	Acid Soluble Mo (ppm)	0515	95.05	20.90	12.80	1.942	0.5626	17	42.35	289.33	0
289	Acid Soluble Mo (ppm)	0515	140.7	82.60	12.80	1.942	0.5626	17	65.85	289.34	1
291	Acid Soluble Ni (ppm)	0513	11.95	0.4100	15.53	2.579	0.8603	17	-1.39	291.30	0
291	Acid Soluble Ni (ppm)	0563	12.00	0.0000	15.53	2.579	0.8603	17	-1.37	291.33	0
291	Acid Soluble Ni (ppm)	0572	13.44	1.240	15.53	2.579	0.8603	17	-0.81	291.99	0
291	Acid Soluble Ni (ppm)	0220	13.65	0.7000	15.53	2.579	0.8603	17	-0.73	291.32	0
291	Acid Soluble Ni (ppm)	0220	14.30	0.2000	15.53	2.579	0.8603	17	-0.48	291.99	0
291	Acid Soluble Ni (ppm)	0524	14.37	0.1880	15.53	2.579	0.8603	17	-0.45	291.30	0
291	Acid Soluble Ni (ppm)	0394	14.58	0.2790	15.53	2.579	0.8603	17	-0.37	291.30	0
291	Acid Soluble Ni (ppm)	0027	15.19	1.086	15.53	2.579	0.8603	17	-0.14	291.30	0
291	Acid Soluble Ni (ppm)	0035	15.45	0.1000	15.53	2.579	0.8603	17	-0.03	291.30	0
291	Acid Soluble Ni (ppm)	0494	15.70	0.8000	15.53	2.579	0.8603	17	0.06	291.33	0
291	Acid Soluble Ni (ppm)	0136	15.90	1.800	15.53	2.579	0.8603	17	0.14	291.33	0
291	Acid Soluble Ni (ppm)	0527	16.38	0.3858	15.53	2.579	0.8603	17	0.33	291.33	0
291	Acid Soluble Ni (ppm)	0548	16.54	0.6100	15.53	2.579	0.8603	17	0.39	291.33	0
291	Acid Soluble Ni (ppm)	0605	16.84	1.166	15.53	2.579	0.8603	17	0.51	291.30	0
291	Acid Soluble Ni (ppm)	0405	19.00	0.0000	15.53	2.579	0.8603	17	1.34	291.32	0
291	Acid Soluble Ni (ppm)	0255	61.26	37.74	15.53	2.579	0.8603	17	17.73	291.99	0
291	Acid Soluble Ni (ppm)	0515	111.5	11.00	15.53	2.579	0.8603	17	37.21	291.34	0
291	Acid Soluble Ni (ppm)	0515	125.0	59.10	15.53	2.579	0.8603	17	42.42	291.33	1
301	Acid Soluble Se (ppm)	0524	0.2967	0.0448	1.463	1.395	0.7290	5	-0.84	301.30	0
301	Acid Soluble Se (ppm)	0548	0.3700	0.0800	1.463	1.395	0.7290	5	-0.78	301.33	0
301	Acid Soluble Se (ppm)	0572	1.075	0.2300	1.463	1.395	0.7290	5	-0.28	301.99	0
301	Acid Soluble Se (ppm)	0563	1.900	0.2000	1.463	1.395	0.7290	5	0.31	301.33	0
301	Acid Soluble Se (ppm)	0515	3.675	3.090	1.463	1.395	0.7290	5	1.58	301.33	0
301	Acid Soluble Se (ppm)	0515	8.850	11.30	1.463	1.395	0.7290	5	5.29	301.34	1
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	1.463	1.395	0.7290	5		301.99	4

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
301	Acid Soluble Se (ppm)	0527	< 0.01		1.463	1.395	0.7290	5		301.33	5
301	Acid Soluble Se (ppm)	0220	< 0.3		1.463	1.395	0.7290	5		301.32	5
301	Acid Soluble Se (ppm)	0220	< 0.3		1.463	1.395	0.7290	5		301.99	5
301	Acid Soluble Se (ppm)	0605	< 6.25		1.463	1.395	0.7290	5		301.30	5
301	Acid Soluble Se (ppm)	0405	< 10		1.463	1.395	0.7290	5		301.32	5
311	Sodium (%)	0423	0.0795	0.0030	0.1595	0.0407	0.0063	6	-1.75	311.33	0
311	Sodium (%)	0572	0.1350	0.0100	0.1595	0.0407	0.0063	6	-0.54	311.99	0
311	Sodium (%)	0494	0.1675	0.0039	0.1595	0.0407	0.0063	6	0.17	311.33	0
311	Sodium (%)	0527	0.1813	0.0006	0.1595	0.0407	0.0063	6	0.48	311.33	0
311	Sodium (%)	0035	0.1850	0.0140	0.1595	0.0407	0.0063	6	0.56	311.33	0
311	Sodium (%)	0354	0.1900	0.0000	0.1595	0.0407	0.0063	6	0.67	311.99	0
321	Acid Soluble Zn (%)	0572	0.0092	0.0009	0.0114	0.0015	0.0007	18	-1.51	321.99	0
321	Acid Soluble Zn (%)	0095	0.0100	0.0000	0.0114	0.0015	0.0007	18	-0.95	321.32	0
321	Acid Soluble Zn (%)	0472	0.0100	0.0000	0.0114	0.0015	0.0007	18	-0.95	321.33	0
321	Acid Soluble Zn (%)	0220	0.0101	0.0012	0.0114	0.0015	0.0007	18	-0.88	321.32	0
321	Acid Soluble Zn (%)	0220	0.0102	0.0004	0.0114	0.0015	0.0007	18	-0.82	321.99	0
321	Acid Soluble Zn (%)	0106	0.0105	0.0007	0.0114	0.0015	0.0007	18	-0.65	321.33	0
321	Acid Soluble Zn (%)	0027	0.0105	0.0010	0.0114	0.0015	0.0007	18	-0.62	321.99	0
321	Acid Soluble Zn (%)	0515	0.0110	0.0005	0.0114	0.0015	0.0007	18	-0.32	321.33	0
321	Acid Soluble Zn (%)	0136	0.0112	0.0010	0.0114	0.0015	0.0007	18	-0.16	321.33	0
321	Acid Soluble Zn (%)	0527	0.0118	0.0002	0.0114	0.0015	0.0007	18	0.23	321.33	0
321	Acid Soluble Zn (%)	0255	0.0120	0.0020	0.0114	0.0015	0.0007	18	0.37	321.30	0
321	Acid Soluble Zn (%)	0405	0.0122	0.0004	0.0114	0.0015	0.0007	18	0.50	321.32	0
321	Acid Soluble Zn (%)	0513	0.0123	0.0001	0.0114	0.0015	0.0007	18	0.53	321.00	0
321	Acid Soluble Zn (%)	0515	0.0123	0.0015	0.0114	0.0015	0.0007	18	0.53	321.99	0
321	Acid Soluble Zn (%)	0524	0.0127	0.0000	0.0114	0.0015	0.0007	18	0.82	321.99	0
321	Acid Soluble Zn (%)	0394	0.0130	0.0002	0.0114	0.0015	0.0007	18	1.02	321.33	0
321	Acid Soluble Zn (%)	0035	0.0135	0.0010	0.0114	0.0015	0.0007	18	1.35	321.30	0
321	Acid Soluble Zn (%)	0402	0.0161	0.0003	0.0114	0.0015	0.0007	18	3.02	321.30	0
321	Acid Soluble Zn (%)	0371	0.0150	0.0100	0.0114	0.0015	0.0007	18	2.33	321.30	1
321	Acid Soluble Zn (%)	0548	0.1100	0.0000	0.0114	0.0015	0.0007	18	64.68	321.33	2
321	Acid Soluble Zn (%)	0354	< 0.01		0.0114	0.0015	0.0007	18		321.30	5
325	Water Soluble Zn (%)	0538	0.0011	0.0002				1		325.00	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. Identical duplicates not included in calculation of Rob R-bar. Your offset values are higher (±) or lower (±) than the Robust Analyte value ± Investigational Allowance. 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.