

Sample	AFPC		Grade	18-46-0	
	2017-07				
	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, Other		001.99	14	17.54	0.08
Method Group 001.XX PCT			14	17.54	0.09
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	17.69	0.07
Total Nitrogen, Combustion	993.13	010.60	24	17.77	0.15
Total Nitrogen, Other		010.99	6	17.83	0.10
Method Group 010.XX PCT			33	17.78	0.18
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Gravimetric Quimociac		020.10	1	47.04	0.00
Total Phosphate, Spectrometric	978.02	020.20	22	46.70	0.20
Total Phosphate, ICP	970.03	020.40	5	46.76	0.10
Total Phosphate, ICP, Lithium	970.02	020.50	1	47.17	0.00
Total Phosphate, Other	993.13	020.99	1	47.61	0.00
Method Group 020.XX PCT			30	46.74	0.35
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	8	0.22	0.06
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.09	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.25	0.02
Insoluble Phosphate, Other		030.99	2	0.23	0.00
Method Group 030.XX PCT			14	0.23	0.06
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Spectrometric	960.02	040.20	9	46.46	0.21
Indirect Available Phosphate, Automated	960.02	040.40	2	46.50	0.01
Indirect Available Phosphate, Other		040.99	3	46.82	0.11
Method Group 040.XX PCT			14	46.50	0.17
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	46.64	0.06
Direct Available Phosphate, Spectrometric	960.03D	041.20	1	46.79	0.00
Direct Available Phosphate, ICP		041.50	3	45.55	0.43
Direct Available Phosphate, EDTA Extract	993.01	041.60	6	46.72	0.20
Method Group 041.XX PCT			12	46.62	0.34
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	13	41.84	0.38
Water Soluble Phosphate, Other		048.99	6	42.48	0.14
Method Group 048.XX PCT			19	42.23	0.57
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, ICP(Oxalate)		050.50	2	0.11	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.12	0.00
Soluble Potash, Other		050.99	9	0.13	0.00
Method Group 050.XX PCT			12	0.12	0.01
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	17	1.65	0.15
Free Water, Other		060.99	6	1.79	0.25
Method Group 060.XX PCT			23	1.70	0.17
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.19	0.00
Acid Soluble Calcium, ICP		101.30	18	0.32	0.02
Acid Soluble Calcium, Other		101.99	1	0.21	0.00
Method Group 101.XX PCT			20	0.31	0.03
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	3	1.40	0.05
Acid Soluble Magnesium, ICP		121.30	16	1.51	0.05
Acid Soluble Magnesium, Other		121.99	3	1.48	0.08
Method Group 121.XX PCT			22	1.50	0.12
<b>SULFATE SULFUR (S)</b>					
Sulfur, Gravimetric	980.02(a)	144.01	1	1.33	0.00

Sulfur, Other		144.99	16	1.30	0.04
Method Group 144.XX PCT			17	1.30	0.05
<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	3	1.25	0.0
Method Group 145.XX PCT			3	1.25	0.0
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	6	14.0	3.7
Total Arsenic, Other		151.99	5	13.5	0.6
Method Group 151.XX PPM			11	13.5	1.8
<b>ACID SOLUBLE BORON</b>					
Acid Soluble Boron, Other		165.99	2	58	13.3
Method Group 165.XX PPM			2	58	16.2
<b>WATER SOLUBLE BORON</b>					
Water Soluble Boron, Other		171.99	1	9	0.0
Method Group 171.XX PPM			1	9	0.0
<b>TOTAL CADMIUM</b>					
Total Cadmium, Atomic Absorbtion		181.00	1	4	0.0
Total Cadmium, ICP		181.30	9	3.0	0.5
Total Cadmium, Other		181.99	2	3.3	0.2
Method Group 181.XX PPM			12	3.2	0.7
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>					
ICP, %			16	1.34	0.03
Water Soluble Chlorine, Other, %		190.99	2	1.36	0.01
Method Group 190.XX PCT			18	1.34	0.04
<b>TOTAL CHROMIUM</b>					
Total Chromium, Atomic Absorbtion		191.00	1	109	0.0
Total Chromium, ICP		191.30	9	109	3.8
Total Chromium, Other		191.99	1	111	0.0
Method Group 191.XX PPM			11	109	3.2
<b>ACID SOLUBLE COBALT</b>					
Acid Soluble Cobalt, ICP		202.30	9	3	1.0
Acid Soluble Cobalt, Other		202.99	1	3	0.0
Method Group 202.XX PPM			10	3	1.2
<b>ACID SOLUBLE COPPER</b>					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			5	1.6	0.7
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>					
Acid Soluble Iron, ICP		241.30	17	1.44	0.03
Acid Soluble Iron, Other		241.99	2	1.41	0.01
Method Group 241.XX PCT			20	1.44	0.04
<b>TOTAL LEAD</b>					
Total Lead, Atomic Absorbtion		251.00	1	1	0.0
Total Lead, ICP		251.30	6	2	0.2
Total Lead, Other		251.99	1	1.2	0.0
Method Group 251.XX PPM			8	2	0.4
<b>ACID SOLUBLE MANGANESE</b>					
Acid Soluble Manganese, ICP	972.02a	261.30	3	264	19.5
Acid Soluble Manganese, Other		261.99	9	272	7.7
Method Group 261.XX PPM			12	272	12.3
<b>WATER SOLUBLE MANGANESE</b>					
Water Soluble Manganese, Other		271.99	1	17	0
Method Group 271.XX PCT			1	17	0.0
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP		289.30	10	10	1.8
Total Molybdenum, Other		289.99	1	10	0.0
Method Group 289.XX PPM			11	10	1.8
<b>TOTAL NICKEL</b>					
Total Nickel, ICP		291.30	9	11.5	1.5
Total Nickel, icp		291.99	1	12.3	0.0
Method Group 291.XX PPM			10	11.6	1.6
<b>TOTAL SELENIUM</b>					
Total Selenium, ICP		301.30	2	1.7	0.1

Total Selenium, Other	301.99	1	0	0.0
Method Group 301.XX PPM		3	1.6	0.8
<b>SODIUM AS Na<sub>2</sub>O</b>				
Sodium, Other	311.99	10	0.21	0.04
Method Group 311.XX PCT		10	0.21	0.04
<b>ACID SOLUBLE ZINC</b>				
Acid Soluble Zinc, Atomic Absorption	975.02 321.00	1	49.5	0.0
Acid Soluble Zinc, ICP	321.30	8	42.3	4.0
Acid Soluble Zinc, Other	321.99	3	43.0	0.8
Method Group 321.XX %		12	43.0	4.0
<b>FLUORIDE</b>				
Volumentric	325.10	16	2.04	0.09
Distilled/Electrode	325.99	3	2.18	0.12
Method Group 325.XX PCT		19	2.05	0.12

001.99 Ammoniacal Nitrogen		
Lab		Other
330	17.86	-4.151
275	17.78	-3.170
24	17.68	-1.798
<b>Std Dev</b>	<b>17.61</b>	<b>-1.000</b>
61	17.61	-0.948
24	17.60	-0.752
310	17.59	-0.686
34	17.55	-0.163
<b>Median</b>	<b>17.54</b>	<b>0.000</b>
32	17.53	0.163
61	17.53	0.163
32	17.52	0.294
275	17.50	0.490
<b>Std Dev</b>	<b>17.46</b>	<b>1.000</b>
140	17.33	2.778
38	17.27	3.562
79	17.26	3.628

001.XX Ammoniacal Nitrogen		
Lab		Total Method
330	17.86	-4.151
275	17.78	-3.170
24	17.68	-1.798
<b>Std Dev</b>	<b>17.61</b>	<b>-1.000</b>
61	17.61	-0.948
24	17.60	-0.752
310	17.59	-0.686
34	17.55	-0.163
<b>Median</b>	<b>17.54</b>	<b>0.000</b>
32	17.53	0.163
61	17.53	0.163
32	17.52	0.294
275	17.50	0.490
<b>Std Dev</b>	<b>17.46</b>	<b>1.000</b>
140	17.33	2.778
38	17.27	3.562
79	17.26	3.628

010.11 Total Nitrogen		
Lab		Modified Comprehensive
43	17.78	-1.231
<b>Std Dev</b>	<b>17.76</b>	<b>-1.000</b>

43	17.69	0.000
<b>Median</b>	<b>17.69</b>	<b>0.000</b>
<b>Std Dev</b>	<b>17.62</b>	<b>1.000</b>
219	17.59	1.449

010.60 Total Nitrogen		
Lab		Combustion
29	18.06	-1.914
63	18.00	-1.515
66	18.00	-1.481
24	17.99	-1.448
111	17.95	-1.182
<b>Std Dev</b>	<b>17.92</b>	<b>-1.000</b>
49	17.92	-0.949
24	17.89	-0.782
9	17.83	-0.383
39	17.82	-0.333
64	17.82	-0.283
9	17.79	-0.083
79	17.79	-0.083
<b>Median</b>	<b>17.77</b>	<b>0.000</b>
31	17.76	0.083
77	17.75	0.183
14	17.74	0.250
405	17.74	0.250
137	17.71	0.416
14	17.70	0.516
219	17.70	0.516
47	17.67	0.682
<b>Std Dev</b>	<b>17.62</b>	<b>1.000</b>
38	17.60	1.149
110	17.51	1.781
80	17.50	1.814
99	17.46	2.081

010.99 Total Nitrogen		
Lab		Other
23	17.94	-1.077
23	17.93	-1.027
<b>Std Dev</b>	<b>17.93</b>	<b>-1.000</b>
330	17.87	-0.426
<b>Median</b>	<b>17.83</b>	<b>0.000</b>
32	17.79	0.426
140	17.78	0.476

32	17.76	0.726
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010.XX Total Nitrogen		
Lab		Total Method
29	18.06	-1.924
63	18.00	-1.512
66	18.00	-1.477
24	17.99	-1.443
111	17.95	-1.168
23	17.94	-1.065
23	17.93	-1.031
<b>Std Dev</b>	<b>17.93</b>	<b>-1.000</b>
49	17.92	-0.928
24	17.89	-0.756
330	17.87	-0.618
9	17.83	-0.344
39	17.82	-0.292
64	17.82	-0.241
9	17.79	-0.034
32	17.79	-0.034
79	17.79	-0.034
140	17.78	0.000
<b>Median</b>	<b>17.78</b>	<b>0.000</b>
43	17.78	0.034
31	17.76	0.137
32	17.76	0.172
77	17.75	0.241
14	17.74	0.309
405	17.74	0.309
137	17.71	0.481
14	17.70	0.584
219	17.70	0.584
43	17.69	0.618
47	17.67	0.756
<b>Std Dev</b>	<b>17.63</b>	<b>1.000</b>
38	17.60	1.237
219	17.59	1.306
110	17.51	1.890
80	17.50	1.924
99	17.46	2.199

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	47.04	0.000

<b>Median</b>	<b>47.04</b>	<b>0.000</b>
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020.20 Total Phosphate		
Lab		Spectrometric
111	47.26	-2.844
32	47.13	-2.189
32	47.05	-1.762
99	46.99	-1.460
24	46.95	-1.283
<b>Std Dev</b>	<b>46.89</b>	<b>-1.000</b>
275	46.84	-0.730
34	46.83	-0.679
275	46.76	-0.327
24	46.75	-0.252
140	46.73	-0.176
23	46.72	-0.126
<b>Median</b>	<b>46.70</b>	<b>0.000</b>
14	46.67	0.126
23	46.66	0.176
43	46.63	0.327
14	46.62	0.403
38	46.59	0.528
43	46.57	0.654
310	46.52	0.881
61	46.52	0.881
<b>Std Dev</b>	<b>46.50</b>	<b>1.000</b>
61	46.47	1.158
79	46.47	1.158
31	46.07	3.171

020.40 Total Phosphate		
Lab		Automated
110	49.24	-25.563
<b>Std Dev</b>	<b>46.85</b>	<b>-1.000</b>
9	46.77	-0.155
9	46.76	0.000
<b>Median</b>	<b>46.76</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.66</b>	<b>1.000</b>
219	46.64	1.185
137	46.51	2.577

020.50 Total Phosphate		
Lab		ICP
111	47.17	0.000

Median	47.17	0.000
020.99 Total Phosphate		
Lab		Other
330	47.61	0.000
Median	47.61	0.000
020.XX Total Phosphate		
Lab		Total Method
110	49.24	-8.807
330	47.61	-3.059
111	47.26	-1.842
111	47.17	-1.508
32	47.13	-1.384
32	47.05	-1.084
219	47.04	-1.049
Std Dev	47.02	-1.000
99	46.99	-0.873
24	46.95	-0.749
275	46.84	-0.361
34	46.83	-0.326
9	46.77	-0.115
275	46.76	-0.079
9	46.76	-0.062
24	46.75	-0.026
Median	46.74	0.000
140	46.73	0.026
23	46.72	0.062
14	46.67	0.238
23	46.66	0.273
219	46.64	0.344
43	46.63	0.379
14	46.62	0.432
38	46.59	0.520
43	46.57	0.608
310	46.52	0.767
61	46.52	0.767
137	46.51	0.820
61	46.47	0.961
79	46.47	0.961
Std Dev	46.45	1.000
31	46.07	2.371

030.20 Insoluble Phosphate		
Lab		Spectrometric
24	0.29	-1.124
61	0.28	-1.037
Std Dev	0.28	-1.000
24	0.28	-0.951
79	0.23	-0.173
Median	0.22	0.000
140	0.21	0.173
23	0.20	0.346
23	0.20	0.432
Std Dev	0.16	1.000
61	0.14	1.383
030.30 Insoluble Phosphate		
Lab		Alka. Quimociac
31	0.09	0.000
Median	0.09	0.000
030.40 Insoluble Phosphate		
Lab		Automated
9	0.28	-1.340
Std Dev	0.27	-1.000
9	0.25	0.000
Median	0.25	0.000
Std Dev	0.23	1.000
34	0.22	1.340
030.99 Insoluble Phosphate		
Lab		Other
32	0.23	0.000
32	0.23	0.000
Median	0.23	0.000
030.XX Insoluble Phosphate		
Lab		Total Method
24	0.29	-1.214
9	0.28	-1.112
61	0.28	-1.112
24	0.28	-1.011
Std Dev	0.27	-1.000
9	0.25	-0.506
79	0.23	-0.101
32	0.23	0.000

32	0.23	0.000
Median	0.23	0.000
34	0.22	0.101
140	0.21	0.303
23	0.20	0.506
23	0.20	0.607
Std Dev	0.18	1.000
61	0.14	1.719
31	0.09	2.731
040.20 Indirect Available Phosphate		
Lab		Spectrometric
24	46.68	-1.011
Std Dev	46.67	-1.000
23	46.52	-0.282
140	46.52	-0.282
23	46.47	-0.024
24	46.46	0.000
Median	46.46	0.000
61	46.38	0.376
Std Dev	46.25	1.000
79	46.24	1.058
61	46.19	1.293
31	45.97	2.304
040.40 Indirect Available Phosphate		
Lab		Automated
9	46.51	-1.340
Std Dev	46.51	-1.000
Median	46.50	0.000
Std Dev	46.49	1.000
9	46.49	1.340
040.99 Indirect Available Phosphate		
Lab		Other
32	46.91	-0.772
32	46.82	0.000
Median	46.82	0.000
Std Dev	46.71	1.000
34	46.61	1.908
040.XX Indirect Available Phosphate		
Lab		Total Method
32	46.91	-2.894

32	46.82	-2.287
24	46.68	-1.251
Std Dev	46.64	-1.000
34	46.61	-0.786
23	46.52	-0.143
140	46.52	-0.143
9	46.51	-0.071
Median	46.50	0.000
9	46.49	0.071
23	46.47	0.250
24	46.46	0.286
61	46.38	0.858
Std Dev	46.36	1.000
79	46.24	1.894
61	46.19	2.251
31	45.97	3.788
041.10 Direct Available Phosphate		
Lab		Gravimetric Quimociac
219	46.72	-1.340
Std Dev	46.70	-1.000
Median	46.64	0.000
Std Dev	46.57	1.000
47	46.55	1.340
041.20 Direct Available Phosphate		
Lab		Spectrometric
47	46.79	0.000
Median	46.79	0.000
041.50 Direct Available Phosphate		
Lab		ICP
63	46.59	-2.457
Std Dev	45.97	-1.000
66	45.55	0.000
Median	45.55	0.000
80	45.45	0.223
041.60 Direct Available Phosphate		
Lab		EDTA Extract
49	47.92	-6.056
Std Dev	46.91	-1.000
29	46.86	-0.752
64	46.79	-0.379

Median	46.72	0.000
219	46.64	0.379
77	46.56	0.782
<b>Std Dev</b>	<b>46.52</b>	<b>1.000</b>
137	46.00	3.609

041.XX		Direct Available Phosphate
Lab	Total Method	
49	47.92	-4.615
<b>Std Dev</b>	<b>46.90</b>	<b>-1.000</b>
29	46.86	-0.884
47	46.79	-0.621
64	46.79	-0.621
219	46.72	-0.373
219	46.64	-0.089
<b>Median</b>	<b>46.62</b>	<b>0.000</b>
63	46.59	0.089
77	46.56	0.195
47	46.55	0.231
<b>Std Dev</b>	<b>46.33</b>	<b>1.000</b>
137	46.00	2.183
66	45.55	3.798
80	45.45	4.135

048.20		Water Soluble Phosphate
Lab	Spectrometric	
330	45.66	-10.136
23	42.36	-1.367
23	42.32	-1.260
24	42.26	-1.101
140	42.23	-1.035
<b>Std Dev</b>	<b>42.22</b>	<b>-1.000</b>
24	42.08	-0.637
79	41.84	0.000
<b>Median</b>	<b>41.84</b>	<b>0.000</b>
14	41.81	0.080
14	41.76	0.226
61	41.75	0.239
111	41.73	0.292
61	41.62	0.597
<b>Std Dev</b>	<b>41.46</b>	<b>1.000</b>
31	41.26	1.552

048.99		Water Soluble Phosphate	
Lab		Other	
32	42.52		-0.225
32	42.51		-0.190
9	42.50		-0.086
<b>Median</b>	<b>42.48</b>		<b>0.000</b>
9	42.47		0.086
<b>Std Dev</b>	<b>42.34</b>		<b>1.000</b>
34	42.26		1.539
111	41.99		3.406

048.XX		Water Soluble Phosphate	
Lab	Total Method		
330	45.66		-7.296
<b>Std Dev</b>	<b>42.70</b>		<b>-1.000</b>
32	42.52		-0.606
32	42.51		-0.596
9	42.50		-0.564
9	42.47		-0.510
23	42.36		-0.266
23	42.32		-0.181
34	42.26		-0.064
24	42.26		-0.053
140	42.23		0.000
<b>Median</b>	<b>42.23</b>		<b>0.000</b>
24	42.08		0.319
111	41.99		0.510
79	41.84		0.830
14	41.81		0.893
<b>Std Dev</b>	<b>41.76</b>		<b>1.000</b>
14	41.76		1.010
61	41.75		1.021
111	41.73		1.063
61	41.62		1.308
31	41.26		2.074

050.50		%K <sub>2</sub> O	Soluble Potash
Lab		ICP(Oxalate)	
23	0.12		-1.340
<b>Std Dev</b>	<b>0.11</b>		<b>-1.000</b>
<b>Median</b>	<b>0.11</b>		<b>0.000</b>
<b>Std Dev</b>	<b>0.11</b>		<b>1.000</b>
23	0.11		1.340

050.51		%K <sub>2</sub> O	Soluble Potash
Lab		ICP(Citrate)	
137	0.12		0.000
<b>Median</b>	<b>0.12</b>		<b>0.000</b>

050.99		%K <sub>2</sub> O	Soluble Potash
Lab		Other	
80	0.35		-60.300
24	0.13		-1.340
<b>Std Dev</b>	<b>0.13</b>		<b>-1.000</b>
61	0.13		0.000
61	0.13		0.000
111	0.13		0.000
330	0.13		0.000
<b>Median</b>	<b>0.13</b>		<b>0.000</b>
<b>Std Dev</b>	<b>0.12</b>		<b>1.000</b>
24	0.12		1.340
43	0.11		3.767
43	0.11		3.815

050.XX		%K <sub>2</sub> O	Soluble Potash
Lab	Total Method		
80	0.35		-27.679
<b>Std Dev</b>	<b>0.13</b>		<b>-1.000</b>
24	0.13		-0.912
61	0.13		-0.304
61	0.13		-0.304
111	0.13		-0.304
330	0.13		-0.304
<b>Median</b>	<b>0.12</b>		<b>0.000</b>
24	0.12		0.304
137	0.12		0.304
23	0.12		0.912
<b>Std Dev</b>	<b>0.11</b>		<b>1.000</b>
43	0.11		1.406
43	0.11		1.428
23	0.11		1.521

060.00		Free Water	
Lab	Vacuum Oven		
31	2.40		-5.154
32	1.88		-1.581
32	1.87		-1.512
111	1.81		-1.134

<b>Std Dev</b>	<b>1.79</b>	<b>-1.000</b>
140	1.76	-0.790
9	1.73	-0.550
34	1.70	-0.378
24	1.66	-0.069
24	1.65	0.000
<b>Median</b>	<b>1.65</b>	<b>0.000</b>
9	1.64	0.069
23	1.63	0.137
23	1.61	0.275
43	1.57	0.550
61	1.56	0.584
43	1.53	0.825
<b>Std Dev</b>	<b>1.50</b>	<b>1.000</b>
79	1.48	1.134
61	1.43	1.512

060.99		Free Water	
Lab	Other		
330	2.34		-2.174
47	2.17		-1.499
<b>Std Dev</b>	<b>2.04</b>		<b>-1.000</b>
275	1.80		-0.030
<b>Median</b>	<b>1.79</b>		<b>0.000</b>
275	1.79		0.030
14	1.73		0.268
14	1.70		0.367

060.XX		Free Water	
Lab	Total Method		
31	2.40		-4.902
330	2.34		-4.514
47	2.17		-3.315
32	1.88		-1.234
32	1.87		-1.164
<b>Std Dev</b>	<b>1.84</b>		<b>-1.000</b>
111	1.81		-0.776
275	1.80		-0.705
275	1.79		-0.599
140	1.76		-0.423
9	1.73		-0.176
14	1.73		-0.176
14	1.70		0.000
34	1.70		0.000

Median	1.70	0.000
24	1.66	0.317
24	1.65	0.388
9	1.64	0.458
23	1.63	0.529
23	1.61	0.670
43	1.57	0.952
61	1.56	0.987
<b>Std Dev</b>	<b>1.56</b>	<b>1.000</b>
43	1.53	1.234
79	1.48	1.552
61	1.43	1.939

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.19	0.000
<b>Median</b>	<b>0.19</b>	<b>0.000</b>

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
32	0.37	-2.268
61	0.37	-2.062
32	0.35	-1.237
111	0.35	-1.237
<b>Std Dev</b>	<b>0.34</b>	<b>-1.000</b>
61	0.34	-0.825
9	0.33	-0.618
31	0.32	-0.268
24	0.32	-0.206
330	0.32	-0.206
<b>Median</b>	<b>0.32</b>	<b>0.000</b>
23	0.31	0.206
24	0.31	0.206
9	0.31	0.412
23	0.31	0.412
14	0.30	0.618
34	0.30	0.618
14	0.30	0.825
<b>Std Dev</b>	<b>0.29</b>	<b>1.000</b>
43	0.27	1.995
43	0.27	2.055

101.99 Acid Soluble Calcium		
Lab	%CaO	Other

219	0.21	0.000
<b>Median</b>	<b>0.21</b>	<b>0.000</b>

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
32	0.37	-2.474
61	0.37	-2.268
32	0.35	-1.443
111	0.35	-1.443
61	0.34	-1.031
<b>Std Dev</b>	<b>0.33</b>	<b>-1.000</b>
9	0.33	-0.825
31	0.32	-0.474
24	0.32	-0.412
330	0.32	-0.412
23	0.31	0.000
24	0.31	0.000
<b>Median</b>	<b>0.31</b>	<b>0.000</b>
9	0.31	0.206
23	0.31	0.206
14	0.30	0.412
34	0.30	0.412
14	0.30	0.618
<b>Std Dev</b>	<b>0.29</b>	<b>1.000</b>
43	0.27	1.789
43	0.27	1.849
219	0.21	4.313
219	0.19	4.824

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.50	-2.066
<b>Std Dev</b>	<b>1.45</b>	<b>-1.000</b>
275	1.40	0.000
<b>Median</b>	<b>1.40</b>	<b>0.000</b>
275	1.37	0.614

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
23	1.54	-0.722
61	1.54	-0.722
23	1.54	-0.618
24	1.53	-0.515
61	1.53	-0.412

9	1.52	-0.206
24	1.52	-0.206
34	1.51	-0.103
<b>Median</b>	<b>1.51</b>	<b>0.000</b>
9	1.50	0.103
32	1.50	0.206
31	1.49	0.309
32	1.49	0.309
<b>Std Dev</b>	<b>1.46</b>	<b>1.000</b>
14	1.38	2.680
14	1.38	2.680
43	1.26	5.051
43	1.26	5.051

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
330	1.51	-0.357
111	1.48	0.000
<b>Median</b>	<b>1.48</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.40</b>	<b>1.000</b>
219	1.28	2.323

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
23	1.54	-0.426
61	1.54	-0.426
23	1.54	-0.376
24	1.53	-0.326
61	1.53	-0.276
9	1.52	-0.175
24	1.52	-0.175
34	1.51	-0.125
330	1.51	-0.125
219	1.50	-0.035
9	1.50	-0.025
<b>Median</b>	<b>1.50</b>	<b>0.000</b>
32	1.50	0.025
31	1.49	0.075
32	1.49	0.075
111	1.48	0.175
275	1.40	0.977
<b>Std Dev</b>	<b>1.40</b>	<b>1.000</b>
14	1.38	1.227
14	1.38	1.227

275	1.37	1.277
219	1.28	2.134
43	1.26	2.379
43	1.26	2.379

144..01 Sulfate Sulfur (S)		
Lab	Gravimetric	
79	1.33	0.000
<b>Median</b>	<b>1.33</b>	<b>0.000</b>

144.99 Sulfate Sulfur (S)		
Lab	Other	
275	1.81	-14.387
275	1.76	-12.977
<b>Std Dev</b>	<b>1.34</b>	<b>-1.000</b>
9	1.34	-0.987
32	1.32	-0.564
9	1.31	-0.282
24	1.31	-0.141
23	1.30	0.000
23	1.30	0.000
24	1.30	0.000
<b>Median</b>	<b>1.30</b>	<b>0.000</b>
32	1.30	0.141
34	1.29	0.282
14	1.27	0.987
14	1.27	0.987
<b>Std Dev</b>	<b>1.26</b>	<b>1.000</b>
61	1.26	1.269
61	1.24	1.834
31	1.20	2.962

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
275	1.81	-12.425
275	1.76	-11.207
<b>Std Dev</b>	<b>1.34</b>	<b>-1.000</b>
9	1.34	-0.853
79	1.33	-0.609
32	1.32	-0.487
9	1.31	-0.244
24	1.31	-0.122
23	1.30	0.000
23	1.30	0.000

24	1.30	0.000
Median	1.30	0.000
32	1.30	0.122
34	1.29	0.244
14	1.27	0.853
14	1.27	0.853
Std Dev	1.26	1.000
61	1.26	1.096
61	1.24	1.584
31	1.20	2.558

145.99 Total Sulfur (S)		
Lab		Other
43	1.26	-0.893
43	1.25	0.000
Median	1.25	0.000
Std Dev	1.23	1.000
111	1.23	1.787

145.XX Total Sulfur (S)		
Lab		Total Method
43	1.26	-0.893
43	1.25	0.000
Median	1.25	0.000
Std Dev	1.23	1.000
111	1.23	1.787

151.30 Total Arsenic		
Lab		ICP
43	18.20	-1.151
43	17.85	-1.055
Std Dev	17.65	-1.000
64	14.64	-0.176
Median	14.00	0.000
24	13.35	0.176
31	11.75	0.614
Std Dev	10.34	1.000
111	1.50	3.419

151.99 Total Arsenic		
Lab		Other
18	13.90	-0.658
18	13.60	-0.171
275	13.50	0.000

Median	13.50	0.000
Std Dev	12.88	1.000
275	12.78	1.169
140	10.66	4.605

151.XX Total Arsenic		
Lab		Total Method
43	18.20	-3.141
43	17.85	-2.907
Std Dev	14.99	-1.000
64	14.64	-0.764
18	13.90	-0.270
18	13.60	-0.070
275	13.50	0.000
Median	13.50	0.000
24	13.35	0.097
275	12.78	0.481
Std Dev	12.00	1.000
31	11.75	1.165
140	10.66	1.892
111	1.50	8.007

165.99 Acid Soluble Boron		
Lab	PPM	Other
330	75.50	-1.340
Std Dev	70.98	-1.000
Median	57.68	0.000
Std Dev	44.37	1.000
24	39.85	1.340

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
330	75.50	-1.340
Std Dev	70.98	-1.000
Median	57.68	0.000
Std Dev	44.37	1.000
24	39.85	1.340

171.99 Water Soluble Boron		
Lab	PPM	Other
330	9.10	0.000
Median	9.10	0.000

171.XX Water Soluble Boron		
Lab	PPM	Total Method
330	9.10	0.000
Median	9.10	0.000

181.00 Total Cadmium		
Lab		Atomic Absorption
330	4.00	0.000
Median	4.00	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
43	4.05	-2.000
43	4.05	-2.000
18	3.55	-1.053
Std Dev	3.52	-1.000
64	3.36	-0.689
275	3.00	0.000
Median	3.00	0.000
275	2.97	0.067
31	2.85	0.287
Std Dev	2.48	1.000
61	1.85	2.201
61	1.55	2.776

181.99 Total Cadmium		
Lab		Other
18	3.50	-1.340
Std Dev	3.45	-1.000
Median	3.30	0.000
Std Dev	3.15	1.000
24	3.10	1.340

181.XX Total Cadmium		
Lab	PPM	Total Method
43	4.05	-1.508
43	4.05	-1.508
330	4.00	-1.425
Std Dev	3.77	-1.000
18	3.55	-0.595
18	3.50	-0.503
64	3.36	-0.244
Median	3.23	0.000
24	3.10	0.244

275	3.00	0.420
275	2.97	0.484
31	2.85	0.697
Std Dev	2.69	1.000
61	1.85	2.542
61	1.55	3.095

190.00 Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	ICP
32	1.41	-2.421
32	1.39	-1.729
Std Dev	1.37	-1.000
14	1.36	-0.692
14	1.36	-0.519
23	1.35	-0.346
23	1.35	-0.173
9	1.34	0.000
9	1.34	0.000
24	1.34	0.000
34	1.34	0.000
Median	1.34	0.000
61	1.32	0.692
61	1.32	0.865
Std Dev	1.31	1.000
24	1.31	1.210
43	1.21	4.495
43	1.21	4.668
111	0.84	17.290

190.99 Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Atomic Absorption
330	1.37	-1.340
Std Dev	1.37	-1.000
Median	1.36	0.000
Std Dev	1.36	1.000
31	1.36	1.340

190.XX Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Total Method
32	1.41	-2.421
32	1.39	-1.729
330	1.37	-1.037
Std Dev	1.37	-1.000
14	1.36	-0.692



14	1.36	-0.519
31	1.36	-0.519
23	1.35	-0.346
23	1.35	-0.173
9	1.34	0.000
9	1.34	0.000
24	1.34	0.000
34	1.34	0.000
<b>Median</b>	<b>1.34</b>	<b>0.000</b>
61	1.32	0.692
61	1.32	0.865
<b>Std Dev</b>	<b>1.31</b>	<b>1.000</b>
24	1.31	1.210
43	1.21	4.495
43	1.21	4.668
111	0.84	17.290

191.00 Total Chromium		
Lab		Atomic Absorbtion
330	109.00	0.000
<b>Median</b>	<b>109.00</b>	<b>0.000</b>

191.30 Total Chromium		
Lab		ICP
18	117.85	-2.339
18	115.95	-1.837
64	113.07	-1.076
<b>Std Dev</b>	<b>112.78</b>	<b>-1.000</b>
31	109.30	-0.079
43	109.00	0.000
43	109.00	0.000
<b>Median</b>	<b>109.00</b>	<b>0.000</b>
61	108.00	0.264
61	106.00	0.793
<b>Std Dev</b>	<b>105.22</b>	<b>1.000</b>
111	1.05	28.531

191.99 Total Chromium		
Lab	PPM	Other
24	111.00	0.000
<b>Median</b>	<b>111.00</b>	<b>0.000</b>

191.XX Total Chromium		
Lab	PPM	Total Method

18	117.85	-3.355
18	115.95	-2.635
64	113.07	-1.543
<b>Std Dev</b>	<b>111.64</b>	<b>-1.000</b>
24	111.00	-0.758
31	109.30	-0.114
43	109.00	0.000
43	109.00	0.000
330	109.00	0.000
<b>Median</b>	<b>109.00</b>	<b>0.000</b>
61	108.00	0.379
<b>Std Dev</b>	<b>106.36</b>	<b>1.000</b>
61	106.00	1.137
111	1.05	40.920

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
330		

202.99 Acid Soluble Cobalt		
Lab		Other
24	3.20	0.000
<b>Median</b>	<b>3.20</b>	<b>0.000</b>

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
330	5.00	-1.980
<b>Std Dev</b>	<b>4.01</b>	<b>-1.000</b>
64	3.54	-0.535
24	3.20	-0.193
31	3.03	-0.030
43	3.00	0.000
43	3.00	0.000
<b>Median</b>	<b>3.00</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.99</b>	<b>1.000</b>
61	1.95	1.039
18	1.75	1.237
18	1.75	1.237
61	1.70	1.287

221.00 Acid Soluble Copper		
Lab		Atomic Absorption
219	1.46	0.000
<b>Median</b>	<b>1.46</b>	<b>0.000</b>

221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
111	4.50	-3.236
<b>Std Dev</b>	<b>2.29</b>	<b>-1.000</b>
18	1.60	-0.303
<b>Median</b>	<b>1.30</b>	<b>0.000</b>
43	1.00	0.303
43	1.00	0.303

221.99 Acid Soluble Copper		
Lab		Other
24	1.75	0.000
<b>Median</b>	<b>1.75</b>	<b>0.000</b>

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
111	4.50	-5.216
<b>Std Dev</b>	<b>2.16</b>	<b>-1.000</b>
24	1.75	-0.261
18	1.60	0.000
<b>Median</b>	<b>1.60</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.04</b>	<b>1.000</b>
43	1.00	1.079
43	1.00	1.079

241.30 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
31	1.65	-6.253
14	1.55	-3.424
61	1.47	-1.042
<b>Std Dev</b>	<b>1.47</b>	<b>-1.000</b>
24	1.46	-0.744
23	1.45	-0.447
34	1.45	-0.447
9	1.44	-0.149
24	1.44	-0.149
9	1.44	0.000
14	1.44	0.000
23	1.44	0.000
61	1.44	0.000

<b>Median</b>		
32	1.41	0.893
32	1.41	0.893
<b>Std Dev</b>	<b>1.40</b>	<b>1.000</b>
43	1.39	1.489
43	1.38	1.638
111	1.34	2.829

241.99 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	Other
330	1.42	-1.340
<b>Std Dev</b>	<b>1.42</b>	<b>-1.000</b>
<b>Median</b>	<b>1.41</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.40</b>	<b>1.000</b>
219	1.39	1.340

241.XX Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	Total Method
31	1.65	-6.068
14	1.55	-3.323
61	1.47	-1.011
<b>Std Dev</b>	<b>1.47</b>	<b>-1.000</b>
24	1.46	-0.722
219	1.46	-0.592
23	1.45	-0.433
34	1.45	-0.433
9	1.44	-0.144
24	1.44	-0.144
9	1.44	0.000
14	1.44	0.000
23	1.44	0.000
61	1.44	0.000
<b>Median</b>	<b>1.44</b>	<b>0.000</b>
330	1.42	0.433
32	1.41	0.867
32	1.41	0.867
<b>Std Dev</b>	<b>1.40</b>	<b>1.000</b>
219	1.39	1.257
43	1.39	1.445
43	1.38	1.589
111	1.34	2.745

251.00 Total Lead		
Lab		Atomic Absorbtion

330	1.00	0.000
Median	1.00	0.000

251.30 Total Lead		
Lab	PPM	ICP
61	<1.8	0.000
61	<1.8	0.000
275	2.07	-0.534
275	2.04	-0.394
43	1.95	0.000
Median	1.95	0.000
43	1.95	0.000
Std Dev	1.73	1.000
18	1.65	1.392
18	1.60	1.624

251.99 Total Lead		
Lab	PPM	Other
24	1.15	0.000
Median	1.15	0.000

251.XX Total Lead		
Lab	PPM	Total Method
61	<1.8	0.000
61	<1.8	0.000
275	2.07	-0.734
275	2.04	-0.651
43	1.95	-0.416
43	1.95	-0.416
Median	1.80	0.000
18	1.65	0.416
18	1.60	0.554
Std Dev	1.44	1.000
24	1.15	1.801
330	1.00	2.216

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
31	298.20	-1.782
Std Dev	282.98	-1.000
111	263.50	0.000
Median	263.50	0.000
330	246.00	0.898

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	282.50	-1.359
43	282.00	-1.295
Std Dev	279.72	-1.000
219	279.25	-0.939
24	275.00	-0.388
61	272.00	0.000
Median	272.00	0.000
18	271.60	0.052
219	268.90	0.401
18	266.90	0.660
61	265.00	0.906

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
31	298.20	-2.618
43	282.50	-1.061
43	282.00	-1.012
Std Dev	281.88	-1.000
219	279.25	-0.739
24	275.00	-0.317
61	272.00	-0.020
Median	271.80	0.000
18	271.60	0.020
219	268.90	0.288
18	266.90	0.486
61	265.00	0.674
111	263.50	0.823
Std Dev	261.72	1.000
330	246.00	2.559

271.99 Water Soluble Manganese		
Lab	PPM	Other
330	16.50	0.000
Median	16.50	0.000

271.XX Water Soluble Manganese		
Lab	PPM	Total Method
330	16.50	0.000
Median	16.50	0.000

281.30 Total Mercury		
Lab	PPM	ICP

24	<0.001	0.000
Median	0.00	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	<0.001	0.000
Median	0.00	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
18		

289.99 Total Molybdenum		
Lab	PPM	Other
24	10.30	0.000
Median	10.30	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
18	12.30	-1.885
330	11.00	-1.010
Std Dev	10.99	-1.000
18	10.95	-0.976
64	10.53	-0.694
24	10.30	-0.539
43	9.50	0.000
43	9.50	0.000
111	9.50	0.000
Median	9.50	0.000
Std Dev	8.01	1.000
61	8.00	1.010
61	7.00	1.683
31	6.65	1.919

291.30 Total Nickel		
Lab	PPM	ICP
330		

291.99 Total Nickel		
Lab	PPM	Other
24	12.30	0.000
Median	12.30	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
330	18.00	-4.779

18	13.85	-1.668
Std Dev	12.96	-1.000
64	12.95	-0.993
24	12.30	-0.506
18	11.75	-0.094
Median	11.63	0.000
43	11.50	0.094
43	11.00	0.469
61	11.00	0.469
61	11.00	0.469
31	10.45	0.881

301.30 Total Selenium		
Lab	PPM	ICP
24	<0.001	0.000
18	1.75	-1.340
Std Dev	1.72	-1.000
Median	1.65	0.000
Std Dev	1.58	1.000
18	1.55	1.340

301.99 Total Selenium		
Lab	PPM	Other
140	0.01	0.000
Median	0.01	0.000

301.XX Total Selenium		
Lab	PPM	Total Method
24	<0.001	0.000
18	1.75	-0.308
18	1.55	0.000
Median	1.55	0.000
Std Dev	0.90	1.000
140	0.01	2.372

311.99 Sodium		
Lab	%Na <sub>2</sub> O	Other
31	0.26	-1.317
Std Dev	0.24	-1.000
23	0.22	-0.347
111	0.22	-0.208
23	0.21	-0.069
61	0.21	-0.069
Median	0.21	0.000

61	0.21	0.069
24	0.18	0.762
Std Dev	0.17	1.000
43	0.16	1.302
43	0.16	1.380
24	0.06	4.089

311.XX	%Na <sub>2</sub> O	Sodium Total Method
Lab		
31	0.26	-1.317
Std Dev	0.24	-1.000
23	0.22	-0.347
111	0.22	-0.208
23	0.21	-0.069
61	0.21	-0.069
Median	0.21	0.000
61	0.21	0.069
24	0.18	0.762
Std Dev	0.17	1.000
43	0.16	1.302
43	0.16	1.380
24	0.06	4.089

321.00	Acid Soluble Zinc
Lab	Atomic Absorption
219	49.47
Median	49.47
	0.000

321.30	Acid Soluble Zinc
Lab	ICP
31	91.30
18	46.40
Std Dev	46.20
18	44.35
61	43.00
Median	42.25
61	41.50
24	40.10
Std Dev	38.30
64	37.96
111	0.63
	10.529

321.99	Acid Soluble Zinc
Lab	Other

219	45.22	-2.680
Std Dev	43.83	-1.000
43	43.00	0.000
43	43.00	0.000
Median	43.00	0.000

321.XX	Acid Soluble Zinc
Lab	Total Method
31	91.30
219	49.47
18	46.40
Std Dev	46.25
219	45.22
18	44.35
43	43.00
43	43.00
61	43.00
Median	43.00
61	41.50
24	40.10
Std Dev	39.75
64	37.96
111	0.63
	13.020

325.10	Fluoride
Lab	Electrode
9	2.08
34	2.08
32	2.08
23	2.07
32	2.06
9	2.06
79	2.05
275	2.05
Median	2.04
23	2.04
24	1.99
275	1.95
24	1.95
31	1.94
111	1.89
14	1.82
14	1.82
	2.511
	2.511

325.99	Fluoride
Lab	Other
61	2.20
61	2.18
Median	2.18
330	1.87
	-0.203
	0.000
	0.000
	2.477

325.XX	Fluoride
Lab	Total Method
61	2.20
61	2.18
9	2.08
34	2.08
32	2.08
23	2.07
32	2.06
9	2.06
79	2.05
275	2.05
Median	2.05
23	2.04
24	1.99
275	1.95
24	1.95
31	1.94
111	1.89
330	1.87
14	1.82
14	1.82
	1.134
	1.649
	1.804
	2.319
	2.319