

## AFPC

## Sample

2015-04

Grade

MESZ

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	17.66	0.00
Ammoniacal Nitrogen, Other		001.99	11	11.91	0.08
Method Group 001.XX PCT			12	11.92	0.13
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	11.88	0.07
Total Nitrogen, Salicylic	955.04d	010.12	1	12.35	0.00
Total Nitrogen, Combustion	993.13	010.60	19	11.93	0.12
Total Nitrogen, Other		010.99	3	11.84	0.06
Method Group 010.XX PCT			26	11.90	0.16
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Spectrometric	978.02	020.20	19	40.82	0.14
Total Phosphate, ICP	970.03	020.40	1	40.98	0.00
Total Phosphate, ICP, Lithium	970.02	020.50	1	43.35	0.00
Method Group 020.XX PCT			21	40.83	0.20
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.47	0.08
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.10	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.39	0.00
Insoluble Phosphate, Other		030.99	3	0.41	0.04
Method Group 030.XX PCT			14	0.42	0.10
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	40.49	0.10
Indirect Available Phosphate, Other		040.99	3	40.34	0.04
Method Group 040.XX PCT			14	40.46	0.16
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	39.79	0.18
Direct Available Phosphate, Automated	978.01	041.40	2	38.00	0.76
Direct Available Phosphate, ICP		041.50	4	39.79	0.32
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	40.38	0.43
Method Group 041.XX PCT			12	39.99	0.61
<b>POLYPHOSPHATE (% of total)</b>					
Polyphosphate, Other		043.99	1	1.03	0.00
Method Group 043.XX PCT			1	1.03	0.00
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	12	35.87	0.66
Water Soluble Phosphate, Other		048.99	5	35.65	0.25
Method Group 048.XX PCT			17	35.85	0.22
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, ICP(Oxalate)		050.50	3	0.12	0.01
Soluble Potash, ICP(Citrate)		050.51	2	0.11	0.00
Soluble Potash, Other		050.99	8	0.12	0.00
Method Group 050.XX PCT			13	0.12	0.01
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	13	0.83	0.10
Free Water, Vacuum Desiccate	965.08A	060.10	2	0.89	0.03
Free Water, Other		060.99	2	1.03	0.00
Method Group 060.XX PCT			17	0.88	0.10
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, ICP		101.30	18	0.39	0.03
Method Group 101.XX PCT			18	0.39	0.04
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, ICP		121.30	18	0.82	0.03
Method Group 121.XX PCT			18	0.82	0.04
<b>SULFATE SULFUR (S)</b>					
Sulfate Sulfur	980.02(a)	144.01	2	7.45	1.72



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Sulfur, Other		144.70	4	6.85	3.08
Method Group 144.XX PCT			16	5.17	1.09
<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	13	10.3	0.2
Method Group 145.XX PCT			13	10.3	0.2
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	7	10	3.4
Method Group 151.XX PPM			7	10	4.1
<b>ACID SOLUBLE BORON</b>					
Acid Soluble Boron, Other		165.99	1	59	0.0
Method Group 165.XX PPM			1	59	0.0
<b>TOTAL CADMIUM</b>					
Total Cadmium, ICP		181.30	8	3.5	0.5
Total Cadmium, Other		181.99	1	3.2	0.0
Method Group 181.XX PPM			9	3.4	0.5
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>					
ICP, %			17	1.53	0.06
Water Soluble Chlorine, Other, %		190.99	1	1.29	0.00
Method Group 190.XX PCT			18	1.53	0.09
<b>TOTAL CHROMIUM</b>					
Total Chromium, ICP		191.30	9	70	2.6
Total Chromium, Other		191.99	1	65	0.0
Method Group 191.XX PPM			10	70	3.2
<b>ACID SOLUBLE COBALT</b>					
Acid Soluble Cobalt, ICP		202.30	8	3	0.1
Acid Soluble Cobalt, Other		202.99	1	2	0.0
Method Group 202.XX PPM			9	3	0.1
<b>ACID SOLUBLE COPPER</b>					
Acid Soluble Copper, ICP		221.30	4	1.0	0.0
Acid Soluble Copper, Other		221.99	1	0.0	0.0
Method Group 221.XX PPM			5	1.0	0.1
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>					
Acid Soluble Iron, ICP		241.30	18	1.23	0.04
Method Group 241.XX PCT			18	1.23	0.05
<b>TOTAL LEAD</b>					
Total Lead, ICP		251.30	6	3	0.6
Total Lead, Other		251.99	1	1.9	0.0
Method Group 251.XX PPM			7	3	0.9
<b>ACID SOLUBLE MANGANESE</b>					
Acid Soluble Manganese, ICP	972.02a	261.30	4	309	37.8
Acid Soluble Manganese, Other		261.99	5	300	3.4
Method Group 261.XX PPM			9	300	23.2
<b>TOTAL MERCURY</b>					
Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			1	0.38	0.00
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP		289.30	8	12	0.8
Total Molybdenum, Other		289.99	1	13	0.0
Method Group 289.XX PPM			9	12	1.0
<b>TOTAL NICKEL</b>					
Total Nickel, ICP		291.30	7	14.5	1.1
Total Nickel, icp		291.99	1	13.7	0.0
Method Group 291.XX PPM			8	14.5	1.3
<b>TOTAL SELENIUM</b>					
Total Selenium, ICP		301.30	1	0.8	0.0
Method Group 301.XX PPM			1	0.8	0.0
<b>SODIUM AS Na<sub>2</sub>O</b>					
Sodium, Other		311.99	11	0.20	0.02
Method Group 311.XX PCT			11	0.20	0.03



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Acid Soluble Zinc, Electrode	975.02	321.00	2	0.9	0.0
Acid Soluble Zinc, ICP		321.30	16	1.0	0.0
Acid Soluble Zinc, Other		321.99	2	0.9	0.0
Method Group 321.XX %			20	1.0	0.1
<b>FLUORIDE</b>					
Volumetric		325.10	13	1.74	0.11
Distilled/Electrode		325.99	2	1.78	0.02
Method Group 325.XX PCT			15	1.76	0.11





%

%



001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
31	17.66	0.000
<b>Median</b>	<b>17.66</b>	<b>0.000</b>

001.99 Ammoniacal Nitrogen		
Lab	Other	
79	12.06	-1.727
24	12.03	-1.429
<b>Std Dev</b>	<b>11.99</b>	<b>-1.000</b>
49	11.98	-0.834
23	11.93	-0.238
24	11.93	-0.238
23	11.91	0.000
<b>Median</b>	<b>11.91</b>	<b>0.000</b>
32	11.90	0.179
61	11.85	0.715
32	11.84	0.893
<b>Std Dev</b>	<b>11.83</b>	<b>1.000</b>
61	11.76	1.787
310	11.74	2.025

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
31	17.66	-52.592
79	12.06	-1.237
24	12.03	-1.008
<b>Std Dev</b>	<b>12.03</b>	<b>-1.000</b>
49	11.98	-0.550
23	11.93	-0.092
24	11.93	-0.092
<b>Median</b>	<b>11.92</b>	<b>0.000</b>
23	11.91	0.092
32	11.90	0.229
61	11.85	0.641
32	11.84	0.779
<b>Std Dev</b>	<b>11.81</b>	<b>1.000</b>
61	11.76	1.466
310	11.74	1.649

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
219	12.05	-2.390
<b>Std Dev</b>	<b>11.95</b>	<b>-1.000</b>

43	11.88	0.000
<b>Median</b>	<b>11.88</b>	<b>0.000</b>
43	11.86	0.290

010.12 Total Nitrogen		
Lab	Salicylic	
107	12.35	0.000
<b>Median</b>	<b>12.35</b>	<b>0.000</b>

010.60 Total Nitrogen		
Lab	Combustion	
51	12.31	-3.086
42	12.15	-1.746
47	12.12	-1.502
<b>Std Dev</b>	<b>12.05</b>	<b>-1.000</b>
24	12.05	-0.975
219	12.05	-0.975
99	12.04	-0.853
63	12.01	-0.650
24	12.00	-0.568
9	11.95	-0.122
77	11.93	0.000
<b>Median</b>	<b>11.93</b>	<b>0.000</b>
66	11.90	0.244
80	11.90	0.244
79	11.90	0.284
64	11.89	0.365
103	11.87	0.487
14	11.87	0.528
110	11.85	0.650
14	11.83	0.853
<b>Std Dev</b>	<b>11.81</b>	<b>1.000</b>
111	11.56	3.005

010.99 Total Nitrogen		
Lab	Other	
32	11.90	-1.072
<b>Std Dev</b>	<b>11.89</b>	<b>-1.000</b>
32	11.84	0.000
<b>Median</b>	<b>11.84</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.78</b>	<b>1.000</b>
40	11.75	1.608

010.XX Total Nitrogen		
Lab	Total Method	
107	12.35	-3.383
51	12.31	-3.117
42	12.15	-1.863
47	12.12	-1.635
24	12.05	-1.140
219	12.05	-1.140
219	12.05	-1.102
99	12.04	-1.026
<b>Std Dev</b>	<b>12.03</b>	<b>-1.000</b>
63	12.01	-0.836
24	12.00	-0.760
9	11.95	-0.342
77	11.93	-0.228
66	11.90	0.000
80	11.90	0.000
<b>Median</b>	<b>11.90</b>	<b>0.000</b>
32	11.90	0.038
79	11.90	0.038
64	11.89	0.114
43	11.88	0.152
103	11.87	0.228
14	11.87	0.266
43	11.86	0.304
110	11.85	0.380
32	11.84	0.494
14	11.83	0.570
<b>Std Dev</b>	<b>11.77</b>	<b>1.000</b>
40	11.75	1.178
111	11.56	2.585

020.20 Total Phosphate		
Lab	Spectrometric	
31	46.42	-41.081
9	41.15	-2.386
61	41.02	-1.432
24	41.00	-1.285
24	40.96	-1.028
<b>Std Dev</b>	<b>40.96</b>	<b>-1.000</b>
79	40.90	-0.587
23	40.87	-0.367
43	40.85	-0.184
43	40.83	-0.037

49	40.82	0.000
<b>Median</b>	<b>40.82</b>	<b>0.000</b>
23	40.82	0.037
14	40.80	0.184
61	40.78	0.294
14	40.76	0.477
310	40.74	0.587
99	40.73	0.661
32	40.70	0.881
<b>Std Dev</b>	<b>40.68</b>	<b>1.000</b>
32	40.66	1.212
110	40.25	4.185

020.40 Total Phosphate		
Lab	Automated	
111	40.98	0.000
<b>Median</b>	<b>40.98</b>	<b>0.000</b>

020.50 Total Phosphate		
Lab	ICP	
42	43.35	0.000
<b>Median</b>	<b>43.35</b>	<b>0.000</b>

020.XX Total Phosphate		
Lab	Total Method	
31	46.42	-33.292
42	43.35	-15.038
9	41.15	-1.906
61	41.02	-1.132
24	41.00	-1.012
<b>Std Dev</b>	<b>40.99</b>	<b>-1.000</b>
111	40.98	-0.923
24	40.96	-0.804
79	40.90	-0.447
23	40.87	-0.268
43	40.85	-0.119
43	40.83	0.000
<b>Median</b>	<b>40.83</b>	<b>0.000</b>
49	40.82	0.030
23	40.82	0.060
14	40.80	0.179
61	40.78	0.268
14	40.76	0.417
310	40.74	0.506

99	40.73	0.566
32	40.70	0.744
<b>Std Dev</b>	<b>40.66</b>	<b>1.000</b>
32	40.66	1.012
110	40.25	3.424

030.20 Insoluble Phosphate Spectrometric		
Lab		
43	0.70	-2.820
<b>Std Dev</b>	<b>0.55</b>	<b>-1.000</b>
43	0.51	-0.493
61	0.51	-0.487
24	0.49	-0.244
79	0.47	0.000
<b>Median</b>	<b>0.47</b>	<b>0.000</b>
24	0.43	0.426
61	0.40	0.853
<b>Std Dev</b>	<b>0.38</b>	<b>1.000</b>
23	0.35	1.401
23	0.33	1.705

030.30 Insoluble Phosphate Alka. Quimociac		
Lab		
31	0.10	0.000
<b>Median</b>	<b>0.10</b>	<b>0.000</b>

030.40 Insoluble Phosphate Automated		
Lab		
9	0.39	0.000
<b>Median</b>	<b>0.39</b>	<b>0.000</b>

030.99 Insoluble Phosphate Other		
Lab		
49	0.46	-1.552
<b>Std Dev</b>	<b>0.44</b>	<b>-1.000</b>
32	0.41	0.000
<b>Median</b>	<b>0.41</b>	<b>0.000</b>
<b>Std Dev</b>	<b>0.37</b>	<b>1.000</b>
32	0.37	1.128

030.XX Insoluble Phosphate Total Method		
Lab		
43	0.70	-3.399
43	0.51	-1.072

61	0.51	-1.066
<b>Std Dev</b>	<b>0.50</b>	<b>-1.000</b>
24	0.49	-0.822
79	0.47	-0.579
49	0.46	-0.518
24	0.43	-0.152
<b>Median</b>	<b>0.42</b>	<b>0.000</b>
32	0.41	0.152
61	0.40	0.274
9	0.39	0.396
32	0.37	0.640
23	0.35	0.822
<b>Std Dev</b>	<b>0.34</b>	<b>1.000</b>
23	0.33	1.127
31	0.10	3.868

040.20 Indirect Available Phosphate Spectrometric		
Lab		
31	46.32	-58.960
9	40.76	-2.731
<b>Std Dev</b>	<b>40.59</b>	<b>-1.000</b>
24	40.57	-0.758
23	40.52	-0.303
61	40.51	-0.202
23	40.49	0.000
<b>Median</b>	<b>40.49</b>	<b>0.000</b>
24	40.48	0.152
79	40.44	0.556
<b>Std Dev</b>	<b>40.39</b>	<b>1.000</b>
61	40.39	1.062
43	40.32	1.719
43	40.15	3.438

040.99 Indirect Available Phosphate Other		
Lab		
49	40.36	-0.609
32	40.34	0.000
<b>Median</b>	<b>40.34</b>	<b>0.000</b>
<b>Std Dev</b>	<b>40.29</b>	<b>1.000</b>
32	40.25	2.071

040.XX Indirect Available Phosphate Total Method		
Lab		
31	46.32	-44.591

9	40.76	-2.319
<b>Std Dev</b>	<b>40.59</b>	<b>-1.000</b>
24	40.57	-0.836
23	40.52	-0.494
61	40.51	-0.418
23	40.49	-0.266
24	40.48	-0.152
<b>Median</b>	<b>40.46</b>	<b>0.000</b>
79	40.44	0.152
61	40.39	0.532
49	40.36	0.722
32	40.34	0.912
<b>Std Dev</b>	<b>40.32</b>	<b>1.000</b>
43	40.32	1.026
32	40.25	1.559
43	40.15	2.319

041.10 Direct Available Phosphate Gravimetric Quimociac		
Lab		
107	40.04	-1.340
<b>Std Dev</b>	<b>39.97</b>	<b>-1.000</b>
<b>Median</b>	<b>39.79</b>	<b>0.000</b>
<b>Std Dev</b>	<b>39.61</b>	<b>1.000</b>
47	39.55	1.340

041.40 Direct Available Phosphate Automated		
Lab		
51	39.02	-1.340
<b>Std Dev</b>	<b>38.76</b>	<b>-1.000</b>
<b>Median</b>	<b>38.00</b>	<b>0.000</b>
<b>Std Dev</b>	<b>37.23</b>	<b>1.000</b>
103	36.98	1.340

041.50 Direct Available Phosphate ICP		
Lab		
63	40.41	-1.968
<b>Std Dev</b>	<b>40.10</b>	<b>-1.000</b>
47	39.94	-0.466
<b>Median</b>	<b>39.79</b>	<b>0.000</b>
66	39.64	0.466
80	39.60	0.593

041.60 Direct Available Phosphate EDTA Extract		
Lab		
23	35.88	-0.015

29	41.28	-2.084
<b>Std Dev</b>	<b>40.81</b>	<b>-1.000</b>
219	40.56	-0.412
<b>Median</b>	<b>40.38</b>	<b>0.000</b>
64	40.21	0.412
77	40.04	0.806

041.XX Direct Available Phosphate Total Method		
Lab		
29	41.28	-2.592
219	40.56	-1.150
<b>Std Dev</b>	<b>40.49</b>	<b>-1.000</b>
63	40.41	-0.850
64	40.21	-0.440
77	40.04	-0.100
107	40.04	-0.100
<b>Median</b>	<b>39.99</b>	<b>0.000</b>
47	39.94	0.100
66	39.64	0.690
80	39.60	0.770
47	39.55	0.880
<b>Std Dev</b>	<b>39.49</b>	<b>1.000</b>
51	39.02	1.930
103	36.98	6.020

043.99 Polyphosphate Other		
Lab		
31	1.03	0.000
<b>Median</b>	<b>1.03</b>	<b>0.000</b>

043.XX Polyphosphate Total Method		
Lab		
31	1.03	0.000
<b>Median</b>	<b>1.03</b>	<b>0.000</b>

048.20 Water Soluble Phosphate Spectrometric		
Lab		
31	41.92	-9.153
14	38.41	-3.838
14	38.32	-3.702
<b>Std Dev</b>	<b>36.53</b>	<b>-1.000</b>
61	36.08	-0.310
9	35.93	-0.091
23	35.88	-0.015

Median	35.87	0.000
79	35.86	0.015
61	35.82	0.083
23	35.76	0.167
49	35.72	0.227
24	35.69	0.273
24	35.68	0.288

048.99 Water Soluble Phosphate		
Lab		Other
32	35.93	-1.104
Std Dev	35.90	-1.000
32	35.85	-0.788
43	35.65	0.000
Median	35.65	0.000
43	35.51	0.552
Std Dev	35.39	1.000
111	35.19	1.813

048.XX Water Soluble Phosphate		
Lab		Total Method
31	41.92	-33.891
14	38.41	-14.293
14	38.32	-13.791
61	36.08	-1.284
Std Dev	36.02	-1.000
9	35.93	-0.475
32	35.93	-0.447
23	35.88	-0.195
79	35.86	-0.084
32	35.85	0.000
Median	35.85	0.000
61	35.82	0.168
23	35.76	0.475
49	35.72	0.698
24	35.69	0.865
24	35.68	0.921
Std Dev	35.67	1.000
43	35.65	1.117
43	35.51	1.898
111	35.19	3.685

050.50 %K <sub>2</sub> O Soluble Potash		
Lab		ICP(Oxalate)

23	0.12	0.000
23	0.12	0.000
Median	0.12	0.000
Std Dev	0.11	1.000
99	0.10	2.680

050.51 %K <sub>2</sub> O Soluble Potash		
Lab		ICP(Citrate)
275	0.11	-1.340
Std Dev	0.11	-1.000
Median	0.11	0.000
Std Dev	0.11	1.000
275	0.11	1.340

050.99 %K <sub>2</sub> O Soluble Potash		
Lab		Other
80	0.20	-18.553
Std Dev	0.13	-1.000
24	0.13	-0.869
61	0.13	-0.869
43	0.12	-0.310
Median	0.12	0.000
61	0.12	0.310
111	0.12	0.310
43	0.12	0.954
Std Dev	0.12	1.000
24	0.12	1.489

050.XX %K <sub>2</sub> O Soluble Potash		
Lab		Total Method
80	0.20	-14.053
Std Dev	0.13	-1.000
24	0.13	-0.878
61	0.13	-0.878
43	0.12	-0.462
23	0.12	0.000
23	0.12	0.000
61	0.12	0.000
111	0.12	0.000
Median	0.12	0.000
43	0.12	0.480
24	0.12	0.878
Std Dev	0.11	1.000
275	0.11	1.054

275	0.11	1.317
99	0.10	3.513

060.00 Free Water		
Lab		Vacuum Oven
31	2.90	-19.861
Std Dev	0.93	-1.000
24	0.91	-0.814
24	0.89	-0.574
32	0.89	-0.574
32	0.88	-0.526
23	0.88	-0.479
79	0.83	0.000
Median	0.83	0.000
23	0.82	0.048
49	0.80	0.239
9	0.75	0.766
Std Dev	0.72	1.000
111	0.67	1.484
43	0.66	1.579
43	0.52	2.967

060.10 Free Water		
Lab		Vacuum Desiccate
61	0.93	-1.340
Std Dev	0.92	-1.000
Median	0.89	0.000
Std Dev	0.86	1.000
61	0.85	1.340

060.99 Free Water		
Lab		Other
14	1.03	0.000
14	1.03	0.000
Median	1.03	0.000

060.XX Free Water		
Lab		Total Method
31	2.90	-24.668
14	1.03	-1.888
14	1.03	-1.888
Std Dev	0.96	-1.000
61	0.93	-0.670
24	0.91	-0.426

24	0.89	-0.122
32	0.89	-0.122
32	0.88	-0.061
23	0.88	0.000
Median	0.88	0.000
61	0.85	0.365
79	0.83	0.609
23	0.82	0.670
49	0.80	0.914
Std Dev	0.79	1.000
9	0.75	1.584
111	0.67	2.497
43	0.66	2.619
43	0.52	4.385

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
61	0.53	-4.423
32	0.48	-2.843
32	0.47	-2.527
61	0.47	-2.527
Std Dev	0.42	-1.000
24	0.42	-0.790
14	0.41	-0.474
24	0.41	-0.474
14	0.39	0.000
23	0.39	0.000
23	0.39	0.000
Median	0.39	0.000
9	0.39	0.158
111	0.39	0.158
43	0.37	0.621
49	0.37	0.632
275	0.36	0.948
Std Dev	0.36	1.000
275	0.36	1.058
43	0.35	1.253
31	0.30	2.733

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
61	0.53	-4.423
32	0.48	-2.843
32	0.47	-2.527

61	0.47	-2.527
Std Dev	0.42	-1.000
24	0.42	-0.790
14	0.41	-0.474
24	0.41	-0.474
14	0.39	0.000
23	0.39	0.000
23	0.39	0.000
Median	0.39	0.000
9	0.39	0.158
111	0.39	0.158
43	0.37	0.621
49	0.37	0.632
275	0.36	0.948
Std Dev	0.36	1.000
275	0.36	1.058
43	0.35	1.253
31	0.30	2.733

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
31	1.47	-18.811
61	0.86	-1.137
Std Dev	0.85	-1.000
23	0.84	-0.558
23	0.83	-0.413
24	0.83	-0.268
32	0.82	-0.123
61	0.82	-0.123
49	0.82	-0.123
275	0.82	-0.022
Median	0.82	0.000
24	0.82	0.022
32	0.82	0.022
275	0.81	0.225
9	0.80	0.456
Std Dev	0.78	1.000
14	0.77	1.326
14	0.74	2.340
111	0.73	2.484
43	0.73	2.629
43	0.69	3.643

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
31	1.47	-18.811
61	0.86	-1.137
Std Dev	0.85	-1.000
23	0.84	-0.558
23	0.83	-0.413
24	0.83	-0.268
32	0.82	-0.123
61	0.82	-0.123
49	0.82	-0.123
275	0.82	-0.022
Median	0.82	0.000
24	0.82	0.022
32	0.82	0.022
275	0.81	0.225
9	0.80	0.456
Std Dev	0.78	1.000
14	0.77	1.326
14	0.74	2.340
111	0.73	2.484
43	0.73	2.629
43	0.69	3.643

144.01 Sulfate Sulfur (S)		
Lab		Gravimetric
47	9.76	-1.340
Std Dev	9.17	-1.000
Median	7.45	0.000
Std Dev	5.73	1.000
79	5.15	1.340

144.70 Sulfur		
Lab		Spectrometric
14	8.95	-0.683
14	8.91	-0.668
Median	6.85	0.000
43	4.79	0.668
43	4.78	0.669

144.99 Sulfate Sulfur (S)		
Lab		Other
77	10.63	-70.487
32	5.43	-3.261

Std Dev	5.25	-1.000
32	5.25	-0.936
23	5.18	-0.097
49	5.18	-0.097
Median	5.17	0.000
23	5.17	0.097
24	5.13	0.613
24	5.13	0.613
Std Dev	5.10	1.000
9	4.99	2.357
31	1.04	53.439

144.XX Sulfate Sulfur (S)		
Lab		Total Method
77	10.63	-6.075
47	9.76	-5.101
14	8.95	-4.205
14	8.91	-4.155
Std Dev	6.07	-1.000
32	5.43	-0.281
32	5.25	-0.081
23	5.18	-0.008
49	5.18	-0.008
Median	5.17	0.000
23	5.17	0.008
79	5.15	0.031
24	5.13	0.053
24	5.13	0.053
9	4.99	0.203
43	4.79	0.430
43	4.78	0.434
Std Dev	4.27	1.000
31	1.04	4.606

145.99 Total Sulfur (S)		
Lab		Other
66	10.74	-2.326
63	10.65	-1.871
51	10.53	-1.264
Std Dev	10.48	-1.000
49	10.37	-0.455
23	10.34	-0.303
23	10.29	-0.025
51	10.28	0.000

Median	10.28	0.000
43	10.16	0.607
40	10.16	0.632
43	10.11	0.885
Std Dev	10.08	1.000
64	10.00	1.416
103	8.95	6.751
111	6.02	21.566

145.XX Total Sulfur (S)		
Lab		Total Method
66	10.74	-2.326
63	10.65	-1.871
51	10.53	-1.264
Std Dev	10.48	-1.000
49	10.37	-0.455
23	10.34	-0.303
23	10.29	-0.025
51	10.28	0.000
Median	10.28	0.000
43	10.16	0.607
40	10.16	0.632
43	10.11	0.885
Std Dev	10.08	1.000
64	10.00	1.416
103	8.95	6.751
111	6.02	21.566

151.30 Total Arsenic		
Lab		ICP
43	17.30	-2.034
43	16.15	-1.694
Std Dev	13.81	-1.000
31	13.15	-0.805
64	10.43	0.000
Median	10.43	0.000
61	10.35	0.024
24	9.90	0.157
61	9.65	0.231

151.XX Total Arsenic		
Lab		Total Method
43	17.30	-2.034
43	16.15	-1.694

Std Dev	13.81	-1.000
31	13.15	-0.805
64	10.43	0.000
Median	10.43	0.000
61	10.35	0.024
24	9.90	0.157
61	9.65	0.231

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	58.80	0.000
Median	58.80	0.000

65.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	58.80	0.000
Median	58.80	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
111	6.50	-6.292
61	4.00	-1.119
Std Dev	3.94	-1.000
64	3.57	-0.219
61	3.50	-0.084
Median	3.46	0.000
275	3.42	0.084
275	3.05	0.844
Std Dev	2.98	1.000
43	2.95	1.054
43	2.81	1.343

181.99 Total Cadmium		
Lab	PPM	Other
24	3.21	0.000
Median	3.21	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
111	6.50	-8.042
61	4.00	-1.518
Std Dev	3.80	-1.000
64	3.57	-0.382
61	3.50	-0.213

275	3.42	0.000
Median	3.42	0.000
24	3.21	0.544
275	3.05	0.958
Std Dev	3.04	1.000
43	2.95	1.223
43	2.81	1.588

190.00 Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	ICP
14	1.66	-2.037
14	1.65	-1.881
32	1.65	-1.802
32	1.60	-1.097
Std Dev	1.59	-1.000
9	1.59	-0.940
24	1.57	-0.549
23	1.53	0.000
23	1.53	0.000
24	1.53	0.000
Median	1.53	0.000
43	1.52	0.157
275	1.52	0.157
49	1.51	0.313
275	1.50	0.400
61	1.48	0.784
61	1.47	0.940
Std Dev	1.47	1.000
43	1.45	1.254
111	1.01	8.150

190.99 Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Atomic Absorption
31	1.29	0.000
Median	1.29	0.000

190.XX Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Total Method
14	1.66	-1.853
14	1.65	-1.716
32	1.65	-1.647
32	1.60	-1.029
Std Dev	1.60	-1.000
9	1.59	-0.892

24	1.57	-0.549
23	1.53	-0.069
23	1.53	-0.069
24	1.53	-0.069
Median	1.53	0.000
43	1.52	0.069
275	1.52	0.069
49	1.51	0.206
275	1.50	0.281
61	1.48	0.618
61	1.47	0.755
Std Dev	1.45	1.000
43	1.45	1.029
31	1.29	3.294
111	1.01	7.069

191.30 Total Chromium		
Lab	PPM	ICP
31	111.20	-15.637
Std Dev	72.97	-1.000
64	72.19	-0.700
61	72.00	-0.629
61	72.00	-0.629
275	70.36	0.000
Median	70.36	0.000
275	69.61	0.286
43	68.50	0.711
111	68.50	0.711
Std Dev	67.75	1.000
43	65.00	2.051

191.99 Total Chromium		
Lab	PPM	Other
24	64.50	0.000
Median	64.50	0.000

191.XX Total Chromium		
Lab	PPM	Total Method
31	111.20	-15.780
Std Dev	72.60	-1.000
64	72.19	-0.843
61	72.00	-0.772
61	72.00	-0.772
275	70.36	-0.143

Median	69.98	0.000
275	69.61	0.143
43	68.50	0.568
111	68.50	0.568
Std Dev	67.37	1.000
43	65.00	1.908
24	64.50	2.100

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
61		

202.99 Acid Soluble Cobalt		
Lab	PPM	Other
24	2.38	0.000
Median	2.38	0.000

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
61	4.00	-23.654
61	3.50	-11.827
Std Dev	3.04	-1.000
64	3.04	-0.946
275	3.01	-0.194
43	3.00	0.000
43	3.00	0.000
Median	3.00	0.000
275	2.98	0.394
Std Dev	2.96	1.000
24	2.38	14.665
111	1.00	47.308

221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
275	1.14	-4.746
Std Dev	1.03	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
275	0.98	0.614

221.99 Acid Soluble Copper		
Lab	PPM	Other

24	1.29	0.000
Median	1.29	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
24	1.29	-2.803
275	1.14	-1.340
Std Dev	1.10	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
275	0.98	0.173

241.30 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
31	1.73	-11.652
32	1.28	-1.165
32	1.27	-1.049
61	1.27	-1.049
Std Dev	1.27	-1.000
61	1.26	-0.699
24	1.24	-0.350
14	1.24	-0.233
24	1.23	-0.117
49	1.23	-0.117
Median	1.23	0.000
43	1.22	0.117
14	1.22	0.233
23	1.21	0.350
23	1.21	0.466
9	1.19	0.816
111	1.19	0.816
Std Dev	1.18	1.000
275	1.17	1.223
275	1.16	1.480
43	1.16	1.515

241.XX Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	Total Method
31	1.73	-11.652
32	1.28	-1.165
32	1.27	-1.049

61	1.27	-1.049
Std Dev	1.27	-1.000
61	1.26	-0.699
24	1.24	-0.350
14	1.24	-0.233
24	1.23	-0.117
49	1.23	-0.117
Median	1.23	0.000
43	1.22	0.117
14	1.22	0.233
23	1.21	0.350
23	1.21	0.466
9	1.19	0.816
111	1.19	0.816
Std Dev	1.18	1.000
275	1.17	1.223
275	1.16	1.480
43	1.16	1.515

251.30 Total Lead		
Lab	PPM	ICP
61	3.50	-0.876
275	3.06	-0.095
275	3.01	-0.007
Median	3.00	0.000
61	3.00	0.007
Std Dev	2.44	1.000
43	2.05	1.687
43	1.90	1.952

251.99 Total Lead		
Lab	PPM	Other
24	1.94	0.000
Median	1.94	0.000

251.XX Total Lead		
Lab	PPM	Total Method
61	3.50	-0.645
275	3.06	-0.075
275	3.01	-0.011
61	3.00	0.000
Median	3.00	0.000
Std Dev	2.23	1.000
43	2.05	1.226

24	1.94	1.368
43	1.90	1.420

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
275	329.50	-0.547
275	329.50	-0.547
Median	308.85	0.000
31	288.20	0.547
Std Dev	271.09	1.000
111	251.00	1.532

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	317.50	-5.211
Std Dev	303.36	-1.000
43	302.00	-0.596
61	300.00	0.000
Median	300.00	0.000
61	297.50	0.744
Std Dev	296.64	1.000
24	292.00	2.382

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
275	329.50	-1.550
275	329.50	-1.550
Std Dev	319.03	-1.000
43	317.50	-0.920
43	302.00	-0.105
61	300.00	0.000
Median	300.00	0.000
61	297.50	0.131
24	292.00	0.420
31	288.20	0.620
Std Dev	280.97	1.000
111	251.00	2.575

281.30 Total Mercury		
Lab	PPM	ICP
24	0.38	0.000
Median	0.38	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	0.38	0.000
Median	0.38	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
111		

289.99 Total Molybdenum		
Lab	PPM	Other
24	13.30	0.000
Median	13.30	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
111	14.00	-2.420
24	13.30	-1.562
Std Dev	12.84	-1.000
275	12.34	-0.390
275	12.13	-0.125
64	12.03	0.000
Median	12.03	0.000
61	11.50	0.643
43	11.25	0.950
Std Dev	11.21	1.000
43	10.55	1.807
61	10.00	2.481

291.30 Total Nickel		
Lab	PPM	ICP
275		

291.99 Total Nickel		
Lab	PPM	Other
24	13.70	0.000
Median	13.70	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
275	16.94	-2.296
Std Dev	15.56	-1.000
275	15.35	-0.804
64	14.65	-0.137
61	14.50	0.000
61	14.50	0.000

Median	14.50	0.000
24	13.70	0.754
Std Dev	13.44	1.000
43	12.50	1.885
43	12.00	2.356

301.30	Total Selenium	
Lab	PPM	ICP
24	0.84	0.000
Median	0.84	0.000

301.XX	Total Selenium	
Lab	PPM	Total Mthod
24	0.84	0.000
Median	0.84	0.000

311.99	Sodium	
Lab	%Na <sub>2</sub> O	Other
111	0.28	-3.409
Std Dev	0.22	-1.000
61	0.22	-0.852
23	0.21	-0.213
61	0.21	-0.213
23	0.20	0.000
24	0.20	0.000
Median	0.20	0.000
24	0.20	0.213
43	0.18	0.945
Std Dev	0.18	1.000
43	0.17	1.309
275	0.16	1.598
275	0.15	1.939

311.XX	Sodium	
Lab	%Na <sub>2</sub> O	Total Method
111	0.28	-3.409
Std Dev	0.22	-1.000
61	0.22	-0.852
23	0.21	-0.213
61	0.21	-0.213
23	0.20	0.000
24	0.20	0.000
Median	0.20	0.000
24	0.20	0.213

43	0.18	0.945
Std Dev	0.18	1.000
43	0.17	1.309
275	0.16	1.598
275	0.15	1.939

321.00	Acid Soluble Zinc	
Lab	Atomic Absorption	
77	0.94	-1.340
Std Dev	0.94	-1.000
Median	0.94	0.000
Std Dev	0.94	1.000
51	0.94	1.340

321.30	Acid Soluble Zinc	
Lab	PPM	ICP
63	1.25	-6.808
66	1.07	-1.152
Std Dev	1.06	-1.000
23	1.06	-1.000
23	1.05	-0.694
49	1.05	-0.694
47	1.05	-0.541
24	1.04	-0.235
110	1.03	-0.098
Median	1.03	0.000
275	1.02	0.098
24	1.02	0.376
61	1.01	0.486
275	1.01	0.583
103	1.00	0.835
Std Dev	0.99	1.000
61	0.98	1.442
64	0.97	1.844
111	0.48	16.715

321.99	Acid Soluble Zinc	
Lab	Other	
43	0.93	-1.340
Std Dev	0.93	-1.000
Median	0.92	0.000
Std Dev	0.92	1.000
43	0.91	1.340

321.XX	Acid Soluble Zinc	
Lab	PPM	Total Method
63	1.25	-3.700
Std Dev	1.08	-1.000
66	1.07	-0.809
23	1.06	-0.731
23	1.05	-0.575
49	1.05	-0.575
47	1.05	-0.497
24	1.04	-0.341
110	1.03	-0.270
275	1.02	-0.170
24	1.02	-0.028
Median	1.01	0.000
61	1.01	0.028
275	1.01	0.078
103	1.00	0.206
61	0.98	0.516
64	0.97	0.722
Std Dev	0.95	1.000
77	0.94	1.128
51	0.94	1.183
43	0.93	1.272
43	0.91	1.548
111	0.48	8.323

325.10	Fluoride	
Lab	%	Electrode
31	2.03	-2.591
32	1.89	-1.295
32	1.88	-1.206
24	1.82	-0.715
24	1.82	-0.715
79	1.78	-0.357
23	1.74	0.000
Median	1.74	0.000
49	1.73	0.089
111	1.73	0.089
23	1.67	0.625
14	1.52	2.010
14	1.48	2.323
9	1.26	4.288

325.99	Fluoride	
Lab	%	Other
61	1.80	-1.340
Median	1.78	0.000
61	1.76	1.340

325.XX	Fluoride	
Lab	%	Total Method
31	2.03	-3.071
32	1.89	-1.452
32	1.88	-1.340
24	1.82	-0.726
24	1.82	-0.726
61	1.80	-0.503
79	1.78	-0.279
61	1.76	0.000
Median	1.76	0.000
23	1.74	0.167
49	1.73	0.279
111	1.73	0.279
23	1.67	0.949
14	1.52	2.680
14	1.48	3.071
9	1.26	5.527