

## AFPC

2014-04

Grade

MAP 10-40-0-10-1

## Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, Other		001.99	14	11.87	0.09
Method Group 001.XX PCT			14	11.87	0.11
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	11.92	0.02
Total Nitrogen, Salicylic	955.04d	010.12	1	11.88	0.00
Total Nitrogen, Combustion	993.13	010.60	15	11.94	0.21
Total Nitrogen, Other		010.99	3	11.75	0.09
Method Group 010.XX PCT			22	11.90	0.22
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Gravimetric Quimociac		020.10	2	41.38	0.33
Total Phosphate, Spectrometric	978.02	020.20	21	41.05	0.23
Method Group 020.XX PCT			23	41.05	0.32
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	10	0.42	0.08
Insoluble Phosphate, Automated	978.01	030.40	1	0.37	0.00
Insoluble Phosphate, Other		030.99	3	0.23	0.08
Method Group 030.XX PCT			14	0.40	0.12
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Spectrometric	960.02	040.20	10	40.69	0.17
Indirect Available Phosphate, Other		040.99	4	40.65	0.05
Method Group 040.XX PCT			14	40.66	0.19
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	40.26	0.40
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	40.49	0.07
Direct Available Phosphate, Automated	978.01	041.40	2	40.10	0.28
Direct Available Phosphate, ICP		041.50	4	40.47	0.06
Direct Available Phosphate, EDTA Extract	993.01	041.60	2	40.86	0.06
Method Group 041.XX PCT			13	40.48	0.24
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	14	36.20	0.21
Water Soluble Phosphate, Other		048.99	3	36.11	0.21
Method Group 048.XX PCT			17	36.19	0.22
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, ICP(Oxalate)		050.50	3	0.11	0.01
Soluble Potash, Other		050.99	7	0.12	0.00
Method Group 050.XX PCT			10	0.12	0.01
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	15	0.90	0.10
Free Water, Vacuum Desiccate	965.08A	060.10	2	0.92	0.02
Free Water, Other		060.99	2	0.76	0.01
Method Group 060.XX PCT			19	0.90	0.14
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.28	0.00
Acid Soluble Calcium, ICP		101.30	16	0.42	0.03
Acid Soluble Calcium, Other		101.99	1	0.26	0.00
Method Group 101.XX PCT			18	0.41	0.03
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.61	0.00
Acid Soluble Magnesium, ICP		121.30	15	0.80	0.03
Acid Soluble Magnesium, Other		121.99	1	0.61	0.00
Method Group 121.XX PCT			17	0.80	0.05
<b>SULFATE SULFUR (S)</b>					
Sulfur, Gravimetric	980.02(a)	144.01	5	5.20	0.16
Sulfur, Spectrometric		144.70	2	7.98	0.04
Sulfur, Other		144.99	14	5.07	0.16
Method Group 144.XX PCT			21	5.16	0.28

<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	14	10.46	0.15
Method Group 145.XX PCT			14	10.46	0.18
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	7	10	2.6
Total Arsenic, Other		151.99	2	10	0.0
Method Group 151.XX PPM			9	10	0.3
<b>TOTAL CADMIUM</b>					
Total Cadmium, ICP		181.30	9	3	0.2
Method Group 181.XX PPM			9	3	0.3
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>					
ICP, %			16	1.53	0.06
Method Group 190.XX PCT			16	1.53	0.07
<b>TOTAL CHROMIUM</b>					
Total Chromium, ICP		191.30	7	73	2.8
Method Group 191.XX PPM			7	73	3.4
<b>ACID SOLUBLE COBALT</b>					
Acid Soluble Cobalt, ICP		202.30	6	3	0.2
Method Group 202.XX PPM			6	3	0.3
<b>ACID SOLUBLE COPPER</b>					
Acid Soluble Copper, ICP		221.30	4	1	0.9
Method Group 221.XX PPM			4	1	1.0
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>					
Acid Soluble Iron, ICP		241.30	15	1.12	0.01
Acid Soluble Iron, Other		241.99	1	1.03	0.00
Method Group 241.XX PCT			17	1.12	0.01
<b>TOTAL LEAD</b>					
Total Lead, ICP		251.30	7	2	0.4
Method Group 251.XX PPM			7	2	0.4
<b>ACID SOLUBLE MANGANESE</b>					
Acid Soluble Manganese, Atomic Absorption	972.02b	261.11	1	325	0.0
Acid Soluble Manganese, ICP	972.02a	261.30	2	335	26.5
Acid Soluble Manganese, Other		261.99	5	319	29.9
Method Group 261.XX PPM			8	322	36.9
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP		289.30	6	13	0.3
Method Group 289.XX PPM			6	13	0.3
<b>TOTAL NICKEL</b>					
Total Nickel, ICP		291.30	6	13	0.3
Method Group 291.XX PPM			6	13	0.3
<b>SODIUM AS Na<sub>2</sub>O</b>					
Sodium, Other		311.99	9	0.22	0.02
Method Group 311.XX PCT			9	0.22	0.03
<b>ACID SOLUBLE ZINC</b>					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	2	1.0	0.0
Acid Soluble Zinc, ICP		321.30	18	1.0	0.1
Acid Soluble Zinc, Other		321.99	1	1.0	0.0
Method Group 321.XX PPM			21	1.0	0.1
<b>FLUORIDE</b>					
Water Soluble Zinc, Atomic Absorption		325.00	1	1.74	0.00
Volumetric		325.10	12	1.78	0.10
Distilled/Electrode		325.99	2	1.80	0.01
Method Group 325.XX PCT			15	1.79	0.08

001.99 Ammoniacal Nitrogen		
Lab		Other
79	12.03	-1.787
24	11.98	-1.268
<b>Std Dev</b>	<b>11.96</b>	<b>-1.000</b>
275	11.95	-0.922
34	11.90	-0.346
32	11.89	-0.231
24	11.89	-0.173
61	11.88	-0.115
<b>Median</b>	<b>11.87</b>	<b>0.000</b>
61	11.86	0.115
23	11.79	0.922
23	11.79	0.980
<b>Std Dev</b>	<b>11.78</b>	<b>1.000</b>
275	11.78	1.037
32	11.75	1.441
310	11.59	3.228
38	11.30	6.570

001.XX Ammoniacal Nitrogen		
Lab		Total Method
79	12.03	-1.787
24	11.98	-1.268
<b>Std Dev</b>	<b>11.96</b>	<b>-1.000</b>
275	11.95	-0.922
34	11.90	-0.346
32	11.89	-0.231
24	11.89	-0.173
61	11.88	-0.115
<b>Median</b>	<b>11.87</b>	<b>0.000</b>
61	11.86	0.115
23	11.79	0.922
23	11.79	0.980
<b>Std Dev</b>	<b>11.78</b>	<b>1.000</b>
275	11.78	1.037
32	11.75	1.441
310	11.59	3.228
38	11.30	6.570

010.11 Total Nitrogen		
Lab		Modified Comprehensive
43	11.94	-1.117
<b>Std Dev</b>	<b>11.94</b>	<b>-1.000</b>

43	11.92	0.000
<b>Median</b>	<b>11.92</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.89</b>	<b>1.000</b>
219	11.88	1.563

010.12 Total Nitrogen		
Lab		Salicylic
107	11.88	0.000
<b>Median</b>	<b>11.88</b>	<b>0.000</b>

010.60 Total Nitrogen		
Lab		Combustion
47	12.08	-0.664
49	12.08	-0.640
29	12.02	-0.379
14	12.01	-0.332
80	12.00	-0.285
79	11.99	-0.237
14	11.99	-0.213
219	11.94	0.000
<b>Median</b>	<b>11.94</b>	<b>0.000</b>
315	11.93	0.071
9	11.81	0.617
66	11.75	0.901
<b>Std Dev</b>	<b>11.73</b>	<b>1.000</b>
99	11.70	1.162
103	11.67	1.281
110	11.52	1.992
63	11.29	3.083

010.99 Total Nitrogen		
Lab		Other
32	11.89	-1.619
<b>Std Dev</b>	<b>11.83</b>	<b>-1.000</b>
32	11.75	0.000
<b>Median</b>	<b>11.75</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.66</b>	<b>1.000</b>
40	11.65	1.061

010.XX Total Nitrogen		
Lab		Total Method
47	12.08	-0.981
49	12.08	-0.953
29	12.02	-0.649

14	12.01	-0.594
80	12.00	-0.539
79	11.99	-0.484
14	11.99	-0.456
219	11.94	-0.207
43	11.94	-0.207
315	11.93	-0.124
43	11.92	-0.069
<b>Median</b>	<b>11.90</b>	<b>0.000</b>
32	11.89	0.069
219	11.88	0.124
107	11.88	0.124
9	11.81	0.511
66	11.75	0.843
32	11.75	0.870
<b>Std Dev</b>	<b>11.72</b>	<b>1.000</b>
99	11.70	1.147
103	11.67	1.285
40	11.65	1.395
110	11.52	2.114
63	11.29	3.385

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
40	41.83	-1.340
<b>Std Dev</b>	<b>41.71</b>	<b>-1.000</b>
<b>Median</b>	<b>41.38</b>	<b>0.000</b>
<b>Std Dev</b>	<b>41.05</b>	<b>1.000</b>
241	40.94	1.340

020.20 Total Phosphate		
Lab		Spectrometric
61	41.62	-2.442
275	41.50	-1.945
24	41.35	-1.297
99	41.35	-1.297
61	41.34	-1.232
<b>Std Dev</b>	<b>41.28</b>	<b>-1.000</b>
24	41.25	-0.865
275	41.22	-0.735
32	41.13	-0.346
34	41.08	-0.130
310	41.06	-0.043
43	41.05	0.000

<b>Median</b>	<b>41.05</b>	<b>0.000</b>
9	41.02	0.130
14	41.00	0.238
14	40.99	0.281
23	40.96	0.411
23	40.94	0.475
79	40.93	0.519
110	40.87	0.800
32	40.83	0.951
<b>Std Dev</b>	<b>40.82</b>	<b>1.000</b>
315	40.65	1.729
43	40.22	3.609

020.XX Total Phosphate		
Lab		Total Method
40	41.83	-2.925
61	41.62	-2.133
275	41.50	-1.699
24	41.35	-1.132
99	41.35	-1.132
61	41.34	-1.076
<b>Std Dev</b>	<b>41.31</b>	<b>-1.000</b>
24	41.25	-0.755
275	41.22	-0.642
32	41.13	-0.302
34	41.08	-0.113
310	41.06	-0.038
43	41.05	0.000
<b>Median</b>	<b>41.05</b>	<b>0.000</b>
9	41.02	0.113
14	41.00	0.208
14	40.99	0.245
23	40.96	0.359
23	40.94	0.415
241	40.94	0.434
79	40.93	0.453
110	40.87	0.698
32	40.83	0.830
<b>Std Dev</b>	<b>40.79</b>	<b>1.000</b>
315	40.65	1.510
43	40.22	3.152

030.20 Insoluble Phosphate		
Lab		Spectrometric

61	0.68	-3.424
43	0.57	-2.068
43	0.49	-1.040
<b>Std Dev</b>	<b>0.49</b>	<b>-1.000</b>
24	0.43	-0.198
61	0.42	-0.066
<b>Median</b>	<b>0.42</b>	<b>0.000</b>
24	0.41	0.066
23	0.38	0.461
23	0.38	0.527
<b>Std Dev</b>	<b>0.34</b>	<b>1.000</b>
14	0.28	1.844
14	0.26	2.107

030.40 Insoluble Phosphate		
Lab	Automated	
9	0.37	0.000
<b>Median</b>	<b>0.37</b>	<b>0.000</b>

030.99 Insoluble Phosphate		
Lab	Other	
34	0.43	-2.382
<b>Std Dev</b>	<b>0.31</b>	<b>-1.000</b>
32	0.23	0.000
<b>Median</b>	<b>0.23</b>	<b>0.000</b>
32	0.21	0.298

030.XX Insoluble Phosphate		
Lab	Total Method	
61	0.68	-2.832
43	0.57	-1.790
43	0.49	-1.001
<b>Std Dev</b>	<b>0.49</b>	<b>-1.000</b>
24	0.43	-0.354
34	0.43	-0.354
61	0.42	-0.253
24	0.41	-0.152
<b>Median</b>	<b>0.40</b>	<b>0.000</b>
23	0.38	0.152
23	0.38	0.202
9	0.37	0.303
<b>Std Dev</b>	<b>0.30</b>	<b>1.000</b>
14	0.28	1.214
14	0.26	1.416

32	0.23	1.669
32	0.21	1.922

040.20 Indirect Available Phosphate		
Lab	Spectrometric	
61	41.20	-2.942
24	40.94	-1.457
<b>Std Dev</b>	<b>40.86</b>	<b>-1.000</b>
24	40.82	-0.757
14	40.73	-0.233
14	40.72	-0.175
<b>Median</b>	<b>40.69</b>	<b>0.000</b>
61	40.66	0.175
23	40.58	0.670
23	40.57	0.728
<b>Std Dev</b>	<b>40.52</b>	<b>1.000</b>
43	40.48	1.223
43	39.73	5.622

040.99 Indirect Available Phosphate		
Lab	Other	
32	40.90	-4.574
<b>Std Dev</b>	<b>40.71</b>	<b>-1.000</b>
9	40.66	-0.046
<b>Median</b>	<b>40.65</b>	<b>0.000</b>
34	40.65	0.046
32	40.63	0.508

040.XX Indirect Available Phosphate		
Lab	Total Method	
61	41.20	-3.430
24	40.94	-1.803
32	40.90	-1.547
24	40.82	-1.037
<b>Std Dev</b>	<b>40.81</b>	<b>-1.000</b>
14	40.73	-0.463
14	40.72	-0.399
61	40.66	-0.016
<b>Median</b>	<b>40.66</b>	<b>0.000</b>
9	40.66	0.016
34	40.65	0.048
32	40.63	0.207
23	40.58	0.526
23	40.57	0.590

<b>Std Dev</b>	<b>40.50</b>	<b>1.000</b>
43	40.48	1.133
43	39.73	5.950

041.10 Direct Available Phosphate		
Lab	Gravimetric Quimociac	
47	40.75	-1.220
<b>Std Dev</b>	<b>40.66</b>	<b>-1.000</b>
219	40.26	0.000
<b>Median</b>	<b>40.26</b>	<b>0.000</b>
<b>Std Dev</b>	<b>39.86</b>	<b>1.000</b>
107	39.68	1.460

041.20 Direct Available Phosphate		
Lab	Spectrometric	
275	40.58	-1.340
<b>Std Dev</b>	<b>40.56</b>	<b>-1.000</b>
<b>Median</b>	<b>40.49</b>	<b>0.000</b>
<b>Std Dev</b>	<b>40.41</b>	<b>1.000</b>
275	40.39	1.340

041.40 Direct Available Phosphate		
Lab	Automated	
49	40.48	-1.340
<b>Std Dev</b>	<b>40.38</b>	<b>-1.000</b>
<b>Median</b>	<b>40.10</b>	<b>0.000</b>
<b>Std Dev</b>	<b>39.82</b>	<b>1.000</b>
103	39.73	1.340

041.50 Direct Available Phosphate		
Lab	ICP	
63	40.53	-1.161
<b>Std Dev</b>	<b>40.52</b>	<b>-1.000</b>
47	40.48	-0.268
<b>Median</b>	<b>40.47</b>	<b>0.000</b>
80	40.45	0.268
<b>Std Dev</b>	<b>40.41</b>	<b>1.000</b>
66	40.32	2.591

041.60 Direct Available Phosphate		
Lab	EDTA Extract	
29	40.94	-1.340
<b>Std Dev</b>	<b>40.92</b>	<b>-1.000</b>
<b>Median</b>	<b>40.86</b>	<b>0.000</b>

<b>Std Dev</b>	<b>40.80</b>	<b>1.000</b>
219	40.78	1.340

041.XX Direct Available Phosphate		
Lab	Total Method	
29	40.94	-2.350
219	40.78	-1.520
47	40.75	-1.366
<b>Std Dev</b>	<b>40.67</b>	<b>-1.000</b>
275	40.58	-0.515
63	40.53	-0.258
47	40.48	0.000
49	40.48	0.000
<b>Median</b>	<b>40.48</b>	<b>0.000</b>
80	40.45	0.155
275	40.39	0.464
66	40.32	0.825
<b>Std Dev</b>	<b>40.29</b>	<b>1.000</b>
219	40.26	1.134
103	39.73	3.891
107	39.68	4.123

048.20 Water Soluble Phosphate		
Lab	Spectrometric	
61	36.62	-2.037
24	36.48	-1.358
61	36.48	-1.334
<b>Std Dev</b>	<b>36.41</b>	<b>-1.000</b>
43	36.38	-0.849
79	36.33	-0.606
24	36.26	-0.291
275	36.21	-0.049
<b>Median</b>	<b>36.20</b>	<b>0.000</b>
34	36.19	0.049
275	36.14	0.291
23	36.09	0.534
23	36.09	0.558
14	36.04	0.776
14	36.04	0.776
<b>Std Dev</b>	<b>35.99</b>	<b>1.000</b>
43	35.96	1.164

048.99 Water Soluble Phosphate		
Lab	Other	

32	36.32	-1.023
Std Dev	36.31	-1.000
9	36.11	0.000
Median	36.11	0.000
Std Dev	35.90	1.000
32	35.77	1.657

048.XX Water Soluble Phosphate		
Lab	Total Method	
61	36.62	-2.401
24	36.48	-1.619
61	36.48	-1.591
43	36.38	-1.033
Std Dev	36.37	-1.000
79	36.33	-0.754
32	36.32	-0.698
24	36.26	-0.391
275	36.21	-0.112
34	36.19	0.000
Median	36.19	0.000
275	36.14	0.279
9	36.11	0.475
23	36.09	0.558
23	36.09	0.586
14	36.04	0.837
14	36.04	0.837
Std Dev	36.01	1.000
43	35.96	1.284
32	35.77	2.373

050.50 %K <sub>2</sub> O Soluble Potash		
Lab	ICP(Oxalate)	
99	0.14	-2.680
Std Dev	0.12	-1.000
23	0.11	0.000
23	0.11	0.000
Median	0.11	0.000

050.99 Soluble Potash		
Lab	%K <sub>2</sub> O	Other
43	0.12	-0.399
24	0.12	0.000
24	0.12	0.000
61	0.12	0.000

Median	0.12	0.000
43	0.12	0.099
Std Dev	0.12	1.000
61	0.11	2.581
80	0.06	16.390

050.XX Soluble Potash		
Lab	%K <sub>2</sub> O	Total Method
99	0.14	-2.706
Std Dev	0.13	-1.000
43	0.12	-0.233
24	0.12	-0.026
24	0.12	-0.026
61	0.12	-0.026
Median	0.12	0.000
43	0.12	0.026
Std Dev	0.11	1.000
23	0.11	1.314
23	0.11	1.314
61	0.11	1.314
80	0.06	8.483

060.00 Free Water		
Lab	Vacuum Oven	
32	1.02	-1.121
Std Dev	1.00	-1.000
32	0.99	-0.828
24	0.98	-0.780
79	0.97	-0.633
24	0.96	-0.585
9	0.94	-0.390
310	0.93	-0.292
23	0.90	0.000
23	0.90	0.000
Median	0.90	0.000
315	0.85	0.536
34	0.84	0.585
14	0.81	0.877
Std Dev	0.80	1.000
14	0.79	1.121
43	0.68	2.193
43	0.60	2.924

060.10 Free Water		
Lab	Vacuum Desiccate	
61	0.95	-1.340
Std Dev	0.94	-1.000
Median	0.92	0.000
Std Dev	0.90	1.000
61	0.90	1.340

060.99 Free Water		
Lab	Other	
275	0.78	-1.340
Std Dev	0.77	-1.000
Median	0.76	0.000
Std Dev	0.75	1.000
275	0.74	1.340

060.XX Free Water		
Lab	Total Method	
32	1.02	-0.994
32	0.99	-0.735
24	0.98	-0.692
79	0.97	-0.562
24	0.96	-0.519
61	0.95	-0.389
9	0.94	-0.346
310	0.93	-0.259
23	0.90	0.000
23	0.90	0.000
Median	0.90	0.000
61	0.90	0.043
315	0.85	0.475
34	0.84	0.519
14	0.81	0.778
14	0.79	0.994
Std Dev	0.78	1.000
275	0.78	1.037
275	0.74	1.383
43	0.68	1.945
43	0.60	2.594

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.28	0.000
Median	0.28	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
32	0.46	-1.644
Std Dev	0.44	-1.000
9	0.44	-0.913
34	0.44	-0.913
61	0.44	-0.730
61	0.43	-0.548
32	0.43	-0.365
18	0.42	-0.183
24	0.42	-0.183
Median	0.42	0.000
23	0.41	0.183
24	0.41	0.183
23	0.41	0.365
14	0.40	0.730
43	0.39	0.795
43	0.39	0.904
Std Dev	0.39	1.000
14	0.39	1.096
315	0.36	2.009

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.26	0.000
Median	0.26	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
32	0.46	-1.774
9	0.44	-1.065
34	0.44	-1.065
Std Dev	0.44	-1.000
61	0.44	-0.887
61	0.43	-0.710
32	0.43	-0.532
18	0.42	-0.355
24	0.42	-0.355
23	0.41	0.000
24	0.41	0.000
Median	0.41	0.000
23	0.41	0.177
14	0.40	0.532

43	0.39	0.595
43	0.39	0.701
14	0.39	0.887
Std Dev	0.38	1.000
315	0.36	1.774
219	0.28	4.454
219	0.26	5.323

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	0.61	0.000
Median	0.61	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
315	1.66	-28.810
32	0.86	-2.010
34	0.84	-1.340

Std Dev	0.83	-1.000
23	0.82	-0.502
24	0.81	-0.335
23	0.81	-0.168
61	0.81	-0.167
24	0.80	0.000
32	0.80	0.000
61	0.80	0.000
Median	0.80	0.000
9	0.79	0.503
Std Dev	0.77	1.000

144.70 Sulfur		
Lab		Spectrometric
14	8.03	-1.340
Std Dev	8.02	-1.000
Median	7.98	0.000
Std Dev	7.95	1.000
14	7.94	1.340

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
219	0.61	0.000
Median	0.61	0.000

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
315	1.66	-20.953
32	0.86	-1.462
Std Dev	0.84	-1.000

34	0.84	-0.975
23	0.82	-0.365
24	0.81	-0.244
23	0.81	-0.122
61	0.81	-0.122
24	0.80	0.000
32	0.80	0.000
61	0.80	0.000
Median	0.80	0.000

9	0.79	0.365
14	0.76	0.975
Std Dev	0.76	1.000
14	0.76	1.096
43	0.72	2.071
43	0.71	2.193
219	0.61	4.641
219	0.61	4.690

144..01 Sulfate Sulfur (S)		
Lab		Gravimetric
61	5.40	-1.276
61	5.38	-1.149
Std Dev	5.35	-1.000
219	5.20	0.000
Median	5.20	0.000
79	5.17	0.191
241	5.15	0.319

144.70 Sulfur		
Lab		Spectrometric
14	8.03	-1.340
Std Dev	8.02	-1.000
Median	7.98	0.000
Std Dev	7.95	1.000
14	7.94	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
38	5.56	-2.971
43	5.39	-1.960
43	5.33	-1.562
32	5.26	-1.164
Std Dev	5.23	-1.000
23	5.16	-0.521

23	5.16	-0.521
34	5.07	0.000
275	5.07	0.000
Median	5.07	0.000
32	5.07	0.031
275	5.03	0.245
24	5.01	0.368
24	4.97	0.613
9	4.93	0.858
Std Dev	4.91	1.000
49	4.85	1.378

144.XX Sulfate Sulfur (S)		
Lab		Total Method
14	8.03	-12.427
14	7.94	-12.017
38	5.56	-1.729
61	5.40	-1.037
43	5.39	-1.016
Std Dev	5.39	-1.000
61	5.38	-0.951
43	5.33	-0.735
32	5.26	-0.454
219	5.20	-0.173
79	5.17	-0.043
23	5.16	0.000
23	5.16	0.000
Median	5.16	0.000

241	5.15	0.043
34	5.07	0.367
275	5.07	0.367
32	5.07	0.389
275	5.03	0.540
24	5.01	0.627
24	4.97	0.800
9	4.93	0.973
Std Dev	4.92	1.000
49	4.85	1.340

145.99 Total Sulfur (S)		
Lab		Other
63	11.08	-4.161
103	10.84	-2.563
9	10.62	-1.099

Std Dev	10.61	-1.000
32	10.58	-0.832
66	10.51	-0.366
49	10.46	-0.033
38	10.46	0.000
219	10.46	0.000
Median	10.46	0.000
23	10.42	0.233
23	10.38	0.499
32	10.36	0.666
Std Dev	10.30	1.000
34	10.18	1.831
315	9.55	6.026
99	9.32	7.591

145.XX Total Sulfur (S)		
Lab		Total Method
63	11.08	-4.161
103	10.84	-2.563
9	10.62	-1.099
Std Dev	10.61	-1.000
32	10.58	-0.832
66	10.51	-0.366
49	10.46	-0.033
38	10.46	0.000
219	10.46	0.000
Median	10.46	0.000
23	10.42	0.233
23	10.38	0.499
32	10.36	0.666
Std Dev	10.30	1.000
34	10.18	1.831
315	9.55	6.026
99	9.32	7.591

151.30 Total Arsenic		
Lab		ICP
43	16.75	-2.624
43	16.55	-2.546
Std Dev	12.57	-1.000
61	10.20	-0.078
9	10.00	0.000
Median	10.00	0.000
315	9.96	0.017

61	9.90	0.039
Std Dev	7.43	1.000
18	6.85	1.224

151.99 Total Arsenic		
Lab		Other
275	9.90	0.000
275	9.90	0.000
Median	9.90	0.000

151.XX Total Arsenic		
Lab		Total Method
43	16.75	-30.351
43	16.55	-29.458
61	10.20	-1.094
Std Dev	10.18	-1.000
9	10.00	-0.201
315	9.96	0.000
Median	9.96	0.000
61	9.90	0.246
275	9.90	0.246
275	9.90	0.246
Std Dev	9.73	1.000
18	6.85	13.869

181.30 Total Cadmium		
Lab	PPM	ICP
315	4.00	-4.621
61	3.30	-1.386
Std Dev	3.22	-1.000
9	3.20	-0.924
61	3.10	-0.462
18	3.00	0.000
Median	3.00	0.000
275	2.91	0.416
275	2.91	0.416
43	2.90	0.462
43	2.89	0.508

181.XX Total Cadmium		
Lab	PPM	Total Method
315	4.00	-4.621
61	3.30	-1.386
Std Dev	3.22	-1.000

9	3.20	-0.924
61	3.10	-0.462
18	3.00	0.000
Median	3.00	0.000
275	2.91	0.416
275	2.91	0.416
43	2.90	0.462
43	2.89	0.508

190.00 Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	ICP
18	1.69	-2.766
14	1.60	-1.210
32	1.60	-1.124
9	1.59	-1.037
14	1.59	-1.037
Std Dev	1.59	-1.000
34	1.56	-0.519
23	1.54	-0.086
24	1.53	0.000
24	1.53	0.000
Median	1.53	0.000
23	1.53	0.086
61	1.52	0.173
61	1.52	0.259
315	1.51	0.432
43	1.50	0.519
43	1.49	0.778
Std Dev	1.47	1.000
32	1.47	1.037

190.XX Aluminum		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Total Method
18	1.69	-2.766
14	1.60	-1.210
32	1.60	-1.124
9	1.59	-1.037
14	1.59	-1.037
Std Dev	1.59	-1.000
34	1.56	-0.519
23	1.54	-0.086
24	1.53	0.000
24	1.53	0.000
Median	1.53	0.000

23	1.53	0.086
61	1.52	0.173
61	1.52	0.259
315	1.51	0.432
43	1.50	0.519
43	1.49	0.778
Std Dev	1.47	1.000
32	1.47	1.037

191.30 Total Chromium		
Lab		ICP
9	83.00	-3.585
18	78.55	-2.006
Std Dev	75.72	-1.000
61	74.00	-0.390
315	72.90	0.000
Median	72.90	0.000
43	72.50	0.142
61	72.50	0.142
43	71.50	0.497

191.XX Total Chromium		
Lab	PPM	Total Method
9	83.00	-3.585
18	78.55	-2.006
Std Dev	75.72	-1.000
61	74.00	-0.390
315	72.90	0.000
Median	72.90	0.000
43	72.50	0.142
61	72.50	0.142
43	71.50	0.497

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
43	3.00	-1.340
43	3.00	-1.340
Std Dev	2.93	-1.000
61	2.75	-0.122
Median	2.73	0.000
18	2.70	0.122

61	2.65	0.365
Std Dev	2.52	1.000
9	2.25	2.315

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221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
9	5.00	-4.544
Std Dev	1.96	-1.000
18	1.20	-0.117
Median	1.10	0.000
43	1.00	0.117
43	1.00	0.117

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
9	5.00	-4.544
Std Dev	1.96	-1.000
18	1.20	-0.117
Median	1.10	0.000
43	1.00	0.117
43	1.00	0.117

241.30 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
32	1.18	-4.020
32	1.17	-3.685
61	1.16	-2.680
34	1.14	-1.675
Std Dev	1.13	-1.000
61	1.13	-0.670
23	1.12	-0.335
24	1.12	-0.335
14	1.12	0.000
23	1.12	0.000
43	1.12	0.000

43	1.12	0.000
Median	1.12	0.000
24	1.11	0.335
14	1.11	0.670
Std Dev	1.10	1.000
9	1.09	2.010
315	1.08	2.345

241.99	Acid Soluble Iron
Lab	%Fe <sub>2</sub> O <sub>3</sub> Other
219	1.03 0.000
Median	1.03 0.000

241.XX	Acid Soluble Iron
Lab	%Fe <sub>2</sub> O <sub>3</sub> Total Method
32	1.18 -5.360
32	1.17 -4.913
61	1.16 -3.573
34	1.14 -2.233
Std Dev	1.13 -1.000
61	1.13 -0.893
23	1.12 -0.447
24	1.12 -0.447
219	1.12 -0.089
14	1.12 0.000
23	1.12 0.000
43	1.12 0.000
43	1.12 0.000
Median	1.12 0.000
24	1.11 0.447
14	1.11 0.893
Std Dev	1.10 1.000
9	1.09 2.680
315	1.08 3.127
219	1.03 7.817

251.30	Total Lead
Lab	PPM ICP
18	3.35 -3.673
43	2.40 -1.088
Std Dev	2.37 -1.000
61	2.30 -0.816
43	2.00 0.000
Median	2.00 0.000

315	1.92	0.231
61	1.80	0.544
Std Dev	1.63	1.000
275	1.00	2.721

251.XX	Total Lead
Lab	PPM Total Method
18	3.35 -3.673
43	2.40 -1.088
Std Dev	2.37 -1.000
61	2.30 -0.816
43	2.00 0.000
Median	2.00 0.000
315	1.92 0.231
61	1.80 0.544
Std Dev	1.63 1.000
275	1.00 2.721

261.11	Acid Soluble Manganese
Lab	Atomic Absorption
219	324.70 0.000
Median	324.70 0.000

261.30	Acid Soluble Manganese
Lab	ICP
9	370.00 -1.340
Std Dev	360.99 -1.000
Median	334.50 0.000
Std Dev	308.01 1.000
315	299.00 1.340

261.99	Acid Soluble Manganese
Lab	PPM Other
43	356.00 -1.253
43	355.00 -1.219
Std Dev	348.45 -1.000
219	318.60 0.000
Median	318.60 0.000
61	315.00 0.121
61	313.50 0.171

261.XX	Acid Soluble Manganese
Lab	PPM Total Method
9	370.00 -1.595

43	356.00	-1.133
43	355.00	-1.100
Std Dev	351.97	-1.000
219	324.70	-0.101
Median	321.65	0.000
219	318.60	0.101
61	315.00	0.219
61	313.50	0.269
315	299.00	0.747

289.30	Total Molybdenum
Lab	PPM ICP

289.XX	Total Molybdenum
Lab	PPM Total Method
18	13.60 -2.144
61	13.50 -1.787
Std Dev	13.28 -1.000
43	13.00 0.000
43	13.00 0.000
61	13.00 0.000
Median	13.00 0.000
Std Dev	12.72 1.000
9	11.50 5.360

291.30	Total Nickel
Lab	ICP
9	15.50 -8.933
Std Dev	13.28 -1.000
43	13.00 0.000
61	13.00 0.000
61	13.00 0.000
Median	13.00 0.000
Std Dev	12.72 1.000

291.XX	Total Nickel
Lab	PPM Total Method
9	15.50 -8.933
Std Dev	13.28 -1.000
43	13.00 0.000
61	13.00 0.000
61	13.00 0.000
Median	13.00 0.000
Std Dev	12.72 1.000

301.30	Total Selenium
Lab	PPM ICP
61	<1.1 0.000
61	<1.1 0.000
Median	0.00 0.000

301.XX	Total Selenium
Lab	PPM Total Method
61	<1.1 0.000
61	<1.1 0.000
Median	0.00 0.000

311.99	Sodium
Lab	%Na <sub>2</sub> O Other
24	0.23 -0.648
24	0.22 -0.216
61	0.22 -0.216
61	0.22 -0.216
23	0.22 0.000
23	0.22 0.000
Median	0.22 0.000
Std Dev	0.19 1.000
43	0.19 1.124
43	0.19 1.145
315	0.17 1.945

311.XX	Sodium
Lab	%Na <sub>2</sub> O Total Method
24	0.23 -0.648
24	0.22 -0.216
61	0.22 -0.216
61	0.22 -0.216
23	0.22 0.000
23	0.22 0.000
Median	0.22 0.000
Std Dev	0.19 1.000
43	0.19 1.124
43	0.19 1.145
315	0.17 1.945

321.00	Acid Soluble Zinc
Lab	Atomic Absorption
219	0.98 -1.340



Std Dev	0.98	-1.000
Median	0.98	0.000
Std Dev	0.97	1.000
49	0.97	1.340

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
63	1.18	-2.190
Std Dev	1.09	-1.000
24	1.08	-0.883
110	1.07	-0.752
18	1.07	-0.687
24	1.06	-0.621
34	1.03	-0.229
315	1.03	-0.196
99	1.02	-0.098
23	1.02	-0.033
Median	1.01	0.000
23	1.01	0.033
61	0.98	0.425
103	0.98	0.425
61	0.98	0.490
275	0.94	0.926
275	0.94	0.952
Std Dev	0.94	1.000
43	0.89	1.665
43	0.88	1.748
9	0.85	2.065

321.99 Acid Soluble Zinc		
Lab		Other
219	0.97	0.000
Median	0.97	0.000

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
63	1.18	-4.346
24	1.08	-2.120
110	1.07	-1.898
18	1.07	-1.786
24	1.06	-1.675
34	1.03	-1.007
Std Dev	1.03	-1.000
315	1.03	-0.952

99	1.02	-0.785
23	1.02	-0.673
23	1.01	-0.562
219	0.98	0.000
Median	0.98	0.000
61	0.98	0.106
103	0.98	0.106
61	0.98	0.217
219	0.97	0.278
49	0.97	0.333
275	0.94	0.958
Std Dev	0.94	1.000
275	0.94	1.003
43	0.89	2.217
43	0.88	2.357
9	0.85	2.897

325.00 Fluoride		
Lab		Volumetric
9	1.74	0.000
Median	1.74	0.000

325.10 Fluoride		
Lab	%	Electrode
32	1.87	-0.877
32	1.85	-0.676
24	1.84	-0.576
23	1.80	-0.175
79	1.80	-0.175
23	1.80	-0.125
Median	1.78	0.000
275	1.77	0.125
24	1.75	0.326
34	1.69	0.927
14	1.64	1.478
14	1.63	1.528
275	1.61	1.728

325.99 Fluoride		
Lab	%	Other
61	1.81	-1.340
Median	1.80	0.000
61	1.79	1.340

325.XX Fluoride		
Lab	%	Total Method
32	1.87	-1.266
32	1.85	-0.968
24	1.84	-0.819
61	1.81	-0.298
23	1.80	-0.223
79	1.80	-0.223
23	1.80	-0.149
61	1.79	0.000
Median	1.79	0.000
275	1.77	0.223
24	1.75	0.521
9	1.74	0.744
34	1.69	1.414
14	1.64	2.233
14	1.63	2.308
275	1.61	2.606