

AFPC

2016-07

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, Other		001.99	13	16.86	0.07
Method Group 001.XX PCT			13	16.86	0.09
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	4	17.34	0.40
Total Nitrogen, Combustion	993.13	010.60	22	17.70	0.19
Total Nitrogen, Other		010.99	6	17.57	0.18
Method Group 010.XX PCT			32	17.62	0.24
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	3	45.82	0.10
Total Phosphate, Spectrometric	978.02	020.20	25	45.91	0.26
Total Phosphate, ICP	970.03	020.40	2	45.69	0.03
Total Phosphate, ICP, Lithium	970.02	020.50	1	45.44	0.00
Total Phosphate, Other	993.13	020.99	1	43.81	0.00
Method Group 020.XX PCT			32	45.84	0.26
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	8	0.14	0.01
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.23	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.13	0.03
Insoluble Phosphate, Other		030.99	2	0.07	0.00
Method Group 030.XX PCT			14	0.13	0.04
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	45.79	0.14
Indirect Available Phosphate, Automated	960.02	040.40	1	45.50	0.00
Indirect Available Phosphate, Other		040.99	1	45.78	0.00
Method Group 040.XX PCT			13	45.78	0.15
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	45.70	0.03
Direct Available Phosphate, Spectrometric	960.03D	041.20	3	46.09	0.15
Direct Available Phosphate, Automated	978.01	041.40	1	45.20	0.00
Direct Available Phosphate, ICP		041.50	3	46.53	0.48
Direct Available Phosphate, EDTA Extract	993.01	041.60	5	45.75	0.10
Method Group 041.XX PCT			14	45.75	0.43
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	17	40.81	0.96
Water Soluble Phosphate, Other		048.99	5	41.04	0.34
Method Group 048.XX PCT			22	40.84	1.05
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.10	0.01
Soluble Potash, Other		050.99	8	0.11	0.01
Method Group 050.XX PCT			11	0.11	0.01
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	18	2.77	0.24
Free Water, Other		060.99	6	2.50	0.09
Method Group 060.XX PCT			24	2.71	0.33
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.19	0.00
Acid Soluble Calcium, ICP		101.30	17	0.29	0.02
Acid Soluble Calcium, Other		101.99	1	0.19	0.00
Method Group 101.XX PCT			19	0.28	0.03
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.42	0.00
Acid Soluble Magnesium, ICP		121.30	17	1.39	0.09
Acid Soluble Magnesium, Other		121.99	1	1.00	0.00
Method Group 121.XX PCT			19	1.39	0.13
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	1	1.85	0.00

Method Group 131.XX PCT			1	1.85	0.00
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	2	1.28	0.02
Sulfur, Spectrometric		144.70	2	1.23	0.00
Sulfur, Other		144.99	13	1.24	0.02
Method Group 144.XX PCT			17	1.24	0.02
TOTAL SULFUR (S)					
Sulfur, Other		145.99	4	1.73	0.2
Method Group 145.XX PCT			4	1.73	0.2
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	8	14.0	2.5
Total Arsenic, Other		151.99	2	16.8	0.3
Method Group 151.XX PPM			10	15.5	3.6
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	40	0.0
Method Group 165.XX PPM			1	40	0.0
TOTAL CADMIUM					
Total Cadmium, Atomic Absorbtion		181.00	1	6	0.0
Total Cadmium, ICP		181.30	10	4.3	1.7
Total Cadmium, Other		181.99	1	3.7	0.0
Method Group 181.XX PPM			12	4.3	1.9
ALUMINUM AS Al₂O₃					
ICP, %			18	1.40	0.05
Water Soluble Chlorine, Other, %		190.99	2	1.47	0.07
Method Group 190.XX PCT			20	1.40	0.06
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	10	104	4.6
Total Chromium, Other		191.99	1	105	0.0
Method Group 191.XX PPM			11	105	4.5
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	6	4	0.6
Acid Soluble Cobalt, Other		202.99	1	4	0.0
Method Group 202.XX PPM			7	4	0.6
ACID SOLUBLE COPPER					
Acid Soluble Copper, ICP		221.30	5	1.0	16.4
Acid Soluble Copper, Other		221.99	1	5.0	0.0
Method Group 221.XX PPM			4	1.4	10.5
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	19	1.85	0.04
Acid Soluble Iron, Other		241.99	2	1.73	0.15
Method Group 241.XX PCT			22	1.85	0.05
TOTAL LEAD					
Total Lead, Atomic Absorbtion		251.00	1	2	0.0
Total Lead, ICP		251.30	5	2	0.6
Total Lead, Other		251.99	1	1.3	0.0
Method Group 251.XX PPM			7	2	0.6
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	3	266	22.9
Acid Soluble Manganese, Other		261.99	7	284	8.8
Method Group 261.XX PPM			10	280	16.2
TOTAL MERCURY					
Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			1	0.03	0.00
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	6	9	1.4
Total Molybdenum, Other		289.99	1	10	0.0
Method Group 289.XX PPM			7	9	1.6
TOTAL NICKEL					
Total Nickel, ICP		291.30	5	16.0	0.4
Total Nickel, icp		291.99	1	17.4	0.0
Method Group 291.XX PPM			6	16.3	1.0
TOTAL SELENIUM					

Total Selenium, ICP	301.30		2	0.1	0.1
Total Selenium, Other	301.99		1		0.0
Method Group 301.XX PPM			3	0.0	0.1
SODIUM AS Na₂O					
Sodium, Atomic Absorbtion	983.04	311.00	1		0.00
Sodium, Other		311.99	9	0.20	0.02
Method Group 311.XX PCT			10	0.20	0.03
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	47.8	0.0
Acid Soluble Zinc, ICP		321.30	5	47.5	9.1
Acid Soluble Zinc, Other		321.99	4	43.8	1.9
Method Group 321.XX %			10	45.8	5.3
FLUORIDE					
Volumetric	325.10		11	2.03	0.24
Distilled/Electrode	325.99		5	2.04	0.02
Method Group 325.XX PCT			16	2.03	0.12

001.99 Ammoniacal Nitrogen		
Lab		Other
330	17.51	-9.168
113	17.24	-5.431
310	17.03	-2.468
Std Dev	16.93	-1.000
34	16.92	-0.917
61	16.92	-0.846
32	16.86	-0.071
24	16.86	0.000
Median	16.86	0.000
79	16.86	0.000
24	16.83	0.353
140	16.83	0.423
32	16.81	0.635
Std Dev	16.78	1.000
61	16.73	1.763
38	16.48	5.289

001.XX Ammoniacal Nitrogen		
Lab		Total Method
330	17.51	-9.168
113	17.24	-5.431
310	17.03	-2.468
Std Dev	16.93	-1.000
34	16.92	-0.917
61	16.92	-0.846
32	16.86	-0.071
24	16.86	0.000
Median	16.86	0.000
79	16.86	0.000
24	16.83	0.353
140	16.83	0.423
32	16.81	0.635
Std Dev	16.78	1.000
61	16.73	1.763
38	16.48	5.289

010.11 Total Nitrogen		
Lab		Modified Comprehensive
113	17.76	-1.075
Std Dev	17.73	-1.000
219	17.58	-0.607
Median	17.34	0.000

43	17.10	0.607
43	17.08	0.645

010.60 Total Nitrogen		
Lab		Combustion
61	18.32	-3.185
111	18.20	-2.589
14	17.98	-1.450
14	17.93	-1.191
315	17.91	-1.088
Std Dev	17.89	-1.000
66	17.84	-0.699
47	17.79	-0.440
49	17.78	-0.388
24	17.77	-0.363
31	17.75	-0.259
80	17.75	-0.259
Median	17.70	0.000
29	17.65	0.259
9	17.63	0.388
219	17.61	0.443
79	17.61	0.492
9	17.59	0.570
24	17.56	0.751
63	17.54	0.829
Std Dev	17.51	1.000
77	17.46	1.269
110	17.42	1.476
99	17.35	1.813
103	17.30	2.071

010.99 Total Nitrogen		
Lab		Other
23	17.72	-0.829
23	17.71	-0.774
38	17.60	-0.193
Median	17.57	0.000
140	17.53	0.193
32	17.41	0.884
Std Dev	17.38	1.000
32	17.32	1.354

010.XX Total Nitrogen		
Lab		Total Method

61	18.32	-3.583
111	18.20	-2.991
14	17.98	-1.857
14	17.93	-1.599
315	17.91	-1.496
66	17.84	-1.109
Std Dev	17.81	-1.000
47	17.79	-0.852
49	17.78	-0.800
24	17.77	-0.774
113	17.76	-0.723
31	17.75	-0.671
80	17.75	-0.671
23	17.72	-0.491
23	17.71	-0.439
29	17.65	-0.156
9	17.63	-0.027
Median	17.62	0.000
219	17.61	0.027
79	17.61	0.076
38	17.60	0.102
9	17.59	0.153
219	17.58	0.231
24	17.56	0.334
63	17.54	0.411
140	17.53	0.463
77	17.46	0.849
Std Dev	17.43	1.000
110	17.42	1.055
32	17.41	1.107
99	17.35	1.390
32	17.32	1.545
103	17.30	1.648
43	17.10	2.704
43	17.08	2.782

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
241	45.96	-1.340
Std Dev	45.92	-1.000
310	45.82	0.000
Median	45.82	0.000
Std Dev	45.72	1.000
219	45.68	1.340

020.20 Total Phosphate		
Lab		Spectrometric
31	47.28	-5.152
275	46.24	-1.246
275	46.22	-1.170
Std Dev	46.17	-1.000
140	46.13	-0.830
99	46.12	-0.793
113	46.12	-0.793
315	46.10	-0.717
43	46.00	-0.340
61	45.98	-0.264
14	45.97	-0.226
61	45.96	-0.170
24	45.92	-0.019
14	45.91	0.000
Median	45.91	0.000
24	45.86	0.189
34	45.85	0.226
9	45.80	0.415
23	45.77	0.547
43	45.77	0.547
9	45.75	0.623
32	45.74	0.661
23	45.71	0.755
Std Dev	45.65	1.000
32	45.63	1.057
79	45.58	1.265
110	45.00	3.435
111	44.47	5.435

020.40 Total Phosphate		
Lab		Automated
219	45.73	-1.340
Std Dev	45.72	-1.000
Median	45.69	0.000
Std Dev	45.66	1.000
9	45.66	1.340

020.50 Total Phosphate		
Lab		ICP
111	45.44	0.000
Median	45.44	0.000

020.99 Total Phosphate		
Lab		Other
330	43.81	0.000
Median	43.81	0.000

020.XX Total Phosphate		
Lab		Total Method
31	47.28	-6.830
275	46.24	-1.921
275	46.22	-1.826
140	46.13	-1.399
99	46.12	-1.352
113	46.12	-1.352
315	46.10	-1.257
Std Dev	46.05	-1.000
43	46.00	-0.783
61	45.98	-0.688
14	45.97	-0.640
241	45.96	-0.593
61	45.96	-0.569
24	45.92	-0.379
14	45.91	-0.356
24	45.86	-0.119
34	45.85	-0.071
Median	45.84	0.000
310	45.82	0.071
9	45.80	0.166
23	45.77	0.332
43	45.77	0.332
9	45.75	0.427
32	45.74	0.474
219	45.73	0.498
23	45.71	0.593
219	45.68	0.735
9	45.66	0.854
32	45.63	0.972
Std Dev	45.62	1.000
79	45.58	1.233
111	45.44	1.897
110	45.00	3.961
111	44.47	6.475
330	43.81	9.605

030.20 Insoluble Phosphate		
Lab		Spectrometric
61	0.19	-3.573
113	0.16	-1.787
Std Dev	0.15	-1.000
23	0.14	-0.357
140	0.14	-0.357
Median	0.14	0.000
23	0.13	0.357
24	0.13	0.357
Std Dev	0.12	1.000
24	0.12	1.429
61	0.11	1.787

030.30 Insoluble Phosphate		
Lab		Alka. Quimociac
31	0.23	0.000
Median	0.23	0.000

030.40 Insoluble Phosphate		
Lab		Automated
9	0.16	-1.005
Std Dev	0.16	-1.000
9	0.13	0.000
Median	0.13	0.000
Std Dev	0.10	1.000
34	0.08	1.675

030.99 Insoluble Phosphate		
Lab		Other
32	0.07	-1.340
Std Dev	0.07	-1.000
Median	0.07	0.000
Std Dev	0.06	1.000
32	0.06	1.340

030.XX Insoluble Phosphate		
Lab		Total Method
31	0.23	-3.063
61	0.19	-1.685
Std Dev	0.16	-1.000
9	0.16	-0.919
113	0.16	-0.919
23	0.14	-0.306

140	0.14	-0.306
9	0.13	0.000
23	0.13	0.000
24	0.13	0.000
Median	0.13	0.000
24	0.12	0.459
61	0.11	0.613
Std Dev	0.10	1.000
34	0.08	1.531
32	0.07	1.838
32	0.06	2.144

040.20 Indirect Available Phosphate		
Lab		Spectrometric
31	47.05	-9.252
113	45.96	-1.285
Std Dev	45.92	-1.000
61	45.85	-0.441
61	45.80	-0.073
140	45.80	-0.073
24	45.79	0.000
Median	45.79	0.000
24	45.75	0.294
Std Dev	45.65	1.000
9	45.64	1.065
23	45.64	1.101
9	45.62	1.248
23	45.57	1.579

040.40 Indirect Available Phosphate		
Lab		Automated
9	45.50	0.000
Median	45.50	0.000

040.99 Indirect Available Phosphate		
Lab		Other
34	45.78	0.000
Median	45.78	0.000

040.XX Indirect Available Phosphate		
Lab		Total Method
31	47.05	-10.594
113	45.96	-1.508
Std Dev	45.90	-1.000

61	45.85	-0.544
61	45.80	-0.126
140	45.80	-0.126
24	45.79	-0.042
34	45.78	0.000
Median	45.78	0.000
24	45.75	0.293
Std Dev	45.66	1.000
9	45.64	1.173
23	45.64	1.214
9	45.62	1.382
23	45.57	1.759
9	45.50	2.387

041.10 Direct Available Phosphate		
Lab		Gravimetric Quimociac
219	45.74	-1.340
Std Dev	45.73	-1.000
Median	45.70	0.000
Std Dev	45.66	1.000
47	45.65	1.340

041.20 Direct Available Phosphate		
Lab		Spectrometric
275	46.15	-0.373
275	46.09	0.000
Median	46.09	0.000
Std Dev	45.95	1.000
38	45.75	2.307

041.40 Direct Available Phosphate		
Lab		Automated
49	45.20	0.000
Median	45.20	0.000

041.50 Direct Available Phosphate		
Lab		ICP
80	46.75	-0.461
63	46.53	0.000
Median	46.53	0.000
Std Dev	46.05	1.000
66	45.47	2.219

041.60 Direct Available Phosphate		
Lab	EDTA Extract	
29	46.24	-4.738
Std Dev	45.85	-1.000
64	45.82	-0.718
219	45.75	0.000
Median	45.75	0.000
77	45.68	0.622
Std Dev	45.64	1.000
103	44.85	8.566

041.XX Direct Available Phosphate		
Lab	Total Method	
80	46.75	-2.803
63	46.53	-2.186
29	46.24	-1.374
275	46.15	-1.120
Std Dev	46.11	-1.000
275	46.09	-0.966
64	45.82	-0.197
38	45.75	-0.013
Median	45.75	0.000
219	45.75	0.013
219	45.74	0.027
77	45.68	0.195
47	45.65	0.279
66	45.47	0.784
Std Dev	45.39	1.000
49	45.20	1.540
103	44.85	2.521

048.20 Water Soluble Phosphate		
Lab	Spectrometric	
31	42.13	-1.372
Std Dev	41.77	-1.000
113	41.33	-0.541
9	41.29	-0.499
9	41.11	-0.312
23	41.08	-0.275
23	41.07	-0.270
24	40.99	-0.187
24	40.88	-0.068
61	40.81	0.000
Median	40.81	0.000

140	40.74	0.073
61	40.74	0.073
275	39.95	0.897
Std Dev	39.85	1.000
275	39.79	1.065
14	39.13	1.752
14	39.09	1.788
111	39.01	1.871
330	37.11	3.852

048.99 Water Soluble Phosphate		
Lab	Other	
39	44.87	-11.265
Std Dev	41.38	-1.000
32	41.20	-0.456
32	41.04	0.000
Median	41.04	0.000
34	40.74	0.884
Std Dev	40.70	1.000
111	39.94	3.240

048.XX Water Soluble Phosphate		
Lab	Total Method	
39	44.87	-4.649
31	42.13	-1.488
Std Dev	41.71	-1.000
113	41.33	-0.563
9	41.29	-0.517
32	41.20	-0.407
9	41.11	-0.309
23	41.08	-0.269
23	41.07	-0.263
32	41.04	-0.228
24	40.99	-0.170
24	40.88	-0.038
Median	40.84	0.000
61	40.81	0.038
34	40.74	0.118
140	40.74	0.118
61	40.74	0.118
Std Dev	39.98	1.000
275	39.95	1.034
111	39.94	1.043
275	39.79	1.221

14	39.13	1.985
14	39.09	2.026
111	39.01	2.118
330	37.11	4.320

050.50 %K ₂ O Soluble Potash		
Lab	ICP(Oxalate)	
23	0.11	-0.536
23	0.10	0.000
Median	0.10	0.000
Std Dev	0.09	1.000
99	0.08	2.144

050.99 Soluble Potash		
Lab	%K ₂ O	Other
24	0.12	-1.328
111	0.12	-1.328
Std Dev	0.12	-1.000
61	0.12	-0.437
61	0.12	-0.437
Median	0.11	0.000
43	0.11	0.437
43	0.11	0.458
Std Dev	0.11	1.000
24	0.11	1.347
80	0.10	2.238

050.XX Soluble Potash		
Lab	%K ₂ O	Total Method
24	0.12	-1.074
111	0.12	-1.074
Std Dev	0.12	-1.000
61	0.12	-0.538
61	0.12	-0.538
43	0.11	-0.013
43	0.11	0.000
Median	0.11	0.000
23	0.11	0.534
24	0.11	0.534
Std Dev	0.10	1.000
23	0.10	1.070
80	0.10	1.070
99	0.08	3.214

060.00 Free Water		
Lab	Vacuum Oven	
140	3.26	-2.031
32	3.11	-1.412
32	3.11	-1.412
79	3.05	-1.165
Std Dev	3.01	-1.000
9	2.99	-0.917
9	2.88	-0.443
24	2.85	-0.340
111	2.81	-0.175
24	2.80	-0.113
Median	2.77	0.000
23	2.74	0.113
34	2.73	0.155
43	2.73	0.175
23	2.69	0.340
61	2.62	0.608
Std Dev	2.52	1.000
43	2.51	1.082
61	2.30	1.928
113	2.22	2.278
31	1.49	5.267

060.99 Free Water		
Lab	Other	
275	2.62	-1.260
Std Dev	2.59	-1.000
330	2.54	-0.402
310	2.53	-0.348
Median	2.50	0.000
275	2.47	0.348
Std Dev	2.40	1.000
14	2.39	1.152
14	2.34	1.742

060.XX Free Water		
Lab	Total Method	
140	3.26	-2.059
32	3.11	-1.502
32	3.11	-1.502
79	3.05	-1.280
9	2.99	-1.057
Std Dev	2.97	-1.000

9	2.88	-0.631
24	2.85	-0.538
111	2.81	-0.389
24	2.80	-0.334
23	2.74	-0.130
34	2.73	-0.093
43	2.73	-0.074
Median	2.71	0.000
23	2.69	0.074
61	2.62	0.315
275	2.62	0.334
330	2.54	0.631
310	2.53	0.649
43	2.51	0.742
275	2.47	0.890
Std Dev	2.44	1.000
14	2.39	1.168
14	2.34	1.372
61	2.30	1.502
113	2.22	1.818
31	1.49	4.507

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.19	0.000
Median	0.19	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
61	0.31	-1.340
24	0.31	-1.072
32	0.31	-1.072
61	0.31	-1.072
Std Dev	0.30	-1.000
14	0.30	-0.804
34	0.30	-0.804
32	0.29	-0.268
24	0.29	-0.268
23	0.29	0.000
Median	0.29	0.000
23	0.28	0.268
31	0.28	0.268
9	0.28	0.536
111	0.28	0.536

9	0.27	0.804
Std Dev	0.27	1.000
43	0.27	1.019
14	0.27	1.072
43	0.26	1.195

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.19	0.000
Median	0.19	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
61	0.31	-1.256
24	0.31	-1.047
32	0.31	-1.047
61	0.31	-1.047
Std Dev	0.30	-1.000
14	0.30	-0.837
34	0.30	-0.837
32	0.29	-0.419
24	0.29	-0.419
23	0.29	-0.209
23	0.28	0.000
31	0.28	0.000
Median	0.28	0.000
9	0.28	0.209
111	0.28	0.209
9	0.27	0.419
43	0.27	0.587
14	0.27	0.628
43	0.26	0.724
Std Dev	0.26	1.000
219	0.19	3.622
219	0.19	3.642

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.42	0.000
Median	1.42	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
111	1.47	-0.893

24	1.44	-0.614
34	1.43	-0.503
24	1.42	-0.391
23	1.41	-0.223
23	1.40	-0.168
32	1.40	-0.168
32	1.40	-0.168
9	1.39	0.000
Median	1.39	0.000
9	1.37	0.167
61	1.37	0.223
Std Dev	1.30	1.000
14	1.30	1.005
14	1.29	1.117
61	1.25	1.508
43	1.22	1.898
43	1.21	2.010
31	1.06	3.629

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
330	1.00	0.000
Median	1.00	0.000

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
111	1.47	-0.739
24	1.44	-0.508
34	1.43	-0.416
219	1.42	-0.328
24	1.42	-0.323
23	1.41	-0.185
23	1.40	-0.139
32	1.40	-0.139
32	1.40	-0.139
9	1.39	0.000
Median	1.39	0.000
9	1.37	0.139
61	1.37	0.185
14	1.30	0.832
14	1.29	0.924
Std Dev	1.28	1.000
61	1.25	1.248
43	1.22	1.571

43	1.21	1.663
31	1.06	3.003
330	1.00	3.558

144.01 Sulfate Sulfur (S)		
Lab	Gravimetric	
241	1.31	-1.340
Std Dev	1.30	-1.000
Median	1.28	0.000
Std Dev	1.26	1.000
79	1.25	1.340

144.70 Sulfur		
Lab	Spectrometric	
14	1.23	-1.340
Std Dev	1.23	-1.000
Median	1.23	0.000
Std Dev	1.23	1.000
14	1.23	1.340

144.99 Sulfate Sulfur (S)		
Lab	Other	
330	1.57	-17.956
31	1.36	-6.432
9	1.26	-1.340
Std Dev	1.25	-1.000
9	1.25	-0.804
24	1.25	-0.536
34	1.24	-0.268
23	1.24	0.000
23	1.24	0.000
32	1.24	0.000
Median	1.24	0.000
32	1.23	0.536
24	1.22	0.804
Std Dev	1.22	1.000
275	1.15	4.706
275	1.14	5.253

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
330	1.57	-17.956
31	1.36	-6.432
241	1.31	-4.020

9	1.26	-1.340
Std Dev	1.25	-1.000
9	1.25	-0.804
79	1.25	-0.804
24	1.25	-0.536
34	1.24	-0.268
23	1.24	0.000
23	1.24	0.000
32	1.24	0.000
Median	1.24	0.000
14	1.23	0.268
14	1.23	0.536
32	1.23	0.536
24	1.22	0.804
Std Dev	1.22	1.000
275	1.15	4.706
275	1.14	5.253

145.99 Total Sulfur (S)		
Lab		Other
330	1.93	-1.050
Std Dev	1.92	-1.000
43	1.78	-0.274
Median	1.73	0.000
43	1.68	0.274
Std Dev	1.55	1.000
111	1.24	2.666

145.XX Total Sulfur (S)		
Lab		Total Method
330	1.93	-1.050
Std Dev	1.92	-1.000
43	1.78	-0.274
Median	1.73	0.000
43	1.68	0.274
Std Dev	1.55	1.000
111	1.24	2.666

151.30 Total Arsenic		
Lab		ICP
64	17.40	-1.368
61	17.00	-1.209
Std Dev	16.48	-1.000
24	15.90	-0.766

113	15.10	-0.443
Median	14.00	0.000
43	12.90	0.443
43	12.90	0.443
31	12.70	0.524
Std Dev	11.52	1.000
111	5.50	3.426

151.99 Total Arsenic		
Lab		Other
275	17.28	-1.340
Std Dev	17.17	-1.000
Median	16.83	0.000
Std Dev	16.50	1.000
275	16.38	1.340

151.XX Total Arsenic		
Lab		Total Method
64	17.40	-0.644
275	17.28	-0.605
61	17.00	-0.509
275	16.38	-0.299
24	15.90	-0.136
Median	15.50	0.000
113	15.10	0.136
43	12.90	0.883
43	12.90	0.883
31	12.70	0.951
Std Dev	12.56	1.000
111	5.50	3.396

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	40.20	0.000
Median	40.20	0.000

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	40.20	0.000
Median	40.20	0.000

181.00 Total Cadmium		
Lab		Atomic Absorbion
330	6.15	0.000

Median	6.15	0.000
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181.30 Total Cadmium		
Lab	PPM	ICP
43	101.00	-57.990
43	101.00	-57.990
Std Dev	5.99	-1.000
275	5.53	-0.724
275	5.29	-0.578
315	4.40	-0.045
Median	4.33	0.000
113	4.25	0.045
64	3.95	0.225
111	3.00	0.795
Std Dev	2.66	1.000
61	2.00	1.395
61	2.00	1.395

181.99 Total Cadmium		
Lab		Other
24	3.73	0.000
Median	3.73	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
43	101.00	-60.455
43	101.00	-60.455
330	6.15	-1.141
Std Dev	5.92	-1.000
275	5.53	-0.755
275	5.29	-0.603
315	4.40	-0.047
Median	4.33	0.000
113	4.25	0.047
64	3.95	0.235
24	3.73	0.375
111	3.00	0.829
Std Dev	2.73	1.000
61	2.00	1.454
61	2.00	1.454

190.00 Aluminum		
Lab	%Al ₂ O ₃	ICP
275	1.48	-1.738

32	1.47	-1.473
9	1.45	-1.080
9	1.45	-1.080
Std Dev	1.45	-1.000
275	1.43	-0.707
32	1.43	-0.687
14	1.41	-0.295
14	1.41	-0.196
34	1.40	-0.098
Median	1.40	0.000
24	1.39	0.098
24	1.38	0.295
61	1.38	0.393
23	1.37	0.491
23	1.36	0.687
43	1.35	0.982
Std Dev	1.34	1.000
43	1.34	1.080
61	1.34	1.080
111	0.96	8.639

190.99 Aluminum		
Lab	%Al ₂ O ₃	Atomic Absorption
31	1.57	-1.340
Std Dev	1.54	-1.000
Median	1.47	0.000
Std Dev	1.40	1.000
330	1.37	1.340

190.XX Aluminum		
Lab	%Al ₂ O ₃	Total Method
31	1.57	-3.436
275	1.48	-1.738
32	1.47	-1.473
9	1.45	-1.080
9	1.45	-1.080
Std Dev	1.45	-1.000
275	1.43	-0.707
32	1.43	-0.687
14	1.41	-0.295
14	1.41	-0.196
34	1.40	-0.098
Median	1.40	0.000
24	1.39	0.098

24	1.38	0.295
61	1.38	0.393
23	1.37	0.491
330	1.37	0.491
23	1.36	0.687
43	1.35	0.982
Std Dev	1.34	1.000
43	1.34	1.080
61	1.34	1.080
111	0.96	8.639

191.30 Total Chromium ICP		
Lab	PPM	ICP
275	115.58	-2.544
275	110.40	-1.405
Std Dev	108.55	-1.000
64	108.28	-0.941
61	105.50	-0.330
61	104.50	-0.110
Median	104.00	0.000
111	103.50	0.110
113	102.95	0.231
43	101.00	0.659
43	101.00	0.659
Std Dev	99.45	1.000
31	87.40	3.648

191.99 Total Chromium Other		
Lab	PPM	Other
24	105.00	0.000
Median	105.00	0.000

191.XX Total Chromium Total Method		
Lab	PPM	Total Method
275	115.58	-3.019
275	110.40	-1.607
64	108.28	-1.031
Std Dev	108.17	-1.000
61	105.50	-0.273
24	105.00	-0.136
61	104.50	0.000
Median	104.50	0.000
111	103.50	0.273
113	102.95	0.423

43	101.00	0.954
43	101.00	0.954
Std Dev	100.83	1.000
31	87.40	4.662

202.30 Acid Soluble Cobalt ICP		
Lab	PPM	ICP
64		

202.99 Acid Soluble Cobalt Other		
Lab	PPM	Other
24	4.25	0.000
Median	4.25	0.000

202.XX Acid Soluble Cobalt Total Method		
Lab	PPM	Total Method
64	5.00	-2.144
Std Dev	4.47	-1.000
24	4.25	-0.536
43	4.00	0.000
43	4.00	0.000
61	4.00	0.000
Median	4.00	0.000
Std Dev	3.53	1.000
61	3.00	2.144
111	3.00	2.144

221.00 Acid Soluble Copper Atomic Absorption		
Lab	PPM	Atomic Absorption
219	1.92	0.000
Median	1.92	0.000

221.30 Acid Soluble Copper ICP		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
111	45.00	-2.680
Std Dev	17.42	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000

221.99 Acid Soluble Copper Other		
Lab	PPM	Other
24	1.73	0.000

Median	1.73	0.000
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221.XX Acid Soluble Copper Total Method		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
111	45.00	-5.065
Std Dev	9.98	-1.000
24	1.73	-0.042
Median	1.36	0.000
43	1.00	0.042
43	1.00	0.042

241.30 Acid Soluble Iron ICP		
Lab	%Fe ₂ O ₃	ICP
275	1.89	-1.171
Std Dev	1.88	-1.000
24	1.88	-0.987
32	1.88	-0.987
34	1.88	-0.987
14	1.87	-0.705
111	1.87	-0.705
275	1.86	-0.513
32	1.86	-0.282
9	1.85	-0.141
14	1.85	0.000
Median	1.85	0.000
9	1.84	0.141
24	1.84	0.282
23	1.83	0.423
61	1.83	0.564
23	1.82	0.705
Std Dev	1.81	1.000
43	1.77	2.116
43	1.77	2.116
61	1.77	2.116
31	1.26	16.644

241.99 Acid Soluble Iron Other		
Lab	%Fe ₂ O ₃	Other
219	1.93	-1.340
Std Dev	1.88	-1.000
Median	1.73	0.000
Std Dev	1.58	1.000

330	1.54	1.340
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241.XX Acid Soluble Iron Total Method		
Lab	%Fe ₂ O ₃	Total Method
219	1.93	-1.894
219	1.92	-1.668
Std Dev	1.89	-1.000
275	1.89	-0.929
24	1.88	-0.774
32	1.88	-0.774
34	1.88	-0.774
14	1.87	-0.536
111	1.87	-0.536
275	1.86	-0.374
32	1.86	-0.179
9	1.85	-0.060
Median	1.85	0.000
14	1.85	0.060
9	1.84	0.179
24	1.84	0.298
23	1.83	0.417
61	1.83	0.536
23	1.82	0.655
Std Dev	1.81	1.000
43	1.77	1.846
43	1.77	1.846
61	1.77	1.846
330	1.54	7.444
31	1.26	14.115

251.00 Total Lead Atomic Absorption		
Lab	PPM	Atomic Absorption
330	1.92	0.000
Median	1.92	0.000

251.30 Total Lead ICP		
Lab	PPM	ICP
61	<0.5	0.000
61	<0.5	0.000
43	2.00	-0.344
315	1.85	-0.086
43	1.80	0.000
Median	1.80	0.000
Std Dev	1.22	1.000

113 1.07 1.254
111 0.00 3.096

251.99		Total Lead	
Lab	PPM	Other	Total Method
24	1.35		0.000
Median	1.35		0.000

251.XX		Total Lead	
Lab	PPM	Other	Total Method
61	<0.5		0.000
61	<0.5		0.000
43	2.00		-0.397
330	1.92		-0.228
315	1.85		-0.099
43	1.80		0.000
Median	1.80		0.000
24	1.35		0.904
Std Dev	1.30		1.000
113	1.07		1.448
111	0.00		3.576

261.30		Acid Soluble Manganese	
Lab	PPM	ICP	Total Method
31	313.05		-2.075
Std Dev	288.41		-1.000
111	265.50		0.000
Median	265.50		0.000
315	251.65		0.605

261.99		Acid Soluble Manganese	
Lab	PPM	Other	Total Method
219	295.75		-1.391
Std Dev	292.31		-1.000
219	284.10		-0.068
43	284.00		-0.057
43	283.50		0.000
Median	283.50		0.000
24	276.00		0.852
Std Dev	274.69		1.000
61	268.50		1.703
61	264.50		2.158

261.XX		Acid Soluble Manganese	
Lab	PPM	Other	Total Method
31	313.05		-2.503
219	295.75		-1.203
Std Dev	293.05		-1.000
219	284.10		-0.327
43	284.00		-0.319
43	283.50		-0.282
Median	279.75		0.000
24	276.00		0.282
61	268.50		0.846
Std Dev	266.45		1.000
111	265.50		1.071
61	264.50		1.146
315	251.65		2.112

281.30		Total Mercury	
Lab	PPM	ICP	Total Method
24	0.03		0.000
Median	0.03		0.000

281.XX		Total Mercury	
Lab	PPM	ICP	Total Method
24	0.03		0.000
Median	0.03		0.000

289.30		Total Molybdenum	
Lab	PPM	ICP	Total Method
111			

289.99		Total Molybdenum	
Lab	PPM	Other	Total Method
24	10.15		0.000
Median	10.15		0.000

289.XX		Total Molybdenum	
Lab	PPM	Other	Total Method
24	10.15		-0.942
111	10.00		-0.829
64	9.96		-0.795
43	8.90		0.000
43	8.90		0.000
Median	8.90		0.000
Std Dev	7.57		1.000
61	7.50		1.055

61 5.50 2.563

291.30		Total Nickel	
Lab	PPM	Other	Total Method
64			

291.99		Total Nickel	
Lab	PPM	Other	Total Method
24	17.40		0.000
Median	17.40		0.000

291.XX		Total Nickel	
Lab	PPM	Other	Total Method
24	17.40		-1.425
64	17.28		-1.270
Std Dev	17.06		-1.000
61	16.50		-0.310
Median	16.25		0.000
43	16.00		0.310
43	16.00		0.310
61	16.00		0.310

301.30		Total Selenium	
Lab	PPM	ICP	Total Method
24	0.18		-1.340
Std Dev	0.15		-1.000
Median	0.09		0.000
Std Dev	0.02		1.000
111	0.00		1.340

301.99		Total Selenium	
Lab	PPM	Other	Total Method
61	0.00		0.000
Median	0.00		0.000

301.XX		Total Selenium	
Lab	PPM	Other	Total Method
24	0.18		-2.680
Std Dev	0.07		-1.000
61	0.00		0.000
111	0.00		0.000
Median	0.00		0.000

311.00		Sodium	
Lab	%Na ₂ O	Other	Total Method

330 0.00 0.000
Median 0.00 0.000

311.99		Sodium	
Lab	%Na ₂ O	Other	Total Method
23	0.21		-0.536
24	0.21		-0.536
24	0.21		-0.536
111	0.21		-0.268
23	0.20		0.000
61	0.20		0.000
Median	0.20		0.000
61	0.19		0.804
Std Dev	0.18		1.000
43	0.17		1.645
43	0.17		1.855

311.XX		Sodium	
Lab	%Na ₂ O	Other	Total Method
23	0.21		-0.377
24	0.21		-0.377
24	0.21		-0.377
111	0.21		-0.189
23	0.20		0.000
61	0.20		0.000
Median	0.20		0.000
61	0.19		0.566
Std Dev	0.17		1.000
43	0.17		1.158
43	0.17		1.305
330	0.00		7.546

321.00		Acid Soluble Zinc	
Lab	PPM	Atomic Absorption	Total Method
219	47.76		0.000
Median	47.76		0.000

321.30		Acid Soluble Zinc	
Lab	PPM	ICP	Total Method
111	111.50		-7.021
Std Dev	56.62		-1.000
64	55.22		-0.846
24	47.50		0.000
Median	47.50		0.000

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61 43.00 0.494
 61 41.50 0.658

321.99 Acid Soluble Zinc		
Lab		Other
219	49.33	-2.942
Std Dev	45.65	-1.000
43	44.00	-0.132
Median	43.75	0.000
43	43.50	0.132
Std Dev	41.85	1.000
330	40.67	1.627

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
111	111.50	-15.158
64	55.22	-2.182
Std Dev	50.09	-1.000
219	49.33	-0.825
219	47.76	-0.463
24	47.50	-0.403
Median	45.75	0.000
43	44.00	0.403
43	43.50	0.519
61	43.00	0.634
61	41.50	0.980
Std Dev	41.41	1.000
330	40.67	1.172

325.10 Fluoride		
Lab	%	Electrode
32	2.18	-0.638
32	2.13	-0.425
23	2.07	-0.170
23	2.07	-0.149
24	2.05	-0.064
34	2.03	0.000
Median	2.03	0.000
24	2.02	0.064
31	1.84	0.808
14	1.67	1.553
14	1.65	1.638
111	0.44	6.785

325.99 Fluoride		
Lab	%	Other
9	2.12	-3.797
9	2.06	-0.893
61	2.04	0.000
Median	2.04	0.000
61	2.03	0.447
330	1.97	2.903

325.XX Fluoride		
Lab	%	Total Method
32	2.18	-1.535
32	2.13	-1.015
9	2.12	-0.911
23	2.07	-0.390
23	2.07	-0.338
9	2.06	-0.234
24	2.05	-0.130
61	2.04	-0.026
Median	2.03	0.000
34	2.03	0.026
61	2.03	0.078
24	2.02	0.182
330	1.97	0.650
31	1.84	2.003
14	1.67	3.825
14	1.65	4.033
111	0.44	16.626