

AFPC

Sample

2016-09

Grade

18-46-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	2	18.37	0.01
Ammoniacal Nitrogen, Other		001.99	13	18.21	0.04
Method Group 001.XX PCT			15	18.21	0.08
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	18.31	0.11
Total Nitrogen, Combustion	993.13	010.60	22	18.23	0.16
Total Nitrogen, Other		010.99	6	18.34	0.01
Method Group 010.XX PCT			33	18.30	0.13
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	1	46.82	0.00
Total Phosphate, Spectrometric	978.02	020.20	26	46.31	0.24
Total Phosphate, ICP	970.03	020.40	3	46.27	0.06
Method Group 020.XX PCT			30	46.31	0.29
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.06	0.01
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.23	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.05	0.01
Insoluble Phosphate, Other		030.99	2	0.02	0.00
Method Group 030.XX PCT			15	0.05	0.01
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	12	46.31	0.16
Indirect Available Phosphate, Automated	960.02	040.40	1	46.14	0.00
Indirect Available Phosphate, Other		040.99	3	46.14	0.11
Method Group 040.XX PCT			16	46.29	0.24
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.66	0.27
Direct Available Phosphate, Spectrometric	960.03D	041.20	4	46.19	0.32
Direct Available Phosphate, Automated	978.01	041.40	1	45.98	0.00
Direct Available Phosphate, ICP		041.50	3	48.58	0.84
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	46.29	0.16
Method Group 041.XX PCT			15	46.31	0.60
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	17	43.56	0.42
Water Soluble Phosphate, Other		048.99	4	44.07	0.81
Method Group 048.XX PCT			21	43.76	0.49
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	2	0.17	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.17	0.00
Soluble Potash, Other		050.99	7	0.19	0.01
Method Group 050.XX PCT			10	0.18	0.02
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	18	1.11	0.17
Free Water, Other		060.99	4	1.12	0.03
Method Group 060.XX PCT			22	1.11	0.19
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.26	0.00
Acid Soluble Calcium, ICP		101.30	16	0.39	0.04
Acid Soluble Calcium, Other		101.99	1	0.28	0.00
Method Group 101.XX PCT			18	0.39	0.06
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	3	1.31	0.03
Acid Soluble Magnesium, ICP		121.30	16	1.36	0.06
Acid Soluble Magnesium, Other		121.99	1	1.34	0.00
Method Group 121.XX PCT			20	1.35	0.07
SULFATE SULFUR (S)					
Sulfur, Spectrometric		144.70	2	1.60	0.00

Sulfur, Other		144.99	12	2.37	0.04
Method Group 144.XX PCT			14	2.36	0.06
TOTAL SULFUR (S)					
Sulfur, Other		145.99	2	2.23	0.0
Method Group 145.XX PCT			2	2.23	0.0
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	5	4.2	1.9
Total Arsenic, Other		151.99	1	10.9	0.0
Method Group 151.XX PPM			6	4.3	6.2
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	77	0.0
Method Group 165.XX PPM			1	77	0.0
TOTAL CADMIUM					
Total Cadmium, ICP		181.30	5	32.1	1.4
Total Cadmium, Other		181.99	1	36.2	0.0
Method Group 181.XX PPM			6	33.1	3.2
ALUMINUM AS Al₂O₃					
ICP, %			15	0.52	0.01
Water Soluble Chlorine, Other, %		190.99	1	1.57	0.00
Method Group 190.XX PCT			16	0.52	0.02
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	6	227	10.2
Total Chromium, Other		191.99	2	251	18.9
Method Group 191.XX PPM			8	227	18.0
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	4	2	0.1
Acid Soluble Cobalt, Other		202.99	1	1	0.0
Method Group 202.XX PPM			5	2	0.5
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			3	1.0	0.1
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	16	0.71	0.01
Acid Soluble Iron, Other		241.99	1	0.75	0.00
Method Group 241.XX PCT			18	0.72	0.02
TOTAL LEAD					
Total Lead, ICP		251.30	2	0	0.0
Total Lead, Other		251.99	1	0.2	0.0
Method Group 251.XX PPM			3	0	0.1
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	1	313	0.0
Acid Soluble Manganese, Other		261.99	7	50	1.7
Method Group 261.XX PPM			8	50	2.4
TOTAL MERCURY					
Total Mercury, Atomic Absorbion		281.00	2	0	0.00
Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			3	0.01	0.05
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	4	4	0.2
Total Molybdenum, Other		289.99	2	4	0.8
Method Group 289.XX PPM			6	4	0.3
TOTAL NICKEL					
Total Nickel, ICP		291.30	4	15.5	1.0
Total Nickel, icp		291.99	2	21.7	2.9
Method Group 291.XX PPM			6	16.8	2.3
TOTAL SELENIUM					
Total Selenium, ICP		301.30	1	0.1	0.0
Total Selenium, Other		301.99	1	7	0.0
Method Group 301.XX PPM			2	3.5	3.1
SODIUM AS Na₂O					
Sodium, Other		311.99	8	0.26	0.02
Method Group 311.XX PCT			8	0.26	0.03

ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	441.0	0.0
Acid Soluble Zinc, ICP		321.30	3	442.0	3.4
Acid Soluble Zinc, Other		321.99	3	408.5	11.3
Method Group 321.XX %			7	436.0	18.7
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FLUORIDE					
Volumentric		325.10	10	1.40	0.04
Distilled/Electrode		325.99	4	1.35	0.01
Method Group 325.XX PCT			14	1.39	0.06
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001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
113	18.38	-1.340
Std Dev	18.37	-1.000
Median	18.37	0.000
Std Dev	18.36	1.000
113	18.36	1.340

001.99 Ammoniacal Nitrogen		
Lab	Other	
275	18.43	-5.238
34	18.30	-2.193
310	18.27	-1.462
Std Dev	18.25	-1.000
24	18.24	-0.731
24	18.22	-0.244
61	18.21	0.000
61	18.21	0.000
Median	18.21	0.000
79	18.21	0.122
140	18.20	0.244
275	18.19	0.609
Std Dev	18.17	1.000
32	18.16	1.218
32	18.11	2.436
38	17.85	8.771

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
275	18.43	-3.115
113	18.38	-2.390
113	18.36	-2.101
34	18.30	-1.304
Std Dev	18.28	-1.000
310	18.27	-0.869
24	18.24	-0.435
24	18.22	-0.145
61	18.21	0.000
61	18.21	0.000
Median	18.21	0.000
79	18.21	0.072
140	18.20	0.145
275	18.19	0.362
32	18.16	0.724

Std Dev	18.14	1.000
32	18.11	1.449
38	17.85	5.215

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
113	18.42	-0.970
113	18.41	-0.924
43	18.31	0.000
Median	18.31	0.000
219	18.27	0.416
43	18.23	0.739

010.60 Total Nitrogen		
Lab	Combustion	
39	18.58	-2.187
24	18.51	-1.756
24	18.43	-1.263
Std Dev	18.39	-1.000
47	18.39	-0.986
66	18.39	-0.986
29	18.32	-0.585
14	18.32	-0.554
219	18.31	-0.524
9	18.30	-0.462
14	18.26	-0.185
9	18.23	0.000
49	18.23	0.000
Median	18.23	0.000
79	18.21	0.123
110	18.20	0.154
63	18.16	0.400
77	18.11	0.739
80	18.10	0.770
Std Dev	18.06	1.000
99	18.03	1.232
103	17.99	1.479
5	17.96	1.663
31	17.75	2.926
137	16.90	8.163

010.99 Total Nitrogen		
Lab	Other	
38	18.35	-1.462

Std Dev	18.35	-1.000
140	18.35	-0.975
23	18.34	-0.487
Median	18.34	0.000
23	18.33	0.487
32	18.33	0.487
Std Dev	18.32	1.000
32	18.25	8.284

010.XX Total Nitrogen		
Lab	Total Method	
39	18.58	-2.588
24	18.51	-1.941
24	18.43	-1.201
113	18.42	-1.063
113	18.41	-1.017
Std Dev	18.41	-1.000
47	18.39	-0.786
66	18.39	-0.786
38	18.35	-0.462
140	18.35	-0.416
23	18.34	-0.370
23	18.33	-0.277
32	18.33	-0.277
29	18.32	-0.185
14	18.32	-0.139
43	18.31	-0.092
219	18.31	-0.092
9	18.30	0.000
Median	18.30	0.000
219	18.27	0.323
14	18.26	0.416
32	18.25	0.462
43	18.23	0.647
9	18.23	0.693
49	18.23	0.693
79	18.21	0.878
110	18.20	0.924
Std Dev	18.19	1.000
63	18.16	1.294
77	18.11	1.802
80	18.10	1.848
99	18.03	2.541
103	17.99	2.911

5	17.96	3.188
31	17.75	5.083
137	16.90	12.938

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
219	46.82	0.000
Median	46.82	0.000

020.20 Total Phosphate		
Lab	Spectrometric	
31	47.28	-3.964
Std Dev	46.55	-1.000
24	46.51	-0.821
9	46.50	-0.780
61	46.46	-0.596
275	46.46	-0.596
14	46.45	-0.575
34	46.45	-0.575
14	46.42	-0.452
140	46.40	-0.370
99	46.40	-0.370
24	46.38	-0.288
9	46.38	-0.267
113	46.34	-0.103
Median	46.31	0.000
113	46.29	0.103
23	46.22	0.390
275	46.19	0.493
61	46.16	0.616
32	46.16	0.637
32	46.12	0.780
38	46.12	0.801
23	46.11	0.842
Std Dev	46.07	1.000
79	46.04	1.130
43	45.94	1.540
310	45.89	1.725
43	45.86	1.869
110	45.67	2.629

020.40 Total Phosphate		
Lab	Automated	
137	46.38	-1.787

Std Dev	46.33	-1.000
219	46.27	0.000
Median	46.27	0.000
9	46.22	0.893

020.XX		Total Phosphate
Lab		Total Method
31	47.28	-4.121
219	46.82	-2.178
Std Dev	46.54	-1.000
24	46.51	-0.854
9	46.50	-0.811
61	46.46	-0.619
275	46.46	-0.619
14	46.45	-0.598
34	46.45	-0.598
14	46.42	-0.470
140	46.40	-0.384
99	46.40	-0.384
24	46.38	-0.299
137	46.38	-0.299
9	46.38	-0.278
113	46.34	-0.107
Median	46.31	0.000

113	46.29	0.107
219	46.27	0.171
9	46.22	0.406
23	46.22	0.406
275	46.19	0.513
61	46.16	0.641
32	46.16	0.662
32	46.12	0.811
38	46.12	0.833
23	46.11	0.876
Std Dev	46.08	1.000
79	46.04	1.175
43	45.94	1.602
310	45.89	1.794
43	45.86	1.943
110	45.67	2.733

030.20		Insoluble Phosphate
Lab		Spectrometric
24	0.07	-1.340

Std Dev	0.06	-1.000
140	0.06	-0.670
23	0.06	0.000
113	0.06	0.000
113	0.06	0.000
Median	0.06	0.000
Std Dev	0.05	1.000
23	0.05	1.340
61	0.05	1.340
24	0.04	2.010
61	0.04	2.680

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

030.40		Insoluble Phosphate
Lab		Automated
9	0.07	-2.193
Std Dev	0.06	-1.000
34	0.05	0.000
Median	0.05	0.000
9	0.05	0.487

030.99		Insoluble Phosphate
Lab		Other
32	0.02	0.000
32	0.02	0.000
Median	0.02	0.000

030.XX		Insoluble Phosphate
Lab		Total Method
31	0.23	-16.080
9	0.07	-2.010
24	0.07	-1.340
Std Dev	0.06	-1.000
140	0.06	-0.893
23	0.06	-0.447
113	0.06	-0.447
113	0.06	-0.447
34	0.05	0.000
Median	0.05	0.000
9	0.05	0.447

23	0.05	0.447
61	0.05	0.447
24	0.04	0.893
Std Dev	0.04	1.000
61	0.04	1.340
32	0.02	2.680
32	0.02	2.680

040.20		Indirect Available Phosphate
Lab		Spectrometric
31	47.05	-4.616
24	46.47	-1.011
Std Dev	46.47	-1.000
9	46.46	-0.917
61	46.42	-0.697
140	46.34	-0.196
24	46.32	-0.039
Median	46.31	0.000
9	46.30	0.039
113	46.28	0.180
113	46.23	0.494
23	46.17	0.870
Std Dev	46.15	1.000
61	46.12	1.215
23	46.05	1.622

040.40		Indirect Available Phosphate
Lab		Automated
9	46.14	0.000
Median	46.14	0.000

040.99		Indirect Available Phosphate
Lab		Other
34	46.40	-2.367
Std Dev	46.25	-1.000
32	46.14	0.000
Median	46.14	0.000
32	46.10	0.313

040.XX		Indirect Available Phosphate
Lab		Total Method
31	47.05	-3.794
Std Dev	46.49	-1.000
24	46.47	-0.900

9	46.46	-0.824
61	46.42	-0.648
34	46.40	-0.547
140	46.34	-0.245
24	46.32	-0.120
9	46.30	-0.057
Median	46.29	0.000
113	46.28	0.057
113	46.23	0.308
23	46.17	0.610
9	46.14	0.761
32	46.14	0.786
61	46.12	0.887
32	46.10	0.963
Std Dev	46.09	1.000
23	46.05	1.214

041.10		Direct Available Phosphate
Lab		Gravimetric Quimociac
219	46.79	-0.477
47	46.66	0.000
Median	46.66	0.000
Std Dev	46.39	1.000
107	46.06	2.203

041.20		Direct Available Phosphate
Lab		Spectrometric
275	46.49	-0.911
47	46.30	-0.340
Median	46.19	0.000
275	46.08	0.340
Std Dev	45.87	1.000
38	45.41	2.410

041.40		Direct Available Phosphate
Lab		Automated
49	45.98	0.000
Median	45.98	0.000

041.50		Direct Available Phosphate
Lab		ICP
80	49.30	-0.856
63	48.58	0.000
Median	48.58	0.000

Std Dev	47.74	1.000
66	47.05	1.824

041.60	Direct Available Phosphate	
Lab	EDTA Extract	
29	46.66	-2.345
Std Dev	46.45	-1.000
219	46.31	-0.080
Median	46.29	0.000
77	46.28	0.080
Std Dev	46.14	1.000
137	45.90	2.536

041.XX	Direct Available Phosphate	
Lab	Total Method	
80	49.30	-6.127
63	48.58	-4.654
66	47.05	-1.514
Std Dev	46.79	-1.000
219	46.79	-0.992
29	46.66	-0.726
47	46.66	-0.726
275	46.49	-0.368
219	46.31	0.000
Median	46.31	0.000
47	46.30	0.010
77	46.28	0.051
275	46.08	0.460
107	46.06	0.501
49	45.98	0.665
137	45.90	0.839
Std Dev	45.82	1.000
38	45.41	1.831

048.20	Water Soluble Phosphate	
Lab	Spectrometric	
9	44.30	-1.761
9	44.11	-1.316
Std Dev	43.98	-1.000
23	43.95	-0.937
61	43.91	-0.842
61	43.91	-0.830
24	43.86	-0.712
24	43.76	-0.486

23	43.68	-0.285
113	43.56	0.000
Median	43.56	0.000
113	43.55	0.024
14	43.54	0.036
14	43.41	0.344
140	43.34	0.510
275	43.25	0.723
275	43.18	0.889
Std Dev	43.13	1.000
79	43.11	1.055
31	42.13	3.380

048.99	Water Soluble Phosphate	
Lab	Other	
39	47.50	-4.223
Std Dev	44.88	-1.000
32	44.19	-0.145
Median	44.07	0.000
32	43.95	0.145
34	43.85	0.268

048.XX	Water Soluble Phosphate	
Lab	Total Method	
39	47.50	-9.268
9	44.30	-1.334
32	44.19	-1.055
Std Dev	44.16	-1.000
9	44.11	-0.869
23	43.95	-0.471
32	43.95	-0.471
61	43.91	-0.372
61	43.91	-0.360
24	43.86	-0.236
34	43.85	-0.223
24	43.76	0.000
Median	43.76	0.000
23	43.68	0.211
113	43.56	0.509
113	43.55	0.534
14	43.54	0.546
14	43.41	0.869
Std Dev	43.36	1.000
140	43.34	1.042

275	43.25	1.266
275	43.18	1.439
79	43.11	1.613
31	42.13	4.045

050.50	%K ₂ O	Soluble Potash
Lab	ICP(Oxalate)	
23	0.17	0.000
23	0.17	0.000
Median	0.17	0.000

050.51	%K ₂ O	Soluble Potash
Lab	ICP(Citrate)	
137	0.17	0.000
Median	0.17	0.000

050.99	Soluble Potash	
Lab	%K ₂ O	Other
61	0.20	-1.483
Std Dev	0.20	-1.000
24	0.19	-0.494
24	0.19	-0.494
61	0.19	0.000
Median	0.19	0.000
43	0.18	0.759
43	0.18	0.932
Std Dev	0.17	1.000
80	0.10	8.403

050.XX	Soluble Potash	
Lab	%K ₂ O	Total Method
61	0.20	-1.683
Std Dev	0.19	-1.000
24	0.19	-0.969
24	0.19	-0.969
61	0.19	-0.611
43	0.18	-0.062
Median	0.18	0.000
43	0.18	0.062
23	0.17	0.461
23	0.17	0.461
137	0.17	0.461
Std Dev	0.16	1.000
80	0.10	5.463

060.00	Free Water	
Lab	Vacuum Oven	
31	1.49	-2.164
32	1.45	-1.935
61	1.37	-1.447
140	1.33	-1.218
Std Dev	1.29	-1.000
32	1.20	-0.473
24	1.19	-0.416
79	1.19	-0.416
24	1.15	-0.215
61	1.13	-0.072
Median	1.11	0.000
9	1.10	0.072
34	1.05	0.358
9	0.99	0.731
23	0.97	0.817
23	0.96	0.903
43	0.96	0.903
43	0.94	0.989
Std Dev	0.94	1.000
113	0.88	1.361
113	0.80	1.791

060.99	Free Water	
Lab	Other	
14	1.15	-0.946
275	1.13	-0.473
Median	1.12	0.000
14	1.10	0.473
Std Dev	1.08	1.000
275	1.07	1.576

060.XX	Free Water	
Lab	Total Method	
31	1.49	-2.395
32	1.45	-2.141
61	1.37	-1.602
140	1.33	-1.348
Std Dev	1.27	-1.000
32	1.20	-0.523
24	1.19	-0.460
79	1.19	-0.460

24	1.15	-0.238
14	1.15	-0.206
275	1.13	-0.111
61	1.13	-0.079
Median	1.11	0.000
9	1.10	0.079
14	1.10	0.079
275	1.07	0.301
34	1.05	0.396
9	0.99	0.809
23	0.97	0.904
23	0.96	0.999
43	0.96	0.999
Std Dev	0.95	1.000
43	0.94	1.094
113	0.88	1.507
113	0.80	1.982

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.26	0.000
Median	0.26	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
61	0.49	-2.638
32	0.48	-2.378
61	0.46	-1.857
24	0.43	-1.075
Std Dev	0.43	-1.000
24	0.43	-0.945
34	0.42	-0.814
32	0.40	-0.163
9	0.39	-0.098
Median	0.39	0.000
9	0.39	0.098
14	0.39	0.098
23	0.38	0.228
23	0.38	0.228
43	0.36	0.767
43	0.36	0.786
Std Dev	0.35	1.000
14	0.30	2.313
31	0.28	2.834

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.28	0.000
Median	0.28	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
61	0.49	-2.165
32	0.48	-1.959
61	0.46	-1.546
Std Dev	0.43	-1.000
24	0.43	-0.928
24	0.43	-0.825
34	0.42	-0.722
32	0.40	-0.206
9	0.39	-0.155
9	0.39	0.000
14	0.39	0.000
23	0.38	0.103
23	0.38	0.103
43	0.36	0.530
43	0.36	0.545
Std Dev	0.34	1.000
14	0.30	1.752
31	0.28	2.165
219	0.28	2.268
219	0.26	2.526

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.38	-2.221
Std Dev	1.34	-1.000
275	1.31	0.000
Median	1.31	0.000
275	1.30	0.459

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
32	1.43	-1.186
Std Dev	1.42	-1.000
24	1.41	-0.835
24	1.41	-0.747

32	1.41	-0.747
23	1.38	-0.308
34	1.37	-0.132
61	1.37	-0.132
61	1.37	-0.044
Median	1.36	0.000
23	1.36	0.044
9	1.35	0.308
9	1.33	0.571
14	1.32	0.835
Std Dev	1.31	1.000
14	1.30	1.186
43	1.26	1.889
43	1.26	1.889
31	1.06	5.316

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
219	1.34	0.000
Median	1.34	0.000

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
32	1.43	-1.396
24	1.41	-1.036
Std Dev	1.41	-1.000
24	1.41	-0.946
32	1.41	-0.946
219	1.38	-0.541
23	1.38	-0.495
34	1.37	-0.315
61	1.37	-0.315
61	1.37	-0.225
23	1.36	-0.135
Median	1.35	0.000
9	1.35	0.135
219	1.34	0.171
9	1.33	0.405
14	1.32	0.676
275	1.31	0.766
Std Dev	1.30	1.000
14	1.30	1.036
275	1.30	1.036
43	1.26	1.757

43	1.26	1.757
31	1.06	5.270

144.70 Sulfur Spectrometric		
Lab		
14	1.61	-1.340
Std Dev	1.60	-1.000
Median	1.60	0.000
Std Dev	1.60	1.000
14	1.60	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
24	2.40	-0.670
23	2.40	-0.670
275	2.40	-0.670
275	2.39	-0.305
9	2.38	-0.061
23	2.38	-0.061
Median	2.37	0.000
32	2.37	0.061
24	2.36	0.426
9	2.34	0.914
Std Dev	2.33	1.000
34	2.33	1.035
32	2.32	1.401
31	1.36	24.790

144.XX Sulfate Sulfur (S)		
Lab		Total Method
24	2.40	-0.788
23	2.40	-0.788
275	2.40	-0.788
275	2.39	-0.473
9	2.38	-0.263
23	2.38	-0.263
32	2.37	-0.158
Median	2.36	0.000
24	2.36	0.158
9	2.34	0.578
34	2.33	0.683
32	2.32	0.998
Std Dev	2.31	1.000
14	1.61	15.922

14	1.60	16.027
31	1.36	21.177

145.99 Total Sulfur (S)		
Lab	PPM	Other
43	2.23	-1.340
Std Dev	2.23	-1.000
Median	2.23	0.000
Std Dev	2.23	1.000
43	2.23	1.340

145.XX Total Sulfur (S)		
Lab	PPM	Total Method
43	2.23	-1.340
Std Dev	2.23	-1.000
Median	2.23	0.000
Std Dev	2.23	1.000
43	2.23	1.340

151.30 Total Arsenic		
Lab	PPM	ICP
31	12.70	-4.529
Std Dev	6.08	-1.000
43	4.30	-0.053
43	4.20	0.000
Median	4.20	0.000
Std Dev	2.32	1.000
24	1.79	1.287
113	1.40	1.492

151.99 Total Arsenic		
Lab	PPM	Other
140	10.89	0.000
Median	10.89	0.000

151.XX Total Arsenic		
Lab	PPM	Total Method
31	12.70	-1.653
140	10.89	-1.298
Std Dev	9.36	-1.000
43	4.30	-0.010
Median	4.25	0.000
43	4.20	0.010
24	1.79	0.482

113	1.40	0.558
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165.99 Acid Soluble Boron		
Lab	PPM	Other
24	77.15	0.000
Median	77.15	0.000

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	77.15	0.000
Median	77.15	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
61	38.00	-4.151
61	34.00	-1.315
Std Dev	33.56	-1.000
43	32.15	0.000
Median	32.15	0.000
43	32.11	0.025
113	31.65	0.351

181.99 Total Cadmium		
Lab	PPM	Other
24	36.20	0.000
Median	36.20	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
61	38.00	-1.870
24	36.20	-1.187
Std Dev	35.71	-1.000
61	34.00	-0.352
Median	33.07	0.000
43	32.15	0.352
43	32.11	0.365
113	31.65	0.540

190.00 Aluminum		
Lab	%Al ₂ O ₃	ICP
14	0.56	-2.859
14	0.55	-1.787
9	0.54	-1.429
Std Dev	0.53	-1.000

9	0.53	-0.893
24	0.53	-0.715
24	0.53	-0.357
23	0.52	0.000
23	0.52	0.000
34	0.52	0.000
Median	0.52	0.000
32	0.52	0.357
61	0.52	0.357
43	0.51	0.715
43	0.51	0.715
Std Dev	0.51	1.000
61	0.51	1.072
32	0.49	2.501

190.99 Aluminum		
Lab	%Al ₂ O ₃	Atomic Absorption
31	1.57	0.000
Median	1.57	0.000

190.XX Aluminum		
Lab	%Al ₂ O ₃	Total Method
31	1.57	-68.218
14	0.56	-2.599
14	0.55	-1.624
9	0.54	-1.299
Std Dev	0.54	-1.000
9	0.53	-0.812
24	0.53	-0.650
24	0.53	-0.325
23	0.52	0.000
23	0.52	0.000
34	0.52	0.000
Median	0.52	0.000
32	0.52	0.325
61	0.52	0.325
43	0.51	0.650
43	0.51	0.650
61	0.51	0.975
Std Dev	0.50	1.000
32	0.49	2.274

191.30 Total Chromium		
Lab	PPM	ICP
61	267.50	-3.983

61	267.50	-3.983
Std Dev	237.17	-1.000
61	236.00	-0.885
43	228.00	-0.098
Median	227.00	0.000
43	226.00	0.098
113	218.50	0.836
Std Dev	216.83	1.000
31	87.40	13.729

191.99 Total Chromium		
Lab	PPM	Other
219	276.55	-1.340
Std Dev	270.14	-1.000
Median	251.28	0.000
Std Dev	232.41	1.000
24	226.00	1.340

191.XX Total Chromium		
Lab	PPM	Total Method
219	276.55	-3.362
61	267.50	-2.748
Std Dev	241.74	-1.000
61	236.00	-0.611
43	228.00	-0.068
Median	227.00	0.000
24	226.00	0.068
43	226.00	0.068
113	218.50	0.577
Std Dev	212.26	1.000
31	87.40	9.472

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
61		

202.99 Acid Soluble Cobalt		
Lab	PPM	Other
24	0.77	0.000
Median	0.77	0.000

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
61	2.05	-0.134
43	2.00	0.000

43	2.00	0.000
Median	2.00	0.000
Std Dev	1.63	1.000
61	1.50	1.340
24	0.77	3.296

221.00	Acid Soluble Copper	
Lab	Atomic Absorption	
219	0.76	0.000
Median	0.76	0.000

221.30	Acid Soluble Copper	
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000

221.99	Acid Soluble Copper	
Lab	Other	
24	0.85	0.000
Median	0.85	0.000

221.XX	Acid Soluble Copper	
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
24	0.85	2.680

241.30	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	ICP
31	1.26	-41.731
24	0.73	-1.531
23	0.73	-1.149
24	0.73	-1.149
Std Dev	0.72	-1.000
14	0.72	-0.766
34	0.72	-0.766
23	0.72	-0.383
61	0.72	-0.383

Median	0.71	0.000
14	0.71	0.383
32	0.71	0.383
32	0.71	0.383
61	0.71	0.383
9	0.70	0.766
9	0.70	0.957
Std Dev	0.70	1.000
43	0.68	2.297
43	0.68	2.297

241.99	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Other
219	0.75	0.000
Median	0.75	0.000

241.XX	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Total Method
31	1.26	-36.180
219	0.76	-2.814
219	0.75	-2.513
24	0.73	-1.005
Std Dev	0.73	-1.000
23	0.73	-0.670
24	0.73	-0.670
14	0.72	-0.335
34	0.72	-0.335
23	0.72	0.000
61	0.72	0.000
Median	0.72	0.000
14	0.71	0.670
32	0.71	0.670
32	0.71	0.670
61	0.71	0.670
Std Dev	0.70	1.000
9	0.70	1.005
9	0.70	1.173
43	0.68	2.345
43	0.68	2.345

251.30	Total Lead	
Lab	PPM	ICP
61	<0.5	0.000
61	<0.5	0.000

43	0.20	-1.340
Std Dev	0.19	-1.000
Median	0.15	0.000
43	0.10	1.340

251.99	Total Lead	
Lab	Other	
24	0.25	0.000
Median	0.25	0.000

251.XX	Total Lead	
Lab	PPM	Total Method
61	<0.5	0.000
61	<0.5	0.000
24	0.25	-0.832
43	0.20	0.000
Median	0.20	0.000
43	0.10	1.848

261.30	Acid Soluble Manganese	
Lab	ICP	
31	313.05	0.000
Median	313.05	0.000

261.99	Acid Soluble Manganese	
Lab	PPM	Other
219	53.08	-1.773
Std Dev	51.74	-1.000
219	50.86	-0.492
43	50.00	0.000
61	50.00	0.000
Median	50.00	0.000
43	49.50	0.288
Std Dev	48.26	1.000
24	46.70	1.900
61	45.00	2.879

261.XX	Acid Soluble Manganese	
Lab	PPM	Total Method
31	313.05	-134.988
219	53.08	-1.581
Std Dev	51.95	-1.000
219	50.86	-0.439
43	50.00	0.000

61	50.00	0.000
Median	50.00	0.000
43	49.50	0.257
Std Dev	48.05	1.000
24	46.70	1.693
61	45.00	2.566

281.00	Total Mercury	
Lab	PPM	Atomic Absorption
275	0.01	-1.340
Std Dev	0.01	-1.000
Median	0.01	0.000
Std Dev	0.01	1.000
275	0.01	1.340

281.30	Total Mercury	
Lab	PPM	ICP
24	0.11	0.000
Median	0.11	0.000

281.XX	Total Mercury	
Lab	PPM	Total Method
24	0.11	-2.634
Std Dev	0.05	-1.000
275	0.01	0.000
Median	0.01	0.000
275	0.01	0.046

289.30	Total Molybdenum	
Lab	PPM	ICP
43		

289.99	Total Molybdenum	
Lab	PPM	Other
24	4.65	-1.340
Std Dev	4.36	-1.000
Median	3.51	0.000
Std Dev	2.66	1.000
219	2.37	1.340

289.XX	Total Molybdenum	
Lab	PPM	Total Method
24	4.65	-4.717
43	3.80	-1.072
Std Dev	3.78	-1.000

43	3.65	-0.429
Median	3.55	0.000
61	3.45	0.429
61	3.45	0.429
Std Dev	3.32	1.000
219	2.37	5.041

291.30	Total Nickel	
Lab	ICP	
61		

291.99	Total Nickel	
Lab	PPM	Other
219	25.66	-1.340
Std Dev	24.66	-1.000
Median	21.73	0.000
Std Dev	18.80	1.000
24	17.80	1.340

291.XX	Total Nickel	
Lab	PPM	Total Method
219	25.66	-4.824
Std Dev	18.60	-1.000
24	17.80	-0.568
61	17.50	-0.406
Median	16.75	0.000
61	16.00	0.406
43	15.00	0.947
43	15.00	0.947

301.30	Total Selenium	
Lab	PPM	ICP
24	0.08	0.000
Median	0.08	0.000

301.99	Total Selenium	
Lab	PPM	Other
140	6.92	0.000
Median	6.92	0.000

301.XX	Total Selenium	
Lab	PPM	Total Mthod
140	6.92	-1.340
Std Dev	6.05	-1.000
Median	3.50	0.000

Std Dev	0.94	1.000
24	0.08	1.340

311.99	Sodium	
Lab	%Na ₂ O	Other
24	0.29	-1.322
Std Dev	0.28	-1.000
24	0.28	-0.841
23	0.27	-0.361
61	0.26	-0.120
Median	0.26	0.000
23	0.26	0.120
61	0.25	0.601
Std Dev	0.24	1.000
43	0.22	1.634
43	0.22	1.829

311.XX	Sodium	
Lab	%Na ₂ O	Total Method
24	0.29	-1.322
Std Dev	0.28	-1.000
24	0.28	-0.841
23	0.27	-0.361
61	0.26	-0.120
Median	0.26	0.000
23	0.26	0.120
61	0.25	0.601
Std Dev	0.24	1.000
43	0.22	1.634
43	0.22	1.829

321.00	Acid Soluble Zinc	
Lab	Atomic Absorption	
219	440.95	0.000
Median	440.95	0.000

321.30	Acid Soluble Zinc	
Lab	PPM	ICP
61	445.00	-0.893
24	442.00	0.000
Median	442.00	0.000
Std Dev	438.64	1.000
61	436.00	1.787

321.99	Acid Soluble Zinc	
Lab	Other	
219	433.30	-2.194
Std Dev	419.81	-1.000
43	408.50	0.000
Median	408.50	0.000
43	403.00	0.486

321.XX	Acid Soluble Zinc	
Lab	PPM	Total Method
61	445.00	-0.586
24	442.00	-0.391
219	440.95	-0.322
61	436.00	0.000
Median	436.00	0.000
219	433.30	0.176
Std Dev	420.65	1.000
43	408.50	1.791
43	403.00	2.149

325.10	Fluoride	
Lab	%	Electrode
31	1.84	-12.094
24	1.43	-0.687
32	1.42	-0.550
32	1.41	-0.275
24	1.41	-0.137
Median	1.40	0.000
23	1.40	0.137
23	1.40	0.137
34	1.36	1.099
14	1.26	3.986
14	1.23	4.810

325.99	Fluoride	
Lab	%	Other
9	1.38	-2.474
61	1.36	-0.412
Median	1.35	0.000
61	1.35	0.412
9	1.35	0.412

325.XX	Fluoride	
Lab	%	Total Method

31	1.84	-9.900
24	1.43	-0.820
32	1.42	-0.711
32	1.41	-0.492
24	1.41	-0.383
23	1.40	-0.164
23	1.40	-0.164
Median	1.39	0.000
9	1.38	0.164
34	1.36	0.602
61	1.36	0.711
61	1.35	0.930
9	1.35	0.930
14	1.26	2.899
14	1.23	3.555