

AFPC

2014-07

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, Other		001.99	12	16.88	0.08
Method Group 001.XX PCT			12	16.88	0.10
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	17.25	0.13
Total Nitrogen, Salicylic	955.04d	010.12	1	17.37	0.00
Total Nitrogen, Combustion	993.13	010.60	20	17.56	0.26
Total Nitrogen, Other		010.99	2	17.35	0.01
Method Group 010.XX PCT			26	17.53	0.29
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	1	46.05	0.00
Total Phosphate, Spectrometric	978.02	020.20	20	45.94	0.21
Total Phosphate, Alka. Quimociac	955.04d	020.30	1	44.88	0.00
Total Phosphate, ICP	970.03	020.40	4	45.86	0.80
Method Group 020.XX PCT			26	45.92	0.27
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.13	0.05
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.08	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.14	0.01
Insoluble Phosphate, Other		030.99	2	0.14	0.02
Method Group 030.XX PCT			14	0.13	0.05
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	45.71	0.18
Indirect Available Phosphate, Automated	960.02	040.40	1	45.84	0.00
Indirect Available Phosphate, Other		040.99	1	45.88	0.00
Method Group 040.XX PCT			13	45.76	0.22
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	45.74	0.30
Direct Available Phosphate, Automated	978.01	041.40	3	45.68	1.20
Direct Available Phosphate, ICP		041.50	4	45.99	0.62
Direct Available Phosphate, EDTA Extract	993.01	041.60	3	45.92	0.47
Method Group 041.XX PCT			12	45.87	0.71
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	11	41.22	0.26
Water Soluble Phosphate, Alka. Quimociac	964.04	048.30	1	38.70	0.00
Water Soluble Phosphate, Other		048.99	4	41.21	0.19
Method Group 048.XX PCT			16	41.16	0.32
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.10	0.02
Soluble Potash, ICP(Citrate)		050.51	2	0.12	0.01
Soluble Potash, Flame Photometric(Citrate)	983.02B(b)	050.61	1	0.18	0.00
Soluble Potash, Other		050.99	9	0.10	0.00
Method Group 050.XX PCT			15	0.10	0.00
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	16	3.23	0.23
Free Water, Vacuum Desiccate	965.08A	060.10	2	4.08	0.02
Free Water, Other		060.99	2	2.95	0.05
Method Group 060.XX PCT			20	3.23	0.32
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	0.30	0.02
Method Group 101.XX PCT			18	0.30	0.02
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.63	0.00
Acid Soluble Magnesium, ICP		121.30	17	1.68	0.07
Method Group 121.XX PCT			18	1.66	0.09

Sulfur, Gravimetric	980.02(a)	144.01	2	1.13	0.01
Sulfur, Spectrometric		144.70	2	1.09	0.00
Sulfur, Other		144.99	13	1.07	0.03
Method Group 144.XX PCT			17	1.08	0.04
TOTAL SULFUR (S)					
Sulfur, Other		145.99	4	1.07	0.02
Method Group 145.XX PCT			4	1.07	0.03
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	10	13	3.2
Method Group 151.XX PPM			10	13	3.9
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	51	0.0
Method Group 165.XX PPM			1	51	0.0
TOTAL CADMIUM					
Total Cadmium, ICP		181.30	8	3	0.3
Total Cadmium, Other		181.99	1	4	0.0
Method Group 181.XX PPM			9	3	0.3
ALUMINUM AS Al₂O₃					
ICP, %			18	1.37	0.07
Water Soluble Chlorine, Other, %		190.99	1	1.38	0.00
Method Group 190.XX PCT			19	1.37	0.08
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	9	108	3.4
Total Chromium, Other		191.99	1	119	0.0
Method Group 191.XX PPM			10	109	3.9
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	8	4	0.3
Acid Soluble Cobalt, Other		202.99	1	4	0.0
Method Group 202.XX PPM			9	4	0.4
ACID SOLUBLE COPPER					
Acid Soluble Copper, ICP		221.30	8	6	2.7
Acid Soluble Copper, Other		221.99	1	0	0.0
Method Group 221.XX PPM			9	6	2.6
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	19	1.56	0.05
Method Group 241.XX PCT			20	1.56	0.06
TOTAL LEAD					
Total Lead, ICP		251.30	8	3	1.7
Total Lead, Other		251.99	1	1	0.0
Method Group 251.XX PPM			9	2	2.2
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, Atomic Absorption	972.02b	261.11	1	276	0.0
Acid Soluble Manganese, ICP	972.02a	261.30	5	286	4.0
Acid Soluble Manganese, Other		261.99	5	306	20.1
Method Group 261.XX PPM			11	286	19.1
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	8	9	2.4
Total Molybdenum, Other		289.99	1	10	0.0
Method Group 289.XX PPM			9	9	3.0
TOTAL NICKEL					
Total Nickel, ICP		291.30	7	15	1.3
Total Nickel, Other		291.99	1	17	0.0
Method Group 291.XX PPM			8	15	2.3
TOTAL SELENIUM					
Total Selenium, ICP		301.30	4	0	5.0
Method Group 301.XX PPM			4	0	6.1
SODIUM AS Na₂O					
Sodium, Other		311.99	14	0.20	0.02
Method Group 311.XX PCT			14	0.20	0.03
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	51.0	0.0
Acid Soluble Zinc, ICP		321.30	9	52.9	6.9

Acid Soluble Zinc, Other	321.99	2	48.0	0.4
Method Group 321.XX PPM		12	51.0	6.3
FLUORIDE				
Volumetric	325.10	15	2.06	0.08
Distilled/Electrode	325.99	2	2.11	0.02
Method Group 325.XX PCT		17	2.07	0.05

001.99 Ammoniacal Nitrogen		
Lab		Other
79	17.01	-1.683
34	16.99	-1.433
Std Dev	16.96	-1.000
24	16.92	-0.561
61	16.92	-0.561
23	16.91	-0.374
23	16.88	-0.062
Median	16.88	0.000
24	16.87	0.062
61	16.84	0.499
275	16.82	0.748
32	16.81	0.873
Std Dev	16.79	1.000
32	16.79	1.060
275	16.64	2.929

001.XX Ammoniacal Nitrogen		
Lab		Total Method
79	17.01	-1.683
34	16.99	-1.433
Std Dev	16.96	-1.000
24	16.92	-0.561
61	16.92	-0.561
23	16.91	-0.374
23	16.88	-0.062
Median	16.88	0.000
24	16.87	0.062
61	16.84	0.499
275	16.82	0.748
32	16.81	0.873
Std Dev	16.79	1.000
32	16.79	1.060
275	16.64	2.929

010.11 Total Nitrogen		
Lab		Modified Comprehensive
219	17.58	-2.600
Std Dev	17.38	-1.000
43	17.25	0.000
Median	17.25	0.000
43	17.24	0.080

010.12 Total Nitrogen		
Lab		Salicylic
107	17.37	0.000
Median	17.37	0.000

010.60 Total Nitrogen		
Lab		Combustion
63	18.09	-2.008
80	17.95	-1.477
66	17.89	-1.231
Std Dev	17.82	-1.000
24	17.78	-0.833
47	17.78	-0.814
24	17.77	-0.795
315	17.69	-0.473
14	17.67	-0.417
14	17.60	-0.152
79	17.57	-0.019
Median	17.56	0.000
49	17.56	0.019
9	17.55	0.038
31	17.51	0.189
111	17.46	0.398
77	17.43	0.511
39	17.40	0.625
99	17.39	0.663
103	17.37	0.739
Std Dev	17.30	1.000
29	17.10	1.742
110	16.95	2.311

010.99 Total Nitrogen		
Lab		Other
32	17.37	-1.340
Std Dev	17.36	-1.000
Median	17.35	0.000
Std Dev	17.34	1.000
32	17.34	1.340

010.XX Total Nitrogen		
Lab		Total Method
63	18.09	-2.382
80	17.95	-1.787
66	17.89	-1.510

24	17.78	-1.063
47	17.78	-1.042
24	17.77	-1.021
Std Dev	17.77	-1.000
315	17.69	-0.659
14	17.67	-0.596
14	17.60	-0.298
219	17.58	-0.191
79	17.57	-0.149
49	17.56	-0.106
9	17.55	-0.085
Median	17.53	0.000
31	17.51	0.085
111	17.46	0.319
77	17.43	0.447
39	17.40	0.574
99	17.39	0.617
107	17.37	0.681
103	17.37	0.702
32	17.37	0.702
32	17.34	0.830
Std Dev	17.29	1.000
43	17.25	1.191
43	17.24	1.234
29	17.10	1.829
110	16.95	2.467

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	46.05	0.000
Median	46.05	0.000

020.20 Total Phosphate		
Lab		Spectrometric
99	46.33	-1.892
275	46.25	-1.479
Std Dev	46.15	-1.000
315	46.10	-0.776
14	46.09	-0.728
43	46.07	-0.606
14	46.06	-0.582
23	46.05	-0.509
23	46.03	-0.437
34	46.03	-0.437

275	46.01	-0.315
Median	45.94	0.000
32	45.88	0.315
32	45.87	0.340
9	45.83	0.534
31	45.83	0.534
79	45.79	0.728
61	45.77	0.825
61	45.75	0.922
Std Dev	45.73	1.000
24	45.73	1.019
24	45.68	1.261
43	45.67	1.334

020.30 Total Phosphate		
Lab		Alka. Quimociac
111	44.88	0.000
Median	44.88	0.000

020.40 Total Phosphate		
Lab		Automated
38	48.73	-3.610
Std Dev	46.65	-1.000
9	45.96	-0.129
Median	45.86	0.000
219	45.76	0.129
111	45.08	0.977

020.XX Total Phosphate		
Lab		Total Method
38	48.73	-12.668
99	46.33	-1.858
275	46.25	-1.475
Std Dev	46.14	-1.000
315	46.10	-0.822
14	46.09	-0.777
43	46.07	-0.664
14	46.06	-0.642
23	46.05	-0.574
219	46.05	-0.574
23	46.03	-0.507
34	46.03	-0.507
275	46.01	-0.394
9	45.96	-0.191

Median	45.92	0.000
32	45.88	0.191
32	45.87	0.214
9	45.83	0.394
31	45.83	0.394
79	45.79	0.574
61	45.77	0.664
219	45.76	0.732
61	45.75	0.754
24	45.73	0.845
Std Dev	45.70	1.000
24	45.68	1.070
43	45.67	1.137
111	45.08	3.772
111	44.88	4.696

030.20	Insoluble Phosphate	
Lab	Spectrometric	
14	0.21	-1.436
14	0.20	-1.244
Std Dev	0.18	-1.000
24	0.18	-0.957
61	0.15	-0.287
24	0.13	0.000
Median	0.13	0.000
23	0.11	0.383
61	0.11	0.383
23	0.10	0.670
79	0.09	0.766

030.30	Insoluble Phosphate	
Lab	Alka. Quimociac	
31	0.08	0.000
Median	0.08	0.000

030.40	Insoluble Phosphate	
Lab	Automated	
34	0.15	-1.340
Std Dev	0.15	-1.000
Median	0.14	0.000
Std Dev	0.12	1.000
9	0.12	1.340

030.99	Insoluble Phosphate	
Lab	Other	
32	0.17	-1.340
Std Dev	0.16	-1.000
Median	0.14	0.000
Std Dev	0.12	1.000
32	0.11	1.340

030.XX	Insoluble Phosphate	
Lab	Total Method	
14	0.21	-1.949
14	0.20	-1.705
24	0.18	-1.340
32	0.17	-1.096
Std Dev	0.17	-1.000
34	0.15	-0.609
61	0.15	-0.487
24	0.13	-0.122
Median	0.13	0.000
9	0.12	0.122
23	0.11	0.365
32	0.11	0.365
61	0.11	0.365
23	0.10	0.731
79	0.09	0.853
Std Dev	0.08	1.000
31	0.08	1.218

040.20	Indirect Available Phosphate	
Lab	Spectrometric	
23	45.95	-1.326
23	45.92	-1.160
Std Dev	45.89	-1.000
14	45.89	-0.967
14	45.87	-0.856
31	45.76	-0.276
9	45.71	0.000
Median	45.71	0.000
79	45.70	0.055
61	45.64	0.387
61	45.63	0.470
24	45.60	0.608
Std Dev	45.53	1.000
24	45.50	1.160

040.40	Indirect Available Phosphate	
Lab	Automated	
9	45.84	0.000
Median	45.84	0.000

040.99	Indirect Available Phosphate	
Lab	Other	
34	45.88	0.000
Median	45.88	0.000

040.XX	Indirect Available Phosphate	
Lab	Total Method	
23	45.95	-1.061
Std Dev	45.94	-1.000
23	45.92	-0.893
14	45.89	-0.698
34	45.88	-0.670
14	45.87	-0.586
9	45.84	-0.447
31	45.76	0.000
Median	45.76	0.000
9	45.71	0.279
79	45.70	0.335
61	45.64	0.670
61	45.63	0.754
24	45.60	0.893
Std Dev	45.58	1.000
24	45.50	1.452

041.10	Direct Available Phosphate	
Lab	Gravimetric Quimociac	
219	46.14	-1.340
Std Dev	46.04	-1.000
Median	45.74	0.000
Std Dev	45.43	1.000
107	45.33	1.340

041.40	Direct Available Phosphate	
Lab	Automated	
49	46.33	-0.541
103	45.68	0.000
Median	45.68	0.000
Std Dev	44.47	1.000

39 43.11 2.139

041.50	Direct Available Phosphate	
Lab	ICP	
80	46.50	-0.816
63	46.36	-0.592
Median	45.99	0.000
66	45.62	0.592
47	45.37	0.992

041.60	Direct Available Phosphate	
Lab	EDTA Extract	
29	47.09	-2.478
Std Dev	46.39	-1.000
219	45.92	0.000
Median	45.92	0.000
77	45.83	0.202

041.XX	Direct Available Phosphate	
Lab	Total Method	
29	47.09	-2.097
80	46.50	-1.083
Std Dev	46.45	-1.000
63	46.36	-0.842
49	46.33	-0.781
219	46.14	-0.462
219	45.92	-0.082
Median	45.87	0.000
77	45.83	0.082
103	45.68	0.341
66	45.62	0.436
47	45.37	0.867
107	45.33	0.936
Std Dev	45.29	1.000
39	43.11	4.777

048.20	Water Soluble Phosphate	
Lab	Spectrometric	
14	41.74	-1.977
14	41.66	-1.654
Std Dev	41.48	-1.000
9	41.46	-0.912
23	41.42	-0.760
23	41.40	-0.684

24	41.22	0.000
Median	41.22	0.000
24	41.10	0.456
79	41.10	0.475
31	41.08	0.532
Std Dev	40.96	1.000
61	40.82	1.540
61	40.39	3.174

048.30	Water Soluble Phosphate	
Lab	Alka. Quimociac	
111	38.70	0.000
Median	38.70	0.000

048.99	Water Soluble Phosphate	
Lab	Other	
32	41.40	-1.005
Std Dev	41.40	-1.000
34	41.31	-0.541
Median	41.21	0.000
32	41.10	0.541
Std Dev	41.01	1.000
111	40.99	1.108

048.XX	Water Soluble Phosphate	
Lab	Total Method	
14	41.74	-2.237
14	41.66	-1.909
9	41.46	-1.157
23	41.42	-1.003
Std Dev	41.42	-1.000
23	41.40	-0.925
32	41.40	-0.925
34	41.31	-0.578
24	41.22	-0.231
Median	41.16	0.000
24	41.10	0.231
32	41.10	0.231
79	41.10	0.251
31	41.08	0.308
111	40.99	0.656
Std Dev	40.90	1.000
61	40.82	1.330
61	40.39	2.988

111	38.70	9.486
050.50	%K ₂ O	Soluble Potash
Lab	ICP(Oxalate)	
23	0.10	0.000
23	0.10	0.000
Median	0.10	0.000
Std Dev	0.08	1.000
99	0.04	2.680

050.51	%K ₂ O	Soluble Potash
Lab	ICP(Citrate)	
275	0.14	-1.340
Std Dev	0.13	-1.000
Median	0.12	0.000
Std Dev	0.11	1.000
275	0.10	1.340

050.61	Soluble Potash	
Lab	Flame Photometric(Citrate)	
219	0.18	0.000
Median	0.18	0.000

050.99	Soluble Potash	
Lab	%K ₂ O	Other
111	0.12	0.024
43	0.10	0.024
24	0.10	0.000
24	0.10	0.000
31	0.10	0.000
61	0.10	0.000
61	0.10	0.000
Median	0.10	0.000
43	0.10	0.024
80	0.03	0.024

050.XX	Soluble Potash	
Lab	%K ₂ O	Total Method
219	0.18	-52.496
275	0.14	-25.592
111	0.12	-10.171
275	0.10	-2.297
Std Dev	0.10	-1.000
43	0.10	-0.383

23	0.10	0.000
23	0.10	0.000
24	0.10	0.000
24	0.10	0.000
31	0.10	0.000
61	0.10	0.000
61	0.10	0.000
Median	0.10	0.000
Std Dev	0.10	1.000
43	0.10	1.237
99	0.04	39.372
80	0.03	45.934

060.00	Free Water	
Lab	Vacuum Oven	
315	9.74	-27.804
24	3.51	-1.217
Std Dev	3.46	-1.000
79	3.45	-0.940
32	3.44	-0.918
31	3.44	-0.897
32	3.43	-0.876
24	3.42	-0.833
23	3.23	-0.021
Median	3.23	0.000
111	3.22	0.021
23	3.21	0.085
43	3.14	0.384
9	3.13	0.406
43	3.10	0.534
14	3.04	0.790
14	3.03	0.854
Std Dev	2.99	1.000
34	2.85	1.602

060.10	Free Water	
Lab	Vacuum Desiccate	
61	4.11	-1.340
Std Dev	4.10	-1.000
Median	4.08	0.000
Std Dev	4.06	1.000
61	4.05	1.340

060.99	Free Water	
Lab	Other	
275	3.02	-1.340
Std Dev	3.00	-1.000
Median	2.95	0.000
Std Dev	2.89	1.000
275	2.88	1.340

060.XX	Free Water	
Lab	Total Method	
315	9.74	-24.487
61	4.11	-3.310
61	4.05	-3.103
24	3.51	-1.072
Std Dev	3.49	-1.000
79	3.45	-0.828
32	3.44	-0.809
31	3.44	-0.790
32	3.43	-0.771
24	3.42	-0.733
23	3.23	-0.019
Median	3.23	0.000
111	3.22	0.019
23	3.21	0.075
43	3.14	0.339
9	3.13	0.357
43	3.10	0.470
14	3.04	0.696
14	3.03	0.752
275	3.02	0.771
Std Dev	2.96	1.000
275	2.88	1.316
34	2.85	1.411

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
34	0.35	-2.680
111	0.33	-1.340
9	0.32	-1.072

Std Dev	0.32	-1.000
23	0.32	-0.804
32	0.32	-0.804
32	0.32	-0.804
61	0.31	-0.268
23	0.30	0.000
24	0.30	0.000
24	0.30	0.000
61	0.30	0.000
Median	0.30	0.000
14	0.29	0.536
14	0.29	0.536
31	0.29	0.563
43	0.28	0.829
Std Dev	0.28	1.000
43	0.28	1.144
315	0.26	2.144

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
34	0.35	-2.640
111	0.33	-1.320
9	0.32	-1.056
Std Dev	0.32	-1.000
23	0.32	-0.792
32	0.32	-0.792
32	0.32	-0.792
61	0.31	-0.264
23	0.30	0.000
24	0.30	0.000
24	0.30	0.000
61	0.30	0.000
Median	0.30	0.000
14	0.29	0.528
14	0.29	0.528
31	0.29	0.554
43	0.28	0.817
Std Dev	0.28	1.000
43	0.28	1.127
315	0.26	2.112
219	0.19	5.782

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.63	0.000
Median	1.63	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
32	1.76	-1.005
Std Dev	1.75	-1.000
32	1.75	-0.938
23	1.72	-0.536
23	1.72	-0.469
24	1.71	-0.402
24	1.71	-0.402
61	1.70	-0.201
61	1.69	-0.134
315	1.68	0.000
Median	1.68	0.000
9	1.64	0.536
31	1.62	0.804
34	1.62	0.804
111	1.61	0.938
Std Dev	1.61	1.000
14	1.56	1.608
14	1.56	1.675
43	1.40	3.819
43	1.38	4.087

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
32	1.76	-1.306
32	1.75	-1.237
Std Dev	1.73	-1.000
23	1.72	-0.825
23	1.72	-0.756
24	1.71	-0.687
24	1.71	-0.687
61	1.70	-0.481
61	1.69	-0.412
315	1.68	-0.275
Median	1.66	0.000
9	1.64	0.275
219	1.63	0.371
31	1.62	0.550
34	1.62	0.550
111	1.61	0.687

Std Dev	1.59	1.000
14	1.56	1.374
14	1.56	1.443
43	1.40	3.642
43	1.38	3.917

144..01 Sulfate Sulfur (S)		
Lab	Gravimetric	
219	1.15	-1.340
Std Dev	1.14	-1.000
Median	1.13	0.000
Std Dev	1.12	1.000
79	1.12	1.340

144.70 Sulfur		
Lab	Spectrometric	
14	1.09	0.000
14	1.09	0.000
Median	1.09	0.000

144.99 Sulfate Sulfur (S)		
Lab	Other	
275	1.16	-3.254
275	1.13	-2.106
34	1.12	-1.914
24	1.10	-1.149
Std Dev	1.10	-1.000
9	1.08	-0.383
23	1.07	0.000
23	1.07	0.000
24	1.07	0.000
32	1.07	0.000
Median	1.07	0.000
32	1.07	0.191
Std Dev	1.04	1.000
31	1.00	2.785
61	1.00	2.871
61	1.00	2.871

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
275	1.16	-2.233
219	1.15	-1.936
275	1.13	-1.340

34	1.12	-1.191
79	1.12	-1.042
Std Dev	1.11	-1.000
24	1.10	-0.596
14	1.09	-0.298
14	1.09	-0.298
9	1.08	0.000
Median	1.08	0.000
23	1.07	0.298
23	1.07	0.298
24	1.07	0.298
32	1.07	0.298
32	1.07	0.447
Std Dev	1.05	1.000
31	1.00	2.464
61	1.00	2.531
61	1.00	2.531

145.99 Total Sulfur (S)		
Lab	Other	
43	1.08	-0.670
111	1.08	-0.447
Median	1.07	0.000
43	1.06	0.447
Std Dev	1.04	1.000
315	1.02	2.010

145.XX Total Sulfur (S)		
Lab	Total Method	
43	1.08	-0.670
111	1.08	-0.447
Median	1.07	0.000
43	1.06	0.447
Std Dev	1.04	1.000
315	1.02	2.010

151.30 Total Arsenic		
Lab	ICP	
111	36.00	-7.128
Std Dev	16.51	-1.000
43	16.10	-0.872
43	15.85	-0.794
24	14.00	-0.212
18	13.75	-0.134

Median	13.33	0.000
315	12.90	0.134
9	12.70	0.196
31	10.60	0.857
Std Dev	10.14	1.000
61	1.41	3.746
61	1.37	3.760

151.XX Lab	Total Arsenic PPM	Total Method
111	36.00	-7.128
Std Dev	16.51	-1.000
43	16.10	-0.872
43	15.85	-0.794
24	14.00	-0.212
18	13.75	-0.134
Median	13.33	0.000
315	12.90	0.134
9	12.70	0.196
31	10.60	0.857
Std Dev	10.14	1.000
61	1.41	3.746
61	1.37	3.760

165.99 Lab	PPM	Acid Soluble Boron Other
24	51.05	0.000
Median	51.05	0.000

65.XX, ppm Lab	PPM	Acid Soluble Boron Total Method
24	51.05	0.000
Median	51.05	0.000

181.30 Lab	PPM	Total Cadmium ICP
111	61.50	-173.468
18	3.90	-1.471
Std Dev	3.74	-1.000
315	3.48	-0.202
9	3.45	-0.127
Median	3.41	0.000
43	3.37	0.127
43	3.31	0.291

Std Dev	3.07	1.000
61	2.60	2.411
61	2.50	2.710

181.99 Lab	Total Cadmium PPM	Other
24	3.63	0.000
Median	3.63	0.000

181.XX Lab	PPM	Total Cadmium Total Method
111	61.50	-246.943
18	3.90	-1.914
Std Dev	3.69	-1.000
24	3.63	-0.744
315	3.48	-0.106
9	3.45	0.000
Median	3.45	0.000
43	3.37	0.362
43	3.31	0.596
Std Dev	3.21	1.000
61	2.60	3.616
61	2.50	4.041

190.00 Lab	%Al ₂ O ₃	Aluminum ICP
32	1.49	-1.787
32	1.48	-1.638
14	1.45	-1.191
Std Dev	1.44	-1.000
14	1.44	-0.968
9	1.42	-0.744
275	1.41	-0.521
34	1.38	-0.149
275	1.38	-0.149
24	1.37	0.000
24	1.37	0.000
Median	1.37	0.000
23	1.37	0.074
23	1.37	0.074
61	1.33	0.596
61	1.33	0.670
315	1.31	0.893
Std Dev	1.30	1.000

43	1.20	2.531
43	1.18	2.829
111	1.01	5.360

190.99 Lab	%Al ₂ O ₃	Aluminum Atomic Absorption
31	1.38	0.000
Median	1.38	0.000

190.XX Lab	%Al ₂ O ₃	Aluminum Total Method
32	1.49	-1.892
32	1.48	-1.734
14	1.45	-1.261
14	1.44	-1.025
Std Dev	1.43	-1.000
9	1.42	-0.788
275	1.41	-0.552
31	1.38	-0.158
34	1.38	-0.158
275	1.38	-0.158
24	1.37	0.000
24	1.37	0.000
Median	1.37	0.000
23	1.37	0.079
23	1.37	0.079
61	1.33	0.631
61	1.33	0.709
315	1.31	0.946
Std Dev	1.31	1.000
43	1.20	2.680
43	1.18	2.995
111	1.01	5.675

191.30 Lab	Total Chromium PPM	ICP
111	118.00	-2.978
9	111.50	-1.042
61	111.50	-1.042
Std Dev	111.36	-1.000
31	109.40	-0.417
61	108.00	0.000
Median	108.00	0.000
18	107.70	0.089

43	107.00	0.298
43	105.00	0.893
Std Dev	104.64	1.000
315	82.50	7.593

191.99 Lab	PPM	Total Chromium Other
24	119.00	0.000
Median	119.00	0.000

191.XX Lab	PPM	Total Chromium Total Method
24	119.00	-3.191
111	118.00	-2.881
Std Dev	111.93	-1.000
9	111.50	-0.868
61	111.50	-0.868
31	109.40	-0.217
Median	108.70	0.000
61	108.00	0.217
18	107.70	0.310
43	107.00	0.527
Std Dev	105.47	1.000
43	105.00	1.146
315	82.50	8.117

202.30 Lab	PPM	Acid Soluble Cobalt ICP
111		

202.99 Lab	PPM	Acid Soluble Cobalt Other
24	4.11	0.000
Median	4.11	0.000

202.XX Lab	PPM	Acid Soluble Cobalt Total Method
111	32.00	-91.512
Std Dev	4.31	-1.000
18	4.25	-0.817
24	4.11	-0.360
43	4.00	0.000
43	4.00	0.000
Median	4.00	0.000
9	3.95	0.163

61	3.70	0.980
Std Dev	3.69	1.000
61	3.65	1.144
31	2.89	3.644

221.00 Acid Soluble Copper		
Lab	Atomic Absorption	
219	1.69	0.000
Median	1.69	0.000

221.30 Acid Soluble Copper		
Lab	PPM	ICP
111	19.00	-4.733
Std Dev	8.94	-1.000
18	8.05	-0.668
9	7.90	-0.612
43	7.00	-0.278
Median	6.25	0.000
43	5.50	0.278
31	5.07	0.438
Std Dev	3.56	1.000
61	2.10	1.540
61	2.00	1.578

221.99 Acid Soluble Copper		
Lab	Other	
24	5.37	0.000
Median	5.37	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
111	19.00	-6.392
18	8.05	-1.207
9	7.90	-1.136
Std Dev	7.61	-1.000
43	7.00	-0.710
43	5.50	0.000
Median	5.50	0.000
24	5.37	0.064
31	5.07	0.204
Std Dev	3.39	1.000
61	2.10	1.610
61	2.00	1.657

241.30 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	ICP
275	2.12	-11.216
275	2.11	-10.919
32	1.63	-1.390
Std Dev	1.61	-1.000
24	1.60	-0.893
32	1.60	-0.794
24	1.59	-0.695
34	1.59	-0.695
61	1.57	-0.199
14	1.56	-0.099
14	1.56	0.000
61	1.56	0.000
Median	1.56	0.000
23	1.55	0.099
23	1.55	0.099
111	1.53	0.496
43	1.52	0.695
9	1.51	0.893
315	1.51	0.893
31	1.51	0.993
Std Dev	1.50	1.000
43	1.50	1.191

241.XX Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Total Method
275	2.12	-10.964
275	2.11	-10.671
219	1.69	-2.592
32	1.63	-1.316
Std Dev	1.61	-1.000
24	1.60	-0.828
32	1.60	-0.731
24	1.59	-0.633
34	1.59	-0.633
61	1.57	-0.146
14	1.56	-0.049
Median	1.56	0.000
14	1.56	0.049
61	1.56	0.049
23	1.55	0.146
23	1.55	0.146
111	1.53	0.536

43	1.52	0.731
9	1.51	0.926
315	1.51	0.926
Std Dev	1.51	1.000
31	1.51	1.023
43	1.50	1.218

251.30 Total Lead		
Lab	PPM	ICP
111	33.50	-18.455
Std Dev	4.19	-1.000
43	3.95	-0.856
18	3.80	-0.767
43	3.35	-0.499
Median	2.51	0.000
315	1.68	0.499
61	1.65	0.514
31	1.40	0.663
61	1.40	0.663

251.99 Total Lead		
Lab	Other	
24	1.43	0.000
Median	1.43	0.000

251.XX Total Lead		
Lab	PPM	Total Method
111	33.50	-17.994
43	3.95	-1.286
18	3.80	-1.201
Std Dev	3.44	-1.000
43	3.35	-0.947
315	1.68	0.000
Median	1.68	0.000
61	1.65	0.014
24	1.43	0.139
31	1.40	0.155
61	1.40	0.155

261.11 Acid Soluble Manganese		
Lab	Atomic Absorption	
219	276.45	0.000
Median	276.45	0.000

261.30 Acid Soluble Manganese		
Lab	ICP	
9	294.50	-2.129
Std Dev	289.99	-1.000
315	288.50	-0.626
31	286.00	0.000
Median	286.00	0.000
18	283.15	0.714
Std Dev	282.01	1.000
111	264.50	5.385

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	312.00	-0.298
43	309.00	-0.149
24	306.00	0.000
Median	306.00	0.000
Std Dev	285.85	1.000
61	282.00	1.191
61	275.50	1.514

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
43	312.00	-1.657
43	309.00	-1.466
24	306.00	-1.275
Std Dev	301.69	-1.000
9	294.50	-0.542
315	288.50	-0.159
31	286.00	0.000
Median	286.00	0.000
18	283.15	0.182
61	282.00	0.255
219	276.45	0.609
61	275.50	0.669
Std Dev	270.31	1.000
111	264.50	1.370

281.30 Total Mercury		
Lab	PPM	ICP
24	<0.01	0.000
Median	0.00	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	<0.01	0.000
Median	0.00	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
111		

289.99 Total Molybdenum		
Lab	PPM	Other
24	9.83	0.000
Median	9.83	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
111	35.50	-10.780
18	12.30	-1.431
Std Dev	11.23	-1.000

24	9.83	-0.433
43	8.75	0.000
43	8.75	0.000
Median	8.75	0.000
9	8.60	0.060
31	6.50	0.907
61	6.45	0.927
Std Dev	6.27	1.000
61	6.10	1.068

291.30 Total Nickel		
Lab	PPM	ICP
18	16.70	-1.302
9	16.50	-1.149
Std Dev	16.31	-1.000
61	15.00	0.000
61	15.00	0.000

291.99 Total Nickel		
Lab	PPM	Other
24	16.90	0.000
Median	16.90	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
24	16.90	-0.998
18	16.70	-0.893

9 16.50 -0.788

301.30 Total Selenium		
Lab	PPM	ICP
111	26.00	-5.205
Std Dev	5.09	-1.000
24	0.23	-0.022
Median	0.12	0.000

61	0.01	0.022
61	0.01	0.022

301.XX Total Selenium		
Lab	PPM	Total Mthod
111	26.00	-5.205
Std Dev	5.09	-1.000
24	0.23	-0.022
Median	0.12	0.000

61	0.01	0.022
61	0.01	0.022

311.99 Sodium		
Lab	%Na ₂ O	Other
275	0.23	-1.183
Std Dev	0.22	-1.000
61	0.21	-0.473

23	0.21	-0.237
23	0.21	-0.237
61	0.21	-0.237
24	0.20	0.000
24	0.20	0.000
31	0.20	0.000
111	0.20	0.000
Median	0.20	0.000
275	0.18	0.866
Std Dev	0.18	1.000
315	0.18	1.183
18	0.17	1.301
43	0.16	1.705
43	0.16	1.829

311.XX Sodium		
Lab	%Na ₂ O	Total Method
275	0.23	-1.183
Std Dev	0.22	-1.000

61	0.21	-0.473
23	0.21	-0.237
23	0.21	-0.237
61	0.21	-0.237
24	0.20	0.000
24	0.20	0.000
31	0.20	0.000
111	0.20	0.000
Median	0.20	0.000
275	0.18	0.866
Std Dev	0.18	1.000
315	0.18	1.183
18	0.17	1.301
43	0.16	1.705
43	0.16	1.829

321.00 Acid Soluble Zinc		
Lab	PPM	Atomic Absorption
219	50.98	0.000
Median	50.98	0.000

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
111	173.00	-17.396
31	69.35	-2.389
Std Dev	59.76	-1.000
24	55.70	-0.413
9	53.60	-0.109
275	52.85	0.000
Median	52.85	0.000
315	51.00	0.268
275	46.45	0.927
Std Dev	45.94	1.000
61	39.00	2.005
61	38.50	2.078

61	39.00	2.005
61	38.50	2.078

321.99 Acid Soluble Zinc		
Lab	PPM	Other
43	48.50	-1.340
Std Dev	48.37	-1.000
Median	48.00	0.000
Std Dev	47.63	1.000
43	47.50	1.340

43	47.50	1.340
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321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
111	173.00	-23.733
31	69.35	-3.571
Std Dev	56.13	-1.000
24	55.70	-0.916
9	53.60	-0.508
275	52.85	-0.362
315	51.00	-0.002
Median	50.99	0.000

219	50.98	0.002
43	48.50	0.484
43	47.50	0.679
275	46.45	0.884
Std Dev	45.85	1.000
61	39.00	2.332
61	38.50	2.430

325.10 Fluoride		
Lab	%	Electrode
32	2.14	-1.021
34	2.13	-0.893
111	2.09	-0.319
9	2.08	-0.255
79	2.08	-0.255
23	2.07	-0.128
24	2.07	-0.128
24	2.06	0.000
Median	2.06	0.000
32	2.06	0.000
23	2.04	0.319
31	2.04	0.319
275	1.92	1.850
14	1.90	2.106
14	1.89	2.170
275	1.81	3.254

275	1.92	1.850
14	1.90	2.106
14	1.89	2.170
275	1.81	3.254

325.99 Fluoride		
Lab	%	Other
61	2.14	-1.340
Median	2.11	0.000
61	2.09	1.340

325.XX Lab	%	Fluoride Total Method
32	2.14	-1.876
61	2.14	-1.742
34	2.13	-1.608
61	2.09	-0.536
111	2.09	-0.402
9	2.08	-0.268
79	2.08	-0.268
23	2.07	0.000
24	2.07	0.000
Median	2.07	0.000
24	2.06	0.268
32	2.06	0.268
23	2.04	0.938
31	2.04	0.938
275	1.92	4.154
14	1.90	4.690
14	1.89	4.824
275	1.81	7.102