

AFPC

2018-02

Grade

11-52-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	11.44	0.00
Ammoniacal Nitrogen, Other		001.99	14	11.35	0.06
Method Group 001.XX PCT			15	11.37	0.07
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	2	11.41	0.00
Total Nitrogen, Combustion	993.13	010.60	21	11.39	0.05
Total Nitrogen, Other		010.99	5	11.37	0.02
Method Group 010.XX PCT			28	11.39	0.06
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	2	53.06	0.02
Total Phosphate, Spectrometric	978.02	020.20	20	53.13	0.26
Total Phosphate, ICP	970.03	020.40	1	52.38	0.00
Total Phosphate, ICP, Lithium	970.02	020.50	1	53.51	0.00
Total Phosphate, Other	993.13	020.99	1	54.68	0.00
Method Group 020.XX PCT			25	53.12	0.38
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	10	0.16	0.03
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.07	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.17	0.00
Insoluble Phosphate, Other		030.99	2	0.11	0.00
Method Group 030.XX PCT			14	0.16	0.06
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	52.99	0.06
Indirect Available Phosphate, Other		040.99	3	52.93	0.10
Method Group 040.XX PCT			14	52.98	0.10
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	53.04	0.01
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	52.59	0.40
Direct Available Phosphate, ICP		041.50	3	52.37	0.75
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	53.19	0.73
Method Group 041.XX PCT			11	52.85	0.80
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Gravimetric Quimociac	962.03	048.10	2	47.75	0.02
Water Soluble Phosphate, Spectrometric	970.01	048.20	13	47.82	0.29
Water Soluble Phosphate, Other		048.99	4	47.85	0.69
Method Group 048.XX PCT			19	47.77	0.49
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	2	0.12	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.12	0.00
Soluble Potash, Other		050.99	10	0.12	0.01
Method Group 050.XX PCT			13	0.12	0.01
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	13	1.15	0.08
Free Water, Vacuum Desiccant	965.08A	060.10	2	0.74	0.07
Free Water, Other		060.99	5	1.20	0.09
Method Group 060.XX PCT			20	1.15	0.13
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, ICP		101.30	14	0.71	0.01
Method Group 101.XX PCT			14	0.71	0.01
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	2	1.15	0.01
Acid Soluble Magnesium, ICP		121.30	12	1.18	0.03
Acid Soluble Magnesium, Other		121.99	2	1.10	0.04
Method Group 121.XX PCT			16	1.17	0.05
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	1	0.03	0.00

Method Group 131.XX PCT			1	0.03	0.00
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	1	1.55	0.00
Sulfur, Spectrometric		144.70	2	1.43	0.00
Sulfur, Other		144.99	11	1.48	1.09
Method Group 144.XX PCT			14	1.48	0.09
TOTAL SULFUR (S)					
Sulfur, Other		145.99	1	1.53	0.0
Method Group 145.XX PCT			1	1.53	0.0
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	8	20.5	1.8
Total Arsenic, Other		151.99	3	19.4	1.1
Method Group 151.XX PPM			11	19.8	1.7
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	5	104	53.2
Method Group 165.XX PPM			5	104	64.8
WATER SOLUBLE BORON					
Water Soluble Boron, Other		171.99	1	19	0.0
Method Group 171.XX PPM			1	19	0.0
TOTAL CADMIUM					
Total Cadmium, Atomic Absorbtion		181.00	1	135	0.0
Total Cadmium, ICP		181.30	7	141.7	12.4
Total Cadmium, Other		181.99	2	146.5	0.7
Method Group 181.XX PPM			10	141.9	10.5
ALUMINUM AS Al₂O₃					
ICP, %			12	1.71	0.04
Water Soluble Chlorine, Other, %		190.99	2	1.69	0.01
Method Group 190.XX PCT			14	1.71	0.04
TOTAL CHROMIUM					
Total Chromium, Atomic Absorbtion		191.00	1	535	0.0
Total Chromium, ICP		191.30	5	563	43.4
Total Chromium, Other		191.99	2	582	5.5
Method Group 191.XX PPM			8	569	43.2
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	4	4	0.7
Acid Soluble Cobalt, Other		202.99	1	4	0.0
Method Group 202.XX PPM			5	4	0.2
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	2	0.9	2.0
Method Group 221.XX PPM			5	63.0	4.2
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	12	1.14	0.04
Acid Soluble Iron, Other		241.99	2	1.12	0.00
Method Group 241.XX PCT			14	1.13	0.04
TOTAL LEAD					
Total Lead, Atomic Absorbtion		251.00	1	2	0.0
Total Lead, ICP		251.30	6	3	1.0
Total Lead, Other		251.99	2	2.0	0.3
Method Group 251.XX PPM			9	2	1.5
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	2	164	8.6
Acid Soluble Manganese, Other		261.99	4	186	1.3
Method Group 261.XX PPM			6	184	8.1
WATER SOLUBLE MANGANESE					
Water Soluble Manganese, Other		271.99	1	44	0
Method Group 271.XX PCT			1	44	0.0
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	6	20	0.6
Total Molybdenum, Other		289.99	2	18	1.7
Method Group 289.XX PPM			8	20	0.8
TOTAL NICKEL					
Total Nickel, ICP		291.30	5	258.0	5.3

Total Nickel, icp	291.99	3	248.0	25.7
Method Group 291.XX PPM		8	257.8	11.9
TOTAL SELENIUM				
Total Selenium, ICP	301.30	4	0.4	0.3
Total Selenium, Other	301.99	1	2	0.0
Method Group 301.XX PPM		5	0.5	0.8
SODIUM AS Na₂O				
Sodium, Atomic Absorbtion	983.04 311.00	1	0.29	0.00
Sodium, Other	311.99	10	0.13	0.01
Method Group 311.XX PCT		11	0.13	0.01
ACID SOLUBLE ZINC				
Acid Soluble Zinc, ICP	321.30	4	1960.8	24.1
Acid Soluble Zinc, Other	321.99	2	1855.3	66.6
Method Group 321.XX %		6	1948.3	46.7
FLUORIDE				
Volumetric	325.10	11	1.56	0.07
Distilled/Electrode	325.99	4	1.61	0.02
Method Group 325.XX PCT		15	1.58	0.07

001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
31	11.44	0.000
Median	11.44	0.000

001.99 Ammoniacal Nitrogen		
Lab	Other	
330	11.86	-8.584
275	11.49	-2.387
Std Dev	11.41	-1.000
275	11.39	-0.712
32	11.39	-0.628
24	11.38	-0.461
24	11.37	-0.377
32	11.37	-0.293
Median	11.35	0.000
113	11.33	0.293
61	11.32	0.461
79	11.31	0.628
61	11.30	0.796
34	11.30	0.879
113	11.29	0.963
Std Dev	11.29	1.000
38	10.95	6.658

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
330	11.86	-8.040
275	11.49	-2.030
31	11.44	-1.218
Std Dev	11.43	-1.000
275	11.39	-0.406
32	11.39	-0.325
24	11.38	-0.162
24	11.37	-0.081
32	11.37	0.000
Median	11.37	0.000
113	11.33	0.568
61	11.32	0.731
79	11.31	0.893
Std Dev	11.30	1.000
61	11.30	1.056
34	11.30	1.137
113	11.29	1.218

38	10.95	6.741
----	-------	-------

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
113	11.41	-1.340
Std Dev	11.41	-1.000
Median	11.41	0.000
Std Dev	11.40	1.000
113	11.40	1.340

010.60 Total Nitrogen		
Lab	Combustion	
49	11.61	-4.432
80	11.60	-4.329
63	11.46	-1.443
66	11.44	-1.031
Std Dev	11.44	-1.000
47	11.43	-0.722
38	11.42	-0.618
111	11.42	-0.618
237	11.42	-0.618
110	11.40	-0.206
31	11.39	0.000
137	11.39	0.000
Median	11.39	0.000
29	11.38	0.206
24	11.38	0.309
24	11.37	0.412
14	11.36	0.618
79	11.36	0.722
14	11.35	0.928
Std Dev	11.34	1.000
77	11.33	1.237
140	11.30	1.855
107	11.11	5.772
99	11.09	6.288

010.99 Total Nitrogen		
Lab	Other	
330	12.13	-41.004
32	11.39	-1.072
Std Dev	11.38	-1.000
32	11.37	0.000
Median	11.37	0.000

23	11.36	0.268
Std Dev	11.35	1.000
23	11.34	1.608

010.XX Total Nitrogen		
Lab	Total Method	
330	12.13	-16.244
49	11.61	-4.758
80	11.60	-4.649
63	11.46	-1.586
66	11.44	-1.149
Std Dev	11.43	-1.000
47	11.43	-0.820
38	11.42	-0.711
111	11.42	-0.711
237	11.42	-0.711
113	11.41	-0.492
110	11.40	-0.273
113	11.40	-0.273
31	11.39	-0.055
137	11.39	-0.055
Median	11.39	0.000
32	11.39	0.055
29	11.38	0.164
24	11.38	0.273
24	11.37	0.383
32	11.37	0.492
14	11.36	0.602
23	11.36	0.602
79	11.36	0.711
14	11.35	0.930
Std Dev	11.34	1.000
23	11.34	1.149
77	11.33	1.258
140	11.30	1.914
107	11.11	6.071
99	11.09	6.618

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
113	53.08	-1.340
Std Dev	53.07	-1.000
Median	53.06	0.000
Std Dev	53.04	1.000

113	53.03	1.340
-----	-------	-------

020.20 Total Phosphate		
Lab	Spectrometric	
38	54.58	-5.592
99	53.90	-2.961
111	53.64	-1.974
275	53.62	-1.896
31	53.44	-1.200
Std Dev	53.39	-1.000
61	53.34	-0.793
275	53.28	-0.581
23	53.17	-0.135
24	53.15	-0.077
23	53.15	-0.058
Median	53.13	0.000
61	53.12	0.058
32	53.10	0.116
32	53.04	0.368
14	53.03	0.406
14	53.02	0.426
140	53.00	0.503
24	52.97	0.639
34	52.88	0.987
Std Dev	52.87	1.000
79	52.82	1.200
110	52.05	4.180

020.40 Total Phosphate		
Lab	Automated	
137	52.38	0.000
Median	52.38	0.000

020.50 Total Phosphate		
Lab	ICP	
111	53.51	0.000
Median	53.51	0.000

020.99 Total Phosphate		
Lab	Other	
330	54.68	0.000
Median	54.68	0.000

020.XX		Total Phosphate
Lab	Total Method	
330	54.68	-4.993
38	54.58	-4.658
99	53.90	-2.489
111	53.64	-1.675
275	53.62	-1.611
111	53.51	-1.244
31	53.44	-1.037
Std Dev	53.43	-1.000
61	53.34	-0.702
275	53.28	-0.526
23	53.17	-0.160
24	53.15	-0.112
23	53.15	-0.096
61	53.12	0.000
Median	53.12	0.000
32	53.10	0.048
113	53.08	0.115
32	53.04	0.255
113	53.03	0.259
14	53.03	0.287
14	53.02	0.303
140	53.00	0.367
24	52.97	0.479
34	52.88	0.766
79	52.82	0.941
Std Dev	52.80	1.000
137	52.38	2.361
110	52.05	3.398

030.20		Insoluble Phosphate
Lab	Spectrometric	
61	0.37	-7.763
61	0.30	-4.990
Std Dev	0.19	-1.000
23	0.18	-0.739
23	0.18	-0.554
24	0.16	0.000
24	0.16	0.000
Median	0.16	0.000
79	0.15	0.370
140	0.14	0.739
Std Dev	0.13	1.000

113	0.04	4.436
113	0.01	5.545

030.30		Insoluble Phosphate
Lab	Alka. Quimociac	
31	0.07	0.000
Median	0.07	0.000

030.40		Insoluble Phosphate
Lab	Automated	
34	0.17	0.000
Median	0.17	0.000

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

030.XX		Insoluble Phosphate
Lab	Total Method	
61	0.37	-4.610
61	0.30	-3.002
Std Dev	0.20	-1.000
23	0.18	-0.536
23	0.18	-0.429
34	0.17	-0.322
24	0.16	-0.107
24	0.16	-0.107
Median	0.16	0.000
79	0.15	0.107
140	0.14	0.322
32	0.12	0.858
32	0.11	0.965
Std Dev	0.11	1.000
31	0.07	1.930
113	0.04	2.466
113	0.01	3.109

040.20		Indirect Available Phosphate
Lab	Spectrometric	
31	53.38	-6.830

113	53.07	-1.470
Std Dev	53.04	-1.000
23	52.99	-0.086
24	52.99	-0.086
113	52.99	-0.086
61	52.99	0.000
Median	52.99	0.000
23	52.97	0.346
61	52.97	0.346
Std Dev	52.93	1.000
140	52.86	2.161
24	52.81	3.112
79	52.68	5.360

040.99		Indirect Available Phosphate
Lab	Other	
32	52.99	-0.574
32	52.93	0.000
Median	52.93	0.000
Std Dev	52.82	1.000
34	52.71	2.106

040.XX		Indirect Available Phosphate
Lab	Total Method	
31	53.38	-4.771
113	53.07	-1.119
Std Dev	53.06	-1.000
23	52.99	-0.177
24	52.99	-0.177
113	52.99	-0.177
32	52.99	-0.118
61	52.99	-0.118
Median	52.98	0.000
23	52.97	0.118
61	52.97	0.118
32	52.93	0.589
Std Dev	52.89	1.000
140	52.86	1.355
24	52.81	2.003
34	52.71	3.181
79	52.68	3.534

041.10		Direct Available Phosphate
Lab	Gravimetric Quimociac	
31	53.38	-6.830

47	53.06	-1.340
Std Dev	53.05	-1.000
Median	53.04	0.000
Std Dev	53.03	1.000
107	53.02	1.340

041.20		Direct Available Phosphate
Lab	Spectrometric	
47	53.13	-1.340
Std Dev	52.99	-1.000
Median	52.59	0.000
Std Dev	52.19	1.000
38	52.05	1.340

041.50		Direct Available Phosphate
Lab	ICP	
63	52.61	-0.320
66	52.37	0.000
Median	52.37	0.000
Std Dev	51.62	1.000
80	50.60	2.360

041.60		Direct Available Phosphate
Lab	EDTA Extract	
29	53.81	-0.850
77	53.53	-0.465
Median	53.19	0.000
49	52.85	0.465
Std Dev	52.45	1.000
137	51.93	1.722

041.XX		Direct Available Phosphate
Lab	Total Method	
29	53.81	-1.457
77	53.53	-1.030
Std Dev	53.51	-1.000
47	53.13	-0.432
47	53.06	-0.326
107	53.02	-0.265
49	52.85	0.000
Median	52.85	0.000
63	52.61	0.356
66	52.37	0.719
Std Dev	52.18	1.000

38	52.05	1.204
137	51.93	1.393
80	50.60	3.399

048.10 Water Soluble Phosphate Gravimetric Quimociac		
Lab		
113	47.77	-1.340
Std Dev	47.76	-1.000
Median	47.75	0.000
Std Dev	47.73	1.000
113	47.72	1.340

048.20 Water Soluble Phosphate Spectrometric		
Lab		
330	50.68	-9.972
61	48.25	-1.497
23	48.15	-1.149
Std Dev	48.10	-1.000
140	48.06	-0.853
61	47.99	-0.609
23	47.94	-0.435
24	47.82	0.000
Median	47.82	0.000
31	47.77	0.174
24	47.73	0.296
79	47.68	0.487
Std Dev	47.53	1.000
14	47.45	1.270
111	47.32	1.740
14	47.31	1.775

048.99 Water Soluble Phosphate Other		
Lab		
32	48.42	-0.818
32	48.26	-0.593
Median	47.85	0.000
34	47.45	0.593
111	47.18	0.985

048.XX Water Soluble Phosphate Total Method		
Lab		
330	50.68	-7.221
32	48.42	-1.601
32	48.26	-1.216

61	48.25	-1.179
Std Dev	48.17	-1.000
23	48.15	-0.931
140	48.06	-0.720
61	47.99	-0.546
23	47.94	-0.422
24	47.82	-0.112
113	47.77	0.000
Median	47.77	0.000
31	47.77	0.012
24	47.73	0.099
113	47.72	0.124
79	47.68	0.236
14	47.45	0.794
34	47.45	0.806
Std Dev	47.37	1.000
111	47.32	1.129
14	47.31	1.154
111	47.18	1.476

050.50 %K ₂ O Soluble Potash ICP(Oxalate)		
Lab		
23	0.12	-1.340
Std Dev	0.12	-1.000
Median	0.12	0.000
Std Dev	0.12	1.000
23	0.12	1.340

050.51 %K ₂ O Soluble Potash ICP(Citrate)		
Lab		
137	0.12	0.000
Median	0.12	0.000

050.99 %K ₂ O Soluble Potash Other		
Lab		
80	0.15	-2.297
61	0.14	-1.531
Std Dev	0.13	-1.000
275	0.13	-0.766
111	0.13	-0.383
24	0.12	0.000
61	0.12	0.000
Median	0.12	0.000
31	0.12	0.383

24	0.11	0.766
275	0.11	0.766
Std Dev	0.11	1.000
330	0.03	7.274

050.XX Soluble Potash Total Method		
Lab	%K ₂ O	
80	0.15	-4.020
61	0.14	-2.680
275	0.13	-1.340
Std Dev	0.13	-1.000
111	0.13	-0.670
23	0.12	0.000
24	0.12	0.000
61	0.12	0.000
137	0.12	0.000
Median	0.12	0.000
23	0.12	0.670
31	0.12	0.670
Std Dev	0.11	1.000
24	0.11	1.340
275	0.11	1.340
330	0.03	12.730

060.00 Free Water Vacuum Oven		
Lab		
34	1.42	-3.228
31	1.31	-1.949
32	1.26	-1.340
Std Dev	1.23	-1.000
32	1.21	-0.731
113	1.20	-0.609
113	1.19	-0.487
23	1.15	0.000
Median	1.15	0.000
23	1.14	0.122
24	1.13	0.305
79	1.10	0.609
24	1.09	0.731
Std Dev	1.07	1.000
140	1.02	1.584
111	0.95	2.436

060.10 Free Water Vacuum Desiccate		
Lab		
61	0.84	-1.340
Std Dev	0.81	-1.000
Median	0.74	0.000
Std Dev	0.67	1.000
61	0.64	1.340

060.99 Free Water Other		
Lab		
330	1.47	-3.088
Std Dev	1.29	-1.000
14	1.25	-0.524
14	1.20	0.000
Median	1.20	0.000
275	1.13	0.816
Std Dev	1.11	1.000
275	0.94	3.030

060.XX Free Water Total Method		
Lab		
330	1.47	-2.932
34	1.42	-2.474
31	1.31	-1.512
32	1.26	-1.054
Std Dev	1.25	-1.000
14	1.25	-0.916
32	1.21	-0.596
14	1.20	-0.504
113	1.20	-0.504
113	1.19	-0.412
23	1.15	-0.046
Median	1.15	0.000
23	1.14	0.046
275	1.13	0.137
24	1.13	0.183
79	1.10	0.412
24	1.09	0.504
Std Dev	1.04	1.000
140	1.02	1.145
111	0.95	1.787
275	0.94	1.878
61	0.84	2.795
61	0.64	4.627

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
32	0.77	-8.040
32	0.76	-6.030
34	0.72	-1.340
Std Dev	0.72	-1.000
23	0.72	-0.670
23	0.72	-0.670
61	0.72	-0.670
14	0.71	0.000
24	0.71	0.000
24	0.71	0.000
Median	0.71	0.000
14	0.71	0.670
61	0.71	0.670
Std Dev	0.70	1.000
111	0.70	1.340
31	0.70	1.675
330	0.69	2.680

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
32	0.77	-8.040
32	0.76	-6.030
34	0.72	-1.340
Std Dev	0.72	-1.000
23	0.72	-0.670
23	0.72	-0.670
61	0.72	-0.670
14	0.71	0.000
24	0.71	0.000
24	0.71	0.000
Median	0.71	0.000
14	0.71	0.670
61	0.71	0.670
Std Dev	0.70	1.000
111	0.70	1.340
31	0.70	1.675
330	0.69	2.680

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
275	1.17	-1.340

Std Dev	1.16	-1.000
Median	1.15	0.000
Std Dev	1.14	1.000
275	1.13	1.340

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
61	1.24	-2.075
Std Dev	1.21	-1.000
23	1.21	-0.865
23	1.20	-0.692
24	1.19	-0.173
34	1.19	-0.173
24	1.18	0.000
61	1.18	0.000
Median	1.18	0.000
32	1.18	0.173
14	1.16	0.865
Std Dev	1.15	1.000
31	1.14	1.556
32	1.12	2.248
14	1.11	2.594

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
330	1.15	-1.340
Std Dev	1.13	-1.000
Median	1.10	0.000
Std Dev	1.06	1.000
111	1.05	1.340

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
61	1.24	-1.765
Std Dev	1.21	-1.000
23	1.21	-0.850
23	1.20	-0.719
24	1.19	-0.327
34	1.19	-0.327
24	1.18	-0.196
61	1.18	-0.196
32	1.18	-0.065
Median	1.17	0.000
275	1.17	0.065

14	1.16	0.458
330	1.15	0.719
31	1.14	0.980
Std Dev	1.13	1.000
275	1.13	1.111
32	1.12	1.503
14	1.11	1.765
111	1.05	3.334

144.01 Sulfate Sulfur (S)		
Lab	Gravimetric	
79	1.55	0.000
Median	1.55	0.000

144.70 Sulfur		
Lab	Spectrometric	
14	1.44	-1.340
Std Dev	1.43	-1.000
Median	1.43	0.000
Std Dev	1.43	1.000
14	1.43	1.340

144.99 Sulfate Sulfur (S)		
Lab	Other	
330	4.64	-2.904
32	4.33	-2.611
32	4.32	-2.602
Std Dev	2.57	-1.000
23	1.49	-0.009
23	1.49	-0.005
34	1.48	0.000
Median	1.48	0.000
24	1.47	0.009
24	1.47	0.014
61	1.42	0.055
31	1.39	0.087
61	1.38	0.092

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
330	4.64	-40.930
32	4.33	-36.810
32	4.32	-36.680
Std Dev	1.55	-1.000

79	1.55	-0.969
23	1.49	-0.194
23	1.49	-0.129
34	1.48	-0.065
Median	1.48	0.000
24	1.47	0.065
24	1.47	0.129
14	1.44	0.517
14	1.43	0.581
61	1.42	0.710
Std Dev	1.40	1.000
31	1.39	1.162
61	1.38	1.227

145.99 Total Sulfur (S)		
Lab	Other	
111	1.53	0.000
Median	1.53	0.000

145.XX Total Sulfur (S)		
Lab	Total Method	
111	1.53	0.000
Median	1.53	0.000

151.30 Total Arsenic		
Lab	ICP	
113	32.70	-6.858
Std Dev	22.28	-1.000
113	22.00	-0.843
330	22.00	-0.843
61	20.50	0.000
61	20.50	0.000
Median	20.50	0.000
140	19.71	0.447
24	19.35	0.646
Std Dev	18.72	1.000
111	6.50	7.870

151.99 Total Arsenic		
Lab	Other	
275	19.80	-0.363
275	19.40	0.000
Median	19.40	0.000
Std Dev	18.30	1.000

31	16.85	2.317
151.XX		
Lab	PPM	Total Method
113	32.70	-9.219
113	22.00	-1.572
330	22.00	-1.572
Std Dev	21.20	-1.000
61	20.50	-0.500
61	20.50	-0.500
275	19.80	0.000
Median	19.80	0.000
140	19.71	0.068
275	19.40	-0.286
24	19.35	0.322
Std Dev	18.40	1.000
31	16.85	2.108
111	6.50	9.505

165.99		
Lab	PPM	Acid Soluble Boron Other
111	130.00	-0.485
275	104.80	-0.011
275	104.20	0.000
Median	104.20	0.000
Std Dev	51.02	1.000
330	33.54	1.329
24	28.95	1.415

65.XX, ppm		
Lab	PPM	Acid Soluble Boron Total Method
111	130.00	-0.485
275	104.80	-0.011
275	104.20	0.000
Median	104.20	0.000
Std Dev	51.02	1.000
330	33.54	1.329
24	28.95	1.415

171.99		
Lab	PPM	Water Soluble Boron Other
330	18.95	0.000
Median	18.95	0.000

171.XX		
Lab	PPM	Water Soluble Boron Total Method
330	18.95	0.000
Median	18.95	0.000

181.00		
Lab	PPM	Total Cadmium Atomic Absorbtion
330	135.00	0.000
Median	135.00	0.000

181.30		
Lab	PPM	Total Cadmium ICP
61	152.00	-0.830
61	152.00	-0.830
275	142.05	-0.026
275	141.73	0.000
Median	141.73	0.000
113	136.70	0.407
Std Dev	129.36	1.000
113	124.20	1.417
111	121.00	1.676

181.99		
Lab	PPM	Total Cadmium Other
24	147.50	-1.340
Std Dev	147.25	-1.000
Median	146.50	0.000
Std Dev	145.75	1.000
31	145.50	1.340

181.XX		
Lab	PPM	Total Cadmium Total Method
61	152.00	-1.170
61	152.00	-1.170
Std Dev	150.53	-1.000
24	147.50	-0.649
31	145.50	-0.418
275	142.05	-0.018
Median	141.89	0.000
275	141.73	0.018
113	136.70	0.601
330	135.00	0.798
Std Dev	133.25	1.000
113	124.20	2.048

111	121.00	2.418
190.00		
Lab	%Al ₂ O ₃	Aluminum ICP
61	1.76	-1.269
Std Dev	1.75	-1.000
14	1.74	-0.705
34	1.72	-0.282
23	1.72	-0.141
23	1.72	-0.141
24	1.71	0.000
24	1.71	0.000
Median	1.71	0.000
14	1.70	0.282
Std Dev	1.67	1.000
32	1.67	1.128
32	1.67	1.269
61	1.66	1.411
111	1.12	16.644

190.99		
Lab	%Al ₂ O ₃	Aluminum Atomic Absorption
31	1.71	-1.340
Std Dev	1.70	-1.000
Median	1.69	0.000
Std Dev	1.67	1.000
330	1.67	1.340

190.XX		
Lab	%Al ₂ O ₃	Aluminum Total Method
61	1.76	-1.414
Std Dev	1.74	-1.000
14	1.74	-0.819
34	1.72	-0.372
23	1.72	-0.223
23	1.72	-0.223
24	1.71	-0.074
24	1.71	-0.074
Median	1.71	0.000
31	1.71	0.074
14	1.70	0.223
Std Dev	1.67	1.000
32	1.67	1.117
330	1.67	1.117

32	1.67	1.266
61	1.66	1.414
111	1.12	17.494

191.00		
Lab	PPM	Total Chromium Atomic Absorbtion
330	534.50	0.000
Median	534.50	0.000

191.30		
Lab	PPM	Total Chromium ICP
61	611.00	-1.105
61	608.50	-1.048
Std Dev	606.43	-1.000
111	563.00	0.000
Median	563.00	0.000
113	550.30	0.292
Std Dev	519.57	1.000
113	499.70	1.457

191.99		
Lab	PPM	Total Chromium Other
24	589.00	-1.340
Std Dev	587.12	-1.000
Median	581.60	0.000
Std Dev	576.08	1.000
31	574.20	1.340

191.XX		
Lab	PPM	Total Chromium Total Method
61	611.00	-1.195
61	608.50	-1.125
Std Dev	604.07	-1.000
24	589.00	-0.575
31	574.20	-0.158
Median	568.60	0.000
111	563.00	0.158
113	550.30	0.516
330	534.50	0.961
Std Dev	533.13	1.000
113	499.70	1.943

202.30		
Lab	PPM	Acid Soluble Cobalt ICP

61		
202.99	Acid Soluble Cobalt	
Lab	Other	
24	4.17	0.000
Median	4.17	0.000

202.XX		
Lab	PPM	Acid Soluble Cobalt Total Method
61	4.45	-1.390
Std Dev	4.37	-1.000
330	4.27	-0.496
24	4.17	0.000
Median	4.17	0.000
61	4.00	0.844
Std Dev	3.97	1.000
111	1.50	13.251

221.30		
Lab	PPM	Acid Soluble Copper ICP
111	67.50	-2.193
Std Dev	65.05	-1.000
61	63.00	0.000
Median	63.00	0.000
61	62.00	0.487

221.99		
Lab		Acid Soluble Copper Other
31	66.64	-1.340
Std Dev	65.96	-1.000
Median	63.97	0.000
Std Dev	61.98	1.000
24	61.30	1.340

221.XX		
Lab	PPM	Acid Soluble Copper Total Method
111	67.50	-1.301
31	66.64	-1.051
Std Dev	66.46	-1.000
61	63.00	0.000
Median	63.00	0.000
61	62.00	0.289
24	61.30	0.491

241.30		
Lab	%Fe ₂ O ₃	Acid Soluble Iron ICP
23	1.17	-0.846
34	1.16	-0.705
23	1.16	-0.564
24	1.16	-0.564
24	1.15	-0.423
14	1.14	0.000
32	1.14	0.000
Median	1.14	0.000
14	1.12	0.423
111	1.11	0.705
61	1.10	0.987
Std Dev	1.10	1.000
61	1.09	1.411
32	1.08	1.552

241.99		
Lab	%Fe ₂ O ₃	Acid Soluble Iron Other
330	1.12	-1.340
Std Dev	1.12	-1.000
Median	1.12	0.000
Std Dev	1.12	1.000
31	1.12	1.340

241.XX		
Lab	%Fe ₂ O ₃	Acid Soluble Iron Total Method
23	1.17	-1.182
34	1.16	-1.025
Std Dev	1.16	-1.000
23	1.16	-0.867
24	1.16	-0.867
24	1.15	-0.709
14	1.14	-0.236
32	1.14	-0.236
Median	1.13	0.000
14	1.12	0.236
330	1.12	0.236
31	1.12	0.394
111	1.11	0.552
61	1.10	0.867
Std Dev	1.10	1.000
61	1.09	1.340
32	1.08	1.498

251.00		
Lab	Total Lead Atomic Absorbtion	
330	1.60	0.000
Median	1.60	0.000

251.30		
Lab	PPM	Total Lead ICP
113	4.10	-0.790
113	3.70	-0.407
61	3.55	-0.263
Median	3.28	0.000
61	3.00	0.263
Std Dev	2.23	1.000
275	2.02	1.204
275	1.90	1.318

251.99		
Lab	Total Lead Other	
31	2.40	-1.340
Std Dev	2.30	-1.000
Median	2.02	0.000
Std Dev	1.73	1.000
24	1.64	1.340

251.XX		
Lab	PPM	Total Lead Total Method
113	4.10	-1.379
113	3.70	-1.054
Std Dev	3.63	-1.000
61	3.55	-0.933
61	3.00	-0.487
31	2.40	0.000
Median	2.40	0.000
275	2.02	0.311
275	1.90	0.407
24	1.64	0.621
330	1.60	0.649

261.30		
Lab	Acid Soluble Manganese ICP	
111	175.50	-1.340
Std Dev	172.58	-1.000
Median	164.00	0.000

Std Dev	155.42	1.000
330	152.50	1.340

261.99		
Lab	PPM	Acid Soluble Manganese Other
61	187.00	-0.731
31	186.55	-0.394
Median	186.03	0.000
61	185.50	0.394
Std Dev	184.69	1.000
24	183.00	2.268

261.XX		
Lab	PPM	Acid Soluble Manganese Total Method
61	187.00	-0.413
31	186.55	-0.346
61	185.50	-0.188
Median	184.25	0.000
24	183.00	0.188
Std Dev	177.60	1.000
111	175.50	1.316
330	152.50	4.774

271.99		
Lab	Water Soluble Manganese Other	
330	44.05	0.000
Median	44.05	0.000

271.XX		
Lab	PPM	Water Soluble Manganese Total Method
330	44.05	0.000
Median	44.05	0.000

281.30		
Lab	PPM	Total Mercury ICP
24	<0.001	0.000
Median	0.00	0.000

281.XX		
Lab	PPM	Total Mercury Total Method
24	<0.001	0.000
Median	0.00	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
330		

289.99 Total Molybdenum		
Lab	PPM	Other
24	19.90	-1.340
Std Dev	19.32	-1.000
Median	17.63	0.000
Std Dev	15.93	1.000
31	15.35	1.340

289.XX Total Molybdenum		
Lab	PPM	Total Method
330	28.55	-12.564
275	20.84	-1.206
Std Dev	20.70	-1.000
61	20.50	-0.707
275	20.04	-0.029
Median	20.02	0.000
111	20.00	0.029
24	19.90	0.177
Std Dev	19.34	1.000
61	19.00	-1.502
31	15.35	6.879

291.30 Total Nickel	
Lab	ICP
275	

291.99 Total Nickel		
Lab	PPM	Other
31	258.40	-0.405
24	248.00	0.000
Median	248.00	0.000
Std Dev	222.29	1.000
111	189.50	2.275

291.XX Total Nickel		
Lab	PPM	Total Method
275	266.42	-0.889
275	264.60	-0.702
31	258.40	-0.067
61	258.00	-0.026
Median	257.75	0.000
61	257.50	0.026

24	248.00	0.999
Std Dev	247.99	1.000
330	243.50	1.460
111	189.50	6.995

301.30 Total Selenium		
Lab	PPM	ICP
140	1.21	-3.020
Std Dev	0.69	-1.000
111	0.50	-0.258
Median	0.43	0.000
24	0.37	0.258
61	0.23	0.793

301.99 Total Selenium		
Lab	PPM	Other
330	1.60	0.000
Median	1.60	0.000

301.XX Total Selenium		
Lab	PPM	Total Method
330	1.60	-1.750
140	1.21	-1.129
Std Dev	1.13	-1.000
111	0.50	0.000
Median	0.50	0.000
24	0.37	0.211
61	0.23	0.429

311.00 Sodium		
Lab	%Na ₂ O	Atomic Absorbtion
330	0.29	0.000
Median	0.29	0.000

311.99 Sodium		
Lab	%Na ₂ O	Other
111	0.15	-1.462
Std Dev	0.14	-1.000
23	0.14	-0.975
23	0.14	-0.975
31	0.14	-0.487
61	0.13	0.000
61	0.13	0.000
Median	0.13	0.000

24	0.13	0.487
275	0.13	0.487
275	0.12	0.975
Std Dev	0.12	1.000
24	0.12	1.462

311.XX Sodium		
Lab	%Na ₂ O	Total Method
330	0.29	-13.847
111	0.15	-1.340
Std Dev	0.14	-1.000
23	0.14	-0.893
31	0.14	-0.893
61	0.13	-0.447
61	0.13	0.000
Median	0.13	0.000
24	0.13	0.447
275	0.13	0.447
275	0.12	0.893
Std Dev	0.12	1.000
24	0.12	1.340

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
24	1980.00	-0.800
111	1969.50	-0.364
Median	1960.75	0.000
61	1952.00	0.364
Std Dev	1936.68	1.000
61	1903.50	2.379

321.99 Acid Soluble Zinc		
Lab	PPM	Other
31	1944.50	-1.340
Std Dev	1921.85	-1.000
Median	1855.25	0.000
Std Dev	1788.65	1.000
330	1766.00	1.340

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
24	1980.00	-0.828
111	1969.50	-0.554

61	1952.00	-0.098
Median	1948.25	0.000
31	1944.50	0.098
Std Dev	1909.91	1.000
61	1903.50	1.167
330	1766.00	4.754

325.10 Fluoride		
Lab	%	Electrode
32	1.68	-1.666
32	1.66	-1.449
24	1.64	-1.086
14	1.60	-0.507
14	1.58	-0.290
24	1.56	0.000
Median	1.56	0.000
23	1.55	0.217
23	1.54	0.290
34	1.51	0.797
79	1.48	1.159
111	0.24	19.195

325.99 Fluoride		
Lab	%	Other
61	1.62	-0.558
330	1.62	-0.558
Median	1.61	0.000
31	1.60	0.558
61	1.58	1.452

325.XX Fluoride		
Lab	%	Total Method
32	1.68	-1.643
32	1.66	-1.383
24	1.64	-0.951
61	1.62	-0.692
330	1.62	-0.692
14	1.60	-0.259
31	1.60	-0.259
14	1.58	0.000
Median	1.58	0.000
61	1.58	0.086
24	1.56	0.346
23	1.55	0.605

23	1.54	0.692
34	1.51	1.297
79	1.48	1.729
111	0.24	23.255