

AFPC

2018-03

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	11.35	0.00
Ammoniacal Nitrogen, Other		001.99	16	11.37	0.09
Method Group 001.XX PCT			17	11.36	0.10
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	4	11.45	0.10
Total Nitrogen, Combustion	993.13	010.60	17	11.33	0.13
Total Nitrogen, Other		010.99	4	11.35	0.14
Method Group 010.XX PCT			25	11.38	0.12
TOTAL PHOSPHATE					
Total Phosphate, Spectrometric	978.02	020.20	23	40.78	0.19
Total Phosphate, ICP	970.03	020.40	2	40.52	0.70
Total Phosphate, Other	993.13	020.99	1	41.39	0.00
Method Group 020.XX PCT			26	40.79	0.34
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	11	0.97	0.30
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.91	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	1.15	0.00
Insoluble Phosphate, Other		030.99	2	1.22	0.01
Method Group 030.XX PCT			15	1.14	0.31
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	12	39.64	0.41
Indirect Available Phosphate, Other		040.99	1	39.78	0.00
Method Group 040.XX PCT			13	39.66	0.44
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	1	40.37	0.00
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	40.37	0.42
Direct Available Phosphate, Automated	978.01	041.40	1	40.00	0.00
Direct Available Phosphate, ICP		041.50	3	39.35	1.31
Direct Available Phosphate, EDTA Extract	993.01	041.60	2	39.99	0.50
Direct Available Phosphate, Other		041.99	1	37.89	0.00
Method Group 041.XX PCT			10	39.90	1.14
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	16	34.66	0.30
Water Soluble Phosphate, ICP		048.50	1	34.32	0.00
Water Soluble Phosphate, Other		048.99	3	34.74	0.13
Method Group 048.XX PCT			20	34.66	0.32
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.12	0.04
Soluble Potash, Other		050.99	7	0.13	0.01
Method Group 050.XX PCT			10	0.13	0.02
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	16	0.59	0.12
Free Water, Other		060.99	5	0.63	0.19
Method Group 060.XX PCT			21	0.59	0.15
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, ICP		101.30	14	2.59	0.06
Method Group 101.XX PCT			14	2.59	0.07
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, ICP		121.30	12	0.79	0.03
Acid Soluble Magnesium, Other		121.99	2	0.84	0.09
Method Group 121.XX PCT			14	0.79	0.04
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	1		0.00
Method Group 131.XX PCT			1	0.00	0.00
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	4	4.87	0.95

Sulfur, Spectrometric	144.70	2	4.82	0.03
Sulfur, Other	144.99	12	4.81	0.19
Method Group 144.XX PCT		18	4.83	0.10
TOTAL SULFUR (S)				
Sulfur, Other	145.99	19	9.89	0.2
Method Group 145.XX PCT		19	9.89	0.3
TOTAL ARSENIC				
Total Arsenic, ICP	980.02(b) 151.02	7	10.6	1.3
Total Arsenic, Other	151.99	2	12.3	0.6
Method Group 151.XX PPM		9	11.5	1.5
ACID SOLUBLE BORON				
Acid Soluble Boron, Other	165.99	3	47	17.6
Method Group 165.XX PPM		3	47	21.4
WATER SOLUBLE BORON				
Water Soluble Boron, Other	171.99	2	6	2.9
Method Group 171.XX PPM		2	6	3.6
TOTAL CADMIUM				
Total Cadmium, Atomic Absorbtion	181.00	1	4	0.0
Total Cadmium, ICP	181.30	8	3.3	0.4
Total Cadmium, Other	181.99	2	2.5	0.7
Method Group 181.XX PPM		11	3.3	0.6
ALUMINUM AS Al₂O₃				
ICP, %		14	1.51	0.07
Water Soluble Chlorine, Other, %	190.99	2	37.55	26.87
Method Group 190.XX PCT		16	1.51	0.11
TOTAL CHROMIUM				
Total Chromium, Atomic Absorbtion	191.00	1	75	0.0
Total Chromium, ICP	191.30	4	68	7.1
Total Chromium, Other	191.99	1	72	0.0
Method Group 191.XX PPM		6	71	6.7
ACID SOLUBLE COBALT				
Acid Soluble Cobalt, ICP	202.30	5	3	0.7
Acid Soluble Cobalt, Other	202.99	1	3	0.0
Method Group 202.XX PPM		6	3	0.7
ACID SOLUBLE COPPER				
Acid Soluble Copper, Other	221.99	1	0.9	0.0
Method Group 221.XX PPM		2	5.7	4.8
ACID SOLUBLE IRON AS Fe₂O₃				
Acid Soluble Iron, ICP	241.30	14	1.12	0.02
Acid Soluble Iron, Other	241.99	2	1.34	0.18
Method Group 241.XX PCT		16	1.12	0.03
TOTAL LEAD				
Total Lead, ICP	251.30	8	2.5	0.8
Total Lead, Other	251.99	2	2.3	0.3
Method Group 251.XX PPM		10	2.5	0.8
ACID SOLUBLE MANGANESE				
Acid Soluble Manganese, ICP	972.02a 261.30	2	296	7.5
Acid Soluble Manganese, Other	261.99	4	322	4.0
Method Group 261.XX PPM		6	317	13.8
WATER SOLUBLE MANGANESE				
Water Soluble Manganese, Other	271.99	1	194	0
Method Group 271.XX PCT		1	194	0.0
TOTAL MERCURY				
Total Mercury, ICP	281.30	1	0.00	0.00
Method Group 281.XX PPM		1	0.02	0.00
TOTAL MOLYBDENUM				
Total Molybdenum, ICP	289.30	4	12	1.6
Total Molybdenum, Other	289.99	2	11	1.4
Method Group 289.XX PPM		6	12	2.8
TOTAL NICKEL				
Total Nickel, ICP	291.30	4	14.3	2.8
Total Nickel, icp	291.99	2	11.3	1.7

Method Group 291.XX PPM		6	13.6	1.7
TOTAL SELENIUM				
Total Selenium, ICP	301.30	4	0.1	0.2
Method Group 301.XX PPM		4	0.1	0.2
SODIUM AS Na₂O				
Sodium, Atomic Absorbtion	983.04 311.00	1	0.60	0.00
Sodium, Other	311.99	8	0.23	0.01
Method Group 311.XX PCT		9	0.23	0.01
ACID SOLUBLE ZINC				
Acid Soluble Zinc, Atomic Absorption	975.02 321.00	3	1.0	0.0
Acid Soluble Zinc, ICP	321.30	13	1.0	0.0
Acid Soluble Zinc, Other	321.99	5	0.9	0.0
Method Group 321.XX %		21	1.0	0.0
FLUORIDE				
Volumetric	325.10	11	1.81	0.67
Distilled/Electrode	325.99	4	1.75	0.26
Method Group 325.XX PCT		15	1.81	0.65

001.10 Ammoniacal Nitrogen		
Lab		MgO distillation
31	11.35	0.000
Median	11.35	0.000

001.99 Ammoniacal Nitrogen		
Lab		Other
140	11.56	-2.161
113	11.52	-1.700
79	11.52	-1.643
Std Dev	11.46	-1.000
113	11.46	-0.951
32	11.44	-0.720
275	11.42	-0.490
32	11.39	-0.202
24	11.39	-0.144
Median	11.37	0.000
23	11.36	0.144
23	11.35	0.317
24	11.34	0.375
34	11.33	0.490
275	11.31	0.778
77	11.30	0.836
Std Dev	11.29	1.000
330	11.20	2.046
38	10.57	9.308

001.XX Ammoniacal Nitrogen		
Lab		Total Method
140	11.56	-2.552
113	11.52	-2.042
79	11.52	-1.978
113	11.46	-1.212
Std Dev	11.44	-1.000
32	11.44	-0.957
275	11.42	-0.702
32	11.39	-0.383
24	11.39	-0.319
23	11.36	0.000
Median	11.36	0.000
23	11.35	0.191
31	11.35	0.191
24	11.34	0.255
34	11.33	0.383

275	11.31	0.702
77	11.30	0.766
Std Dev	11.28	1.000
330	11.20	2.106
38	10.57	10.146

010.11 Total Nitrogen		
Lab		Modified Comprehensive
113	11.61	-1.598
Std Dev	11.55	-1.000
113	11.50	-0.516
Median	11.45	0.000
43	11.40	0.516
43	11.38	0.664

010.60 Total Nitrogen		
Lab		Combustion
49	11.56	-1.723
Std Dev	11.46	-1.000
24	11.46	-0.957
79	11.44	-0.842
63	11.43	-0.766
47	11.43	-0.727
14	11.41	-0.574
24	11.38	-0.345
14	11.37	-0.306
66	11.33	0.000
Median	11.33	0.000
61	11.33	0.038
39	11.31	0.176
61	11.30	0.230
80	11.25	0.613
38	11.24	0.689
Std Dev	11.20	1.000
99	11.11	1.723
111	11.00	2.527
29	10.68	4.977

010.99 Total Nitrogen		
Lab		Other
32	11.43	-0.539
32	11.40	-0.296
Median	11.35	0.000
330	11.31	0.296

Std Dev	11.21	1.000
335	10.92	3.045

010.XX Total Nitrogen		
Lab		Total Method
113	11.61	-2.422
49	11.56	-1.855
113	11.50	-1.288
Std Dev	11.47	-1.000
24	11.46	-0.825
79	11.44	-0.670
32	11.43	-0.567
63	11.43	-0.567
47	11.43	-0.515
14	11.41	-0.309
32	11.40	-0.206
43	11.40	-0.206
43	11.38	-0.052
24	11.38	0.000
Median	11.38	0.000
14	11.37	0.052
66	11.33	0.464
61	11.33	0.515
330	11.31	0.670
39	11.31	0.701
61	11.30	0.773
Std Dev	11.28	1.000
80	11.25	1.288
38	11.24	1.392
99	11.11	2.783
111	11.00	3.865
335	10.92	4.742
29	10.68	7.164

020.20 Total Phosphate		
Lab		Spectrometric
111	41.45	-3.564
14	41.20	-2.251
275	41.13	-1.876
275	41.12	-1.822
61	41.11	-1.769
61	40.97	-1.018
Std Dev	40.97	-1.000
14	40.94	-0.858

34	40.93	-0.804
335	40.90	-0.643
43	40.85	-0.348
32	40.80	-0.080
113	40.78	0.000
Median	40.78	0.000
23	40.77	0.054
23	40.77	0.080
24	40.75	0.188
24	40.74	0.241
43	40.72	0.348
32	40.70	0.456
113	40.65	0.724
99	40.64	0.750
Std Dev	40.59	1.000
140	40.57	1.152
79	40.50	1.501
31	22.57	97.619

020.40 Total Phosphate		
Lab		Automated
111	41.46	-1.340
Std Dev	41.22	-1.000
Median	40.52	0.000
Std Dev	39.81	1.000
77	39.58	1.340

020.99 Total Phosphate		
Lab		Other
330	41.39	0.000
Median	41.39	0.000

020.XX Total Phosphate		
Lab		Total Method
111	41.46	-2.385
111	41.45	-2.349
330	41.39	-2.153
14	41.20	-1.474
275	41.13	-1.224
275	41.12	-1.188
61	41.11	-1.152
Std Dev	41.07	-1.000
61	40.97	-0.652
14	40.94	-0.545

34	40.93	-0.509
335	40.90	-0.402
43	40.85	-0.205
32	40.80	-0.027
Median	40.79	0.000
113	40.78	0.027
23	40.77	0.063
23	40.77	0.080
24	40.75	0.152
24	40.74	0.188
43	40.72	0.259
32	40.70	0.331
113	40.65	0.509
99	40.64	-0.527
140	40.57	0.795
Std Dev	40.51	1.000
79	40.50	1.027
77	39.58	4.333
31	22.57	65.106

030.20 Insoluble Phosphate Spectrometric		
Lab		
43	1.47	-1.669
24	1.31	-1.141
24	1.29	-1.059
Std Dev	1.27	-1.000
23	1.21	-0.794
23	1.14	-0.579
61	0.97	0.000
Median	0.97	0.000
140	0.97	0.000
61	0.84	0.414
79	0.84	0.414
Std Dev	0.66	1.000
113	0.42	1.820
113	0.34	2.084

030.30 Insoluble Phosphate Alka. Quimociac		
Lab		
31	0.91	0.000
Median	0.91	0.000

030.40 Insoluble Phosphate Automated		
Lab		

34	1.15	0.000
Median	1.15	0.000

030.99 Insoluble Phosphate		
Lab		Other
32	1.23	-1.340
Std Dev	1.23	-1.000
Median	1.22	0.000
Std Dev	1.21	1.000
32	1.21	1.340

030.XX Insoluble Phosphate Total Method		
Lab		
43	1.47	-1.280
Std Dev	1.40	-1.000
24	1.31	-0.660
24	1.29	-0.563
32	1.23	-0.350
23	1.21	-0.252
32	1.21	-0.252
34	1.15	-0.019
23	1.14	0.000
Median	1.14	0.000
61	0.97	0.680
140	0.97	0.680
31	0.91	0.913
Std Dev	0.88	1.000
61	0.84	1.165
79	0.84	1.165
113	0.42	2.816
113	0.34	3.127

040.20 Indirect Available Phosphate Spectrometric		
Lab		
113	40.45	-1.946
61	40.27	-1.522
113	40.23	-1.425
Std Dev	40.05	-1.000
31	40.05	-0.976
61	40.01	-0.879
79	39.66	-0.042
Median	39.64	0.000
23	39.63	0.042
140	39.60	0.103

23	39.57	0.188
24	39.46	0.443
24	39.43	0.528
43	39.38	0.637

040.99 Indirect Available Phosphate		
Lab		Other
34	39.78	0.000
Median	39.78	0.000

040.XX Indirect Available Phosphate Total Method		
Lab		
113	40.45	-2.191
61	40.27	-1.703
113	40.23	-1.591
31	40.05	-1.075
Std Dev	40.02	-1.000
61	40.01	-0.963
34	39.78	-0.335
79	39.66	0.000
Median	39.66	0.000
23	39.63	0.098
140	39.60	0.167
23	39.57	0.265
24	39.46	0.558
24	39.43	0.656
43	39.38	0.782

041.10 Direct Available Phosphate Gravimetric Quimociac		
Lab		
47	40.37	0.000
Median	40.37	0.000

041.20 Direct Available Phosphate Spectrometric		
Lab		
38	40.94	-1.340
Std Dev	40.80	-1.000
Median	40.37	0.000
Std Dev	39.95	1.000
47	39.81	1.340

041.40 Direct Available Phosphate Automated		
Lab		
39	40.00	0.000

Median	40.00	0.000
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041.50 Direct Available Phosphate ICP		
Lab		
63	41.21	-1.424
Std Dev	40.65	-1.000
66	39.35	0.000
Median	39.35	0.000
Std Dev	38.04	1.000
80	37.70	1.256

041.60 Direct Available Phosphate EDTA Extract		
Lab		
29	40.66	-1.340
Std Dev	40.49	-1.000
Median	39.99	0.000
Std Dev	39.49	1.000
49	39.33	1.340

041.99 Direct Available Phosphate Other		
Lab		
335	37.89	0.000
Median	37.89	0.000

041.XX Direct Available Phosphate Total Method		
Lab		
63	41.21	-1.393
38	40.94	-1.106
Std Dev	40.84	-1.000
29	40.66	-0.807
47	40.37	-0.498
39	40.00	-0.104
Median	39.90	0.000
47	39.81	0.104
66	39.35	0.594
49	39.33	0.615
Std Dev	38.96	1.000
335	37.89	2.150
80	37.70	2.347

048.20 Water Soluble Phosphate Spectrometric		
Lab		
14	36.05	-4.585
14	36.01	-4.453

61	35.13	-1.567
61	35.06	-1.319
Std Dev	34.96	-1.000
31	34.81	-0.511
79	34.81	-0.495
24	34.67	-0.049
140	34.66	0.000
330	34.66	0.000
Median	34.66	0.000
24	34.64	0.049
23	34.53	0.412
23	34.47	0.627
111	34.47	0.627
43	34.37	0.940
Std Dev	34.35	1.000
113	34.29	1.220
113	34.11	1.798

048.50 Water Soluble Phosphate		
Lab	ICP	
111	34.32	0.000
Median	34.32	0.000

048.99 Water Soluble Phosphate		
Lab	Other	
32	34.76	-0.117
32	34.74	0.000
Median	34.74	0.000
Std Dev	34.61	1.000
34	34.41	2.563

048.XX Water Soluble Phosphate		
Lab	Total Method	
14	36.05	-5.247
14	36.01	-5.096
61	35.13	-1.793
61	35.06	-1.510
Std Dev	34.92	-1.000
31	34.81	-0.585
79	34.81	-0.566
32	34.76	-0.377
32	34.74	-0.321
24	34.67	-0.057
140	34.66	0.000

330	34.66	0.000
Median	34.66	0.000
24	34.64	0.057
23	34.53	0.472
23	34.47	0.717
111	34.47	0.717
34	34.41	0.925
Std Dev	34.39	1.000
43	34.37	1.076
111	34.32	1.283
113	34.29	1.397
113	34.11	2.057

050.50 %K ₂ O Soluble Potash		
Lab	ICP(Oxalate)	
23	0.12	-0.112
23	0.12	0.000
Median	0.12	0.000
Std Dev	0.07	1.000
99	0.00	2.568

050.99 %K ₂ O Soluble Potash		
Lab	Other	
111	0.26	-13.400
Std Dev	0.14	-1.000
61	0.14	-0.536
24	0.13	0.000
24	0.13	0.000
61	0.13	0.000
Median	0.13	0.000
Std Dev	0.12	1.000
330	0.11	2.144
80	0.10	3.216

050.XX %K ₂ O Soluble Potash		
Lab	Total Method	
111	0.26	-9.291
Std Dev	0.14	-1.000
61	0.14	-0.715
24	0.13	-0.357
24	0.13	-0.357
61	0.13	-0.357
Median	0.13	0.000
23	0.12	0.357

23	0.12	0.715
Std Dev	0.11	1.000
330	0.11	1.072
80	0.10	1.787
99	0.00	8.933

060.00 Free Water		
Lab	Vacuum Oven	
34	0.77	-1.531
24	0.75	-1.404
Std Dev	0.70	-1.000
24	0.70	-0.978
31	0.66	-0.596
32	0.65	-0.553
32	0.65	-0.510
79	0.60	-0.085
43	0.59	-0.043
Median	0.59	0.000
140	0.58	0.043
23	0.54	0.383
113	0.51	0.681
113	0.50	0.766
23	0.49	0.808
Std Dev	0.47	1.000
111	0.42	1.404
61	0.30	2.467
61	0.25	2.893

060.99 Free Water		
Lab	Other	
330	0.71	-0.420
14	0.65	-0.079
14	0.63	0.000
Median	0.63	0.000
Std Dev	0.44	1.000
275	0.39	1.261
275	0.35	1.471

060.XX Free Water		
Lab	Total Method	
34	0.77	-1.466
24	0.75	-1.340
330	0.71	-1.005
Std Dev	0.71	-1.000

24	0.70	-0.921
31	0.66	-0.544
32	0.65	-0.503
14	0.65	-0.461
32	0.65	-0.461
14	0.63	-0.335
79	0.60	-0.042
43	0.59	0.000
Median	0.59	0.000
140	0.58	0.084
23	0.54	0.419
113	0.51	0.712
113	0.50	0.796
23	0.49	0.838
Std Dev	0.47	1.000
111	0.42	1.424
275	0.39	1.675
275	0.35	2.010
61	0.30	2.471
61	0.25	2.889

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
31	2.90	-5.633
111	2.81	-3.997
32	2.68	-1.635
32	2.65	-1.090
Std Dev	2.65	-1.000
24	2.62	-0.545
34	2.62	-0.545
14	2.59	0.000
23	2.59	0.000
Median	2.59	0.000
14	2.59	0.091
23	2.58	0.182
61	2.57	0.454
24	2.56	0.545
Std Dev	2.53	1.000
61	2.53	1.181
330	0.19	43.607

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
31	2.90	-5.633

111	2.81	-3.997
32	2.68	-1.635
32	2.65	-1.090
Std Dev	2.65	-1.000
24	2.62	-0.545
34	2.62	-0.545
14	2.59	0.000
23	2.59	0.000
Median	2.59	0.000
14	2.59	0.091
23	2.58	0.182
61	2.57	0.454
24	2.56	0.545
Std Dev	2.53	1.000
61	2.53	1.181
330	0.19	43.607

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
61	0.83	-1.386
32	0.83	-1.201
32	0.83	-1.201
Std Dev	0.82	-1.000
34	0.81	-0.647
23	0.80	-0.092
24	0.80	-0.092
Median	0.79	0.000
23	0.79	0.092
61	0.79	0.277
14	0.78	0.462
24	0.77	0.832
Std Dev	0.77	1.000
14	0.77	1.017
31	0.76	1.201

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
330	0.96	-1.340
Std Dev	0.93	-1.000
Median	0.84	0.000
Std Dev	0.75	1.000
111	0.73	1.340

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
330	0.96	-4.604
61	0.83	-1.031
Std Dev	0.83	-1.000
32	0.83	-0.893
32	0.83	-0.893
34	0.81	-0.481
23	0.80	-0.069
24	0.80	-0.069
Median	0.79	0.000
23	0.79	0.069
61	0.79	0.206
14	0.78	0.344
24	0.77	0.618
14	0.77	0.756
31	0.76	0.893
Std Dev	0.76	1.000
111	0.73	1.855

144..01 Sulfate Sulfur (S)		
Lab		Gravimetric
47	9.67	-5.032
Std Dev	5.82	-1.000
79	4.91	-0.039
Median	4.87	0.000
140	4.83	0.039
103	4.78	0.092

144.70 Sulfur		
Lab		Spectrometric
14	4.86	-1.340
Std Dev	4.85	-1.000
Median	4.82	0.000
Std Dev	4.79	1.000
14	4.79	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
38	5.32	-2.628
Std Dev	5.01	-1.000
23	4.95	-0.686
34	4.93	-0.609
23	4.86	-0.220

32	4.85	-0.194
32	4.82	-0.039
Median	4.81	0.000
24	4.81	0.039
24	4.79	0.142
31	4.64	0.893
Std Dev	4.62	1.000
275	4.54	1.411
330	4.44	1.929
275	4.40	2.136

144.XX Sulfate Sulfur (S)		
Lab		Total Method
47	9.67	-57.650
38	5.32	-5.896
23	4.95	-1.429
34	4.93	-1.251
Std Dev	4.91	-1.000
79	4.91	-0.953
14	4.86	-0.417
23	4.86	-0.357
32	4.85	-0.298
140	4.83	-0.060
Median	4.83	0.000
32	4.82	0.060
24	4.81	0.238
14	4.79	0.476
24	4.79	0.476
103	4.78	0.536
Std Dev	4.74	1.000
31	4.64	2.204
275	4.54	3.395
330	4.44	4.586
275	4.40	5.062

145.99 Total Sulfur (S)		
Lab		Other
43	10.49	-2.551
43	10.25	-1.522
32	10.13	-1.008
Std Dev	10.12	-1.000
63	10.07	-0.772
24	9.97	-0.343
24	9.94	-0.214

49	9.93	-0.182
32	9.93	-0.150
103	9.91	-0.064
34	9.89	0.000
Median	9.89	0.000
23	9.89	0.021
23	9.88	0.043
99	9.79	0.450
140	9.67	0.965
Std Dev	9.66	1.000
275	9.62	1.158
49	9.53	1.544
275	9.42	2.015
66	9.39	2.165
31	8.05	7.890

145.XX Total Sulfur (S)		
Lab		Total Method
43	10.49	-2.551
43	10.25	-1.522
32	10.13	-1.008
Std Dev	10.12	-1.000
63	10.07	-0.772
24	9.97	-0.343
24	9.94	-0.214
49	9.93	-0.182
32	9.93	-0.150
103	9.91	-0.064
34	9.89	0.000
Median	9.89	0.000
23	9.89	0.021
23	9.88	0.043
99	9.79	0.450
140	9.67	0.965
Std Dev	9.66	1.000
275	9.62	1.158
49	9.53	1.544
275	9.42	2.015
66	9.39	2.165
31	8.05	7.890

151.30 Total Arsenic		
Lab		ICP
330	<4	0.000

113	13.22	-2.020
335	11.94	-1.031
Std Dev	11.89	-1.000
113	11.79	-0.919
24	10.60	0.000
Median	10.60	0.000
140	10.26	0.266
61	10.00	0.463
Std Dev	9.31	1.000
61	9.00	1.236

151.99		Total Arsenic
Lab		Other
275	13.09	-1.340
Std Dev	12.89	-1.000
Median	12.29	0.000
Std Dev	11.69	1.000
275	11.49	1.340

151.XX		Total Arsenic
Lab		Total Method
330	<4	0.000
113	13.22	-1.376
275	13.09	-1.276
Std Dev	12.74	-1.000
335	11.94	-0.355
113	11.79	-0.239
275	11.49	0.000
Median	11.49	0.000
24	10.60	0.710
140	10.26	0.985
Std Dev	10.24	1.000
61	10.00	1.188
61	9.00	1.986

165.99		Acid Soluble Boron
Lab	PPM	Other
111	82.50	-2.044
Std Dev	64.15	-1.000
330	46.58	0.000
Median	46.58	0.000
24	35.40	0.636

165.XX, ppm		Acid Soluble Boron
Lab	PPM	Total Method
111	82.50	-2.044
Std Dev	64.15	-1.000
330	46.58	0.000
Median	46.58	0.000
24	35.40	0.636

171.99		Water Soluble Boron
Lab	PPM	Other
330	9.63	-1.340
Std Dev	8.64	-1.000
Median	5.72	0.000
Std Dev	2.79	1.000
31	1.80	1.340

171.XX		Water Soluble Boron
Lab	PPM	Total Method
330	9.63	-1.340
Std Dev	8.64	-1.000
Median	5.72	0.000
Std Dev	2.79	1.000
31	1.80	1.340

181.00		Total Cadmium
Lab		Atomic Absorbtion
330	4.30	0.000
Median	4.30	0.000

181.30		Total Cadmium
Lab	PPM	ICP
61	3.50	-0.646
111	3.50	-0.646
275	3.38	-0.316
335	3.29	-0.069
Median	3.27	0.000
275	3.24	0.069
61	3.00	0.728
Std Dev	2.90	1.000
113	2.69	1.582
113	1.89	3.787

181.99		Total Cadmium
Lab		Other

24	3.46	-1.340
Std Dev	3.21	-1.000
Median	2.48	0.000
Std Dev	1.75	1.000
31	1.51	1.340

181.XX		Total Cadmium
Lab	PPM	Total Method
330	4.30	-2.138
Std Dev	3.76	-1.000
61	3.50	-0.445
111	3.50	-0.445
24	3.46	-0.349
275	3.38	-0.191
335	3.29	0.000
Median	3.29	0.000
275	3.24	0.106
61	3.00	0.614
Std Dev	2.82	1.000
113	2.69	1.272
113	1.89	2.971
31	1.51	3.779

190.00		Aluminum
Lab	%Al ₂ O ₃	ICP
275	1.62	-1.508
275	1.61	-1.374
14	1.61	-1.374
14	1.61	-1.307
Std Dev	1.58	-1.000
34	1.53	-0.302
23	1.51	-0.034
32	1.51	-0.034
Median	1.51	0.000
23	1.51	0.033
32	1.50	0.100
24	1.49	0.234
24	1.49	0.301
61	1.49	0.301
Std Dev	1.43	1.000
61	1.42	1.173
111	1.07	5.929

190.99		Aluminum
Lab	%Al ₂ O ₃	Atomic Absorption
31	73.55	-1.340
Std Dev	64.41	-1.000
Median	37.55	0.000
Std Dev	10.68	1.000
330	1.54	1.340

190.XX		Aluminum
Lab	%Al ₂ O ₃	Total Method
31	73.55	-821.563
275	1.62	-1.254
275	1.61	-1.140
14	1.61	-1.140
14	1.61	-1.083
Std Dev	1.60	-1.000
330	1.54	-0.342
34	1.53	-0.228
23	1.51	0.000
32	1.51	0.000
Median	1.51	0.000
23	1.51	0.057
32	1.50	0.114
24	1.49	0.228
24	1.49	0.285
61	1.49	0.285
Std Dev	1.42	1.000
61	1.42	1.026
111	1.07	5.075

191.00		Total Chromium
Lab		Atomic Absorbtion
330	75.00	0.000
Median	75.00	0.000

191.30		Total Chromium
Lab		ICP
335	83.89	-2.247
Std Dev	75.07	-1.000
61	70.50	-0.354
Median	68.00	0.000
61	65.50	0.354
111	61.00	0.990

191.99 Total Chromium		
Lab	PPM	Other
24	71.55	0.000
Median	71.55	0.000

191.XX Total Chromium		
Lab	PPM	Total Method
335	83.89	-2.333
Std Dev	76.54	-1.000
330	75.00	-0.721
24	71.55	-0.095
Median	71.03	0.000
61	70.50	0.095
Std Dev	65.51	1.000
61	65.50	1.002
111	61.00	1.818

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
330		

202.99 Acid Soluble Cobalt		
Lab	PPM	Other
24	2.51	0.000
Median	2.51	0.000

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
330	4.40	-2.980
Std Dev	3.21	-1.000
61	3.00	-0.646
335	2.72	-0.179
Median	2.61	0.000
24	2.51	0.179
Std Dev	2.01	1.000
61	2.00	1.021
111	2.00	1.021

221.00 Acid Soluble Copper		
Lab	PPM	Atomic Absorption
330	<3	0.000
Median	0.00	0.000

221.30 Acid Soluble Copper		
Lab	PPM	ICP
330		

61	<1	0.000
61	<1	0.000
111	11.00	0.000
Median	11.00	0.000

221.99 Acid Soluble Copper		
Lab	PPM	Other
24	0.46	0.000
Median	0.46	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
330	<3	0.000
61	<1	0.000
61	<1	0.000
111	11.00	-1.340
Std Dev	9.66	-1.000
Median	5.73	0.000
24	0.46	1.340

241.30 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	ICP
275	1.19	-3.289
275	1.15	-1.340
Std Dev	1.14	-1.000
23	1.14	-0.853
32	1.14	-0.853
23	1.14	-0.609
34	1.13	-0.365
32	1.13	-0.122
Median	1.12	0.000
14	1.12	0.122
24	1.12	0.122
24	1.12	0.365
14	1.11	0.609
111	1.11	0.609
Std Dev	1.10	1.000
61	1.10	1.096
61	1.10	1.340

241.99 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Other
330	1.58	-1.340
Std Dev	1.52	-1.000

Median	1.34	0.000
Std Dev	1.16	1.000
31	1.10	1.340

241.XX Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Total Method
330	1.58	-20.435
275	1.19	-3.015
275	1.15	-1.228
Std Dev	1.14	-1.000
23	1.14	-0.782
32	1.14	-0.782
23	1.14	-0.558
34	1.13	-0.335
32	1.13	-0.112
Median	1.12	0.000
14	1.12	0.112
24	1.12	0.112
24	1.12	0.335
14	1.11	0.558
111	1.11	0.558
Std Dev	1.10	1.000
61	1.10	1.005
31	1.10	1.228
61	1.10	1.228

251.00 Total Lead		
Lab	PPM	Atomic Absorbtion
330	<3,7	0.000
Median	0.00	0.000

251.30 Total Lead		
Lab	PPM	ICP
335	3.22	-0.908
61	3.00	-0.637
275	2.99	-0.624
61	2.50	-0.006
Median	2.50	0.000
275	2.49	0.006
113	2.24	0.322
Std Dev	1.70	1.000
111	1.00	1.885
113	0.63	2.358

251.99 Total Lead		
Lab	PPM	Other
24	2.70	-1.340
Std Dev	2.60	-1.000
Median	2.33	0.000
Std Dev	2.05	1.000
31	1.95	1.340

251.XX Total Lead		
Lab	PPM	Total Method
330	<3,7	0.000
335	3.22	-1.078
Std Dev	3.16	-1.000
61	3.00	-0.756
275	2.99	-0.741
24	2.70	-0.307
61	2.50	-0.007
Median	2.50	0.000
275	2.49	0.007
113	2.24	0.382
31	1.95	0.816
Std Dev	1.83	1.000
111	1.00	2.238
113	0.63	2.799

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
111	306.00	-1.340
Std Dev	303.46	-1.000
Median	296.00	0.000
Std Dev	288.54	1.000
330	286.00	1.340

261.99 Acid Soluble Manganese		
Lab	PPM	Other
31	325.20	-0.790
24	323.50	-0.371
Median	322.00	0.000
61	320.50	0.371
Std Dev	317.95	1.000
61	312.50	2.347

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
330		

31	325.20	-0.771
24	323.50	-0.620
61	320.50	-0.354
Median	316.50	0.000
61	312.50	0.354
111	306.00	0.930
Std Dev	305.21	1.000
330	286.00	2.702

271.99	Water Soluble Manganese	
Lab	Other	
330	194.00	0.000
Median	194.00	0.000

271.XX	Water Soluble Manganese	
Lab	PPM	Total Method
330	194.00	0.000
Median	194.00	0.000

281.30	Total Mercury	
Lab	PPM	ICP
24	<0.001	0.000
335	0.02	0.000
Median	0.02	0.000

281.XX	Total Mercury	
Lab	PPM	Total Method
24	<0.001	0.000
335	0.02	0.000
Median	0.02	0.000

289.30	Total Molybdenum	
Lab	PPM	ICP
61		

289.99	Total Molybdenum	
Lab	PPM	Other
24	12.55	-1.340
Std Dev	12.07	-1.000
Median	10.68	0.000
Std Dev	9.28	1.000
31	8.80	1.340

289.XX	Total Molybdenum	
Lab	PPM	Total Method

61	13.50	-0.875
24	12.55	-0.459
61	12.00	-0.219
Median	11.50	0.000
330	11.00	0.219
Std Dev	9.21	1.000
31	8.80	1.181
111	8.00	1.531

291.30	Total Nickel	
Lab	ICP	
330		

291.99	Total Nickel	
Lab	PPM	Other
24	13.60	-1.340
Std Dev	13.02	-1.000
Median	11.33	0.000
Std Dev	9.63	1.000
31	9.05	1.340

291.XX	Total Nickel	
Lab	PPM	Total Method
330	23.00	-6.626
335	15.02	-1.027
Std Dev	14.98	-1.000
24	13.60	-0.035
Median	13.55	0.000
61	13.50	0.035
61	12.50	0.736
Std Dev	12.12	1.000
31	9.05	3.155

301.30	Total Selenium	
Lab	PPM	ICP
61	<1	0.000
61	<1	0.000
24	0.75	-3.650
Std Dev	0.25	-1.000
140	0.10	-0.237
Median	0.06	0.000
335	0.01	0.237
330	0.00	0.289

301.XX	Total Selenium	
Lab	PPM	Total Method
61	<1	0.000
61	<1	0.000
24	0.75	-3.650
Std Dev	0.25	-1.000
140	0.10	-0.237
Median	0.06	0.000
335	0.01	0.237
330	0.00	0.289

311.00	Sodium	
Lab	%Na ₂ O	Atomic Absorbtion
330	0.60	0.000
Median	0.60	0.000

311.99	Sodium	
Lab	%Na ₂ O	Other
111	0.33	-8.933
Std Dev	0.24	-1.000
23	0.24	-0.447
61	0.24	-0.447
23	0.23	0.000
31	0.23	0.000
Median	0.23	0.000
24	0.22	0.893
61	0.22	0.893
Std Dev	0.22	1.000
24	0.22	1.340

311.XX	Sodium	
Lab	%Na ₂ O	Total Method
330	0.60	-33.053
111	0.33	-8.933
Std Dev	0.24	-1.000
23	0.24	-0.447
61	0.24	-0.447
23	0.23	0.000
31	0.23	0.000
Median	0.23	0.000
24	0.22	0.893
61	0.22	0.893
Std Dev	0.22	1.000
24	0.22	1.340

321.00	Acid Soluble Zinc	
Lab	Atomic Absorption	
275	1.02	-0.300
275	1.01	0.000
Median	1.01	0.000
Std Dev	0.98	1.000
49	0.94	2.380

321.30	Acid Soluble Zinc	
Lab	PPM	ICP
77	1.06	-4.020
66	0.99	-1.359
Std Dev	0.98	-1.000
23	0.97	-0.766
24	0.97	-0.574
23	0.96	-0.383
47	0.96	-0.383
32	0.95	0.000
Median	0.95	0.000
32	0.94	0.574
140	0.94	0.574
111	0.93	0.766
Std Dev	0.92	1.000
61	0.91	1.443
38	0.90	2.106
61	0.89	2.110

321.99	Acid Soluble Zinc	
Lab	Other	
330	1.05	-4.937
Std Dev	0.97	-1.000
24	0.96	-0.470
34	0.95	0.000
Median	0.95	0.000
31	0.93	0.870
Std Dev	0.92	1.000
99	0.91	1.881

321.XX	Acid Soluble Zinc	
Lab	PPM	Total Method
77	1.06	-3.518
330	1.05	-3.350
275	1.02	-2.198

275	1.01	-1.920
66	0.99	-1.189
Std Dev	0.98	-1.000
23	0.97	-0.670
24	0.97	-0.503
23	0.96	-0.335
47	0.96	-0.335
24	0.96	-0.168
32	0.95	0.000
Median	0.95	0.000
34	0.95	0.167
49	0.94	0.285
32	0.94	0.502
140	0.94	0.502
111	0.93	0.670
31	0.93	0.787
Std Dev	0.92	1.000
61	0.91	1.263
99	0.91	1.508
38	0.90	1.843
61	0.89	1.846

325.XX		Fluoride
Lab	%	Total Method
32	1.94	-0.251
32	1.90	-0.168
23	1.89	-0.158
23	1.86	-0.102
31	1.85	-0.084
34	1.82	-0.019
24	1.81	-0.009
24	1.81	0.000
Median	1.81	0.000
79	1.80	0.009
61	1.77	0.074
61	1.73	0.140
330	0.54	2.354
14	0.17	3.049
111	0.17	3.052
14	0.16	3.054

325.10		Fluoride
Lab	%	Electrode
32	1.94	-0.195
32	1.90	-0.128
23	1.89	-0.120
23	1.86	-0.075
34	1.82	-0.008
24	1.81	0.000
Median	1.81	0.000
24	1.81	0.008
79	1.80	0.015
14	0.17	2.470
111	0.17	2.473
14	0.16	2.474

325.99		Fluoride
Lab	%	Other
31	1.85	-0.388
61	1.77	-0.066
Median	1.75	0.000
61	1.73	0.066
330	0.54	4.574