

AFPC

Sample

2018-12

Grade

MAP S Zn

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	12.00	0.00
Ammoniacal Nitrogen, Other		001.99	9	11.73	0.03
Method Group 001.XX PCT			10	11.73	0.20
AMMON & NITRATE N					
Ammon & Nitrate N, Other		009.99	2	17.06	0.01
Method Group 009.XX PCT			2	17.06	0.02
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	11.69	0.01
Total Nitrogen, Combustion	993.13	010.60	21	11.70	0.10
Total Nitrogen, Other		010.99	3	17.62	1.85
Method Group 010.XX PCT			27	11.70	0.21
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	1	40.97	0.00
Total Phosphate, Spectrometric	978.02	020.20	20	40.94	0.32
Total Phosphate, ICP	970.03	020.40	3	41.21	0.09
Total Phosphate, Other	993.13	020.99	1	47.13	0.00
Method Group 020.XX PCT			25	40.98	0.38
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	10	0.30	0.10
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.06	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.18	0.03
Method Group 030.XX PCT			14	0.25	0.14
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	13	40.75	0.28
Indirect Available Phosphate, Other		040.99	2	40.83	0.17
Method Group 040.XX PCT			15	40.75	0.34
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	40.06	0.02
Direct Available Phosphate, Spectrometric	960.03D	041.20	1	40.33	0.00
Direct Available Phosphate, ICP		041.50	3	39.65	0.20
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	39.74	0.39
Direct Available Phosphate, Other		041.99	2	42.10	1.24
Method Group 041.XX PCT			12	40.06	0.65
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	17	34.79	0.35
Water Soluble Phosphate, Other		048.99	2	34.60	0.24
Method Group 048.XX PCT			19	34.79	0.44
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	11	0.13	0.04
Method Group 050.XX PCT			14	0.12	0.02
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	14	0.62	0.31
Free Water, Other		060.99	3	0.66	0.09
Method Group 060.XX PCT			17	0.66	0.37
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.14	0.00
Acid Soluble Calcium, ICP		101.30	16	0.21	0.02
Method Group 101.XX PCT			17	0.21	0.03
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.86	0.00
Acid Soluble Magnesium, ICP		121.30	15	1.14	0.07
Acid Soluble Magnesium, Other		121.99	2	1.12	0.01

AFPC Check Sample 12-2018	Method Group 121.XX PCT		18	1.13	0.08
WATER SOLUBLE MAGNESIUM					
	Water Soluble Magnesium, Other	131.99	1	0.06	0.00
	Method Group 131.XX PCT		1	0.06	0.00
SULFATE SULFUR (S)					
	Sulfur, Gravimetric	980.02(a) 144.01	3	4.94	1.96
	Sulfur, Spectrometric	144.70	2	9.48	0.03
	Sulfur, Other	144.99	10	4.94	0.34
	Method Group 144.XX PCT		15	4.94	2.30
TOTAL SULFUR (S)					
	Sulfur, Other	145.99	16	10.24	0.6
	Method Group 145.XX PCT		16	10.24	0.7
TOTAL ARSENIC					
	Total Arsenic, ICP	980.02(b) 151.02	9	10.5	2.1
	Method Group 151.XX PPM		9	10.5	2.6
ACID SOLUBLE BORON					
	Acid Soluble Boron, Other	165.99	3	39	122.0
	Method Group 165.XX PPM		3	39	148.6
WATER SOLUBLE BORON					
	Water Soluble Boron, Other	171.99	1	13	0.0
	Method Group 171.XX PPM		1	13	0.0
TOTAL CADMIUM					
	Total Cadmium, Atomic Absorbtion	181.00	1	2	0.0
	Total Cadmium, ICP	181.30	8	2.7	0.7
	Total Cadmium, Other	181.99	1	2.3	0.0
	Method Group 181.XX PPM		10	2.4	0.8
ALUMINUM AS Al₂O₃					
	ICP, %		14	1.41	0.06
	Water Soluble Chlorine, Other, %	190.99	2	1.34	0.06
	Method Group 190.XX PCT		16	1.41	0.07
TOTAL CHROMIUM					
	Total Chromium, Atomic Absorbtion	191.00	1	58	0.0
	Total Chromium, ICP	191.30	8	70	3.6
	Total Chromium, Other	191.99	1	59	0.0
	Method Group 191.XX PPM		10	68	5.2
ACID SOLUBLE COBALT					
	Acid Soluble Cobalt, ICP	202.30	8	3	0.7
	Acid Soluble Cobalt, Other	202.99	1	2	0.0
	Method Group 202.XX PPM		9	3	1.0
ACID SOLUBLE COPPER					
	Acid Soluble Copper, Other	221.99	1	0.9	0.0
	Method Group 221.XX PPM		7	1.5	1.3
ACID SOLUBLE IRON AS Fe₂O₃					
	Acid Soluble Iron, ICP	241.30	16	1.39	0.05
	Acid Soluble Iron, Other	241.99	1	1.27	0.00
	Method Group 241.XX PCT		18	1.39	0.07
TOTAL LEAD					
	Total Lead, Atomic Absorbtion	251.00	1	9	0.0
	Total Lead, ICP	251.30	5	1.4	0.2
	Total Lead, Other	251.99	1	0.9	0.0
	Method Group 251.XX PPM		7	1.4	3.7
ACID SOLUBLE MANGANESE					
	Acid Soluble Manganese, ICP	972.02a 261.30	4	262	15.7
	Acid Soluble Manganese, Other	261.99	6	277	13.4
	Method Group 261.XX PPM		10	270	18.3
WATER SOLUBLE MANGANESE					
	Water Soluble Manganese, Other	271.99	1	151	0
	Method Group 271.XX PCT		1	151	0.0
TOTAL MERCURY					
	Total Mercury, ICP	281.30	2	0.00	0.01

Total Mercury, Other	281.99	1	0	0.00	
Method Group 281.XX PPM		3	0.02	0.02	
TOTAL MOLYBDENUM					
Total Molybdenum, ICP	289.30	9	12	1.6	
Total Molybdenum, Other	289.99	2	25	9.6	
Method Group 289.XX PPM		11	12	12.5	
TOTAL NICKEL					
Total Nickel, ICP	291.30	8	13.3	0.9	
Total Nickel, icp	291.99	1	8.9	0.0	
Method Group 291.XX PPM		9	13.0	1.6	
TOTAL SELENIUM					
Total Selenium, ICP	301.30	3	0.4	0.1	
Method Group 301.XX PPM		3	0.4	0.1	
SODIUM AS Na₂O					
Sodium, Atomic Absorbtion	983.04	311.00	1	0.10	0.00
Sodium, Other		311.99	10	0.14	0.03
Method Group 311.XX PCT			11	0.14	0.03
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	3	1.3	0.1
Acid Soluble Zinc, ICP		321.30	14	1.3	0.1
Acid Soluble Zinc, Other		321.99	7	1.2	0.1
Method Group 321.XX %			24	1.2	0.1
FLUORIDE					
Volumetric	325.10		12	1.53	0.29
Distilled/Electrode	325.99		3	1.60	0.04
Method Group 325.XX PCT			15	1.58	0.17

001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
31	12.00	0.000
Median	12.00	0.000

001.99 Ammoniacal Nitrogen		
Lab	Other	
330	12.41	-20.249
335	12.12	-11.762
Std Dev	11.76	-1.000
34	11.76	-0.893
79	11.74	-0.447
24	11.73	0.000
Median	11.73	0.000
23	11.72	0.149
24	11.71	0.447
23	11.71	0.596
Std Dev	11.69	1.000
140	11.60	3.871

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
330	12.41	-4.050
335	12.12	-2.334
31	12.00	-1.581
Std Dev	11.90	-1.000
34	11.76	-0.136
79	11.74	-0.045
Median	11.73	0.000
24	11.73	0.045
23	11.72	0.075
24	11.71	0.136
23	11.71	0.166
140	11.60	0.828

009.99 Ammon & Nitrate N		
Lab	Other	
32	17.08	-1.340
Std Dev	17.08	-1.000
Median	17.06	0.000
Std Dev	17.05	1.000
32	17.05	1.340

009.XX Ammon & Nitrate N		
Lab	Total Method	
32	17.08	-1.340
Std Dev	17.08	-1.000
Median	17.06	0.000
Std Dev	17.05	1.000
32	17.05	1.340

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
219	11.70	-1.340
Std Dev	11.69	-1.000
43	11.69	0.000
Median	11.69	0.000
Std Dev	11.68	1.000
43	11.68	1.340

010.60 Total Nitrogen		
Lab	Combustion	
49	11.96	-2.581
39	11.94	-2.427
63	11.93	-2.283
66	11.91	-2.084
237	11.90	-1.985
47	11.81	-1.042
Std Dev	11.80	-1.000
219	11.78	-0.744
79	11.76	-0.596
137	11.74	-0.397
77	11.73	-0.298
80	11.70	0.000
Median	11.70	0.000
31	11.70	0.025
64	11.70	0.050
61	11.68	0.199
103	11.68	0.248
61	11.67	0.298
14	11.67	0.347
14	11.67	0.347
140	11.62	0.794
Std Dev	11.60	1.000
99	11.49	2.134
111	11.04	6.551

010.99 Total Nitrogen		
Lab	Other	
32	17.68	-0.030
32	17.62	0.000
Median	17.62	0.000
Std Dev	15.77	1.000
330	12.72	2.650

010.XX Total Nitrogen		
Lab	Total Method	
32	17.68	-34.811
32	17.62	-34.490
330	12.72	-5.943
49	11.96	-1.515
39	11.94	-1.424
63	11.93	-1.340
66	11.91	-1.223
237	11.90	-1.165
Std Dev	11.87	-1.000
47	11.81	-0.612
219	11.78	-0.437
79	11.76	-0.350
137	11.74	-0.233
77	11.73	-0.175
80	11.70	0.000
Median	11.70	0.000
31	11.70	0.015
64	11.70	0.029
219	11.70	0.029
43	11.69	0.087
61	11.68	0.117
43	11.68	0.146
103	11.68	0.146
61	11.67	0.175
14	11.67	0.204
14	11.67	0.204
140	11.62	0.466
Std Dev	11.53	1.000
99	11.49	1.253
111	11.04	3.845

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
219	40.97	0.000

Median	40.97	0.000
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020.20 Total Phosphate		
Lab	Spectrometric	
32	46.81	-18.617
32	46.74	-18.411
335	45.99	-16.017
61	41.33	-1.253
34	41.27	-1.062
Std Dev	41.25	-1.000
111	41.21	-0.856
79	41.15	-0.682
24	41.09	-0.476
23	40.98	-0.127
61	40.96	-0.063
Median	40.94	0.000
237	40.92	0.063
31	40.91	0.087
24	40.90	0.127
43	40.85	0.270
23	40.80	0.428
43	40.80	0.444
140	40.73	0.650
14	40.71	0.729
14	40.70	0.761
Std Dev	40.62	1.000
99	40.53	1.284

020.40 Total Phosphate		
Lab	Automated	
111	41.33	-1.233
Std Dev	41.30	-1.000
137	41.21	0.000
Median	41.21	0.000
Std Dev	41.12	1.000
219	41.08	1.447

020.99 Total Phosphate		
Lab	Other	
330	47.13	0.000
Median	47.13	0.000

020.XX Total Phosphate		
Lab	Total Method	

330	47.13	-19.637
32	46.81	-18.600
32	46.74	-18.393
335	45.99	-15.984
61	41.33	-1.133
111	41.33	-1.117
Std Dev	41.29	-1.000
34	41.27	-0.941
137	41.21	-0.750
111	41.21	-0.734
79	41.15	-0.558
24	41.09	-0.351
219	41.08	-0.319
23	40.98	0.000
Median	40.98	0.000
219	40.97	0.016
61	40.96	0.064
237	40.92	0.191
31	40.91	0.215
24	40.90	0.255
43	40.85	0.399
23	40.80	0.558
43	40.80	0.574
140	40.73	0.782
14	40.71	0.861
14	40.70	0.893
Std Dev	40.66	1.000
99	40.53	1.420

030.20 Insoluble Phosphate Spectrometric		
Lab		
43	0.85	-5.274
43	0.41	-1.125
Std Dev	0.40	-1.000
61	0.39	-0.909
61	0.39	-0.861
140	0.33	-0.287
Median	0.30	0.000
23	0.27	0.287
24	0.26	0.335
79	0.25	0.479
24	0.23	0.622
23	0.23	0.670

030.30 Insoluble Phosphate Alka. Quimociac		
Lab		
31	0.06	0.000
Median	0.06	0.000

030.40 Insoluble Phosphate Automated		
Lab		
34	0.22	-1.340
Std Dev	0.20	-1.000
32	0.18	0.000
Median	0.18	0.000
Std Dev	0.15	1.000
32	0.14	1.340

030.XX Insoluble Phosphate Total Method		
Lab		
43	0.85	-5.215
43	0.41	-1.406
61	0.39	-1.208
61	0.39	-1.164
Std Dev	0.37	-1.000
140	0.33	-0.637
23	0.27	-0.110
24	0.26	-0.066
Median	0.25	0.000
79	0.25	0.066
24	0.23	0.198
23	0.23	0.242
34	0.22	0.330
32	0.18	0.681
Std Dev	0.14	1.000
32	0.14	1.032
31	0.06	1.713

040.20 Indirect Available Phosphate Spectrometric		
Lab		
32	46.67	-21.440
32	46.57	-21.078
Std Dev	41.03	-1.000
61	40.94	-0.670
79	40.91	-0.561
31	40.85	-0.362
24	40.83	-0.272
23	40.75	0.000

Median	40.75	0.000
24	40.67	0.308
61	40.55	0.724
23	40.54	0.779
Std Dev	40.47	1.000
140	40.41	1.249
43	40.38	1.340
43	40.01	2.698

040.99 Indirect Available Phosphate Other		
Lab		
34	41.06	-1.340
Std Dev	41.00	-1.000
Median	40.83	0.000
Std Dev	40.66	1.000
63	40.60	1.340

040.XX Indirect Available Phosphate Total Method		
Lab		
32	46.67	-21.014
32	46.57	-20.659
34	41.06	-1.083
Std Dev	41.03	-1.000
61	40.94	-0.657
79	40.91	-0.550
31	40.85	-0.355
24	40.83	-0.266
23	40.75	0.000
Median	40.75	0.000
24	40.67	0.302
63	40.60	0.532
61	40.55	0.710
23	40.54	0.763
Std Dev	40.47	1.000
140	40.41	1.225
43	40.38	1.313
43	40.01	2.645

041.10 Direct Available Phosphate Gravimetric Quimociac		
Lab		
219	40.09	-1.340
Std Dev	40.08	-1.000
Median	40.06	0.000
Std Dev	40.04	1.000

47	40.04	1.340
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041.20 Direct Available Phosphate Spectrometric		
Lab		
47	40.33	0.000
Median	40.33	0.000

041.50 Direct Available Phosphate ICP		
Lab		
66	40.14	-2.478
Std Dev	39.85	-1.000
80	39.65	0.000
Median	39.65	0.000
64	39.61	0.202

041.60 Direct Available Phosphate EDTA Extract		
Lab		
137	40.62	-2.255
Std Dev	40.13	-1.000
219	39.91	-0.425
Median	39.74	0.000
103	39.58	0.425
49	39.53	0.554

041.99 Direct Available Phosphate Other		
Lab		
335	43.77	-1.340
Std Dev	43.34	-1.000
Median	42.10	0.000
Std Dev	40.86	1.000
79	40.44	1.340

041.XX Direct Available Phosphate Total Method		
Lab		
335	43.77	-6.968
137	40.62	-1.044
Std Dev	40.59	-1.000
79	40.44	-0.705
47	40.33	-0.498
66	40.14	-0.150
219	40.09	-0.047
Median	40.06	0.000
47	40.04	0.047
219	39.91	0.292

80	39.65	0.771
64	39.61	0.846
103	39.58	0.912
Std Dev	39.53	1.000
49	39.53	1.006

048.20 Water Soluble Phosphate		
Lab	Spectrometric	
32	42.15	-21.209
32	42.05	-20.921
330	41.79	-20.158
14	35.26	-1.354
Std Dev	35.14	-1.000
24	35.10	-0.893
61	35.00	-0.605
61	34.87	-0.216
24	34.84	-0.144
23	34.79	0.000
Median	34.79	0.000
79	34.71	0.231
23	34.70	0.259
43	34.66	0.389
31	34.64	0.447
14	34.50	0.836
Std Dev	34.44	1.000
43	34.41	1.095
140	34.41	1.109
111	34.26	1.542

048.99 Water Soluble Phosphate		
Lab	Other	
34	34.93	-1.340
Std Dev	34.84	-1.000
Median	34.60	0.000
Std Dev	34.36	1.000
111	34.28	1.340

048.XX Water Soluble Phosphate		
Lab	Total Method	
32	42.15	-20.440
32	42.05	-20.162
330	41.79	-19.427
14	35.26	-1.305
Std Dev	35.15	-1.000

24	35.10	-0.861
61	35.00	-0.583
34	34.93	-0.375
61	34.87	-0.208
24	34.84	-0.139
23	34.79	0.000
Median	34.79	0.000
79	34.71	0.222
23	34.70	0.250
43	34.66	0.375
31	34.64	0.430
14	34.50	0.805
Std Dev	34.43	1.000
43	34.41	1.055
140	34.41	1.069
111	34.28	1.416
111	34.26	1.486

050.50 %K ₂ O Soluble Potash		
Lab	ICP(Oxalate)	
23	0.12	-1.340
Std Dev	0.12	-1.000
Median	0.12	0.000
Std Dev	0.11	1.000
23	0.11	1.340

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

050.99 Soluble Potash		
Lab	%K ₂ O	Other
43	994.00	#####
43	992.50	#####
111	0.19	-1.742
Std Dev	0.16	-1.000
330	0.15	-0.670
31	0.13	0.000
31	0.13	0.000
61	0.13	0.000
Median	0.13	0.000
24	0.12	0.134
24	0.12	0.134

61	0.12	0.134
80	0.10	0.670

050.XX Soluble Potash		
Lab	%K ₂ O	Total Method
43	994.00	-56075.615
43	992.50	-55990.983
111	0.19	-3.808
330	0.15	-1.552
Std Dev	0.14	-1.000
31	0.13	-0.141
31	0.13	-0.141
61	0.13	-0.141
Median	0.12	0.000
23	0.12	0.141
24	0.12	0.141
24	0.12	0.141
61	0.12	0.141
137	0.12	0.141
23	0.11	0.705
Std Dev	0.10	1.000
80	0.10	1.269

060.00 Free Water		
Lab	Vacuum Oven	
32	2.28	-5.409
32	1.94	-4.314
Std Dev	0.93	-1.000
24	0.90	-0.915
24	0.78	-0.523
79	0.77	-0.474
31	0.75	-0.409
140	0.66	-0.114
Median	0.62	0.000
23	0.59	0.114
23	0.58	0.147
43	0.37	0.817
43	0.37	0.833
111	0.33	0.964
Std Dev	0.31	1.000
61	0.30	1.062
61	0.28	1.128

060.99 Free Water		
Lab	Other	
330	0.90	-2.680
Std Dev	0.75	-1.000
14	0.66	0.000
14	0.66	0.000
Median	0.66	0.000

060.XX Free Water		
Lab	Total Method	
32	2.28	-5.295
32	1.94	-4.200
Std Dev	0.96	-1.000
24	0.90	-0.801
330	0.90	-0.801
24	0.78	-0.409
79	0.77	-0.360
31	0.75	-0.294
14	0.66	0.000
14	0.66	0.000
140	0.66	0.000
Median	0.66	0.000
23	0.59	0.229
23	0.58	0.261
43	0.37	0.931
43	0.37	0.948
Std Dev	0.35	1.000
111	0.33	1.079
61	0.30	1.177
61	0.28	1.242

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.14	0.000
Median	0.14	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
330	0.26	-2.025
61	0.24	-1.204
Std Dev	0.24	-1.000
24	0.24	-0.999
61	0.24	-0.999
24	0.23	-0.794

23	0.22	-0.384
34	0.22	-0.384
31	0.22	-0.178
Median	0.21	0.000
43	0.21	0.178
23	0.21	0.232
111	0.20	0.437
43	0.20	0.445
14	0.20	0.643
14	0.20	0.643
Std Dev	0.19	1.000
32	0.18	1.464
32	0.16	2.079

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
330	0.26	-2.055
61	0.24	-1.290
24	0.24	-1.098
61	0.24	-1.098
Std Dev	0.23	-1.000
24	0.23	-0.907
23	0.22	-0.524
34	0.22	-0.524
31	0.22	-0.333
43	0.21	0.000
Median	0.21	0.000
23	0.21	0.050
111	0.20	0.242
43	0.20	0.249
14	0.20	0.433
14	0.20	0.433
Std Dev	0.18	1.000
32	0.18	1.199
32	0.16	1.773
219	0.14	2.596

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	0.86	0.000
Median	0.86	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
32	1.32	-2.991
32	1.29	-2.525
34	1.21	-1.282
23	1.20	-1.126
Std Dev	1.19	-1.000
24	1.19	-0.971
23	1.18	-0.816
24	1.18	-0.816
31	1.14	-0.117
111	1.14	-0.117
Median	1.13	0.000
14	1.12	0.117
14	1.11	0.272
61	1.11	0.350
330	1.11	0.350

32	1.32	-2.991
32	1.29	-2.525
34	1.21	-1.086
Std Dev	1.20	-1.000
23	1.20	-0.942
24	1.19	-0.797
23	1.18	-0.652
24	1.18	-0.652
31	1.14	0.000
Median	1.14	0.000
14	1.12	0.217
14	1.11	0.362
61	1.11	0.435
43	1.10	0.507
61	1.10	0.579
Std Dev	1.07	1.000
43	1.06	1.086
237	0.67	6.751

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
111	1.14	-1.340
Std Dev	1.13	-1.000
Median	1.12	0.000
Std Dev	1.11	1.000
330	1.11	1.340

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
32	1.32	-2.991
32	1.29	-2.525
34	1.21	-1.282
23	1.20	-1.126
Std Dev	1.19	-1.000
24	1.19	-0.971
23	1.18	-0.816
24	1.18	-0.816
31	1.14	-0.117
111	1.14	-0.117
Median	1.13	0.000
14	1.12	0.117
14	1.11	0.272
61	1.11	0.350
330	1.11	0.350

43	1.10	0.427
61	1.10	0.505
Std Dev	1.06	1.000
43	1.06	1.049
219	0.86	4.210
237	0.67	7.123

144..01 Sulfate Sulfur (S)		
Lab	Gravimetric	
47	10.10	-2.629
Std Dev	6.90	-1.000
103	4.94	0.000
Median	4.94	0.000
79	4.84	0.051

144.70 Sulfur		
Lab	Spectrometric	
14	9.52	-1.340
Std Dev	9.51	-1.000
Median	9.48	0.000
Std Dev	9.44	1.000
14	9.43	1.340

144.99 Sulfate Sulfur (S)		
Lab	Other	
237	8.45	-10.395
330	6.34	-4.155
23	5.29	-1.050
Std Dev	5.27	-1.000
34	4.96	-0.074
24	4.94	0.000
24	4.94	0.000
Median	4.94	0.000
23	4.90	0.118
31	4.71	0.673
Std Dev	4.60	1.000
32	2.12	8.339
32	1.99	8.724

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
47	10.10	-2.736
14	9.52	-2.428
14	9.43	-2.380

237	8.45	-1.861
Std Dev	6.83	-1.000
330	6.34	-0.742
23	5.29	-0.186
34	4.96	-0.011
103	4.94	0.000
Median	4.94	0.000
24	4.94	0.003
24	4.94	0.003
23	4.90	0.024
79	4.84	0.053
31	4.71	0.123
Std Dev	3.05	1.000
32	2.12	1.498
32	1.99	1.567

145.99 Total Sulfur (S)		
Lab	Other	
49	10.70	-0.753
39	10.50	-0.422
49	10.40	-0.265
24	10.37	-0.215
23	10.37	-0.207
23	10.36	-0.190
63	10.28	-0.066
24	10.28	-0.058
Median	10.24	0.000
103	10.21	0.058
64	10.14	0.165
77	9.94	0.505
99	9.66	0.960
Std Dev	9.64	1.000
137	9.25	1.646
43	5.53	7.792
43	4.92	8.801
335	4.88	8.875

145.XX Total Sulfur (S)		
Lab	Total Method	
49	10.70	-0.753
39	10.50	-0.422
49	10.40	-0.265
24	10.37	-0.215
23	10.37	-0.207

23	10.36	-0.190
63	10.28	-0.066
24	10.28	-0.058
Median	10.24	0.000
103	10.21	0.058
64	10.14	0.165
77	9.94	0.505
99	9.66	0.960
Std Dev	9.64	1.000
137	9.25	1.646
43	5.53	7.792
43	4.92	8.801
335	4.88	8.875

151.30	Total Arsenic	
Lab	ICP	

330	23.76	-6.247
Std Dev	12.58	-1.000
335	10.70	-0.115
43	10.65	-0.094
64	10.60	-0.070
61	10.45	0.000
Median	10.45	0.000
43	10.40	0.023
Std Dev	8.32	1.000
24	7.80	1.246
31	7.58	1.349
140	5.09	2.518

151.XX	Total Arsenic	
Lab	Total Method	

330	23.76	-6.247
Std Dev	12.58	-1.000
335	10.70	-0.115
43	10.65	-0.094
64	10.60	-0.070
61	10.45	0.000
Median	10.45	0.000
43	10.40	0.023
Std Dev	8.32	1.000
24	7.80	1.246
31	7.58	1.349
140	5.09	2.518

165.99	Acid Soluble Boron	
Lab	PPM	Other

237	358.00	-2.611
Std Dev	161.43	-1.000
24	39.43	0.000
Median	39.43	0.000
330	31.03	0.069

165.XX, ppm	Acid Soluble Boron	
Lab	PPM	Total Method

237	358.00	-2.611
Std Dev	161.43	-1.000
24	39.43	0.000
Median	39.43	0.000
330	31.03	0.069

171.99	Water Soluble Boron	
Lab	PPM	Other

330	13.30	0.000
Median	13.30	0.000

171.XX	Water Soluble Boron	
Lab	PPM	Total Method

330	13.30	0.000
Median	13.30	0.000

181.00	Total Cadmium	
Lab	Atomic Absorbtion	

330	2.19	0.000
Median	2.19	0.000

181.30	Total Cadmium	
Lab	PPM	ICP

61	3.50	-1.113
Std Dev	3.42	-1.000
43	3.19	-0.679
43	3.18	-0.665
64	2.92	-0.301
Median	2.71	0.000
335	2.49	0.301
61	2.30	0.567
111	2.00	0.987
Std Dev	1.99	1.000
31	1.30	1.966

181.99	Total Cadmium	
Lab	Other	

24	2.33	0.000
Median	2.33	0.000

181.XX	Total Cadmium	
Lab	PPM	Total Method

61	3.50	-1.624
43	3.19	-1.163
43	3.18	-1.149
Std Dev	3.08	-1.000
64	2.92	-0.762
335	2.49	-0.123
Median	2.41	0.000
24	2.33	0.123
61	2.30	0.160
330	2.19	0.331
111	2.00	0.606
Std Dev	1.73	1.000
31	1.30	1.647

190.00	Aluminum	
Lab	%Al ₂ O ₃	ICP

14	1.47	-1.136
14	1.47	-1.045
Std Dev	1.46	-1.000
24	1.45	-0.772
43	1.45	-0.772
24	1.45	-0.681
23	1.42	-0.136
34	1.41	-0.045
Median	1.41	0.000
23	1.41	0.045
61	1.40	0.227
43	1.39	0.318
111	1.37	0.681
61	1.37	0.772
Std Dev	1.35	1.000
32	1.22	3.407
32	1.20	3.861

190.99	Aluminum	
Lab	%Al ₂ O ₃	Atomic Absorption

31	1.41	-1.340
Std Dev	1.39	-1.000
Median	1.34	0.000
Std Dev	1.28	1.000
330	1.26	1.340

190.XX	Aluminum	
Lab	%Al ₂ O ₃	Total Method

14	1.47	-1.081
Std Dev	1.47	-1.000
14	1.47	-0.994
24	1.45	-0.735
43	1.45	-0.735
24	1.45	-0.648
23	1.42	-0.130
31	1.41	-0.043
34	1.41	-0.043
Median	1.41	0.000
23	1.41	0.043
61	1.40	0.216
43	1.39	0.303
111	1.37	0.648
61	1.37	0.735
Std Dev	1.35	1.000
330	1.26	2.550
32	1.22	3.242
32	1.20	3.674

191.00	Total Chromium	
Lab	Atomic Absorbtion	

330	57.74	0.000
Median	57.74	0.000

191.30	Total Chromium	
Lab	ICP	

43	70.50	-0.172
64	70.39	-0.142
43	70.00	-0.034
61	70.00	-0.034
Median	69.88	0.000
31	69.75	0.034
Std Dev	66.24	1.000
335	65.30	1.259
111	65.00	1.340

61	64.00	1.614
191.99 Total Chromium		
Lab	PPM	Other
24	59.25	0.000
Median	59.25	0.000
191.XX Total Chromium		
Lab	PPM	Total Method
43	70.50	-0.694
64	70.39	-0.668
43	70.00	-0.577
61	70.00	-0.577
31	69.75	-0.519
Median	67.52	0.000
335	65.30	0.519
111	65.00	0.588
61	64.00	0.821
Std Dev	63.23	1.000
24	59.25	1.928
330	57.74	2.280
202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
61		
202.99 Acid Soluble Cobalt		
Lab		Other
24	1.76	0.000
Median	1.76	0.000
202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
61	3.50	-0.641
64	3.18	-0.224
43	3.00	0.000
43	3.00	0.000
61	3.00	0.000
Median	3.00	0.000
335	2.25	0.968
Std Dev	2.22	1.000
330	1.96	1.340
24	1.76	1.590
111	1.00	2.565

221.00 Acid Soluble Copper		
Lab		Atomic Absorption
219	1.57	0.000
Median	1.57	0.000

221.30 Acid Soluble Copper		
Lab	PPM	ICP
237	381.00	-312.735
43	3.50	-1.443
Std Dev	2.96	-1.000
111	2.00	-0.206
Median	1.75	0.000
43	1.50	0.206
61	1.50	0.206
61	1.00	0.618

221.99 Acid Soluble Copper		
Lab		Other
24	1.24	0.000
Median	1.24	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
237	381.00	-367.834
43	3.50	-1.939
Std Dev	2.53	-1.000
111	2.00	-0.485
43	1.50	0.000
61	1.50	0.000
Median	1.50	0.000
24	1.24	0.257
61	1.00	0.485

241.30 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	ICP
111	1.48	-1.737
24	1.46	-1.241
Std Dev	1.44	-1.000
23	1.44	-0.844
43	1.44	-0.844
24	1.43	-0.744
34	1.42	-0.546
23	1.41	-0.347
43	1.40	-0.149

Median	1.39	0.000
14	1.39	0.149
237	1.38	0.328
31	1.37	0.397
14	1.37	0.546
61	1.36	0.645
61	1.35	0.844
Std Dev	1.34	1.000
32	1.10	5.807
32	1.08	6.303

241.99 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Other
330	1.27	0.000
Median	1.27	0.000

241.XX Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Total Method
219	1.57	-3.253
111	1.48	-1.617
24	1.46	-1.155
Std Dev	1.45	-1.000
23	1.44	-0.786
43	1.44	-0.786
24	1.43	-0.693
34	1.42	-0.508
23	1.41	-0.323
43	1.40	-0.139
Median	1.39	0.000
14	1.39	0.139
237	1.38	0.305
31	1.37	0.370
14	1.37	0.508
61	1.36	0.601
61	1.35	0.786
Std Dev	1.34	1.000
330	1.27	2.357
32	1.10	5.406
32	1.08	5.868

251.00 Total Lead		
Lab		Atomic Absorbtion
330	8.85	0.000
Median	8.85	0.000

251.30 Total Lead		
Lab	PPM	ICP
335	20.88	-86.988
Std Dev	1.62	-1.000
61	1.50	-0.447
43	1.40	0.000
Median	1.40	0.000
61	1.20	0.893
Std Dev	1.18	1.000
43	1.10	1.340

251.99 Total Lead		
Lab		Other
24	0.87	0.000
Median	0.87	0.000

251.XX Total Lead		
Lab	PPM	Total Method
335	20.88	-6.488
330	8.85	-2.480
Std Dev	4.40	-1.000
61	1.50	-0.033
43	1.40	0.000
Median	1.40	0.000
61	1.20	0.067
43	1.10	0.100
24	0.87	0.175

261.30 Acid Soluble Manganese		
Lab		ICP
31	272.73	-0.667
237	267.00	-0.302
Median	262.25	0.000
111	257.50	0.302
Std Dev	246.54	1.000
330	217.00	2.880

261.99 Acid Soluble Manganese		
Lab	PPM	Other
219	294.05	-1.269
Std Dev	290.43	-1.000
43	283.00	-0.447
43	280.00	-0.223

Median	277.00	0.000
61	274.00	0.223
Std Dev	263.57	1.000
61	261.00	1.191
24	217.00	4.467

261.XX	Acid Soluble Manganese	
Lab	PPM	Total Method
219	294.05	-1.610
Std Dev	284.88	-1.000
43	283.00	-0.875
43	280.00	-0.675
61	274.00	-0.275
31	272.73	-0.191
Median	269.86	0.000
237	267.00	0.191
61	261.00	0.590
111	257.50	0.823
Std Dev	254.84	1.000
24	217.00	3.520
330	217.00	3.520

271.99	Water Soluble Manganese	
Lab	Other	
330	151.00	0.000
Median	151.00	0.000

271.XX	Water Soluble Manganese	
Lab	PPM	Total Method
330	151.00	0.000
Median	151.00	0.000

281.30	Total Mercury	
Lab	PPM	ICP
335	0.05	-1.340
Std Dev	0.04	-1.000
Median	0.03	0.000
Std Dev	0.03	1.000
24	0.02	1.340

281.99	Total Mercury	
Lab	PPM	Other
330	0.00	0.000
Median	0.00	0.000

281.XX	Total Mercury	
Lab	PPM	Total Method
335	0.05	-1.368
Std Dev	0.04	-1.000
24	0.02	0.000
Median	0.02	0.000
Std Dev	0.01	1.000
330	0.00	1.312

289.30	Total Molybdenum	
Lab	PPM	ICP
330		

289.99	Total Molybdenum	
Lab	PPM	Other
31	37.70	-1.340
Std Dev	34.45	-1.000
Median	24.88	0.000
Std Dev	15.30	1.000
24	12.05	1.340

289.XX	Total Molybdenum	
Lab	PPM	Total Method
330	90.73	-7.694
31	37.70	-2.512
31	37.05	-2.448
Std Dev	22.23	-1.000
64	13.17	-0.114
24	12.05	-0.005
43	12.00	0.000
61	12.00	0.000
Median	12.00	0.000
43	11.80	0.020
111	11.00	0.098
237	11.00	0.098
61	9.50	0.244

291.30	Total Nickel	
Lab	ICP	
43		

291.99	Total Nickel	
Lab	PPM	Other
24	8.90	0.000
Median	8.90	0.000

291.XX	Total Nickel	
Lab	PPM	Total Method
43	14.00	-0.784
61	14.00	-0.784
330	14.00	-0.784
64	13.56	-0.435
43	13.00	0.000
61	13.00	0.000
Median	13.00	0.000
335	12.29	0.556
Std Dev	11.72	1.000
31	9.80	2.508
24	8.90	3.217

301.30	Total Selenium	
Lab	PPM	ICP
330	0.62	-2.184
Std Dev	0.50	-1.000
335	0.40	0.000
Median	0.40	0.000
24	0.35	0.496

301.XX	Total Selenium	
Lab	PPM	Total Method
330	0.62	-2.184
Std Dev	0.50	-1.000
335	0.40	0.000
Median	0.40	0.000
24	0.35	0.496

311.00	Sodium	
Lab	%Na ₂ O	Atomic Absorbtion
330	0.10	0.000
Median	0.10	0.000

311.99	Sodium	
Lab	%Na ₂ O	Other
111	0.23	-3.188
24	0.18	-1.340
Std Dev	0.17	-1.000
24	0.17	-0.970
23	0.16	-0.601
23	0.15	-0.231

Median	0.14	0.000
31	0.14	0.231
61	0.14	0.323
61	0.13	0.508
43	0.13	0.685
43	0.12	0.879

311.XX	Sodium	
Lab	%Na ₂ O	Total Method
111	0.23	-3.316
24	0.18	-1.523
24	0.17	-1.165
Std Dev	0.17	-1.000
23	0.16	-0.806
23	0.15	-0.448
31	0.14	0.000
Median	0.14	0.000
61	0.14	0.090
61	0.13	0.269
43	0.13	0.440
43	0.12	0.628
Std Dev	0.11	1.000
330	0.10	1.344

321.00	Acid Soluble Zinc	
Lab	Atomic Absorption	
77	1.48	-2.018
Std Dev	1.38	-1.000
49	1.28	0.000
Median	1.28	0.000
219	1.22	0.662

321.30	Acid Soluble Zinc	
Lab	PPM	ICP
23	1.36	-1.476
66	1.35	-1.399
Std Dev	1.32	-1.000
24	1.32	-0.855
47	1.29	-0.458
23	1.28	-0.233
24	1.28	-0.233
111	1.27	-0.155
Median	1.26	0.000
61	1.25	0.155

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31	1.24	0.326
61	1.23	0.511
Std Dev	1.20	1.000
64	1.19	1.080
237	1.16	1.554
137	1.07	3.030
63	1.05	3.264

321.99		
Lab	Acid Soluble Zinc	Other
34	1.29	-0.806
43	1.26	-0.450
335	1.24	-0.150
31	1.23	0.000
Median	1.23	0.000
43	1.17	0.836
Std Dev	1.16	1.000
99	1.14	1.244
330	0.55	9.315

321.XX		
Lab	PPM	Acid Soluble Zinc Total Method
77	1.48	-3.174
23	1.36	-1.511
66	1.35	-1.442
Std Dev	1.32	-1.000
24	1.32	-0.956
34	1.29	-0.610
47	1.29	-0.603
49	1.28	-0.464
23	1.28	-0.402
24	1.28	-0.402
111	1.27	-0.333
43	1.26	-0.248
61	1.25	-0.055
Median	1.25	0.000
335	1.24	0.055
31	1.24	0.097
31	1.23	0.208
61	1.23	0.262
219	1.22	0.424
64	1.19	0.769
Std Dev	1.17	1.000
43	1.17	1.056

237	1.16	1.192
99	1.14	1.469
137	1.07	2.509
63	1.05	2.717
330	0.55	9.655

325.10		
Lab	%	Fluoride Electrode
79	1.71	-0.602
23	1.66	-0.433
23	1.65	-0.399
24	1.63	-0.348
24	1.62	-0.297
34	1.58	-0.178
Median	1.53	0.000
31	1.48	0.178
14	1.45	0.280
14	1.44	0.297
32	0.64	3.028
32	0.61	3.129
111	0.24	4.368

325.99		
Lab	%	Fluoride Other
61	1.64	-0.853
61	1.60	0.000
Median	1.60	0.000
330	1.53	1.827

325.XX		
Lab	%	Fluoride Total Method
79	1.71	-0.882
23	1.66	-0.529
23	1.65	-0.458
61	1.64	-0.388
24	1.63	-0.353
24	1.62	-0.247
61	1.60	-0.141
34	1.58	0.000
Median	1.58	0.000
330	1.53	0.388
31	1.48	0.741
14	1.45	0.952
14	1.44	0.987

32	0.64	6.665
32	0.61	6.876
111	0.24	9.451