AFPC

Sample 2019-10 Grade 11-52-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	11.22	0.00
Ammoniacal Nitrogen, Other		001.99	12	11.22	0.10
Method Group 001.XX PCT			13	11.22	0.10
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	1	11.31	0.00
Total Nitrogen, Combustion	993.13	010.60	19	11.17	0.09
Total Nitrogen, Other		010.99	4	11.18	0.11
Method Group 010.XX PCT			24	11.18	0.08
TOTAL PHOSPHATE					
Total Phosphate, Spectrometric	978.02	020.20	18	52.55	0.24
Total Phosphate, ICP	970.03	020.40	1	52.96	0.00
Total Phosphate, Other	993.13	020.99	1	52.50	0.00
Method Group 020.XX PCT			20	52.55	0.31
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.28	0.03
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.16	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.19	0.00
Insoluble Phosphate, Other		030.99	1	0.24	0.00
Method Group 030.XX PCT			12	0.26	0.05
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	8	52.23	0.14
Indirect Available Phosphate, Other		040.99	1	52.15	0.00
Method Group 040.XX PCT			9	52.19	0.12
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	52.62	0.25
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	51.81	0.03
Direct Available Phosphate, Automated	978.01	041.40	1	46.19	0.00
Direct Available Phosphate, ICP		041.50	5	51.80	0.97
Direct Available Phosphate, EDTA Extract	993.01	041.60	3	52.31	0.99
Direct Available Phosphate, Other		041.99	2	50.48	0.97
Method Group 041.XX PCT			15	51.80	1.48
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Gravimetric Quimociac	962.03	048.10	1	47.04	0.00
Water Soluble Phosphate, Spectrometric	970.01	048.20	12	47.51	0.42
Water Soluble Phosphate, Other		048.99	3	48.17	1.78
Method Group 048.XX PCT			16	47.51	0.83
SOLUBLE POTASH AS K_2O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.18	0.00
Soluble Potash, Other		050.99	6	0.18	0.01
Method Group 050.XX PCT			9	0.18	0.00
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	12	1.72	0.33
Free Water, Other		060.99	5	1.88	0.53
Method Group 060.XX PCT			17	1.80	0.39
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.06	0.00
Acid Soluble Calcium, ICP		101.30	11	0.23	0.04
Acid Soluble Calcium, Other		101.99	1	0.07	0.00
Method Group 101.XX PCT			13	0.23	0.05
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.55	0.00
Acid Soluble Magnesium, ICP		121.30	11	1.01	0.03
Acid Soluble Magnesium, Other		121.99	1	0.54	0.00

Method Group 121.XX PCT			13	1.00	0.07
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	5	1.72	0.06
Sulfur, Spectrometric		144.70	2	1.57	0.01
Sulfur, Other		144.99	11	1.65	0.09
Method Group 144.XX PCT			18	1.66	0.12
TOTAL SULFUR (S)					
Sulfur, Other		145.99	7	1.72	0.0
Method Group 145.XX PCT			7	1.72	0.1
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	5	9.7	3.3
Total Arsenic, Other		151.99	1	4.6	0.0
Method Group 151.XX PPM			6	8.6	5.5
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	2	163	88.4
Method Group 165.XX PPM			2	163	107.7
TOTAL CADMIUM					
Total Cadmium, ICP		181.30	7	4.6	0.9
Total Cadmium, Other		181.99	2	3.5	0.9
Method Group 181.XX PPM			9	4.6	1.8
ALUMINUM AS Al_2O_3					
ICP, %			12	1.65	0.08
Water Soluble Chlorine, Other, %		190.99	1	1.63	0.00
Method Group 190.XX PCT			13	1.64	0.10
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	5	87	2.0
Total Chromium, Other		191.99	2	86	13.1
Method Group 191.XX PPM			7	87	10.1
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	5	4	1.5
Acid Soluble Cobalt, Other		202.99	2	4	0.1
Method Group 202.XX PPM			7	4	1.0
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			2	0.0	0.0
ACID SOLUBLE IRON AS Fe_2O_3					
Acid Soluble Iron, ICP		241.30	13	1.74	0.05
Acid Soluble Iron, Other		241.99	1	1.50	0.00
Method Group 241.XX PCT			15	1.74	0.07
TOTAL LEAD					
Total Lead, ICP		251.30	5	1.1	0.2
Total Lead, Other		251.99	1	0.0	0.0
Method Group 251.XX PPM			6	1.1	0.9
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	2	330	4.0
Acid Soluble Manganese, Other		261.99	5	326	18.1
Method Group 261.XX PPM			7	326	15.9
TOTAL MERCURY					
Total Mercury, ICP		281.30	2	0.00	0.08
Total Mercury, Other		281.99	1	0	0.00
Method Group 281.XX PPM			3	0.06	0.10
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	5	14	1.9
Total Molybdenum, Other		289.99	1	21	0.0
Method Group 289.XX PPM			6	14	2.8
TOTAL NICKEL					
Total Nickel, ICP		291.30	4	23.2	2.4
Total Nickel, icp		291.99	3	18.4	8.1
Method Group 291.XX PPM			7	22.9	4.2

TOTAL SELENIUM					
Total Selenium, ICP		301.30	2	0.0	0.0
Method Group 301.XX PPM			2	0.0	0.0
SODIUM AS Na_2O					
Sodium, Other		311.99	8	0.19	0.00
Method Group 311.XX PCT			8	0.19	0.00
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	91.0	0.0
Acid Soluble Zinc, ICP		321.30	5	93.7	6.3
Acid Soluble Zinc, Other		321.99	4	36.6	56.7
Method Group 321.XX %			10	86.0	15.6
FLUORIDE					
Volumentric		325.10	10	1.80	0.07
Distilled/Electrode		325.99	2	1.84	0.03
Method Group 325.XX PCT			12	1.80	0.08

001.10 Lab		Ammoniacal Nitrogen MgO distillation
31	11.22	0.000
Median	11.22	0.000

001.99 Lab		Ammoniacal Nitrogen Other
335	11.70	-4.778
61	11.39	-1.643
61	11.38	-1.593
Std Dev	11.32	-1.000
79	11.31	-0.834
79	11.28	-0.531
24	11.24	-0.126
Median	11.22	0.000
24	11.21	0.126
23	11.21	0.177
23	11.20	0.278
38	11.18	0.430
34	11.17	0.582
Std Dev	11.12	1.000
113	11.01	2.124

001.XX Lab		Ammoniacal Nitrogen Total Method
335	11.70	-5.817
61	11.39	-2.040
61	11.38	-1.980
79	11.31	-1.066
Std Dev	11.30	-1.000
79	11.28	-0.700
24	11.24	-0.213
31	11.22	0.000
Median	11.22	0.000
24	11.21	0.091
23	11.21	0.152
23	11.20	0.274
38	11.18	0.457
34	11.17	0.640
Std Dev	11.14	1.000
113	11.01	2.497

010.11 Lab		Total Nitrogen Modified Comprehensive
219	11.31	0.000
Median	11.31	0.000

010.60 Lab		Total Nitrogen Combustion
66	11.32	-1.686
219	11.26	-1.046
Std Dev	11.26	-1.000
77	11.26	-0.988
47	11.24	-0.855
31	11.23	-0.639
63	11.20	-0.349
111	11.18	-0.169
29	11.18	-0.116
79	11.18	-0.116
79	11.17	0.000
Median	11.17	0.000
61	11.16	0.116
140	11.16	0.116
14	11.15	0.233
103	11.10	0.814
39	11.09	0.878
14	11.09	0.930
Std Dev	11.08	1.000
38	11.00	1.977
80	10.90	3.139
110	10.75	4.883

010.99 Lab		Total Nitrogen Other
335	11.74	-4.961
Std Dev	11.29	-1.000
24	11.18	-0.044
Median	11.18	0.000
113	11.17	0.044
24	11.16	0.133

010.XX Lab		Total Nitrogen Total Method
335	11.74	-8.145
66	11.32	-2.036
219	11.31	-1.964
219	11.26	-1.236
77	11.26	-1.164
Std Dev	11.24	-1.000
47	11.24	-0.996
31	11.23	-0.727
63	11.20	-0.364
111	11.18	-0.139
24	11.18	-0.073
29	11.18	-0.073
79	11.18	-0.073
Median	11.18	0.000
79	11.17	0.073
113	11.17	0.073
24	11.16	0.218
61	11.16	0.218
140	11.16	0.218
14	11.15	0.364
Std Dev	11.11	1.000
103	11.10	1.091
39	11.09	1.171
14	11.09	1.236
38	11.00	2.545
80	10.90	4.000
110	10.75	6.182

020.20 Lab		Total Phosphate Spectrometric
61	53.19	-2.733
111	52.99	-1.886
275	52.85	-1.292
61	52.85	-1.292
Std Dev	52.78	-1.000
275	52.69	-0.614
79	52.63	-0.360
79	52.61	-0.254
24	52.58	-0.127
24	52.56	-0.042
Median	52.55	0.000
23	52.54	0.042
23	52.47	0.318
14	52.47	0.339
14	52.40	0.614
31	52.35	0.847
34	52.34	0.869
Std Dev	52.31	1.000
140	52.13	1.758
38	50.73	7.712
335	49.22	14.089

020.40 Lab		Total Phosphate Automated
111	52.96	0.000
Median	52.96	0.000

020.99 Lab		Total Phosphate Other
113	52.50	0.000
Median	52.50	0.000

020.XX Lab		Total Phosphate Total Method
61	53.19	-2.514
111	52.99	-1.735
111	52.96	-1.620
275	52.85	-1.189
61	52.85	-1.189
Std Dev	52.80	-1.000
275	52.69	-0.565
79	52.63	-0.331
79	52.61	-0.234
24	52.58	-0.117
24	52.56	-0.039
Median	52.55	0.000
23	52.54	0.039
113	52.50	0.175
23	52.47	0.292
14	52.47	0.312
14	52.40	0.565
31	52.35	0.780
34	52.34	0.799
Std Dev	52.29	1.000
140	52.13	1.618
38	50.73	7.095
335	49.22	12.961

030.20 Lab		Insoluble Phosphate Spectrometric
23	0.37	-3.015
23	0.35	-2.345
Std Dev	0.31	-1.000

24	0.29	-0.335
61	0.29	-0.168
61	0.28	0.000
Median	0.28	0.000
24	0.27	0.503
Std Dev	0.25	1.000
79	0.25	1.005
79	0.25	1.173
140	0.17	3.685

030.30 Lab		Insoluble Phosphate Alka. Quimociac
31	0.16	0.000
Median	0.16	0.000

030.40 Lab		Insoluble Phosphate Automated
34	0.19	0.000
Median	0.19	0.000

030.99 Lab		Insoluble Phosphate Other
113	0.24	0.000
Median	0.24	0.000

030.XX Lab		Insoluble Phosphate Total Method
23	0.37	-2.566
23	0.35	-2.110
Std Dev	0.30	-1.000
24	0.29	-0.741
61	0.29	-0.627
61	0.28	-0.513
24	0.27	-0.171
Median	0.26	0.000
79	0.25	0.171
79	0.25	0.285
113	0.24	0.399
Std Dev	0.21	1.000
34	0.19	1.540
140	0.17	1.996
31	0.16	2.338

040.20 Lab		Indirect Available Phosphate Spectrometric
61	52.91	-4.799
61	52.57	-2.382
Std Dev	52.37	-1.000
24	52.29	-0.420
24	52.26	-0.245
Median	52.23	0.000
31	52.19	0.245
23	52.19	0.280
23	52.10	0.876
Std Dev	52.08	1.000
140	51.96	1.857

040.99 Lab		Indirect Available Phosphate Other
34	52.15	0.000
Median	52.15	0.000

040.XX Lab		Indirect Available Phosphate Total Method
61	52.91	-7.147
61	52.57	-3.722
Std Dev	52.29	-1.000
24	52.29	-0.943
24	52.26	-0.695
31	52.19	0.000
Median	52.19	0.000
23	52.19	0.050
34	52.15	0.397
23	52.10	0.893
Std Dev	52.09	1.000
140	51.96	2.283

041.10 Lab		Direct Available Phosphate Gravimetric Quimociac
219	52.95	-1.340
Std Dev	52.86	-1.000
Median	52.62	0.000
Std Dev	52.37	1.000
47	52.29	1.340

041.20 Lab		Direct Available Phosphate Spectrometric
47	51.85	-1.340
Std Dev	51.84	-1.000
Median	51.81	0.000
Std Dev	51.78	1.000
38	51.77	1.340

041.40 Lab		Direct Available Phosphate Automated
111	46.19	0.000
Median	46.19	0.000

041.50 Lab		Direct Available Phosphate ICP
39	52.88	-1.119
Std Dev	52.77	-1.000
63	52.40	-0.624
66	51.80	0.000
Median	51.80	0.000
80	51.10	0.716
Std Dev	50.82	1.000
111	46.19	5.777

041.60 Lab		Direct Available Phosphate EDTA Extract
29	53.01	-0.704
219	52.31	0.000
Median	52.31	0.000
Std Dev	51.32	1.000
103	50.35	1.976

041.99 Lab		Direct Available Phosphate Other
77	51.78	-1.340
Std Dev	51.45	-1.000
Median	50.48	0.000
Std Dev	49.51	1.000
335	49.19	1.340

041.XX Lab		Direct Available Phosphate Total Method
29	53.01	-0.998
219	52.95	-0.945
39	52.88	-0.892
63	52.40	-0.497
219	52.31	-0.423
47	52.29	-0.403
47	51.85	-0.045
66	51.80	0.000
Median	51.80	0.000
77	51.78	0.012
38	51.77	0.021
80	51.10	0.571
Std Dev	50.58	1.000
103	50.35	1.188
335	49.19	2.146
111	46.19	4.608
111	46.19	4.610

048.10 Lab		Water Soluble Phosphate Gravimetric Quimociac
140	47.04	0.000
Median	47.04	0.000

048.20 Lab		Water Soluble Phosphate Spectrometric
111	50.73	-7.636
61	48.80	-3.051
61	48.41	-2.137
Std Dev	47.93	-1.000
79	47.78	-0.631
79	47.68	-0.394
31	47.57	-0.151
Median	47.51	0.000
24	47.45	0.151
23	47.42	0.222
23	47.40	0.258
24	47.28	0.554
14	47.25	0.614
14	47.15	0.863

048.99 Lab		Water Soluble Phosphate Other
111	52.09	-2.205
Std Dev	49.95	-1.000
113	48.17	0.000
Median	48.17	0.000
34	47.33	0.475

048.XX Lab		Water Soluble Phosphate Total Method
111	52.09	-6.695
111	50.73	-4.702
61	48.80	-1.879
61	48.41	-1.316
Std Dev	48.19	-1.000
113	48.17	-0.966
79	47.78	-0.389
79	47.68	-0.243
31	47.57	-0.093
Median	47.51	0.000
24	47.45	0.093
23	47.42	0.137
23	47.40	0.159
34	47.33	0.268
24	47.28	0.341
14	47.25	0.378
14	47.15	0.531
140	47.04	0.685

050.50 Lab	%K_2O	Soluble Potash ICP(Oxalate)
111	0.19	-2.680
Std Dev	0.18	-1.000
23	0.18	0.000
23	0.18	0.000
Median	0.18	0.000

050.99 Lab	%K_2O	Soluble Potash Other
61	0.19	-2.680
Std Dev	0.18	-1.000
24	0.18	-0.893
24	0.18	0.000
61	0.18	0.000
Median	0.18	0.000
31	0.17	0.893
Std Dev	0.17	1.000
80	0.10	13.400

050.XX Lab	%K_2O	Soluble Potash Total Method
61	0.19	-4.020
111	0.19	-2.680
24	0.18	-1.340
Std Dev	0.18	-1.000
23	0.18	0.000
23	0.18	0.000
24	0.18	0.000
61	0.18	0.000
Median	0.18	0.000
Std Dev	0.17	1.000
31	0.17	1.340
80	0.10	20.100

060.00 Lab		Free Water Vacuum Oven
31	2.18	-1.420
24	2.09	-1.138
24	2.08	-1.107
Std Dev	2.04	-1.000
34	1.98	-0.802
79	1.85	-0.405
79	1.80	-0.237
Median	1.72	0.000
23	1.64	0.237
23	1.59	0.405
140	1.59	0.405
61	1.51	0.634
Std Dev	1.39	1.000
61	1.39	1.015
111	1.38	1.046

060.99 Lab		Free Water Other
14	1.94	-0.112
14	1.88	0.000
113	1.88	0.000
Median	1.88	0.000
Std Dev	1.34	1.000
275	1.16	1.340
275	1.02	1.602

060.XX Lab		Free Water Total Method
31	2.18	-1.222
Std Dev	2.11	-1.000
24	2.09	-0.930
24	2.08	-0.899
34	1.98	-0.583
14	1.94	-0.441
14	1.88	-0.252
113	1.88	-0.252
79	1.85	-0.173
79	1.80	0.000
Median	1.80	0.000
23	1.64	0.489
23	1.59	0.662
140	1.59	0.662
61	1.51	0.899
Std Dev	1.48	1.000
61	1.39	1.293
111	1.38	1.324
275	1.16	2.002
275	1.02	2.444

101.00 Lab	%CaO	Acid Soluble Calcium Atomic Absorption
219	0.06	0.000
Median	0.06	0.000

101.30 Lab	%CaO	Acid Soluble Calcium ICP
24	0.30	-1.876
24	0.29	-1.608
Std Dev	0.27	-1.000
34	0.26	-0.804
61	0.26	-0.670
61	0.24	-0.134
23	0.23	0.000
23	0.23	0.000
Median	0.23	0.000
31	0.22	0.402
14	0.20	0.804
111	0.20	0.852
14	0.20	0.938

101.99 Lab	%CaO	Acid Soluble Calcium Other
219	0.07	0.000
Median	0.07	0.000

101.XX Lab	%CaO	Acid Soluble Calcium Total Method
24	0.30	-1.651
24	0.29	-1.415
Std Dev	0.27	-1.000
34	0.26	-0.708
61	0.26	-0.590
61	0.24	-0.118
23	0.23	0.000
23	0.23	0.000
Median	0.23	0.000
31	0.22	0.354
14	0.20	0.708
111	0.20	0.750
14	0.20	0.826
Std Dev	0.19	1.000
219	0.07	3.848
219	0.06	4.039

121.00 Lab	%MgO	Acid Soluble Magnesium Atomic Absorption
219	0.55	0.000
Median	0.55	0.000

121.30 Lab	%MgO	Acid Soluble Magnesium ICP
24	1.10	-3.344
24	1.09	-2.816
Std Dev	1.03	-1.000
111	1.03	-0.920
34	1.03	-0.880
23	1.02	-0.352
23	1.01	0.000
Median	1.01	0.000
14	1.00	0.352
61	1.00	0.352
31	0.99	0.528
Std Dev	0.98	1.000
61	0.96	1.760
14	0.94	2.464

121.99 Lab	%MgO	Acid Soluble Magnesium Other

219	0.54	0.000
Median	0.54	0.000

121.XX		Acid Soluble Magnesium
Lab	%MgO	Total Method
24	1.10	-1.876
24	1.09	-1.608
Std Dev	1.05	-1.000
111	1.03	-0.646
34	1.03	-0.625
23	1.02	-0.357
23	1.01	-0.179
14	1.00	0.000
61	1.00	0.000
Median	1.00	0.000
31	0.99	0.089
61	0.96	0.715
Std Dev	0.94	1.000
14	0.94	1.072
219	0.55	7.968
219	0.54	8.206

144..01		Sulfate Sulfur (S)
Lab		Gravimetric
79	1.76	-0.709
79	1.76	-0.709
47	1.72	0.000
Median	1.72	0.000
140	1.68	0.631
Std Dev	1.65	1.000
219	1.65	1.104

144.70		Sulfur
Lab		Spectrometric
14	1.58	-1.340
Std Dev	1.58	-1.000
Median	1.57	0.000
Std Dev	1.57	1.000
14	1.57	1.340

144.99		Sulfate Sulfur (S)
Lab		Other
275	1.77	-1.276
Std Dev	1.74	-1.000
24	1.70	-0.510
23	1.69	-0.346
24	1.68	-0.292
113	1.67	-0.128
23	1.65	0.000
Median	1.65	0.000
34	1.63	0.255
Std Dev	1.56	1.000
31	1.56	1.021
275	1.56	1.021
61	1.52	1.459
61	1.50	1.732

144.XX		Sulfate Sulfur (S)
Lab		Total Method
275	1.77	-1.165
79	1.76	-1.060
79	1.76	-1.060
Std Dev	1.75	-1.000
47	1.72	-0.587
24	1.70	-0.429
23	1.69	-0.272
24	1.68	-0.219
140	1.68	-0.166
113	1.67	-0.061
Median	1.66	0.000
23	1.65	0.061
219	1.65	0.149
34	1.63	0.307
14	1.58	0.832
14	1.57	0.990
Std Dev	1.56	1.000
31	1.56	1.042
275	1.56	1.042
61	1.52	1.463
61	1.50	1.725

145.99		Total Sulfur (S)
Lab		Other
275	1.93	-4.994
140	1.78	-1.379
Std Dev	1.76	-1.000
113	1.74	-0.547
275	1.72	0.000
Median	1.72	0.000
111	1.72	0.029
39	1.69	0.725
77	1.68	0.999

145.XX		Total Sulfur (S)
Lab		Total Method
275	1.93	-4.994
140	1.78	-1.379
Std Dev	1.76	-1.000
113	1.74	-0.547
275	1.72	0.000
Median	1.72	0.000
111	1.72	0.029
39	1.69	0.725
77	1.68	0.999

151.30		Total Arsenic
Lab		ICP
335	13.59	-1.181
Std Dev	12.99	-1.000
140	12.00	-0.701
24	9.69	0.000
Median	9.69	0.000
31	7.58	0.639
Std Dev	6.38	1.000
111	0.50	2.781

151.99		Total Arsenic
Lab		Other
113	4.65	0.000
Median	4.65	0.000

151.XX		Total Arsenic
Lab		Total Method
335	13.59	-1.099
Std Dev	13.14	-1.000
140	12.00	-0.747
24	9.69	-0.234
Median	8.63	0.000
31	7.58	0.234
113	4.65	0.884
Std Dev	4.12	1.000
111	0.50	1.803

165.99		Acid Soluble Boron
Lab	PPM	Other
111	281.50	-1.340
Std Dev	251.43	-1.000
Median	163.00	0.000
Std Dev	74.57	1.000
24	44.50	1.340

165.XX, ppm		Acid Soluble Boron
Lab	PPM	Total Method
111	281.50	-1.340
Std Dev	251.43	-1.000
Median	163.00	0.000
Std Dev	74.57	1.000
24	44.50	1.340

181.30		Total Cadmium
Lab	PPM	ICP
335	5.69	-1.222
Std Dev	5.48	-1.000
61	5.00	-0.482
275	4.70	-0.161
61	4.55	0.000
Median	4.55	0.000
275	4.40	0.161
Std Dev	3.62	1.000
31	2.80	1.876
111	2.50	2.198

181.99		Total Cadmium
Lab		Other
24	4.78	-1.340
Std Dev	4.46	-1.000
Median	3.53	0.000
Std Dev	2.59	1.000
113	2.28	1.340

181.XX		Total Cadmium
Lab	PPM	Total Method
335	5.69	-0.773
61	5.00	-0.305
24	4.78	-0.153
275	4.70	-0.102

61	4.55	0.000
Median	4.55	0.000
275	4.40	0.102
Std Dev	3.08	1.000
31	2.80	1.187
111	2.50	1.391
113	2.28	1.544

190.00		Aluminum
Lab	$\%Al_2O_3$	ICP
275	1.77	-1.476
61	1.73	-1.004
Std Dev	1.73	-1.000
275	1.72	-0.874
14	1.72	-0.826
14	1.69	-0.472
24	1.66	-0.118
Median	1.65	0.000
24	1.64	0.118
23	1.62	0.295
23	1.61	0.413
34	1.58	0.767
Std Dev	1.56	1.000
61	1.54	1.299
111	1.17	5.595

190.99		Aluminum
Lab	$\%Al_2O_3$	Atomic Absorption
31	1.63	0.000
Median	1.63	0.000

190.XX		Aluminum
Lab	$\%Al_2O_3$	Total Method
275	1.77	-1.723
61	1.73	-1.212
275	1.72	-1.072
14	1.72	-1.021
Std Dev	1.71	-1.000
14	1.69	-0.638
24	1.66	-0.255
24	1.64	0.000
Median	1.64	0.000
31	1.63	0.096
23	1.62	0.191
23	1.61	0.319
34	1.58	0.702
Std Dev	1.56	1.000
61	1.54	1.276
111	1.17	5.921

191.30		Total Chromium
Lab		ICP
335	115.82	-14.712
Std Dev	88.96	-1.000
31	87.13	-0.064
61	87.00	0.000
Median	87.00	0.000
Std Dev	85.04	1.000
61	84.50	1.276
111	84.00	1.531

191.99		Total Chromium
Lab	PPM	Other
24	103.50	-1.340
Std Dev	99.05	-1.000
Median	85.98	0.000
Std Dev	72.90	1.000
113	68.45	1.340

191.XX		Total Chromium
Lab	PPM	Total Method
335	115.82	-3.491
24	103.50	-1.999
Std Dev	95.26	-1.000
31	87.13	-0.015
61	87.00	0.000
Median	87.00	0.000
61	84.50	0.303
111	84.00	0.363
Std Dev	78.74	1.000
113	68.45	2.247

202.30		Acid Soluble Cobalt
Lab	PPM	ICP
335		

202.99		Acid Soluble Cobalt
Lab		Other
113	4.05	-1.340
Std Dev	4.01	-1.000
Median	3.90	0.000
Std Dev	3.80	1.000
24	3.76	1.340

202.XX		Acid Soluble Cobalt
Lab	PPM	Total Method
335	6.00	-2.346
61	5.50	-1.759
Std Dev	4.85	-1.000
113	4.05	-0.053
61	4.00	0.000
Median	4.00	0.000
24	3.76	0.281
111	3.50	0.586
Std Dev	3.15	1.000
31	3.00	1.173

221.00		Acid Soluble Copper
Lab		Atomic Absorption
219	1.81	0.000
Median	1.81	0.000

221.30		Acid Soluble Copper
Lab	PPM	ICP
61	0.00	0.000
Median	0.00	0.000

221.99		Acid Soluble Copper
Lab		Other
24	0.00	0.000
Median	0.00	0.000

221.XX		Acid Soluble Copper
Lab	PPM	Total Method
24	0.00	-1.340
Std Dev	0.00	-1.000
Median	0.00	0.000
Std Dev	0.00	1.000
61	0.00	1.340

241.30		Acid Soluble Iron
Lab	$\%Fe_2O_3$	ICP
24	1.87	-2.584
111	1.85	-2.146
24	1.82	-1.627
275	1.80	-1.244
Std Dev	1.79	-1.000
23	1.79	-0.957
23	1.79	-0.957
275	1.74	0.000
Median	1.74	0.000
34	1.74	0.000
14	1.73	0.096
14	1.73	0.096
31	1.73	0.191
61	1.70	0.766
Std Dev	1.68	1.000
61	1.65	1.627

241.99		Acid Soluble Iron
Lab	$\%Fe_2O_3$	Other
219	1.50	0.000
Median	1.50	0.000

241.XX		Acid Soluble Iron
Lab	$\%Fe_2O_3$	Total Method
24	1.87	-2.365
111	1.85	-1.964
24	1.82	-1.489
219	1.81	-1.279
275	1.80	-1.139
Std Dev	1.79	-1.000
23	1.79	-0.876
23	1.79	-0.876
275	1.74	0.000
Median	1.74	0.000
34	1.74	0.000
14	1.73	0.088
14	1.73	0.088
31	1.73	0.175
61	1.70	0.701
Std Dev	1.68	1.000
61	1.65	1.489
219	1.50	4.073

251.30		Total Lead
Lab	PPM	ICP

335	1.43	-2.106
Std Dev	1.26	-1.000
31	1.25	-0.957
275	1.10	0.000
Median	1.10	0.000
275	1.04	0.383
Std Dev	0.94	1.000
61	0.00	7.019

251.99		Total Lead
Lab		Other
24	0.00	0.000
Median	0.00	0.000

251.XX		Total Lead
Lab	PPM	Total Method
335	1.43	-0.507
31	1.25	-0.253
275	1.10	-0.042
Median	1.07	0.000
275	1.04	0.042
Std Dev	0.36	1.000
24	0.00	1.505
61	0.00	1.506

261.30		Acid Soluble Manganese
Lab		ICP
31	335.65	-1.340
Std Dev	334.30	-1.000
Median	330.33	0.000
Std Dev	326.35	1.000
111	325.00	1.340

261.99		Acid Soluble Manganese
Lab	PPM	Other
24	358.00	-1.796
Std Dev	343.60	-1.000
61	334.50	-0.497
61	325.50	0.000
Median	325.50	0.000
219	310.25	0.843
Std Dev	307.40	1.000
219	303.65	1.207

261.XX		Acid Soluble Manganese
Lab	PPM	Total Method
24	358.00	-2.496
Std Dev	338.52	-1.000
31	335.65	-0.779
61	334.50	-0.691
61	325.50	0.000
Median	325.50	0.000
111	325.00	0.038
Std Dev	312.48	1.000
219	310.25	1.171
219	303.65	1.678

281.30		Total Mercury
Lab	PPM	ICP
24	0.24	-1.340
Std Dev	0.21	-1.000
Median	0.12	0.000
Std Dev	0.04	1.000
335	0.01	1.340

281.99		Total Mercury
Lab	PPM	Other
113	0.06	0.000
Median	0.06	0.000

281.XX		Total Mercury
Lab	PPM	Total Method
24	0.24	-2.086
Std Dev	0.14	-1.000
113	0.06	0.000
Median	0.06	0.000
335	0.01	0.594

289.30		Total Molybdenum
Lab	PPM	ICP
31		

289.99		Total Molybdenum
Lab	PPM	Other
24	20.80	0.000
Median	20.80	0.000

289.XX		Total Molybdenum
Lab	PPM	Total Method
24	20.80	-3.023
Std Dev	16.08	-1.000
31	15.50	-0.750
111	14.00	-0.107
Median	13.75	0.000
61	13.50	0.107
61	11.50	0.965
Std Dev	11.42	1.000
38	0.00	5.896

291.30		Total Nickel
Lab		ICP
335		

291.99		Total Nickel
Lab	PPM	Other
24	26.70	-1.025
Std Dev	26.50	-1.000
113	18.40	0.000
Median	18.40	0.000
Std Dev	10.30	1.000
111	5.00	1.655

291.XX		Total Nickel
Lab	PPM	Total Method
335	33.50	-3.053
24	26.70	-1.095
Std Dev	26.37	-1.000
61	23.50	-0.173
31	22.90	0.000
Median	22.90	0.000
61	22.50	0.115
Std Dev	19.43	1.000
113	18.40	1.297
111	5.00	5.158

301.30		Total Selenium
Lab	PPM	ICP
335	0.01	-1.340
Std Dev	0.01	-1.000
Median	0.01	0.000
Std Dev	0.00	1.000
24	0.00	1.340

301.XX		Total Selenium
Lab	PPM	Total Mthod
335	0.01	-1.340
Std Dev	0.01	-1.000
Median	0.01	0.000
Std Dev	0.00	1.000
24	0.00	1.340

311.99		Sodium
Lab	$\%Na_2O$	Other
61	0.22	-8.191
Std Dev	0.19	-1.000
23	0.19	-0.630
24	0.19	-0.630
24	0.19	-0.630
Median	0.19	0.000
23	0.19	0.630
31	0.19	0.630
111	0.18	0.950
Std Dev	0.18	1.000
61	0.18	1.890

311.XX		Sodium
Lab	$\%Na_2O$	Total Method
61	0.22	-8.191
Std Dev	0.19	-1.000
23	0.19	-0.630
24	0.19	-0.630
24	0.19	-0.630
Median	0.19	0.000
23	0.19	0.630
31	0.19	0.630
111	0.18	0.950
Std Dev	0.18	1.000
61	0.18	1.890

321.00		Acid Soluble Zinc
Lab		Atomic Absorption
219	91.03	0.000
Median	91.03	0.000

321.30		Acid Soluble Zinc
Lab	PPM	ICP
31	127.38	-5.309

Std Dev	100.04	-1.000
111	95.50	-0.284
24	93.70	0.000
Median	93.70	0.000
Std Dev	87.36	1.000
61	87.00	1.056
61	85.00	1.372

321.99		Acid Soluble Zinc
Lab		Other
219	84.23	-0.841
113	73.15	-0.646
Median	36.58	0.000
77	0.01	0.646
38	0.00	0.646

321.XX		Acid Soluble Zinc
Lab	PPM	Total Method
31	127.38	-3.240
Std Dev	98.77	-1.000
111	95.50	-0.744
24	93.70	-0.603
219	91.03	-0.394
61	87.00	-0.078
Median	86.00	0.000
61	85.00	0.078
219	84.23	0.139
Std Dev	73.23	1.000
113	73.15	1.006
77	0.01	6.734
38	0.00	6.734

325.10		Fluoride
Lab	%	Electrode
31	1.85	-0.715
23	1.81	-0.179
24	1.81	-0.179
24	1.81	-0.107
23	1.80	-0.036
Median	1.80	0.000
79	1.80	0.036
34	1.73	0.965
79	1.71	1.251
14	1.67	1.894
14	0.93	12.407

325.99		Fluoride
Lab	%	Other
61	1.88	-1.340
Median	1.84	0.000
61	1.81	1.340

325.XX		Fluoride
Lab	%	Total Method
61	1.88	-1.222
31	1.85	-0.709
23	1.81	-0.118
24	1.81	-0.118
24	1.81	-0.039
61	1.81	-0.039
Median	1.80	0.000
23	1.80	0.039
79	1.80	0.118
34	1.73	1.143
79	1.71	1.458
14	1.67	2.168
14	0.93	13.763