AFPC

Sample 2022-10 Grade 11-34-15

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	3	12.85	0.07
Ammoniacal Nitrogen, Other		001.99	15	12.83	0.08
Method Group 001.XX PCT			18	12.83	0.10
TOTAL NITROGEN					
Total Nitrogen, Combustion	993.13	010.60	11	12.87	0.22
Total Nitrogen, Other		010.99	1	12.71	0.00
Method Group 010.XX PCT			12	12.82	0.24
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	3	34.07	0.14
Total Phosphate, Spectrometric	978.02	020.20	22	34.24	0.17
Method Group 020.XX PCT			25	34.24	0.23
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Gravimetric Quimociac	963.03C(a)	030.10	1	0.27	0.00
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	12	0.15	0.04
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.09	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.24	0.00
Method Group 030.XX PCT			15	0.15	0.06
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Gravimetric Quimociac	960.02	040.10	1	33.80	0.00
Indirect Available Phosphate, Spectrometric	960.02	040.20	14	34.11	0.26
Indirect Available Phosphate, Other		040.99	1	34.01	0.00
Method Group 040.XX PCT			16	34.08	0.34
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	33.50	0.00
Direct Available Phosphate, Spectrometric	960.03D	041.20	1	33.84	0.00
Direct Available Phosphate, ICP		041.50	2	33.27	0.61
Direct Available Phosphate, EDTA Extract	993.01	041.60	2	32.71	0.36
Method Group 041.XX PCT			7	33.49	0.77
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Gravimetric Quimociac	962.03	048.10	2	30.17	0.05
Water Soluble Phosphate, Spectrometric	970.01	048.20	17	30.23	0.19
Water Soluble Phosphate, Other		048.99	1	30.09	0.00
Method Group 048.XX PCT			20	30.23	0.20
SOLUBLE POTASH AS K_2O					
Soluble Potash, ICP(Oxalate)		050.50	2	0.16	0.00
Soluble Potash, Other		050.99	8	0.16	0.00
Method Group 050.XX PCT			10	0.16	0.00
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	16	0.58	0.20
Free Water, Karl Fisher	972.01	060.20	1	0.92	0.00
Free Water, Other		060.99	2	0.69	0.00
Method Group 060.XX PCT			19	0.61	0.24
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, ICP		101.30	17	0.32	0.02
Method Group 101.XX PCT			17	0.32	0.02
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, ICP		121.30	17	0.73	0.03
Method Group 121.XX PCT			17	0.73	0.03
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	7	7.53	0.07
Sulfur, Spectrometric		144.70	1	7.32	0.00
Sulfur, Other		144.99	12	7.41	0.14

Method Group 144.XX PCT			20	7.48	0.15
TOTAL SULFUR (S)					
Sulfur, Other		145.99	11	15.18	0.1
Method Group 145.XX PCT			11	15.18	0.1
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	8	9.0	2.5
Method Group 151.XX PPM			8	9.0	3.1
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	24	0.0
Method Group 165.XX PPM			1	24	0.0
TOTAL CADMIUM					
Total Cadmium, ICP		181.30	5	2.3	0.4
Method Group 181.XX PPM			5	2.3	0.4
ALUMINUM AS Al_2O_3					
ICP, %			17	1.36	0.04
Method Group 190.XX PCT			17	1.36	0.05
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	8	71	2.3
Method Group 191.XX PPM			8	71	2.8
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	4	3	1.6
Method Group 202.XX PPM			4	3	1.9
ACID SOLUBLE COPPER					
Method Group 221.XX PPM			3	4.6	4.5
ACID SOLUBLE IRON AS Fe_2O_3					
Acid Soluble Iron, ICP		241.30	17	1.13	0.04
Method Group 241.XX PCT			17	1.13	0.05
TOTAL LEAD					
Total Lead, ICP		251.30	4	1.5	0.8
Method Group 251.XX PPM			4	1.5	1.0
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	8	226	21.5
Method Group 261.XX PPM			8	226	26.1
TOTAL MERCURY					
Total Mercury, Atomic Absorbtion		281.00	1		0.00
Method Group 281.XX PPM			1	0.00	0.00
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	8	9	1.5
Method Group 289.XX PPM			8	9	1.8
TOTAL NICKEL					
Total Nickel, ICP		291.30	6	6.9	2.9
Total Nickel, icp		291.99	1	6.5	0.0
Method Group 291.XX PPM			7	6.5	2.6
TOTAL SELENIUM					
Total Selenium, ICP		301.30	1	24.7	0.0
Method Group 301.XX PPM			1	24.7	0.0
SODIUM AS Na_2O					
Sodium, Flame Photometric	974.01	311.30	1	0.39	0.00
Sodium, Other		311.99	10	0.23	0.03
Method Group 311.XX PCT			11	0.24	0.04
ACID SOLUBLE ZINC					
Acid Soluble Zinc, ICP		321.30	8	60.7	14.5
Method Group 321.XX %			8	60.7	17.7
FLUORIDE					
Volumentric		325.10	18	1.71	0.08
Distilled/Electrode		325.99	2	1.81	0.02
Method Group 325.XX PCT			20	1.73	0.10

001.10 Lab		Ammoniacal Nitrogen MgO distillation
31	12.95	-1.374
Std Dev	12.92	-1.000
31	12.85	0.000
Median	12.85	0.000
Std Dev	12.77	1.000
113	12.75	1.306

001.99 Lab		Ammoniacal Nitrogen Other
32	12.95	-1.429
Std Dev	12.91	-1.000
55	12.90	-0.834
32	12.89	-0.715
61	12.86	-0.357
61	12.86	-0.298
23	12.84	-0.119
24	12.84	-0.060
23	12.83	0.000
Median	12.83	0.000
24	12.83	0.060
81	12.79	0.476
38	12.76	0.893
Std Dev	12.75	1.000
34	12.74	1.132
237	12.68	1.787
79	12.56	3.216
79	12.51	3.812

001.XX Lab		Ammoniacal Nitrogen Total Method
32	12.95	-1.465
31	12.95	-1.402
Std Dev	12.91	-1.000
55	12.90	-0.841
32	12.89	-0.717
61	12.86	-0.343
61	12.86	-0.280
31	12.85	-0.156
23	12.84	-0.093
24	12.84	-0.031
Median	12.83	0.000
23	12.83	0.031
24	12.83	0.093
81	12.79	0.530
38	12.76	0.966
Std Dev	12.75	1.000
113	12.75	1.028
34	12.74	1.215
237	12.68	1.901
79	12.56	3.397
79	12.51	4.020

010.60 Lab		Total Nitrogen Combustion
14	13.07	-0.901
14	13.07	-0.901
103	12.90	-0.135
24	12.90	-0.113
24	12.88	-0.023
140	12.87	0.000
Median	12.87	0.000
38	12.77	0.473
79	12.67	0.901
Std Dev	12.65	1.000
79	12.53	1.531
66	12.51	1.622
80	12.50	1.667

010.99 Lab		Total Nitrogen Other
113	12.71	0.000
Median	12.71	0.000

010.XX Lab		Total Nitrogen Total Method
14	13.07	-1.295
14	13.07	-1.295
Std Dev	13.01	-1.000
103	12.90	-0.423
24	12.90	-0.398
24	12.88	-0.295
140	12.87	-0.269
Median	12.82	0.000
38	12.77	0.269
113	12.71	0.577
79	12.67	0.757
Std Dev	12.62	1.000
79	12.53	1.475
66	12.51	1.577
80	12.50	1.629

020.10 Lab		Total Phosphate Gravimetric Quimociac
241	34.41	-2.332
Std Dev	34.21	-1.000
113	34.07	0.000
Median	34.07	0.000
82	34.02	0.348

020.20 Lab		Total Phosphate Spectrometric
55	34.67	-2.605
23	34.56	-1.912
79	34.44	-1.220
237	34.44	-1.220
23	34.42	-1.099
79	34.41	-1.039
Std Dev	34.40	-1.000
81	34.34	-0.617
32	34.31	-0.407
24	34.28	-0.226
32	34.26	-0.136
31	34.24	-0.015
Median	34.24	0.000
34	34.24	0.015
140	34.24	0.015
31	34.21	0.166
38	34.18	0.346
14	34.17	0.407
14	34.17	0.407
16	34.16	0.497
24	34.12	0.738
Std Dev	34.07	1.000
61	33.97	1.641
82	33.96	1.671
61	33.95	1.762

020.XX Lab		Total Phosphate Total Method
55	34.67	-2.332
23	34.56	-1.715
79	34.44	-1.099
237	34.44	-1.099
Std Dev	34.42	-1.000
23	34.42	-0.992
79	34.41	-0.938
241	34.41	-0.911
81	34.34	-0.563
32	34.31	-0.375
24	34.28	-0.214
32	34.26	-0.134
31	34.24	-0.027
34	34.24	0.000
140	34.24	0.000
Median	34.24	0.000
31	34.21	0.134
38	34.18	0.295
14	34.17	0.348
14	34.17	0.348
16	34.16	0.429
24	34.12	0.643
113	34.07	0.884
Std Dev	34.05	1.000
82	34.02	1.152
61	33.97	1.447
82	33.96	1.474
61	33.95	1.554

030.10 Lab		Insoluble Phosphate Gravimetric Quimociac
113	0.27	0.000
Median	0.27	0.000

030.20 Lab		Insoluble Phosphate Spectrometric
61	0.24	-2.425
79	0.19	-1.149
Std Dev	0.18	-1.000
79	0.18	-0.893
140	0.18	-0.766
24	0.16	-0.383
32	0.15	-0.128
Median	0.15	0.000
23	0.14	0.128

61	0.14	0.255
23	0.13	0.510
24	0.12	0.638
32	0.11	0.893
Std Dev	0.11	1.000
16	0.06	2.264

030.30		Insoluble Phosphate
Lab		Alka. Quimociac
16	0.09	0.000
Median	0.09	0.000

030.40		Insoluble Phosphate
Lab		Automated
34	0.24	0.000
Median	0.24	0.000

030.XX		Insoluble Phosphate
Lab		Total Method
113	0.27	-2.573
61	0.24	-1.930
34	0.24	-1.822
Std Dev	0.20	-1.000
79	0.19	-0.858
79	0.18	-0.643
140	0.18	-0.536
24	0.16	-0.214
32	0.15	0.000
Median	0.15	0.000
23	0.14	0.214
61	0.14	0.322
23	0.13	0.536
24	0.12	0.643
32	0.11	0.858
Std Dev	0.10	1.000
16	0.09	1.286
16	0.06	2.009

040.10		Indirect Available Phosphate
Lab		Gravimetric Quimociac
113	33.80	0.000
Median	33.80	0.000

040.20		Indirect Available Phosphate
Lab		Spectrometric
23	34.43	-1.235
Std Dev	34.37	-1.000
23	34.28	-0.665
79	34.27	-0.627
79	34.22	-0.437
32	34.20	-0.342
24	34.16	-0.190
32	34.11	-0.019
Median	34.11	0.000
16	34.10	0.019
140	34.06	0.171
24	33.96	0.570
Std Dev	33.84	1.000
61	33.83	1.045
61	33.71	1.521
31	32.83	4.866
31	32.73	5.227

040.99		Indirect Available Phosphate
Lab		Other
34	34.01	0.000
Median	34.01	0.000

040.XX		Indirect Available Phosphate
Lab		Total Method
23	34.43	-1.238
Std Dev	34.36	-1.000
23	34.28	-0.708
79	34.27	-0.672
79	34.22	-0.495
32	34.20	-0.407
24	34.16	-0.265
32	34.11	-0.106
16	34.10	-0.071
Median	34.08	0.000
140	34.06	0.071
34	34.01	0.265
24	33.96	0.442
61	33.83	0.884
113	33.80	0.991
Std Dev	33.80	1.000
61	33.71	1.327
31	32.83	4.440
31	32.73	4.776

041.10		Direct Available Phosphate
Lab		Gravimetric Quimociac
79	33.50	-1.340
Std Dev	33.50	-1.000
Median	33.50	0.000
Std Dev	33.49	1.000
79	33.49	1.340

041.20		Direct Available Phosphate
Lab		Spectrometric
38	33.84	0.000
Median	33.84	0.000

041.50		Direct Available Phosphate
Lab		ICP
66	34.10	-1.340
Std Dev	33.89	-1.000
Median	33.27	0.000
Std Dev	32.66	1.000
80	32.45	1.340

041.60		Direct Available Phosphate
Lab		EDTA Extract
103	33.19	-1.340
Std Dev	33.06	-1.000
Median	32.71	0.000
Std Dev	32.35	1.000
237	32.23	1.340

041.XX		Direct Available Phosphate
Lab		Total Method
66	34.10	-0.954
38	33.84	-0.544
79	33.50	-0.016
79	33.49	0.000
Median	33.49	0.000
103	33.19	0.481
Std Dev	32.86	1.000
80	32.45	1.640
237	32.23	1.994

048.10		Water Soluble Phosphate
Lab		Gravimetric Quimociac
82	30.24	-1.340
Std Dev	30.22	-1.000
Median	30.17	0.000
Std Dev	30.11	1.000
113	30.10	1.340

048.20		Water Soluble Phosphate
Lab		Spectrometric
140	30.42	-0.998
24	30.39	-0.815
23	30.38	-0.762
23	30.32	-0.447
82	30.32	-0.447
31	30.30	-0.342
81	30.29	-0.315
79	30.23	0.000
16	30.23	0.000
Median	30.23	0.000
79	30.22	0.053
32	30.22	0.079
31	30.21	0.105
32	30.06	0.893
Std Dev	30.04	1.000
61	30.00	1.235
237	29.87	1.918
61	29.80	2.286
24	29.78	2.365

048.99		Water Soluble Phosphate
Lab		Other
34	30.09	0.000
Median	30.09	0.000

048.XX		Water Soluble Phosphate
Lab		Total Method
140	30.42	-1.201
Std Dev	30.39	-1.000
24	30.39	-0.986
23	30.38	-0.924
23	30.32	-0.554
82	30.32	-0.554
31	30.30	-0.431

81	30.29	-0.400
82	30.24	-0.092
79	30.23	-0.031
16	30.23	-0.031
Median	30.23	0.000
79	30.22	0.031
32	30.22	0.062
31	30.21	0.092
113	30.10	0.801
34	30.09	0.832
Std Dev	30.06	1.000
32	30.06	1.017
61	30.00	1.417
237	29.87	2.218
61	29.80	2.649
24	29.78	2.742

050.50 Lab	$\%K_2O$	Soluble Potash ICP(Oxalate)
23	0.16	0.000
23	0.16	0.000
Median	0.16	0.000

050.99 Lab	$\%K_2O$	Soluble Potash Other
80	0.50	-91.120
Std Dev	0.16	-1.000
24	0.16	0.000
24	0.16	0.000
31	0.16	0.000
61	0.16	0.000
Median	0.16	0.000
Std Dev	0.16	1.000
31	0.16	1.340
61	0.16	1.340
81	0.15	4.020

050.XX Lab	$\%K_2O$	Soluble Potash Total Method
80	0.50	-121.493
Std Dev	0.16	-1.000
23	0.16	0.000
23	0.16	0.000
24	0.16	0.000
24	0.16	0.000
31	0.16	0.000
61	0.16	0.000
Median	0.16	0.000
Std Dev	0.16	1.000
31	0.16	1.787
61	0.16	1.787
81	0.15	5.360

060.00 Lab		Free Water Vacuum Oven
24	0.86	-1.396
Std Dev	0.78	-1.000
24	0.77	-0.955
31	0.75	-0.857
16	0.71	-0.656
34	0.68	-0.514
113	0.61	-0.147
140	0.61	-0.147
79	0.58	-0.024
Median	0.58	0.000
79	0.57	0.024
32	0.50	0.367
32	0.44	0.661
61	0.42	0.759
61	0.40	0.882
Std Dev	0.37	1.000
23	0.37	1.004
23	0.37	1.029
31	0.34	1.176

060.20 Lab		Free Water Karl Fisher
55	0.92	0.000
Median	0.92	0.000

060.99 Lab		Free Water Other
14	0.69	0.000
14	0.69	0.000
Median	0.69	0.000

060.XX Lab		Free Water Total Method
55	0.92	-1.581
24	0.86	-1.280
Std Dev	0.80	-1.000
24	0.77	-0.828
31	0.75	-0.728
16	0.71	-0.522
14	0.69	-0.402
14	0.69	-0.402
34	0.68	-0.376
113	0.61	0.000
140	0.61	0.000
Median	0.61	0.000
79	0.58	0.125
79	0.57	0.176
32	0.50	0.527
32	0.44	0.828
61	0.42	0.929
Std Dev	0.41	1.000
61	0.40	1.054
23	0.37	1.180
23	0.37	1.205
31	0.34	1.355

101.30 Lab	%CaO	Acid Soluble Calcium ICP
81	0.91	-33.079
32	0.37	-2.803
34	0.35	-1.682
Std Dev	0.34	-1.000
32	0.34	-0.841
237	0.33	-0.779
24	0.33	-0.561
61	0.33	-0.561
14	0.32	0.000
14	0.32	0.000
61	0.32	0.000
82	0.32	0.000
Median	0.32	0.000
31	0.31	0.477
24	0.31	0.561
31	0.31	0.757
23	0.31	0.841
Std Dev	0.30	1.000
23	0.30	1.121
16	0.29	1.542

101.XX Lab	%CaO	Acid Soluble Calcium Total Method
81	0.91	-33.079
32	0.37	-2.803
34	0.35	-1.682
Std Dev	0.34	-1.000
32	0.34	-0.841
237	0.33	-0.779
24	0.33	-0.561
61	0.33	-0.561
14	0.32	0.000
14	0.32	0.000
61	0.32	0.000
82	0.32	0.000
Median	0.32	0.000
31	0.31	0.477
24	0.31	0.561
31	0.31	0.757
23	0.31	0.841
Std Dev	0.30	1.000
23	0.30	1.121
16	0.29	1.542

121.30 Lab	%MgO	Acid Soluble Magnesium ICP
81	1.40	-23.555
34	0.77	-1.396
24	0.76	-1.221
32	0.76	-1.047
Std Dev	0.75	-1.000
237	0.75	-0.991
24	0.75	-0.872
23	0.73	0.000
31	0.73	0.000
31	0.73	0.000
Median	0.73	0.000
61	0.72	0.174
82	0.72	0.174
16	0.72	0.209
32	0.72	0.349
23	0.71	0.523
61	0.71	0.523

14	0.70	0.872
14	0.70	0.872

121.XX		Acid Soluble Magnesium
Lab	%MgO	Total Method
81	1.40	-23.555
34	0.77	-1.396
24	0.76	-1.221
32	0.76	-1.047
Std Dev	0.75	-1.000
237	0.75	-0.991
24	0.75	-0.872
23	0.73	0.000
31	0.73	0.000
31	0.73	0.000
Median	0.73	0.000
61	0.72	0.174
82	0.72	0.174
16	0.72	0.209
32	0.72	0.349
23	0.71	0.523
61	0.71	0.523
14	0.70	0.872
14	0.70	0.872

144..01		Sulfate Sulfur (S)
Lab		Gravimetric
38	7.65	-1.787
241	7.63	-1.414
Std Dev	7.60	-1.000
113	7.57	-0.596
79	7.53	0.000
Median	7.53	0.000
16	7.52	0.223
79	7.50	0.447
Std Dev	7.46	1.000
140	7.38	2.233

144.70		Sulfur
Lab		Spectrometric
16	7.32	0.000
Median	7.32	0.000

144.99		Sulfate Sulfur (S)
Lab		Other
55	7.90	-3.460
24	7.63	-1.538
Std Dev	7.55	-1.000
31	7.53	-0.886
31	7.52	-0.769
24	7.46	-0.350
23	7.41	-0.035
Median	7.41	0.000
23	7.40	0.035
275	7.39	0.105
34	7.38	0.210
Std Dev	7.26	1.000
32	7.19	1.538
32	7.12	2.027
81	4.76	18.490

144.XX		Sulfate Sulfur (S)
Lab		Total Method
55	7.90	-3.483
38	7.65	-1.422
24	7.63	-1.216
241	7.63	-1.216
Std Dev	7.60	-1.000
113	7.57	-0.763
31	7.53	-0.447
79	7.53	-0.433
31	7.52	-0.309
16	7.52	-0.309
79	7.50	-0.186
Median	7.48	0.000
24	7.46	0.186
23	7.41	0.557
23	7.40	0.639
275	7.39	0.721
140	7.38	0.804
34	7.38	0.845
Std Dev	7.36	1.000
16	7.32	1.299
32	7.19	2.412
32	7.12	2.989
81	4.76	22.405

145.99		Total Sulfur (S)
Lab		Other
113	15.42	-2.382
23	15.37	-1.836
Std Dev	15.28	-1.000
23	15.24	-0.596
14	15.20	-0.199
14	15.20	-0.199
24	15.18	0.000
34	15.18	0.000
Median	15.18	0.000
24	15.17	0.149
Std Dev	15.08	1.000
275	15.01	1.737
32	14.84	3.375
32	14.77	4.070

145.XX		Total Sulfur (S)
Lab		Total Method
113	15.42	-2.382
23	15.37	-1.836
Std Dev	15.28	-1.000
23	15.24	-0.596
14	15.20	-0.199
14	15.20	-0.199
24	15.18	0.000
34	15.18	0.000
Median	15.18	0.000
24	15.17	0.149
Std Dev	15.08	1.000
275	15.01	1.737
32	14.84	3.375
32	14.77	4.070

151.30		Total Arsenic
Lab		ICP
237	22.07	-5.178
61	12.50	-1.392
Std Dev	11.51	-1.000
140	11.00	-0.799
81	9.86	-0.348
Median	8.98	0.000
31	8.10	0.348
61	8.00	0.388
82	7.95	0.407
31	7.80	0.467

151.XX		Total Arsenic
Lab		Total Method
237	22.07	-5.178
61	12.50	-1.392
Std Dev	11.51	-1.000
140	11.00	-0.799
81	9.86	-0.348
Median	8.98	0.000
31	8.10	0.348
61	8.00	0.388
82	7.95	0.407
31	7.80	0.467

165.99		Acid Soluble Boron
Lab	PPM	Other
81	24.00	0.000
Median	24.00	0.000

165.XX, ppm		Acid Soluble Boron
Lab	PPM	Total Method
81	24.00	0.000
Median	24.00	0.000

181.30		Total Cadmium
Lab	PPM	ICP
82	<3,6	0.000
61	<1	0.000
61	<1	0.000
16	2.65	-0.967
237	2.38	-0.219
81	2.30	0.000
Median	2.30	0.000
31	1.90	1.121
31	1.90	1.121

181.XX		Total Cadmium
Lab	PPM	Total Method
82	<3,6	0.000
61	<1	0.000
61	<1	0.000
16	2.65	-0.967

237	2.38	-0.219
81	2.30	0.000
Median	2.30	0.000
31	1.90	1.121
31	1.90	1.121

190.00 Lab	$\%Al_2O_3$	Aluminum ICP
81	1.70	-9.246
237	1.45	-2.555
Std Dev	1.39	-1.000
14	1.39	-0.804
14	1.39	-0.804
23	1.37	-0.268
31	1.36	-0.134
82	1.36	-0.134
23	1.36	0.000
34	1.36	0.000
Median	1.36	0.000
16	1.35	0.107
31	1.33	0.670
24	1.33	0.804
Std Dev	1.32	1.000
24	1.32	1.072
61	1.31	1.340
32	1.27	2.278
61	1.26	2.546
32	1.25	2.814

190.XX Lab	$\%Al_2O_3$	Aluminum Total Method
81	1.70	-9.246
237	1.45	-2.555
Std Dev	1.39	-1.000
14	1.39	-0.804
14	1.39	-0.804
23	1.37	-0.268
31	1.36	-0.134
82	1.36	-0.134
23	1.36	0.000
34	1.36	0.000
Median	1.36	0.000
16	1.35	0.107
31	1.33	0.670
24	1.33	0.804
Std Dev	1.32	1.000
24	1.32	1.072
61	1.31	1.340
32	1.27	2.278
61	1.26	2.546
32	1.25	2.814

191.30 Lab		Total Chromium ICP
81	107.00	-15.324
Std Dev	73.63	-1.000
61	72.50	-0.514
82	72.30	-0.428
61	72.00	-0.300
Median	71.30	0.000
16	70.60	0.300
237	69.44	0.800
Std Dev	68.97	1.000
31	68.60	1.160
31	67.20	1.761

191.XX Lab	PPM	Total Chromium Total Method
81	107.00	-15.324
Std Dev	73.63	-1.000
61	72.50	-0.514
82	72.30	-0.428
61	72.00	-0.300
Median	71.30	0.000
16	70.60	0.300
237	69.44	0.800
Std Dev	68.97	1.000
31	68.60	1.160
31	67.20	1.761

202.30 Lab	PPM	Acid Soluble Cobalt ICP

202.XX Lab	PPM	Acid Soluble Cobalt Total Method
61	<1	0.000
61	<1	0.000
237	4.26	-0.740
81	4.10	-0.641
Median	3.10	0.000
82	2.10	0.641
16	1.89	0.775

221.30 Lab	PPM	Acid Soluble Copper ICP
82	<2	0.000
61	<1	0.000
61	<1	0.000
237	13.66	-2.451
Std Dev	8.32	-1.000
16	4.64	0.000
Median	4.64	0.000
81	3.80	0.229

221.XX Lab	PPM	Acid Soluble Copper Total Method
82	<2	0.000
61	<1	0.000
61	<1	0.000
237	13.66	-2.451
Std Dev	8.32	-1.000
16	4.64	0.000
Median	4.64	0.000
81	3.80	0.229

241.30 Lab	$\%Fe_2O_3$	Acid Soluble Iron ICP
81	1.40	-6.700
Std Dev	1.17	-1.000
23	1.17	-0.975
23	1.16	-0.853
34	1.16	-0.853
24	1.15	-0.609
24	1.15	-0.487
82	1.14	-0.365
31	1.13	-0.122
31	1.13	0.000
Median	1.13	0.000
61	1.12	0.244
16	1.11	0.305
14	1.10	0.731
14	1.10	0.731
61	1.09	0.853
Std Dev	1.08	1.000
32	1.08	1.096
32	1.07	1.340
237	0.98	3.606

241.XX Lab	$\%Fe_2O_3$	Acid Soluble Iron Total Method
81	1.40	-6.700
Std Dev	1.17	-1.000
23	1.17	-0.975
23	1.16	-0.853
34	1.16	-0.853
24	1.15	-0.609
24	1.15	-0.487
82	1.14	-0.365
31	1.13	-0.122
31	1.13	0.000
Median	1.13	0.000
61	1.12	0.244
16	1.11	0.305
14	1.10	0.731
14	1.10	0.731
61	1.09	0.853
Std Dev	1.08	1.000
32	1.08	1.096
32	1.07	1.340
237	0.98	3.606

251.30 Lab	PPM	Total Lead ICP
61	<1	0.000
61	<1	0.000
237	2.35	-1.033
Std Dev	2.32	-1.000
81	2.00	-0.607
Median	1.50	0.000
82	1.00	0.607
16	0.94	0.686

251.XX Lab	PPM	Total Lead Total Method
61	<1	0.000
61	<1	0.000

237	2.35	-1.033
Std Dev	2.32	-1.000
81	2.00	-0.607
Median	1.50	0.000
82	1.00	0.607
16	0.94	0.686

261.30		Acid Soluble Manganese
Lab		ICP
237	592.86	-17.122
81	310.00	-3.938
Std Dev	246.96	-1.000
61	230.50	-0.233
31	228.00	-0.117
Median	225.50	0.000
31	223.00	0.117
82	222.00	0.163
61	220.50	0.233
16	215.95	0.445

261.XX		Acid Soluble Manganese
Lab	PPM	Total Method
237	592.86	-17.122
81	310.00	-3.938
Std Dev	246.96	-1.000
61	230.50	-0.233
31	228.00	-0.117
Median	225.50	0.000
31	223.00	0.117
82	222.00	0.163
61	220.50	0.233
16	215.95	0.445

281.00		Total Mercury
Lab	PPM	Atomic Absorbtion
81	0.00	0.000
Median	0.00	0.000

281.XX		Total Mercury
Lab	PPM	Total Method
81	0.00	0.000
Median	0.00	0.000

289.30		Total Molybdenum
Lab	PPM	ICP

289.XX		Total Molybdenum
Lab	PPM	Total Method
237	15.88	-4.702
81	14.55	-3.805
Std Dev	10.39	-1.000
82	9.20	-0.202
31	9.00	-0.067
Median	8.90	0.000
31	8.80	0.067
16	8.73	0.114
61	8.00	0.606
Std Dev	7.41	1.000
61	5.00	2.626

291.30		Total Nickel
Lab		ICP
61		

291.99		Total Nickel
Lab	PPM	Other
31	6.50	0.000
Median	6.50	0.000

291.XX		Total Nickel
Lab	PPM	Total Method
61	<1	0.000
81	29.70	-10.871
82	9.10	-1.218
Std Dev	8.63	-1.000
16	7.38	-0.410
31	6.50	0.000
31	6.50	0.000
Median	6.50	0.000
Std Dev	4.37	1.000
237	4.26	1.051
61	4.00	1.171

301.30		Total Selenium
Lab	PPM	ICP
61	<1	0.000
237	24.70	0.000
Median	24.70	0.000

301.XX		Total Selenium
Lab	PPM	Total Mthod
61	<1	0.000
237	24.70	0.000
Median	24.70	0.000

311.30		Sodium
Lab	$\%Na_2O$	Flame Photometric
237	0.39	0.000
Median	0.39	0.000

311.99		Sodium
Lab	$\%Na_2O$	Other
81	0.27	-1.687
23	0.27	-1.489
23	0.26	-1.290
Std Dev	0.25	-1.000
31	0.24	-0.298
31	0.24	-0.298
Median	0.23	0.000
24	0.22	0.298
24	0.22	0.298
61	0.22	0.298
82	0.22	0.298
61	0.22	0.496

311.XX		Sodium
Lab	$\%Na_2O$	Total Method
237	0.39	-4.763
81	0.27	-1.104
Std Dev	0.27	-1.000
23	0.27	-0.946
23	0.26	-0.788
31	0.24	0.000
31	0.24	0.000
Median	0.24	0.000
24	0.22	0.473
24	0.22	0.473
61	0.22	0.473
82	0.22	0.473
61	0.22	0.631

321.30		Acid Soluble Zinc
Lab	PPM	ICP
81	10530.00	-720.447
31	81.80	-1.454
Std Dev	75.21	-1.000
31	74.15	-0.927
61	64.00	-0.229
Median	60.68	0.000
82	57.35	0.229
237	57.12	0.245
61	55.00	0.391
16	47.94	0.876

321.XX		Acid Soluble Zinc
Lab	PPM	Total Method
81	10530.00	-720.447
31	81.80	-1.454
Std Dev	75.21	-1.000
31	74.15	-0.927
61	64.00	-0.229
Median	60.68	0.000
82	57.35	0.229
237	57.12	0.245
61	55.00	0.391
16	47.94	0.876

325.10		Fluoride
Lab	%	Electrode
81	1.95	-2.918
34	1.77	-0.774
79	1.76	-0.655
16	1.76	-0.596
23	1.74	-0.417
23	1.74	-0.417
24	1.73	-0.298
24	1.73	-0.298
31	1.73	-0.298
Median	1.71	0.000
79	1.68	0.298
32	1.67	0.476
82	1.67	0.476
31	1.65	0.655
32	1.62	1.012
237	1.58	1.489

275	1.58	1.548
14	1.26	5.342
14	1.26	5.342

325.99		Fluoride
Lab	%	Other
61	1.84	-1.340
Median	1.81	0.000
61	1.78	1.340

325.XX		Fluoride
Lab	%	Total Method
81	1.95	-2.592
61	1.84	-1.237
61	1.78	-0.589
34	1.77	-0.471
79	1.76	-0.353
16	1.76	-0.295
23	1.74	-0.118
23	1.74	-0.118
24	1.73	0.000
24	1.73	0.000
31	1.73	0.000
Median	1.73	0.000
79	1.68	0.589
32	1.67	0.766
82	1.67	0.766
31	1.65	0.942
32	1.62	1.296
237	1.58	1.767
275	1.58	1.826
14	1.26	5.578
14	1.26	5.578