

Sample	AFPC		2015-08	Grade	Feed Phosphate	
	AOAC Ref.	Method #			# of Labs.	Grand Median
TOTAL PHOSPHATE						
Total Phosphate, Gravimetric Quimociac		020.10	2	18.49	0.04	
Total Phosphate, Spectrometric	978.02	020.20	7	18.59	0.05	
Total Phosphate, ICP	970.03	020.40	1	18.58	0.00	
Method Group 020.XX PCT			10	18.57	0.05	
INSOLUBLE PHOSPHATE						
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	2	9.92	0.01	
Method Group 030.XX PCT			2	9.92	0.01	
INDIRECT AVAILABLE PHOSPHATE						
Indirect Available Phosphate, Spectrometric	960.02	040.20	3	8.66	0.86	
Method Group 040.XX PCT			3	8.66	1.05	
WATER SOLUBLE PHOSPHATE						
Water Soluble Phosphate, Spectrometric	970.01	048.20	2	0.14	0.00	
Method Group 048.XX PCT			2	0.14	0.00	
SOLUBLE POTASH AS K						
Soluble Potash, Other		050.99	2	0.14	0.02	
Method Group 050.XX PCT			2	0.14	0.02	
FREE WATER						
Free Water, Vacuum Oven	965.08B	060.00	4	0.10	0.02	
Free Water, Other		060.99	2	0.11	0.00	
Method Group 060.XX PCT			6	0.11	0.01	
ACID SOLUBLE CALCIUM AS Ca						
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	30.60	0.00	
Acid Soluble Calcium, ICP		101.30	5	30.73	0.03	
Acid Soluble Calcium, Other		101.99	2	30.58	0.02	
Method Group 101.XX PCT			8	30.66	0.13	
ACID SOLUBLE MAGNESIUM AS Mg						
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.72	0.00	
Acid Soluble Magnesium, ICP		121.30	7	0.72	0.04	
Method Group 121.XX PCT			8	0.72	0.04	
SULFATE SULFUR (S)						
Sulfur, Other		144.99	2	0.01	0.00	
Method Group 144.XX PCT			2	0.01	0.00	
TOTAL ARSENIC						
Total Arsenic, ICP	980.02(b)	151.02	1	1	0.0	
Method Group 151.XX PPM			1	1	0.0	
ACID SOLUBLE BORON						
Acid Soluble Boron, Other		165.99	1	15	0.0	
Method Group 165.XX PPM			1	15	0.0	
TOTAL CADMIUM						
Total Cadmium, Other		181.99	1	3.7	0.00	
Method Group 181.XX PPM			1	3.7	0.00	
ALUMINUM AS Al						
ICP, %			7	0.44	0.01	
Method Group 190.XX PCT			7	0.44	0.02	
TOTAL CHROMIUM						
Total Chromium, Other		191.99	1	142.0	0.0	
Method Group 191.XX PPM			1	142.0	0.0	
ACID SOLUBLE COBALT						
Acid Soluble Cobalt, Other		202.99	1	1.7	0.0	

Method Group 202.XX PPM		1	1.7	0.0
ACID SOLUBLE COPPER				
Acid Soluble Copper, Other	221.99	1	8.6	
Method Group 221.XX PPM		1	8.6	0.0
ACID SOLUBLE IRON AS Fe				
Acid Soluble Iron, ICP	241.30	7	0.6	0.05
Acid Soluble Iron, Other	241.99	1	0.6	0.00
Method Group 241.XX PCT		8	0.6	0.05
TOTAL LEAD				
Total Lead, Other	251.99	1	0.8	0.0
Method Group 251.XX PPM		1	0.8	0.0
ACID SOLUBLE MANGANESE				
Acid Soluble Manganese, Other	261.99	1	39.9	0.0
Method Group 261.XX PPM		1	39.9	0.0
TOTAL MERCURY				
Total Mercury, ICP	281.30	1	0.41	0.00
Method Group 281.XX PPM		1	0.41	0.00
TOTAL MOLYBDENUM				
Total Molybdenum, Other	289.99	1	5.4	0.0
Method Group 289.XX PPM		1	5.4	0.0
TOTAL NICKEL				
Total Nickel, Other	291.99	1	22.1	0.0
Method Group 291.XX PPM		1	22.1	0.0
TOTAL SELENIUM				
Total Selenium, ICP	301.30	1	0.9	0.0
Method Group 301.XX PPM		1	0.9	0.0
SODIUM AS Na				
Sodium, Atomic Absorbtion	983.04 311.00	2	5.7	0.19
Sodium, Other	311.99	2	5.8	0.02
Method Group 311.XX PCT		4	5.8	0.15
ACID SOLUBLE ZINC				
Acid Soluble Zinc, ICP	321.30	1	0.0	0.0
Acid Soluble Zinc, Other	321.99	1	190.0	0.0
Method Group 321.XX PPM		2	95.0	86.4
FLUORIDE				
Volumetric	325.10	7	0.10	0.01
Method Group 325.XX PCT		7	0.10	0.01

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
310	18.55	-1.340
Std Dev	18.53	-1.000
Median	18.49	0.000
Std Dev	18.45	1.000
77	18.44	1.340

020.20 Total Phosphate		
Lab	Spectrometric	
14	18.68	-1.799
Std Dev	18.64	-1.000
14	18.63	-0.900
92	18.59	-0.081
24	18.59	0.000
Median	18.59	0.000
24	18.56	0.500
Std Dev	18.53	1.000
9	18.53	1.199
79	18.50	1.699

020.40 Total Phosphate		
Lab	Automated	
31	18.58	0.000
Median	18.58	0.000

020.XX Total Phosphate		
Lab	Total Method	
14	18.68	-2.510
14	18.63	-1.459
Std Dev	18.61	-1.000
92	18.59	-0.504
24	18.59	-0.409
31	18.58	-0.175
Median	18.57	0.000
24	18.56	0.175
310	18.55	0.464
9	18.53	0.992
Std Dev	18.52	1.000
79	18.50	1.576
77	18.44	3.093

030.20 Insoluble Phosphate		
Lab	Spectrometric	

24	9.93	-1.340
Std Dev	9.93	-1.000
Median	9.92	0.000
Std Dev	9.91	1.000
24	9.91	1.340

030.XX Insoluble Phosphate		
Lab	Total Method	
24	9.93	-1.340
Std Dev	9.93	-1.000
Median	9.92	0.000
Std Dev	9.91	1.000
24	9.91	1.340

040.20 Indirect Available Phosphate		
Lab	Spectrometric	
92	10.96	-2.674
Std Dev	9.52	-1.000
24	8.66	0.000
Median	8.66	0.000
24	8.65	0.006

040.XX Indirect Available Phosphate		
Lab	Total Method	
92	10.96	-2.674
Std Dev	9.52	-1.000
24	8.66	0.000
Median	8.66	0.000
24	8.65	0.006

048.20 Water Soluble Phosphate		
Lab	Spectrometric	
24	0.15	-1.340
Std Dev	0.14	-1.000
Median	0.14	0.000
Std Dev	0.14	1.000
24	0.14	1.340

048.XX Water Soluble Phosphate		
Lab	Total Method	
24	0.15	-1.340
Std Dev	0.14	-1.000
Median	0.14	0.000
Std Dev	0.14	1.000

24	0.14	1.340
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050.99 Soluble Potash		
Lab	%K	Other
24	0.16	-1.340
Std Dev	0.15	-1.000
Median	0.14	0.000
Std Dev	0.12	1.000
24	0.12	1.340

050.XX Soluble Potash		
Lab	%K	Total Method
24	0.16	-1.340
Std Dev	0.15	-1.000
Median	0.14	0.000
Std Dev	0.12	1.000
24	0.12	1.340

060.00 Free Water		
Lab	Vacuum Oven	
14	0.14	-1.675
Std Dev	0.12	-1.000
14	0.11	-0.335
Median	0.10	0.000
9	0.09	0.335
Std Dev	0.08	1.000
79	0.06	1.675

060.99 Free Water		
Lab	Other	
24	0.11	0.000
24	0.11	0.000
Median	0.11	0.000

060.XX Free Water		
Lab	Total Method	
14	0.14	-2.268
Std Dev	0.12	-1.000
24	0.11	-0.206
24	0.11	-0.206
Median	0.11	0.000
14	0.11	0.206
Std Dev	0.10	1.000
9	0.09	1.443

79	0.06	3.917
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101.00 Acid Soluble Calcium		
Lab	%Ca	Atomic Absorption
77	30.60	0.000
Median	30.60	0.000

101.30 Acid Soluble Calcium		
Lab	%Ca	ICP
92	31.64	-34.840
Std Dev	30.75	-1.000
31	30.75	-0.766
14	30.73	0.000
Median	30.73	0.000
14	30.71	0.574
Std Dev	30.70	1.000
9	30.41	12.060

101.99 Acid Soluble Calcium		
Lab	%Ca	Other
24	30.61	-1.340
Std Dev	30.60	-1.000
Median	30.58	0.000
Std Dev	30.55	1.000
24	30.55	1.340

101.XX Acid Soluble Calcium		
Lab	%Ca	Total Method
92	31.64	-9.089
Std Dev	30.77	-1.000
31	30.75	-0.792
14	30.73	-0.606
14	30.71	-0.466
Median	30.66	0.000
24	30.61	0.466
77	30.60	0.559
Std Dev	30.55	1.000
24	30.55	1.072
9	30.41	2.330

121.00 Acid Soluble Magnesium		
Lab	%Mg	Atomic Absorption
77	0.72	0.000
Median	0.72	0.000

121.30 Acid Soluble Magnesium		
Lab	%Mg	ICP
24	0.76	-1.021
Std Dev	0.75	-1.000
24	0.75	-0.766
9	0.72	-0.128
31	0.72	0.000
Median	0.72	0.000
14	0.68	0.893
14	0.68	0.893
Std Dev	0.68	1.000
92	0.66	1.404

121.XX Acid Soluble Magnesium		
Lab	%Mg	Total Method
24	0.76	-1.086
Std Dev	0.75	-1.000
24	0.75	-0.797
9	0.72	-0.072
77	0.72	-0.072
Median	0.72	0.000
31	0.72	0.072
Std Dev	0.68	1.000
14	0.68	1.086
14	0.68	1.086
92	0.66	1.666

144.99 Sulfate Sulfur (S)		
Lab		Other
24	ND	0.000
9	0.02	-1.340
Std Dev	0.01	-1.000
Median	0.01	0.000
Std Dev	0.01	1.000
24	0.01	1.340

144.XX Sulfate Sulfur (S)		
Lab		Total Method
24	ND	0.000
9	0.02	-1.340
Std Dev	0.01	-1.000
Median	0.01	0.000
Std Dev	0.01	1.000

24 0.01 1.340

151.30 Total Arsenic		
Lab		ICP
24	1.03	0.000
Median	1.03	0.000

151.XX Total Arsenic		
Lab		Total Method
24	1.03	0.000
Median	1.03	0.000

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	15.30	0.000
Median	15.30	0.000

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	15.30	0.000
Median	15.30	0.000

181.99 Total Cadmium		
Lab		Other
24	3.74	0.000
Median	3.74	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
24	3.74	0.000
Median	3.74	0.000

190.00 Aluminum		
Lab	%Al	ICP
14	0.46	-1.340
14	0.46	-1.340
Std Dev	0.45	-1.000
24	0.44	0.000
24	0.44	0.000
31	0.44	0.000
Median	0.44	0.000
Std Dev	0.43	1.000
9	0.42	1.340
92	0.42	1.675

190.XX Aluminum		
Lab	%Al	Total Method
14	0.46	-1.340
14	0.46	-1.340
Std Dev	0.45	-1.000
24	0.44	0.000
24	0.44	0.000
31	0.44	0.000
Median	0.44	0.000
Std Dev	0.43	1.000
9	0.42	1.340
92	0.42	1.675

191.99 Total Chromium		
Lab	PPM	Other
24	142.00	0.000
Median	142.00	0.000

191.XX Total Chromium		
Lab	PPM	Total Method
24	142.00	0.000
Median	142.00	0.000

202.99 Acid Soluble Cobalt		
Lab		Other
24	1.70	0.000
Median	1.70	0.000

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
24	1.70	0.000
Median	1.70	0.000

221.99 Acid Soluble Copper		
Lab		Other
24	8.63	0.000
Median	8.63	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
24	8.63	0.000
Median	8.63	0.000

241.30 Acid Soluble Iron		
Lab	%Fe	ICP
24	0.65	-1.985
Std Dev	0.60	-1.000
9	0.59	-0.794
24	0.59	-0.794
14	0.55	0.000
14	0.55	0.000
Median	0.55	0.000
Std Dev	0.50	1.000
31	0.50	1.092
92	0.50	1.092

241.99 Acid Soluble Iron		
Lab	%Fe	Other
77	0.59	0.000
Median	0.59	0.000

241.XX Acid Soluble Iron		
Lab	%Fe	Total Method
24	0.65	-2.057
Std Dev	0.61	-1.000
9	0.59	-0.561
24	0.59	-0.561
77	0.59	-0.436
Median	0.57	0.000
14	0.55	0.436
14	0.55	0.436
Std Dev	0.53	1.000
31	0.50	1.807
92	0.50	1.807

251.99 Total Lead		
Lab		Other
24	0.79	0.000
Median	0.79	0.000

251.XX Total Lead		
Lab	PPM	Total Method
24	0.79	0.000
Median	0.79	0.000

261.99 Acid Soluble Manganese		
Lab	PPM	Other

24	39.90	0.000
Median	39.90	0.000

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
24	39.90	0.000
Median	39.90	0.000

281.30 Total Mercury		
Lab	PPM	ICP
24	0.41	0.000
Median	0.41	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	0.41	0.000
Median	0.41	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
Median		

289.99 Total Molybdenum		
Lab	PPM	Other
24	5.42	0.000
Median	5.42	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
24	5.42	0.000
Median	5.42	0.000

291.99 Total Nickel		
Lab	PPM	Other
24	22.10	0.000
Median	22.10	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
24	22.10	0.000
Median	22.10	0.000

301.30 Total Selenium		
Lab	PPM	ICP
24	0.90	0.000

Median	0.90	0.000
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301.XX Total Selenium		
Lab	PPM	Total Method
24	0.90	0.000
Median	0.90	0.000

311.00 Sodium		
Lab	%Na	Atomic Absorbtion
31	5.92	-1.340
Std Dev	5.85	-1.000
Median	5.66	0.000
Std Dev	5.47	1.000
77	5.40	1.340

311.99 Sodium		
Lab	%Na	Other
24	5.78	-1.340
Std Dev	5.77	-1.000
Median	5.76	0.000
Std Dev	5.74	1.000
24	5.73	1.340

311.XX Sodium		
Lab	%Na	Total Method
31	5.92	-1.290
Std Dev	5.88	-1.000
24	5.78	-0.202
Median	5.76	0.000
24	5.73	0.202
Std Dev	5.63	1.000
77	5.40	2.861

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
92	0.02	0.000
Median	0.02	0.000

321.99 Acid Soluble Zinc		
Lab	Other	
24	190.00	0.000
Median	190.00	0.000

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
24	190.00	-1.340
Std Dev	165.90	-1.000
Median	95.01	0.000
Std Dev	24.12	1.000
92	0.02	1.340

325.10 Fluoride		
Lab	%	Electrode
9	0.13	-2.680
14	0.11	-0.536
14	0.10	0.000
31	0.10	0.000
Median	0.10	0.000
24	0.09	1.072
24	0.09	1.072
79	0.09	1.072

325.XX Fluoride		
Lab	%	Total Method
9	0.13	-2.680
14	0.11	-0.536
14	0.10	0.000
31	0.10	0.000
Median	0.10	0.000
24	0.09	1.072
24	0.09	1.072
79	0.09	1.072