

AFPC Rock Check Program

Sample No. 2018-06

| | Method # | # of Anal. | Grand Median | Std Dev |
|--|----------|------------|--------------|-------------|
| Moisture | | | | |
| Ground Sample AFPC IX.2.A | 101 | 27 | 3.36 | 0.295 |
| Other (describe) | 102 | 2 | 3.60 | 0.080 |
| Method Group 100 | | 29 | 3.37 | 0.28 |
| P₂O₅ | | | | |
| Gravimetric AFPC IX.3.B | 201 | 4 | 29.75 | 0.132 |
| ICP-induced coupled plasma AFPC IX.3.D | 202 | | | |
| Photometric-AFPC IX.3.C | 203 | 21 | 29.59 | 0.172 |
| Automated -AOAC 978.01-15th | 204 | 11 | 29.45 | 0.104 |
| Other(describe) | 205 | 4 | 29.21 | 0.160 |
| Method Group 200 | | 40 | 29.57 | 0.20 |
| P₂O₅ (on Dry Basis) | | | | |
| Gravimetric AFPC IX.3.B | 211 | 2 | 30.62 | 0.055 |
| ICP-induced coupled plasma AFPC IX.3.D | 212 | | | |
| Photometric-AFPC IX.3.C | 213 | 13 | 30.68 | 0.122 |
| Automated -AOAC 978.01-15th | 214 | 11 | 30.55 | 0.107 |
| Other(describe) | 215 | 2 | 30.26 | 0.023 |
| Method Group 210 | | 28 | 30.58 | 0.16 |
| Fe₂O₃ | | | | |
| Atomic Absorption-AFPC IX.6.B | 301 | 1 | 0.69 | 0.000 |
| ICP-induced coupled plasma-AFPC IX.6.C | 302 | 29 | 0.65 | 0.037 |
| Other(describe) | 303 | 8 | 0.67 | 0.076 |
| Method Group 300 | | 38 | 0.66 | 0.04 |
| Al₂O₃ | | | | |
| Atomic Absorption-AFPC IX.7.B | 401 | 1 | 0.60 | 0.000 |
| ICP-induced coupled plasma-AFPC IX.7.C | 402 | 30 | 0.55 | 0.071 |
| Other(describe) | 403 | 7 | 0.84 | 0.130 |
| Method Group 400 | | 38 | 0.57 | 0.11 |
| MgO | | | | |
| Atomic Absorption-AFPC IX.8.A | 501 | 1 | 0.35 | 0.000 |
| ICP-induced coupled plasma-AFPC IX.8.B | 502 | 28 | 0.58 | 0.020 |
| Other(describe) | 503 | 7 | 0.55 | 0.082 |
| Method Group 500 | | 36 | 0.57 | 0.02 |
| Acid Insoluble | | | | |
| Insoluble-AFPC IX.4.A | 601 | 24 | 3.34 | 0.257 |
| Other(describe) | 602 | 1 | 3.97 | 0.000 |
| Method Group 600 | | 25 | 3.34 | 0.29 |
| Carbon Dioxide | | | | |
| Gasometric-AFPC IX.13.B | 651 | 15 | 4.19 | 0.233 |
| Other(describe) | 652 | 11 | 4.47 | 5.019 |
| Method Group 650 | | 26 | 4.32 | 0.29 |
| CaO | | | | |
| Gravimetric sulfate-AFPC IX.12.A | 701 | | | |
| ICP-induced coupled plasma-AFPC IX.12.D | 702 | 21 | 44.96 | 0.519 |
| Ceric Sulfate volumetric-AFPC IX.12.B | 703 | | | |
| Permanganate | 704 | 1 | 45.36 | 0.000 |
| EDTA Volumetric-AFPC IX.12.C | 705 | | | |
| Other(describe) | 706 | 12 | 45.27 | 0.467 |
| Method Group 700 | | 34 | 45.02 | 0.49 |
| CaO (on Dry Basis) | | | | |
| Gravimetric sulfate-AFPC IX.12.A | 711 | | | |
| ICP-induced coupled plasma-AFPC IX.12.D | 712 | 15 | 46.45 | 0.380 |
| Ceric Sulfate volumetric-AFPC IX.12.B | 713 | | | |
| Permanganate | 714 | 1 | 46.70 | 0.000 |
| EDTA Volumetric-AFPC IX.12.C | 715 | | | |
| Other(describe) | 716 | 9 | 46.82 | 0.433 |
| Method Group 710 | | 24 | 46.46 | 0.42 |

| | Method # | # of Anal. | Grand Median | Std Dev |
|---|----------|------------|--------------|--------------|
| Fluorine, F | | | | |
| Volumetric-AFPC IX.14.A | 801 | | | |
| Specific Ion Electrode-AFPC IX.14.B | 802 | 25 | 2.70 | 0.224 |
| Other (describe) | 803 | 5 | 2.79 | 0.149 |
| Method Group 800 | | 30 | 2.71 | 0.21 |
| Arsenic, As | | | | |
| Atomic Absorption | 911 | 1 | 8.0 | 0.00 |
| ICP-induced coupled plasma-AFPC IX.15.B | 912 | 12 | 5.8 | 2.12 |
| Other(describe) | 913 | 3 | 5.7 | 0.16 |
| Method Group 900 | | 16 | 5.8 | 1.18 |
| Cadmium, Cd | | | | |
| Atomic Absorption-AFPC IX.11.A | 921 | 1 | 22 | 0.0 |
| ICP-induced coupled plasma-AFPC IX.11.B | 922 | 17 | 39 | 4.3 |
| Other(describe) | 923 | 4 | 40 | 2.5 |
| Method Group 910 | | 22 | 39 | 4.2 |
| Cobalt, Co | | | | |
| Atomic Absorption-AFPC IX.16.B | 931 | 1 | 5 | 0.0 |
| ICP-induced coupled plasma-AFPC IX.16.A | 932 | 12 | 1 | 0.7 |
| Other(describe) | 933 | 4 | 0 | 0.7 |
| Method Group 920 | | 17 | 1 | 0.7 |
| Mercury, Hg | | | | |
| Atomic Absorption-AFPC IX.16.B | 941 | | | |
| ICP-induced coupled plasma-AFPC IX.16.A | 942 | 2 | 0.1 | 0.00 |
| Other (describe) | 943 | 4 | 13.5 | 20.21 |
| Method Group 930 | | 6 | 0.1 | 15.08 |
| Molybdenum, Mo | | | | |
| Atomic Absorption-AFPC IX.16.B | 951 | 1 | 42 | 0.0 |
| ICP-induced coupled plasma-AFPC IX.16.A | 952 | 10 | 5 | 1.3 |
| Other (describe) | 953 | 2 | 7 | 1.3 |
| Method Group 940 | | 13 | 6 | 1.3 |
| Nickel, Ni | | | | |
| Atomic Absorption-AFPC IX.16.B | 961 | 1 | 17 | 0.0 |
| ICP-induced coupled plasma-AFPC IX.16.A | 962 | 13 | 11 | 3.4 |
| Other (describe) | 963 | 5 | 13 | 2.8 |
| Method Group 950 | | 19 | 12 | 5.2 |
| Lead, Pb | | | | |
| Atomic Absorption-AFPC IX.16.B | 971 | 1 | 23 | 0.0 |
| ICP-induced coupled plasma-AFPC IX.16.A | 972 | 12 | 4 | 1.5 |
| Other (describe) | 973 | 4 | 16 | 2.6 |
| Method Group 960 | | 17 | 4 | 2.9 |
| Selenium, Se | | | | |
| Atomic Absorption-AFPC IX.16.B | 981 | | | |
| ICP-induced coupled plasma-AFPC IX.16.A | 982 | 2 | 9 | 0.0 |
| Other (describe) | 983 | 4 | 3 | 2.3 |
| Method Group 970 | | 6 | 5 | 4.4 |
| Zinc, Zn | | | | |
| Atomic Absorption-AFPC IX.16.B | 991 | 1 | 65 | 0 |
| ICP-induced coupled plasma-AFPC IX.16.A | 992 | 13 | 68 | 13 |
| Other (describe) | 993 | 6 | 76 | 24 |
| Method Group 980 | | 20 | 68 | 14 |

| 101 Ground Sample AFPC IX.2.A | | | |
|-------------------------------|------|------------------|--------|
| Lab | % | H ₂ O | |
| 21 | 3.66 | | -1.001 |
| Std Dev | 3.65 | | -1.000 |
| 21 | 3.65 | | -0.984 |
| 10 | 3.61 | | -0.848 |
| 24 | 3.60 | | -0.814 |
| 10 | 3.58 | | -0.746 |
| 49 | 3.58 | | -0.746 |
| 49 | 3.56 | | -0.678 |
| 24 | 3.53 | | -0.577 |
| 13 | 3.52 | | -0.526 |
| 20 | 3.51 | | -0.509 |
| 13 | 3.50 | | -0.458 |
| 9 | 3.37 | | -0.034 |
| 15 | 3.37 | | -0.034 |
| 75 | 3.36 | | 0.000 |
| Median | 3.36 | | 0.000 |
| 26 | 3.34 | | 0.068 |
| 75 | 3.33 | | 0.119 |
| 15 | 3.29 | | 0.237 |
| 9 | 3.24 | | 0.407 |
| 52 | 3.20 | | 0.543 |
| 35 | 3.18 | | 0.611 |
| 35 | 3.12 | | 0.814 |
| Std Dev | 3.07 | | 1.000 |
| 77 | 3.06 | | 1.018 |
| 77 | 2.94 | | 1.425 |
| 30 | 2.87 | | 1.662 |
| 55 | 2.77 | | 2.002 |
| 275 | 2.68 | | 2.307 |
| 275 | 2.57 | | 2.680 |

| 102 Other (describe) | | | |
|----------------------|------|------------------|--------|
| Lab | % | H ₂ O | |
| 69 | 3.71 | | -1.340 |
| Std Dev | 3.68 | | -1.000 |
| Median | 3.60 | | 0.000 |
| Std Dev | 3.52 | | 1.000 |
| 20 | 3.50 | | 1.340 |

| 201 Gravimetric AFPC IX.3.B | | | |
|-----------------------------|-------|------|--------|
| Lab | % | P2O5 | |
| 65 | 29.81 | | -0.461 |

| | | | |
|---------|-------|--|--------|
| 77 | 29.79 | | -0.342 |
| Median | 29.75 | | 0.000 |
| 55 | 29.70 | | 0.342 |
| Std Dev | 29.61 | | 1.000 |
| 56 | 29.37 | | 2.848 |

| 202 ICP-induced coupled plasma AFPC IX.3.D | | | |
|--|------|------|-------|
| Lab | % | P2O5 | |
| Median | 0.00 | | 0.000 |

| 203 Photometric-AFPC IX.3.C | | | |
|-----------------------------|-------|------|--------|
| Lab | % | P2O5 | |
| 45 | 30.09 | | -2.913 |
| 45 | 30.00 | | -2.389 |
| 35 | 29.80 | | -1.223 |
| Std Dev | 29.76 | | -1.000 |
| 35 | 29.75 | | -0.932 |
| 69 | 29.73 | | -0.787 |
| 78 | 29.71 | | -0.699 |
| 49 | 29.71 | | -0.670 |
| 52 | 29.70 | | -0.641 |
| 49 | 29.69 | | -0.583 |
| 92 | 29.68 | | -0.524 |
| 10 | 29.59 | | 0.000 |
| Median | 29.59 | | 0.000 |
| 10 | 29.58 | | 0.058 |
| 26 | 29.58 | | 0.087 |
| 9 | 29.57 | | 0.146 |
| 9 | 29.56 | | 0.204 |
| 51 | 29.48 | | 0.641 |
| 78 | 29.48 | | 0.641 |
| 30 | 29.47 | | 0.699 |
| 51 | 29.44 | | 0.874 |
| Std Dev | 29.42 | | 1.000 |
| 275 | 28.75 | | 4.894 |
| 92 | 27.66 | | 11.244 |

| 204 Automated -AOAC 978.01-15th | | | |
|---------------------------------|-------|------|--------|
| Lab | % | P2O5 | |
| 15 | 29.64 | | -1.819 |
| 77 | 29.62 | | -1.675 |
| 21 | 29.58 | | -1.292 |
| 24 | 29.55 | | -1.005 |
| Std Dev | 29.55 | | -1.000 |

| | | | |
|---------|-------|--|--------|
| 13 | 29.48 | | -0.287 |
| 21 | 29.45 | | 0.000 |
| Median | 29.45 | | 0.000 |
| 13 | 29.43 | | 0.144 |
| 15 | 29.43 | | 0.144 |
| 24 | 29.42 | | 0.239 |
| 75 | 29.40 | | 0.479 |
| Std Dev | 29.34 | | 1.000 |
| 75 | 28.95 | | 4.738 |

| 205 Other(describe) | | | |
|---------------------|-------|------|--------|
| Lab | % | P2O5 | |
| 19 | 29.95 | | -4.623 |
| Std Dev | 29.37 | | -1.000 |
| 20 | 29.23 | | -0.078 |
| Median | 29.21 | | 0.000 |
| 56 | 29.20 | | 0.078 |
| 20 | 29.17 | | 0.266 |

| 211 Gravimetric AFPC IX.3.B | | | |
|-----------------------------|-------|------|--------|
| Lab | % | P2O5 | dB |
| 77 | 30.69 | | -1.340 |
| Std Dev | 30.67 | | -1.000 |
| Median | 30.62 | | 0.000 |
| Std Dev | 30.56 | | 1.000 |
| 55 | 30.55 | | 1.340 |

| 212 ICP-induced coupled plasma AFPC IX.3.D | | | |
|--|------|------|-------|
| Lab | % | P2O5 | dB |
| Median | 0.00 | | 0.000 |

| 213 Photometric-AFPC IX.3.C | | | |
|-----------------------------|-------|------|--------|
| Lab | % | P2O5 | dB |
| 69 | 30.87 | | -1.544 |
| 49 | 30.81 | | -1.033 |
| Std Dev | 30.80 | | -1.000 |
| 49 | 30.79 | | -0.853 |
| 35 | 30.76 | | -0.638 |
| 35 | 30.73 | | -0.371 |
| 10 | 30.70 | | -0.134 |
| 52 | 30.68 | | 0.000 |
| Median | 30.68 | | 0.000 |
| 10 | 30.68 | | 0.029 |
| 26 | 30.60 | | 0.695 |

| | | | |
|---------|-------|--|-------|
| 9 | 30.60 | | 0.702 |
| Std Dev | 30.56 | | 1.000 |
| 9 | 30.54 | | 1.123 |
| 30 | 30.34 | | 2.793 |
| 275 | 29.54 | | 9.337 |

| 214 Automated -AOAC 978.01-15th | | | |
|---------------------------------|-------|------|--------|
| Lab | % | P2O5 | dB |
| 21 | 30.70 | | -1.432 |
| 15 | 30.67 | | -1.118 |
| Std Dev | 30.66 | | -1.000 |
| 24 | 30.65 | | -0.978 |
| 21 | 30.56 | | -0.109 |
| 77 | 30.55 | | -0.058 |
| 13 | 30.55 | | 0.000 |
| Median | 30.55 | | 0.000 |
| 24 | 30.50 | | 0.488 |
| 13 | 30.50 | | 0.495 |
| Std Dev | 30.44 | | 1.000 |
| 15 | 30.43 | | 1.098 |
| 75 | 30.41 | | 1.334 |
| 75 | 29.96 | | 5.531 |

| 215 Other(describe) | | | |
|---------------------|-------|------|--------|
| Lab | % | P2O5 | dB |
| 20 | 30.29 | | -1.340 |
| Std Dev | 30.28 | | -1.000 |
| Median | 30.26 | | 0.000 |
| Std Dev | 30.23 | | 1.000 |
| 20 | 30.23 | | 1.340 |

| 301 Atomic Absorption-AFPC IX.6.B | | | |
|-----------------------------------|------|-------|-------|
| Lab | % | Fe2O3 | |
| 55 | 0.69 | | 0.000 |
| Median | 0.69 | | 0.000 |

| 302 ICP-induced coupled plasma-AFPC IX.6.C | | | |
|--|------|-------|--------|
| Lab | % | Fe2O3 | |
| 35 | 0.80 | | -4.020 |
| 35 | 0.79 | | -3.752 |
| 78 | 0.75 | | -2.546 |
| 52 | 0.73 | | -2.144 |
| 45 | 0.71 | | -1.608 |
| 45 | 0.71 | | -1.608 |

| | | |
|----------------|-------------|---------------|
| 51 | 0.69 | -1.072 |
| 92 | 0.69 | -1.072 |
| 275 | 0.69 | -1.072 |
| Std Dev | 0.69 | -1.000 |
| 15 | 0.68 | -0.804 |
| 92 | 0.68 | -0.804 |
| 15 | 0.67 | -0.536 |
| 78 | 0.67 | -0.536 |
| 51 | 0.66 | -0.268 |
| 10 | 0.65 | 0.000 |
| 13 | 0.65 | 0.000 |
| 49 | 0.65 | 0.000 |
| 275 | 0.65 | 0.000 |
| Median | 0.65 | 0.000 |
| 9 | 0.65 | 0.134 |
| 9 | 0.64 | 0.268 |
| 21 | 0.64 | 0.268 |
| 49 | 0.64 | 0.268 |
| 13 | 0.64 | 0.402 |
| 10 | 0.63 | 0.536 |
| 21 | 0.63 | 0.670 |
| Std Dev | 0.61 | 1.000 |
| 24 | 0.61 | 1.206 |
| 24 | 0.60 | 1.474 |
| 75 | 0.59 | 1.709 |
| 75 | 0.57 | 2.151 |

| 303 Other(describe) | | |
|---------------------|-------------|---------------|
| Lab | % | Fe2O3 |
| 56 | 0.77 | -1.307 |
| 77 | 0.75 | -1.042 |
| Std Dev | 0.75 | -1.000 |
| 77 | 0.74 | -0.910 |
| 19 | 0.68 | -0.116 |
| Median | 0.67 | 0.000 |
| 65 | 0.66 | 0.116 |
| 69 | 0.66 | 0.215 |
| 20 | 0.60 | 0.943 |
| Std Dev | 0.60 | 1.000 |
| 20 | 0.59 | 1.075 |

| 401 Atomic Absorption-AFPC IX.6.B | | |
|-----------------------------------|------|-------|
| Lab | % | Al2O3 |
| 55 | 0.60 | 0.000 |

| | | |
|---------------|-------------|--------------|
| Median | 0.60 | 0.000 |
|---------------|-------------|--------------|

| 402 ICP-induced coupled plasma-AFPC IX.6.C | | |
|--|---|-------|
| Lab | % | Al2O3 |

| | | |
|----------------|-------------|---------------|
| 52 | 1.14 | -8.292 |
| 78 | 0.87 | -4.427 |
| 78 | 0.82 | -3.725 |
| 35 | 0.71 | -2.249 |
| 35 | 0.69 | -1.968 |
| 69 | 0.67 | -1.616 |
| 45 | 0.63 | -1.124 |
| Std Dev | 0.62 | -1.000 |
| 45 | 0.62 | -0.984 |
| 92 | 0.60 | -0.703 |
| 92 | 0.58 | -0.422 |
| 51 | 0.57 | -0.281 |
| 75 | 0.56 | -0.193 |
| 24 | 0.56 | -0.141 |
| 49 | 0.56 | -0.141 |
| 9 | 0.55 | 0.000 |
| 9 | 0.55 | 0.000 |
| 51 | 0.55 | 0.000 |
| Median | 0.55 | 0.000 |
| 15 | 0.54 | 0.141 |
| 49 | 0.54 | 0.141 |
| 15 | 0.54 | 0.211 |
| 21 | 0.54 | 0.211 |
| 75 | 0.53 | 0.230 |
| 24 | 0.52 | 0.492 |
| 10 | 0.51 | 0.562 |
| 275 | 0.51 | 0.562 |
| 10 | 0.50 | 0.703 |
| 21 | 0.50 | 0.773 |
| 13 | 0.49 | 0.843 |
| 275 | 0.49 | 0.843 |
| Std Dev | 0.48 | 1.000 |
| 13 | 0.44 | 1.546 |

| 403 Other(describe) | | |
|---------------------|---|-------|
| Lab | % | Al2O3 |

| | | |
|----|------|--------|
| 56 | 0.89 | -0.384 |
| 65 | 0.89 | -0.374 |
| 77 | 0.84 | 0.000 |
| 77 | 0.84 | 0.000 |

| | | |
|---------------|-------------|--------------|
| Median | 0.84 | 0.000 |
|---------------|-------------|--------------|

| | | |
|----------------|-------------|--------------|
| 19 | 0.74 | 0.769 |
| Std Dev | 0.71 | 1.000 |
| 20 | 0.64 | 1.537 |
| 20 | 0.62 | 1.691 |

| 501 Atomic Absorption-AFPC IX.8.A | | |
|-----------------------------------|---|-----|
| Lab | % | MgO |

| | | |
|---------------|-------------|--------------|
| 55 | 0.35 | 0.000 |
| Median | 0.35 | 0.000 |

| 502 ICP-induced coupled plasma-AFPC IX.8.B | | |
|--|---|-----|
| Lab | % | MgO |

| | | |
|----------------|-------------|---------------|
| 35 | 0.62 | -2.297 |
| 35 | 0.61 | -1.787 |
| 52 | 0.60 | -1.276 |
| 69 | 0.60 | -1.276 |
| Std Dev | 0.59 | -1.000 |
| 13 | 0.59 | -0.766 |
| 45 | 0.59 | -0.766 |
| 45 | 0.59 | -0.766 |
| 13 | 0.59 | -0.510 |
| 24 | 0.59 | -0.510 |
| 75 | 0.58 | -0.275 |
| 49 | 0.58 | -0.255 |
| 49 | 0.58 | -0.255 |
| 9 | 0.58 | 0.000 |
| 21 | 0.58 | 0.000 |
| 24 | 0.58 | 0.000 |
| Median | 0.58 | 0.000 |
| 9 | 0.57 | 0.255 |
| 10 | 0.57 | 0.255 |
| 10 | 0.57 | 0.255 |
| 21 | 0.57 | 0.255 |
| 51 | 0.57 | 0.255 |
| 15 | 0.56 | 0.766 |
| 15 | 0.56 | 0.766 |
| 75 | 0.56 | 0.952 |
| Std Dev | 0.56 | 1.000 |
| 51 | 0.55 | 1.276 |
| 78 | 0.55 | 1.531 |
| 92 | 0.53 | 2.297 |
| 92 | 0.51 | 3.318 |
| 78 | 0.51 | 3.573 |

| 503 Other(describe) | | |
|---------------------|---|-----|
| Lab | % | MgO |

| | | |
|----------------|-------------|--------------|
| 65 | 0.57 | -0.264 |
| 56 | 0.57 | -0.244 |
| 77 | 0.56 | -0.122 |
| 77 | 0.55 | 0.000 |
| Median | 0.55 | 0.000 |
| 19 | 0.52 | 0.365 |
| Std Dev | 0.47 | 1.000 |
| 20 | 0.39 | 1.949 |
| 20 | 0.38 | 2.071 |

| 601 Insoluble-AFPC IX.4.A | | |
|---------------------------|---|----|
| Lab | % | Al |

| | | |
|----------------|-------------|---------------|
| 35 | 5.36 | -7.865 |
| 35 | 5.33 | -7.749 |
| 45 | 4.04 | -2.738 |
| 55 | 3.70 | -1.418 |
| 45 | 3.67 | -1.301 |
| Std Dev | 3.59 | -1.000 |
| 49 | 3.58 | -0.932 |
| 49 | 3.51 | -0.660 |
| 13 | 3.48 | -0.544 |
| 13 | 3.36 | -0.097 |
| 9 | 3.36 | -0.078 |
| 10 | 3.34 | -0.019 |
| 10 | 3.34 | -0.019 |
| Median | 3.34 | 0.000 |
| 21 | 3.33 | 0.019 |
| 26 | 3.23 | 0.427 |
| 15 | 3.22 | 0.447 |
| 9 | 3.20 | 0.524 |
| 15 | 3.20 | 0.524 |
| 24 | 3.19 | 0.563 |
| 30 | 3.14 | 0.757 |
| 51 | 3.14 | 0.757 |
| 24 | 3.14 | 0.757 |
| 51 | 3.11 | 0.874 |
| Std Dev | 3.08 | 1.000 |
| 21 | 3.08 | 1.010 |
| 69 | 3.00 | 1.301 |

| 602 Other(describe) | | | |
|---------------------|-------------|----|--------------|
| Lab | % | Al | |
| 19 | 3.97 | | 0.000 |
| Median | 3.97 | | 0.000 |

| 651 Gasometric-AFPC IX.13.B | | | |
|-----------------------------|-------------|-----|---------------|
| Lab | % | CO2 | |
| 69 | 6.14 | | -8.340 |
| 77 | 5.49 | | -5.574 |
| Std Dev | 4.42 | | -1.000 |
| 21 | 4.32 | | -0.557 |
| 21 | 4.32 | | -0.557 |
| 9 | 4.30 | | -0.472 |
| 15 | 4.27 | | -0.343 |
| 15 | 4.24 | | -0.214 |
| 9 | 4.19 | | 0.000 |
| Median | 4.19 | | 0.000 |
| 24 | 4.17 | | 0.086 |
| 30 | 4.08 | | 0.472 |
| 24 | 4.04 | | 0.643 |
| Std Dev | 3.96 | | 1.000 |
| 49 | 3.96 | | 1.008 |
| 49 | 3.92 | | 1.179 |
| 13 | 3.81 | | 1.629 |
| 13 | 3.68 | | 2.187 |

| 652 Other(describe) | | | |
|---------------------|-------------|-----|---------------|
| Lab | % | CO2 | |
| 35 | 11.22 | | -1.345 |
| 35 | 11.21 | | -1.343 |
| 78 | 11.20 | | -1.340 |
| 78 | 11.11 | | -1.322 |
| Std Dev | 9.49 | | -1.000 |
| 55 | 4.50 | | -0.006 |
| 51 | 4.47 | | 0.000 |
| Median | 4.47 | | 0.000 |
| 20 | 4.45 | | 0.004 |
| 20 | 4.43 | | 0.008 |
| 51 | 4.42 | | 0.010 |
| 56 | 4.32 | | 0.030 |
| 65 | 4.03 | | 0.087 |

| 701 Gravimetric sulfate-AFPC IX.12.A | | | |
|--------------------------------------|---|-----|--|
| Lab | % | CaO | |
| | | | |

| Median | 0.00 | 0.000 |
|--------|------|-------|
|--------|------|-------|

| 702 ICP-induced coupled plasma-AFPC IX.12.D | | | |
|---|--------------|-----|---------------|
| Lab | % | CaO | |
| 75 | 48.34 | | -6.507 |
| 51 | 46.00 | | -2.005 |
| 51 | 45.96 | | -1.928 |
| 92 | 45.62 | | -1.273 |
| 75 | 45.49 | | -1.028 |
| 45 | 45.48 | | -1.003 |
| Std Dev | 45.48 | | -1.000 |
| 45 | 45.29 | | -0.636 |
| 9 | 45.08 | | -0.222 |
| 9 | 45.06 | | -0.183 |
| 69 | 44.98 | | -0.039 |
| 35 | 44.96 | | 0.000 |
| Median | 44.96 | | 0.000 |
| 10 | 44.90 | | 0.116 |
| 35 | 44.90 | | 0.116 |
| 10 | 44.81 | | 0.289 |
| 92 | 44.80 | | 0.308 |
| 49 | 44.79 | | 0.337 |
| 13 | 44.47 | | 0.954 |
| 49 | 44.47 | | 0.954 |
| Std Dev | 44.44 | | 1.000 |
| 13 | 44.26 | | 1.350 |
| 21 | 44.22 | | 1.427 |
| 21 | 44.14 | | 1.581 |

| 703 Ceric Sulfate volumetric-AFPC IX.12.B | | | |
|---|-------------|-----|--------------|
| Lab | % | CaO | |
| Median | 0.00 | | 0.000 |

| 704 Permanganate | | | |
|------------------|--------------|-----|--------------|
| Lab | % | CaO | |
| 30 | 45.36 | | 0.000 |
| Median | 45.36 | | 0.000 |

| 705 EDTA Volumetric-AFPC IX.12.C | | | |
|----------------------------------|-------------|-----|--------------|
| Lab | % | CaO | |
| Median | 0.00 | | 0.000 |

| 706 Other(describe) | | | |
|---------------------|---|-----|--|
| Lab | % | CaO | |
| | | | |

| | | | |
|----------------|--------------|--|---------------|
| 55 | 47.40 | | -4.568 |
| 19 | 46.02 | | -1.615 |
| Std Dev | 45.73 | | -1.000 |
| 77 | 45.45 | | -0.396 |
| 77 | 45.44 | | -0.374 |
| 20 | 45.38 | | -0.246 |
| 20 | 45.37 | | -0.225 |
| Median | 45.27 | | 0.000 |
| 56 | 45.16 | | 0.225 |
| 15 | 44.91 | | 0.770 |
| 15 | 44.88 | | 0.834 |
| Std Dev | 44.80 | | 1.000 |
| 24 | 44.64 | | 1.337 |
| 24 | 44.58 | | 1.466 |
| 65 | 43.39 | | 4.012 |

| 711 Gravimetric sulfate-AFPC IX.12.A | | | |
|--------------------------------------|-------------|-----|--------------|
| Lab | % | CaO | dB |
| Median | 0.00 | | 0.000 |

| 712 ICP-induced coupled plasma-AFPC IX.12.D | | | |
|---|--------------|-----|---------------|
| Lab | % | CaO | dB |
| 75 | 50.02 | | -9.380 |
| 75 | 47.06 | | -1.603 |
| Std Dev | 46.83 | | -1.000 |
| 69 | 46.71 | | -0.697 |
| 9 | 46.63 | | -0.469 |
| 9 | 46.58 | | -0.359 |
| 10 | 46.58 | | -0.352 |
| 10 | 46.47 | | -0.068 |
| 49 | 46.45 | | 0.000 |
| Median | 46.45 | | 0.000 |
| 35 | 46.41 | | 0.105 |
| 35 | 46.37 | | 0.192 |
| 49 | 46.11 | | 0.898 |
| 13 | 46.08 | | 0.954 |
| Std Dev | 46.07 | | 1.000 |
| 21 | 45.90 | | 1.453 |
| 13 | 45.86 | | 1.538 |
| 21 | 45.81 | | 1.665 |

| 713 Ceric Sulfate volumetric-AFPC IX.12.B | | | |
|---|-------------|-----|--------------|
| Lab | % | CaO | dB |
| Median | 0.00 | | 0.000 |

| 714 Permanganate | | | |
|------------------|--------------|-----|--------------|
| Lab | % | CaO | dB |
| 30 | 46.70 | | 0.000 |
| Median | 46.70 | | 0.000 |

| 715 EDTA Volumetric-AFPC IX.12.C | | | |
|----------------------------------|-------------|-----|--------------|
| Lab | % | CaO | dB |
| Median | 0.00 | | 0.000 |

| 716 Other(describe) | | | |
|---------------------|--------------|-----|---------------|
| Lab | % | CaO | dB |
| 55 | 48.75 | | -4.465 |
| Std Dev | 47.25 | | -1.000 |
| 20 | 47.03 | | -0.495 |
| 20 | 47.01 | | -0.454 |
| 77 | 46.88 | | -0.158 |
| 77 | 46.82 | | 0.000 |
| Median | 46.82 | | 0.000 |
| 15 | 46.44 | | 0.869 |
| 15 | 46.43 | | 0.886 |
| Std Dev | 46.38 | | 1.000 |
| 24 | 46.27 | | 1.253 |
| 24 | 46.24 | | 1.319 |

| 801 Volumetric-AFPC IX.14.A | | | |
|-----------------------------|-------------|-------------|--------------|
| Lab | % | Fluorine, F | |
| Median | 0.00 | | 0.000 |

| 802 Specific Ion Electrode-AFPC IX.14.B | | | |
|---|-------------|-------------|---------------|
| Lab | % | Fluorine, F | |
| 55 | 3.45 | | -3.350 |
| 52 | 3.20 | | -2.233 |
| 30 | 3.06 | | -1.608 |
| 15 | 3.01 | | -1.385 |
| 51 | 3.00 | | -1.340 |
| 15 | 2.96 | | -1.161 |
| 51 | 2.94 | | -1.072 |
| 21 | 2.94 | | -1.050 |
| Std Dev | 2.92 | | -1.000 |
| 21 | 2.88 | | -0.782 |
| 9 | 2.78 | | -0.357 |
| 24 | 2.74 | | -0.156 |
| 26 | 2.72 | | -0.067 |

| | | |
|---------------|-------------|--------------|
| 13 | 2.70 | 0.000 |
| 35 | 2.70 | 0.000 |
| 275 | 2.70 | 0.000 |
| Median | 2.70 | 0.000 |
| 35 | 2.68 | 0.089 |
| 13 | 2.65 | 0.223 |
| 275 | 2.65 | 0.223 |
| 75 | 2.64 | 0.268 |
| 9 | 2.64 | 0.290 |
| 49 | 2.62 | 0.380 |
| 69 | 2.62 | 0.380 |
| 24 | 2.57 | 0.603 |
| 49 | 2.56 | 0.625 |
| 75 | 2.55 | 0.692 |

| 803 Other(describe) | | |
|----------------------|-------------|--------------|
| Lab | % | Fluorine, F |
| 20 | 2.86 | -0.415 |
| 20 | 2.85 | -0.381 |
| 65 | 2.79 | 0.000 |
| Median | 2.79 | 0.000 |
| 77 | 2.65 | 0.959 |
| Std Dev | 2.64 | 1.000 |
| 77 | 2.61 | 1.227 |

| 911 Atomic Absorption-AFPC | | |
|----------------------------|------------|--------------|
| Lab | ppm | Arsenic, As |
| 55 | 8.0 | 0.000 |
| Median | 8.0 | 0.000 |

| 912 ICP-induced coupled plasma-AFPC IX.15.B | | |
|---|------------|---------------|
| Lab | ppm | Arsenic, As |
| 20 | 8.2 | -1.157 |
| 20 | 8.0 | -1.063 |
| Std Dev | 7.9 | -1.000 |
| 35 | 7.0 | -0.590 |
| 35 | 6.0 | -0.118 |
| 51 | 6.0 | -0.118 |
| 24 | 5.8 | -0.024 |
| Median | 5.8 | 0.000 |
| 24 | 5.7 | 0.024 |
| 51 | 5.0 | 0.354 |
| 52 | 3.7 | 0.968 |
| Std Dev | 3.6 | 1.000 |

| | | |
|----|-----|-------|
| 78 | 2.6 | 1.511 |
| 78 | 1.0 | 2.243 |
| 69 | 0.0 | 2.715 |

| 913 Other(describe) | | |
|---------------------|------------|---------------|
| Lab | ppm | Arsenic, As |
| 77 | 5.9 | -1.232 |
| Std Dev | 5.9 | -1.000 |
| 77 | 5.7 | 0.000 |
| Median | 5.7 | 0.000 |
| Std Dev | 5.5 | 1.000 |
| 13 | 5.5 | 1.448 |

| 921 Atomic Absorption-AFPC IX.11.A | | |
|------------------------------------|-----------|--------------|
| Lab | ppm | Cadmium, Cd |
| 55 | 22 | 0.000 |
| Median | 22 | 0.000 |

| 922 ICP-induced coupled plasma-AFPC IX.11.B | | |
|---|-----------|---------------|
| Lab | ppm | Cadmium, Cd |
| 78 | 51 | -2.724 |
| 78 | 46 | -1.550 |
| Std Dev | 43 | -1.000 |
| 77 | 43 | -0.947 |
| 45 | 42 | -0.716 |
| 45 | 42 | -0.716 |
| 77 | 42 | -0.716 |
| 52 | 39 | -0.023 |
| 275 | 39 | -0.023 |
| 75 | 39 | 0.000 |
| Median | 39 | 0.000 |
| 275 | 39 | 0.012 |
| 75 | 37 | 0.393 |
| 51 | 37 | 0.439 |
| 24 | 36 | 0.624 |
| 51 | 36 | 0.670 |
| 24 | 35 | 0.820 |
| Std Dev | 35 | 1.000 |
| 35 | 31 | 1.825 |
| 35 | 31 | 1.825 |

| 923 Other(describe) | | |
|---------------------|-----|-------------|
| Lab | ppm | Cadmium, Cd |
| 13 | 47 | -2.897 |

| | | |
|----------------|-----------|---------------|
| Std Dev | 42 | -1.000 |
| 69 | 41 | -0.296 |
| Median | 40 | 0.000 |
| 20 | 39 | 0.296 |
| 20 | 38 | 0.690 |

| 931 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|----------|--------------|
| Lab | ppm | Cobalt, Co |
| 55 | 5 | 0.000 |
| Median | 5 | 0.000 |

| 932 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|----------|--------------|
| Lab | ppm | Cobalt, Co |
| 35 | 1 | -0.134 |
| 35 | 1 | -0.134 |
| 45 | 1 | -0.134 |
| 45 | 1 | -0.134 |
| 78 | 1 | -0.134 |
| 78 | 1 | -0.134 |
| Median | 1 | 0.000 |
| 77 | 1 | 0.134 |
| Std Dev | 0 | 1.000 |
| 24 | 0 | 1.206 |
| 24 | 0 | 1.206 |
| 75 | 0 | 1.206 |
| 75 | 0 | 1.206 |
| 77 | 0 | 1.206 |

| 933 Other(describe) | | |
|---------------------|----------|---------------|
| Lab | ppm | Cobalt, Co |
| 69 | 2 | -1.736 |
| Std Dev | 1 | -1.000 |
| 13 | 1 | -0.518 |
| Median | 0 | 0.000 |
| 20 | 0 | 0.518 |
| 20 | 0 | 0.518 |

| 941 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|------------|--------------|
| Lab | ppm | Mercury, Hg |
| Median | 0.0 | 0.000 |

| 942 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|-----|-------------|
| Lab | ppm | Mercury, Hg |
| 35 | 0.1 | -1.340 |

| | | |
|----------------|------------|---------------|
| Std Dev | 0.1 | -1.000 |
| Median | 0.1 | 0.000 |
| Std Dev | 0.1 | 1.000 |
| 35 | 0.1 | 1.340 |

| 943 Other(describe) | | |
|---------------------|-------------|--------------|
| Lab | ppm | Mercury, Hg |
| 24 | 27.5 | -0.691 |
| 24 | 27.0 | -0.666 |
| Median | 13.5 | 0.000 |
| 13 | 0.1 | 0.666 |
| 69 | 0.0 | 0.670 |

| 951 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|-----------|----------------|
| Lab | ppm | Iolybdenum, Mo |
| 55 | 42 | 0.000 |
| Median | 42 | 0.000 |

| 952 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|----------|----------------|
| Lab | ppm | Iolybdenum, Mo |
| 78 | 7 | -1.417 |
| Std Dev | 6 | -1.000 |
| 78 | 6 | -0.574 |
| 24 | 6 | -0.498 |
| 24 | 6 | -0.421 |
| 77 | 6 | -0.421 |
| Median | 5 | 0.000 |
| 77 | 5 | 0.421 |
| 20 | 4 | 0.804 |
| 20 | 4 | 0.881 |
| 45 | 4 | 0.881 |
| 45 | 4 | 0.881 |

| 953 Other(describe) | | |
|---------------------|----------|----------------|
| Lab | ppm | Iolybdenum, Mo |
| 13 | 8 | -1.340 |
| Std Dev | 8 | -1.000 |
| Median | 7 | 0.000 |
| Std Dev | 5 | 1.000 |
| 69 | 5 | 1.340 |

| 961 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|-----|-----------|
| Lab | ppm | Nicke, Ni |
| 55 | 17 | 0.000 |

| | | |
|--------|----|-------|
| Median | 17 | 0.000 |
|--------|----|-------|

| 962 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|-----|------------|
| Lab | ppm | Nickel, Ni |

| | | |
|---------|----|--------|
| 35 | 19 | -2.382 |
| 35 | 18 | -2.084 |
| 52 | 17 | -1.787 |
| Std Dev | 14 | -1.000 |
| 78 | 14 | -0.744 |
| 78 | 13 | -0.447 |
| 77 | 11 | 0.000 |
| 77 | 11 | 0.000 |
| Median | 11 | 0.000 |

| | | |
|---------|----|-------|
| 24 | 10 | 0.372 |
| 24 | 10 | 0.402 |
| 45 | 9 | 0.596 |
| 45 | 9 | 0.596 |
| Std Dev | 8 | 1.000 |
| 75 | 7 | 1.117 |
| 75 | 6 | 1.548 |

| 963 Other(describe) | | |
|---------------------|-----|------------|
| Lab | ppm | Nickel, Ni |

| | | |
|---------|----|--------|
| 19 | 26 | -4.708 |
| Std Dev | 16 | -1.000 |
| 13 | 16 | -0.978 |
| 20 | 13 | 0.000 |
| Median | 13 | 0.000 |
| 20 | 12 | 0.362 |
| Std Dev | 10 | 1.000 |
| 69 | 9 | 1.525 |

| 971 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|-----|----------|
| Lab | ppm | Lead, Pb |

| | | |
|--------|----|-------|
| 55 | 23 | 0.000 |
| Median | 23 | 0.000 |

| 972 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|-----|----------|
| Lab | ppm | Lead, Pb |

| | | |
|---------|---|--------|
| 51 | 7 | -2.167 |
| 51 | 6 | -1.479 |
| Std Dev | 5 | -1.000 |
| 275 | 5 | -0.516 |
| 275 | 4 | -0.124 |

| | | |
|----|---|--------|
| 35 | 4 | -0.103 |
|----|---|--------|

| | | |
|----|---|--------|
| 35 | 4 | -0.103 |
|----|---|--------|

| | | |
|--------|---|-------|
| Median | 4 | 0.000 |
|--------|---|-------|

| | | |
|----|---|-------|
| 77 | 4 | 0.103 |
|----|---|-------|

| | | |
|----|---|-------|
| 77 | 3 | 0.516 |
|----|---|-------|

| | | |
|----|---|-------|
| 24 | 2 | 0.963 |
|----|---|-------|

| | | |
|---------|---|-------|
| Std Dev | 2 | 1.000 |
|---------|---|-------|

| | | |
|----|---|-------|
| 24 | 2 | 1.583 |
|----|---|-------|

| | | |
|----|---|-------|
| 78 | 1 | 1.961 |
|----|---|-------|

| | | |
|----|---|-------|
| 78 | 1 | 1.961 |
|----|---|-------|

| 973 Other(describe) | | |
|---------------------|-----|----------|
| Lab | ppm | Lead, Pb |

| | | |
|----|----|--------|
| 69 | 20 | -1.578 |
|----|----|--------|

| | | |
|---------|----|--------|
| Std Dev | 19 | -1.000 |
|---------|----|--------|

| | | |
|----|----|-------|
| 20 | 16 | 0.000 |
|----|----|-------|

| | | |
|----|----|-------|
| 20 | 16 | 0.000 |
|----|----|-------|

| | | |
|--------|----|-------|
| Median | 16 | 0.000 |
|--------|----|-------|

| | | |
|---------|----|-------|
| Std Dev | 13 | 1.000 |
|---------|----|-------|

| | | |
|----|---|-------|
| 13 | 6 | 3.782 |
|----|---|-------|

| 981 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|-----|--------------|
| Lab | ppm | Selenium, Se |

| | | |
|--------|---|-------|
| Median | 0 | 0.000 |
|--------|---|-------|

| 982 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|-----|--------------|
| Lab | ppm | Selenium, Se |

| | | |
|----|---|-------|
| 20 | 9 | 0.000 |
|----|---|-------|

| | | |
|----|---|-------|
| 20 | 9 | 0.000 |
|----|---|-------|

| | | |
|--------|---|-------|
| Median | 9 | 0.000 |
|--------|---|-------|

| 983 Other(describe) | | |
|---------------------|-----|--------------|
| Lab | ppm | Selenium, Se |

| | | |
|----|---|--------|
| 13 | 6 | -1.381 |
|----|---|--------|

| | | |
|---------|---|--------|
| Std Dev | 5 | -1.000 |
|---------|---|--------|

| | | |
|----|---|--------|
| 69 | 4 | -0.568 |
|----|---|--------|

| | | |
|--------|---|-------|
| Median | 3 | 0.000 |
|--------|---|-------|

| | | |
|----|---|-------|
| 77 | 2 | 0.568 |
|----|---|-------|

| | | |
|----|---|-------|
| 77 | 2 | 0.568 |
|----|---|-------|

| 991 Atomic Absorption-AFPC IX.16.B | | |
|------------------------------------|-----|----------|
| Lab | ppm | Zinc, Zn |

| | | |
|----|----|-------|
| 55 | 65 | 0.000 |
|----|----|-------|

| | | |
|--------|----|-------|
| Median | 65 | 0.000 |
|--------|----|-------|

| 992 ICP-induced coupled plasma-AFPC IX.16.A | | |
|---|-----|----------|
| Lab | ppm | Zinc, Zn |

| | | |
|----|-----|--------|
| 52 | 121 | -4.178 |
|----|-----|--------|

| | | |
|----|----|--------|
| 24 | 83 | -1.206 |
|----|----|--------|

| | | |
|----|----|--------|
| 24 | 82 | -1.111 |
|----|----|--------|

| | | |
|---------|----|--------|
| Std Dev | 81 | -1.000 |
|---------|----|--------|

| | | |
|----|----|--------|
| 78 | 78 | -0.788 |
|----|----|--------|

| | | |
|----|----|--------|
| 78 | 78 | -0.788 |
|----|----|--------|

| | | |
|----|----|--------|
| 35 | 69 | -0.079 |
|----|----|--------|

| | | |
|----|----|-------|
| 35 | 68 | 0.000 |
|----|----|-------|

| | | |
|--------|----|-------|
| Median | 68 | 0.000 |
|--------|----|-------|

| | | |
|----|----|-------|
| 77 | 66 | 0.158 |
|----|----|-------|

| | | |
|----|----|-------|
| 77 | 64 | 0.315 |
|----|----|-------|

| | | |
|----|----|-------|
| 45 | 61 | 0.552 |
|----|----|-------|

| | | |
|----|----|-------|
| 75 | 60 | 0.670 |
|----|----|-------|

| | | |
|----|----|-------|
| 45 | 58 | 0.788 |
|----|----|-------|

| | | |
|----|----|-------|
| 75 | 57 | 0.839 |
|----|----|-------|

| 993 Other(describe) | | |
|---------------------|-----|----------|
| Lab | ppm | Zinc, Zn |

| | | |
|----|-----|--------|
| 20 | 105 | -1.199 |
|----|-----|--------|

| | | |
|----|-----|--------|
| 20 | 104 | -1.157 |
|----|-----|--------|

| | | |
|---------|-----|--------|
| Std Dev | 100 | -1.000 |
|---------|-----|--------|

| | | |
|----|----|--------|
| 19 | 84 | -0.334 |
|----|----|--------|

| | | |
|--------|----|-------|
| Median | 76 | 0.000 |
|--------|----|-------|

| | | |
|----|----|-------|
| 69 | 68 | 0.334 |
|----|----|-------|

| | | |
|----|----|-------|
| 19 | 66 | 0.406 |
|----|----|-------|

| | | |
|---------|----|-------|
| Std Dev | 52 | 1.000 |
|---------|----|-------|

| | | |
|----|----|-------|
| 13 | 13 | 2.579 |
|----|----|-------|