

# AFPC Rock Check Program

Sample No. 2016-04

|  | Method # | # of Anal. | Grand Median | Std Dev     |
|--|----------|------------|--------------|-------------|
| <b>Moisture</b>                                  |          |            |              |             |
| Ground Sample AFPC IX.2.A                        | 101      | 26         | 0.59         | 0.084       |
| Other (describe)                                 | 102      |            |              |             |
| <b>Method Group 100</b>                          |          | <b>26</b>  | <b>0.59</b>  | <b>0.08</b> |
| <b>P<sub>2</sub>O<sub>5</sub></b>                |          |            |              |             |
| Gravimetric AFPC IX.3.B                          | 201      | 5          | 30.13        | 0.112       |
| ICP-induced coupled plasma AFPC IX.3.D           | 202      | 3          | 30.18        | 0.082       |
| Photometric-AFPC IX.3.C                          | 203      | 16         | 30.15        | 0.170       |
| Automated -AOAC 978.01-15th                      | 204      | 9          | 30.18        | 0.175       |
| Other(describe)                                  | 205      | 2          | 30.01        | 0.157       |
| <b>Method Group 200</b>                          |          | <b>35</b>  | <b>30.17</b> | <b>0.14</b> |
| <b>P<sub>2</sub>O<sub>5</sub> (on Dry Basis)</b> |          |            |              |             |
| Gravimetric AFPC IX.3.B                          | 211      | 3          | 30.27        | 0.117       |
| ICP-induced coupled plasma AFPC IX.3.D           | 212      | 3          | 30.37        | 0.085       |
| Photometric-AFPC IX.3.C                          | 213      | 10         | 30.33        | 0.218       |
| Automated -AOAC 978.01-15th                      | 214      | 9          | 30.39        | 0.152       |
| Other(describe)                                  | 215      |            |              |             |
| <b>Method Group 210</b>                          |          | <b>25</b>  | <b>30.32</b> | <b>0.15</b> |
| <b>Fe<sub>2</sub>O<sub>3</sub></b>               |          |            |              |             |
| Atomic Absorption-AFPC IX.6.B                    | 301      | 2          | 0.86         | 0.052       |
| ICP-induced coupled plasma-AFPC IX.6.C           | 302      | 25         | 0.89         | 0.029       |
| Other(describe)                                  | 303      | 5          | 0.94         | 0.082       |
| <b>Method Group 300</b>                          |          | <b>32</b>  | <b>0.90</b>  | <b>0.04</b> |
| <b>Al<sub>2</sub>O<sub>3</sub></b>               |          |            |              |             |
| Atomic Absorption-AFPC IX.7.B                    | 401      | 2          | 1.14         | 0.153       |
| ICP-induced coupled plasma-AFPC IX.7.C           | 402      | 25         | 1.26         | 0.060       |
| Other(describe)                                  | 403      | 5          | 1.65         | 0.081       |
| <b>Method Group 400</b>                          |          | <b>32</b>  | <b>1.28</b>  | <b>0.24</b> |
| <b>MgO</b>                                       |          |            |              |             |
| Atomic Absorption-AFPC IX.8.A                    | 501      | 4          | 0.42         | 0.043       |
| ICP-induced coupled plasma-AFPC IX.8.B           | 502      | 23         | 0.38         | 0.007       |
| Other(describe)                                  | 503      | 5          | 0.39         | 0.007       |
| <b>Method Group 500</b>                          |          | <b>32</b>  | <b>0.39</b>  | <b>0.01</b> |
| <b>Acid Insoluble</b>                            |          |            |              |             |
| Insoluble-AFPC IX.4.A                            | 601      | 19         | 11.36        | 0.159       |
| Other(describe)                                  | 602      | 4          | 11.60        | 0.440       |
| <b>Method Group 600</b>                          |          | <b>23</b>  | <b>11.36</b> | <b>0.15</b> |
| <b>Carbon Dioxide</b>                            |          |            |              |             |
| Gasometric-AFPC IX.13.B                          | 651      | 14         | 3.54         | 0.113       |
| Other(describe)                                  | 652      | 6          | 3.49         | 1.696       |
| <b>Method Group 650</b>                          |          | <b>20</b>  | <b>3.54</b>  | <b>0.22</b> |
| <b>CaO</b>                                       |          |            |              |             |
| Gravimetric sulfate-AFPC IX.12.A                 | 701      |            |              |             |
| ICP-induced coupled plasma-AFPC IX.12.D          | 702      | 19         | 44.03        | 0.580       |
| Ceric Sulfate volumetric-AFPC IX.12.B            | 703      |            |              |             |
| Permanganate                                     | 704      | 2          | 43.46        | 0.187       |
| EDTA Volumetric-AFPC IX.12.C                     | 705      | 3          | 45.51        | 0.668       |
| Other(describe)                                  | 706      | 9          | 44.14        | 0.093       |
| <b>Method Group 700</b>                          |          | <b>33</b>  | <b>44.10</b> | <b>0.47</b> |
| <b>CaO (on Dry Basis)</b>                        |          |            |              |             |
| Gravimetric sulfate-AFPC IX.12.A                 | 711      |            |              |             |
| ICP-induced coupled plasma-AFPC IX.12.D          | 712      | 13         | 44.21        | 0.280       |
| Ceric Sulfate volumetric-AFPC IX.12.B            | 713      |            |              |             |
| Permanganate                                     | 714      | 2          | 43.68        | 0.186       |
| EDTA Volumetric-AFPC IX.12.C                     | 715      | 3          | 45.75        | 0.613       |
| Other(describe)                                  | 716      | 6          | 44.41        | 0.042       |
| <b>Method Group 710</b>                          |          | <b>23</b>  | <b>44.34</b> | <b>0.33</b> |

|   | Method # | # of Anal. | Grand Median | Std Dev     |
|---|----------|------------|--------------|-------------|
| <b>Fluorine, F</b>                      |          |            |              |             |
| Volumetric-AFPC IX.14.A                 | 801      |            |              |             |
| Specific Ion Electrode-AFPC IX.14.B     | 802      | 20         | 3.46         | 0.112       |
| Other (describe)                        | 803      | 4          | 3.46         | 0.071       |
| <b>Method Group 800</b>                 |          | <b>24</b>  | <b>3.46</b>  | <b>0.11</b> |
| <b>Arsenic, As</b>                      |          |            |              |             |
| Atomic Absorption                       | 911      | 1          | 0.2          | 0.00        |
| ICP-induced coupled plasma-AFPC IX.15.B | 912      | 9          | 8.9          | 2.09        |
| Other(describe)                         | 913      | 3          | 6.6          | 2.86        |
| <b>Method Group 900</b>                 |          | <b>13</b>  | <b>8.2</b>   | <b>3.13</b> |
| <b>Cadmium, Cd</b>                      |          |            |              |             |
| Atomic Absorption-AFPC IX.11.A          | 921      | 1          | 7            | 0.0         |
| ICP-induced coupled plasma-AFPC IX.11.B | 922      | 14         | 5            | 0.7         |
| Other(describe)                         | 923      | 2          | 18           | 9.0         |
| <b>Method Group 910</b>                 |          | <b>17</b>  | <b>5</b>     | <b>0.8</b>  |
| <b>Cobalt, Co</b>                       |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 931      | 1          | 50           | 0.0         |
| ICP-induced coupled plasma-AFPC IX.16.A | 932      | 13         | 22           | 11.9        |
| Other(describe)                         | 933      | 2          | 11           | 7.3         |
| <b>Method Group 920</b>                 |          | <b>16</b>  | <b>21</b>    | <b>12.5</b> |
| <b>Mercury, Hg</b>                      |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 941      | 1          | 0.1          | 0.00        |
| ICP-induced coupled plasma-AFPC IX.16.A | 942      | 3          | 0.1          | 0.37        |
| Other(describe)                         | 943      | 2          | 0.8          | 0.31        |
| <b>Method Group 930</b>                 |          | <b>6</b>   | <b>0.3</b>   | <b>0.56</b> |
| <b>Molybdenum, Mo</b>                   |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 951      | 1          | 30           | 0.0         |
| ICP-induced coupled plasma-AFPC IX.16.A | 952      | 9          | 19           | 1.5         |
| Other(describe)                         | 953      | 2          | 10           | 7.3         |
| <b>Method Group 940</b>                 |          | <b>12</b>  | <b>19</b>    | <b>3.4</b>  |
| <b>Nickel, Ni</b>                       |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 961      | 1          | 36           | 0.0         |
| ICP-induced coupled plasma-AFPC IX.16.A | 962      | 14         | 23           | 3.6         |
| Other(describe)                         | 963      | 4          | 25           | 4.7         |
| <b>Method Group 950</b>                 |          | <b>19</b>  | <b>23</b>    | <b>3.6</b>  |
| <b>Lead, Pb</b>                         |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 971      | 1          | 15           | 0.0         |
| ICP-induced coupled plasma-AFPC IX.16.A | 972      | 9          | 8            | 1.5         |
| Other(describe)                         | 973      | 2          | 7            | 3.1         |
| <b>Method Group 960</b>                 |          | <b>12</b>  | <b>8</b>     | <b>3.1</b>  |
| <b>Selenium, Se</b>                     |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 981      |            |              |             |
| ICP-induced coupled plasma-AFPC IX.16.A | 982      | 2          | 1            | 0.1         |
| Other(describe)                         | 983      | 2          | 24           | 15.2        |
| <b>Method Group 970</b>                 |          | <b>4</b>   | <b>3</b>     | <b>9.3</b>  |
| <b>Zinc, Zn</b>                         |          |            |              |             |
| Atomic Absorption-AFPC IX.16.B          | 991      | 1          | 73           | 0           |
| ICP-induced coupled plasma-AFPC IX.16.A | 992      | 14         | 67           | 8           |
| Other(describe)                         | 993      | 4          | 58           | 18          |
| <b>Method Group 980</b>                 |          | <b>19</b>  | <b>66</b>    | <b>10</b>   |

| 101 Ground Sample AFPC IX.2.A |             |                  |
|-------------------------------|-------------|------------------|
| Lab                           | %           | H <sub>2</sub> O |
| 21                            | 0.73        | -1.638           |
| 13                            | 0.72        | -1.519           |
| 13                            | 0.72        | -1.459           |
| 9                             | 0.68        | -1.042           |
| <b>Std Dev</b>                | <b>0.68</b> | <b>-1.000</b>    |
| 9                             | 0.66        | -0.744           |
| 6                             | 0.65        | -0.625           |
| 24                            | 0.64        | -0.566           |
| 10                            | 0.62        | -0.328           |
| 10                            | 0.62        | -0.328           |
| 24                            | 0.62        | -0.328           |
| 55                            | 0.62        | -0.328           |
| 75                            | 0.61        | -0.208           |
| 266                           | 0.60        | -0.089           |
| <b>Median</b>                 | <b>0.59</b> | <b>0.000</b>     |
| 26                            | 0.59        | 0.089            |
| 49                            | 0.58        | 0.149            |
| 75                            | 0.56        | 0.387            |
| 6                             | 0.55        | 0.506            |
| 52                            | 0.54        | 0.625            |
| 35                            | 0.53        | 0.744            |
| 30                            | 0.52        | 0.864            |
| 241                           | 0.51        | 0.983            |
| <b>Std Dev</b>                | <b>0.51</b> | <b>1.000</b>     |
| 15                            | 0.51        | 1.042            |
| 241                           | 0.42        | 2.055            |
| 35                            | 0.26        | 3.960            |
| 77                            | 0.25        | 4.080            |
| 77                            | 0.21        | 4.556            |

| 102 Other (describe) |             |                  |
|----------------------|-------------|------------------|
| Lab                  | %           | H <sub>2</sub> O |
| <b>Median</b>        | <b>0.00</b> | <b>0.000</b>     |

| 201 Gravimetric AFPC IX.3.B |              |               |
|-----------------------------|--------------|---------------|
| Lab                         | %            | P2O5          |
| 56                          | 30.36        | -2.055        |
| 65                          | 30.27        | -1.251        |
| <b>Std Dev</b>              | <b>30.24</b> | <b>-1.000</b> |
| 55                          | 30.13        | 0.000         |
| <b>Median</b>               | <b>30.13</b> | <b>0.000</b>  |
| 241                         | 30.12        | 0.089         |

|                |              |              |
|----------------|--------------|--------------|
| <b>Std Dev</b> | <b>30.02</b> | <b>1.000</b> |
| 77             | 29.93        | 1.787        |

| 202 ICP-induced coupled plasma AFPC IX.3.D |              |              |
|--|--------------|--------------|
| Lab  | %            | P2O5         |
| 10   | 30.21        | -0.365       |
| 10   | 30.18        | 0.000        |
| <b>Median</b>                              | <b>30.18</b> | <b>0.000</b> |
| <b>Std Dev</b>                             | <b>30.10</b> | <b>1.000</b> |
| 266  | 29.99        | 2.315        |

| 203 Photometric-AFPC IX.3.C |              |               |
|-----------------------------|--------------|---------------|
| Lab                         | %            | P2O5          |
| 45                          | 30.90        | -4.447        |
| 52                          | 30.71        | -3.328        |
| 35                          | 30.41        | -1.561        |
| 49                          | 30.41        | -1.561        |
| <b>Std Dev</b>              | <b>30.31</b> | <b>-1.000</b> |
| 26                          | 30.26        | -0.677        |
| 30                          | 30.20        | -0.324        |
| 35                          | 30.20        | -0.324        |
| 78                          | 30.16        | -0.088        |
| <b>Median</b>               | <b>30.15</b> | <b>0.000</b>  |
| 92                          | 30.13        | 0.088         |
| 9                           | 30.10        | 0.265         |
| 78                          | 30.10        | 0.295         |
| 92                          | 30.08        | 0.383         |
| 6                           | 30.04        | 0.618         |
| 9                           | 30.03        | 0.677         |
| 6                           | 30.02        | 0.766         |
| <b>Std Dev</b>              | <b>29.98</b> | <b>1.000</b>  |
| 45                          | 29.63        | 3.033         |

|                |              |               |
|----------------|--------------|---------------|
| <b>Std Dev</b> | <b>30.31</b> | <b>-1.000</b> |
| 26             | 30.26        | -0.677        |
| 30             | 30.20        | -0.324        |
| 35             | 30.20        | -0.324        |
| 78             | 30.16        | -0.088        |
| <b>Median</b>  | <b>30.15</b> | <b>0.000</b>  |
| 92             | 30.13        | 0.088         |
| 9              | 30.10        | 0.265         |
| 78             | 30.10        | 0.295         |
| 92             | 30.08        | 0.383         |
| 6              | 30.04        | 0.618         |
| 9              | 30.03        | 0.677         |
| 6              | 30.02        | 0.766         |
| <b>Std Dev</b> | <b>29.98</b> | <b>1.000</b>  |
| 45             | 29.63        | 3.033         |

| 204 Automated -AOAC 978.01-15th |              |              |
|---------------------------------|--------------|--------------|
| Lab                             | %            | P2O5         |
| 24                              | 30.35        | -0.941       |
| 13                              | 30.33        | -0.855       |
| 15                              | 30.33        | -0.827       |
| 24                              | 30.23        | -0.285       |
| 77                              | 30.18        | 0.000        |
| <b>Median</b>                   | <b>30.18</b> | <b>0.000</b> |
| 13                              | 30.17        | 0.057        |
| 75                              | 30.09        | 0.513        |
| 21                              | 30.08        | 0.599        |

|                |              |              |
|----------------|--------------|--------------|
| <b>Std Dev</b> | <b>30.00</b> | <b>1.000</b> |
| 75             | 29.97        | 1.226        |

| 205 Other(describe) |              |               |
|---------------------|--------------|---------------|
| Lab                 | %            | P2O5          |
| 56                  | 30.22        | -1.340        |
| <b>Std Dev</b>      | <b>30.17</b> | <b>-1.000</b> |
| <b>Median</b>       | <b>30.01</b> | <b>0.000</b>  |
| <b>Std Dev</b>      | <b>29.85</b> | <b>1.000</b>  |
| 19                  | 29.80        | 1.340         |

| 211 Gravimetric AFPC IX.3.B |              |              |    |
|-----------------------------|--------------|--------------|----|
| Lab                         | %            | P2O5         | dB |
| 55                          | 30.32        | -0.373       |    |
| 241                         | 30.27        | 0.000        |    |
| <b>Median</b>               | <b>30.27</b> | <b>0.000</b> |    |
| <b>Std Dev</b>              | <b>30.16</b> | <b>1.000</b> |    |
| 77                          | 30.01        | 2.307        |    |

| 212 ICP-induced coupled plasma AFPC IX.3.D |              |              |    |
|--|--------------|--------------|----|
| Lab  | %            | P2O5         | dB |
| 10   | 30.40        | -0.356       |    |
| 10   | 30.37        | 0.000        |    |
| <b>Median</b>                              | <b>30.37</b> | <b>0.000</b> |    |
| <b>Std Dev</b>                             | <b>30.28</b> | <b>1.000</b> |    |
| 266  | 30.17        | 2.324        |    |

| 213 Photometric-AFPC IX.3.C |              |               |    |
|-----------------------------|--------------|---------------|----|
| Lab                         | %            | P2O5          | dB |
| 52                          | 30.88        | -2.516        |    |
| 49                          | 30.59        | -1.189        |    |
| 35                          | 30.57        | -1.119        |    |
| <b>Std Dev</b>              | <b>30.55</b> | <b>-1.000</b> |    |
| 26                          | 30.44        | -0.504        |    |
| 30                          | 30.36        | -0.136        |    |
| <b>Median</b>               | <b>30.33</b> | <b>0.000</b>  |    |
| 9                           | 30.30        | 0.136         |    |
| 35                          | 30.28        | 0.227         |    |
| 9                           | 30.24        | 0.425         |    |
| 6                           | 30.24        | 0.427         |    |
| 6                           | 30.18        | 0.675         |    |

| 214 Automated -AOAC 978.01-15th |   |      |    |
|---------------------------------|---|------|----|
| Lab                             | % | P2O5 | dB |
|                                 |   |      |    |

|                |              |               |
|----------------|--------------|---------------|
| 13             | 30.55        | -1.067        |
| 24             | 30.54        | -1.005        |
| <b>Std Dev</b> | <b>30.54</b> | <b>-1.000</b> |
| 15             | 30.48        | -0.601        |
| 24             | 30.42        | -0.206        |
| 13             | 30.39        | 0.000         |
| <b>Median</b>  | <b>30.39</b> | <b>0.000</b>  |
| 21             | 30.30        | 0.598         |
| 75             | 30.27        | 0.739         |
| 77             | 30.24        | 0.943         |
| <b>Std Dev</b> | <b>30.23</b> | <b>1.000</b>  |
| 75             | 30.13        | 1.663         |

| 215 Other(describe) |             |              |    |
|---------------------|-------------|--------------|----|
| Lab                 | %           | P2O5         | dB |
| <b>Median</b>       | <b>0.00</b> | <b>0.000</b> |    |

| 301 Atomic Absorption-AFPC IX.6.B |             |               |
|-----------------------------------|-------------|---------------|
| Lab                               | %           | Fe2O3         |
| 30                                | 0.93        | -1.340        |
| <b>Std Dev</b>                    | <b>0.91</b> | <b>-1.000</b> |
| <b>Median</b>                     | <b>0.86</b> | <b>0.000</b>  |
| <b>Std Dev</b>                    | <b>0.81</b> | <b>1.000</b>  |
| 55                                | 0.79        | 1.340         |

| 302 ICP-induced coupled plasma-AFPC IX.6.C |             |               |  |
|--|-------------|---------------|--|
| Lab  | %           | Fe2O3         |  |
| 266  | 1.05        | -5.650        |  |
| 78   | 1.02        | -4.452        |  |
| 78   | 1.00        | -3.938        |  |
| 52   | 0.98        | -3.253        |  |
| 75   | 0.94        | -2.023        |  |
| 35   | 0.93        | -1.541        |  |
| 75   | 0.92        | -1.169        |  |
| 21   | 0.92        | -1.027        |  |
| <b>Std Dev</b>                             | <b>0.91</b> | <b>-1.000</b> |  |
| 15   | 0.91        | -0.685        |  |
| 10   | 0.90        | -0.514        |  |
| 10   | 0.90        | -0.514        |  |
| 35   | 0.90        | -0.514        |  |
| 6  | 0.89        | 0.000         |  |
| 9  | 0.89        | 0.000         |  |
| 13   | 0.89        | 0.000         |  |
| 13   | 0.89        | 0.000         |  |

|         |      |       |
|---------|------|-------|
| Median  | 0.89 | 0.000 |
| 6       | 0.88 | 0.171 |
| 9       | 0.88 | 0.171 |
| 45      | 0.88 | 0.171 |
| 49      | 0.88 | 0.171 |
| Std Dev | 0.86 | 1.000 |
| 45      | 0.84 | 1.541 |
| 92      | 0.84 | 1.541 |
| 92      | 0.84 | 1.541 |
| 24      | 0.80 | 2.911 |
| 24      | 0.80 | 3.082 |

|                     |      |        |
|---------------------|------|--------|
| 303 Other(describe) |      |        |
| Lab                 | %    | Fe2O3  |
| 77                  | 1.06 | -1.462 |
| Std Dev             | 1.02 | -1.000 |
| 77                  | 1.02 | -0.975 |
| 56                  | 0.94 | 0.000  |
| Median              | 0.94 | 0.000  |
| 19                  | 0.91 | 0.365  |
| 65                  | 0.87 | 0.816  |

|                                   |      |        |
|-----------------------------------|------|--------|
| 401 Atomic Absorption-AFPC IX.6.B |      |        |
| Lab                               | %    | Al2O3  |
| 30                                | 1.34 | -1.340 |
| Std Dev                           | 1.29 | -1.000 |
| Median                            | 1.14 | 0.000  |
| Std Dev                           | 0.98 | 1.000  |
| 55                                | 0.93 | 1.340  |

|  |      |         |
|--|------|---------|
| 402 ICP-induced coupled plasma-AFPC IX.6.C |      |         |
| Lab  | %    | Al2O3   |
| 52   | 1.94 | -11.390 |
| 266  | 1.80 | -9.045  |
| 78   | 1.65 | -6.449  |
| 78   | 1.63 | -6.197  |
| 35   | 1.55 | -4.858  |
| 35   | 1.45 | -3.183  |
| 92   | 1.32 | -1.005  |
| Std Dev                                    | 1.32 | -1.000  |
| 92   | 1.30 | -0.670  |
| 24   | 1.29 | -0.419  |
| 24   | 1.29 | -0.419  |
| 21   | 1.28 | -0.335  |

|         |      |        |
|---------|------|--------|
| 75      | 1.28 | -0.308 |
| 10      | 1.26 | 0.000  |
| Median  | 1.26 | 0.000  |
| 6       | 1.26 | 0.084  |
| 10      | 1.25 | 0.168  |
| 75      | 1.25 | 0.187  |
| 6       | 1.25 | 0.251  |
| 15      | 1.24 | 0.335  |
| 45      | 1.24 | 0.335  |
| 13      | 1.24 | 0.419  |
| 9       | 1.23 | 0.503  |
| 9       | 1.23 | 0.503  |
| 49      | 1.23 | 0.503  |
| 13      | 1.22 | 0.670  |
| Std Dev | 1.20 | 1.000  |
| 45      | 1.15 | 1.843  |

|                     |      |        |
|---------------------|------|--------|
| 403 Other(describe) |      |        |
| Lab                 | %    | Al2O3  |
| 77                  | 1.68 | -0.369 |
| 65                  | 1.68 | -0.357 |
| 77                  | 1.65 | 0.000  |
| Median              | 1.65 | 0.000  |
| 56                  | 1.57 | 0.983  |
| Std Dev             | 1.57 | 1.000  |
| 19                  | 1.30 | 4.303  |

|                                   |      |        |
|-----------------------------------|------|--------|
| 501 Atomic Absorption-AFPC IX.8.A |      |        |
| Lab                               | %    | MgO    |
| 35                                | 0.42 | -0.117 |
| 35                                | 0.42 | -0.117 |
| Median                            | 0.42 | 0.000  |
| 30                                | 0.41 | 0.117  |
| Std Dev                           | 0.37 | 1.000  |
| 55                                | 0.22 | 4.544  |

|  |      |        |
|--|------|--------|
| 502 ICP-induced coupled plasma-AFPC IX.8.B |      |        |
| Lab  | %    | MgO    |
| 49   | 0.42 | -5.360 |
| 21   | 0.40 | -2.680 |
| 10   | 0.39 | -1.340 |
| 10   | 0.39 | -1.340 |
| 13   | 0.39 | -1.340 |
| 15   | 0.39 | -1.340 |

|         |      |        |
|---------|------|--------|
| 24      | 0.39 | -1.340 |
| 24      | 0.39 | -1.340 |
| 52      | 0.39 | -1.340 |
| 266     | 0.39 | -1.340 |
| Std Dev | 0.39 | -1.000 |
| 13      | 0.39 | -0.670 |
| 6       | 0.38 | 0.000  |
| 6       | 0.38 | 0.000  |
| 9       | 0.38 | 0.000  |
| 9       | 0.38 | 0.000  |
| 78      | 0.38 | 0.000  |
| 78      | 0.38 | 0.000  |
| 92      | 0.38 | 0.000  |
| 92      | 0.38 | 0.000  |
| Median  | 0.38 | 0.000  |
| Std Dev | 0.37 | 1.000  |
| 45      | 0.37 | 1.340  |
| 45      | 0.37 | 1.340  |
| 75      | 0.36 | 3.031  |
| 75      | 0.35 | 4.464  |

|                     |      |        |
|---------------------|------|--------|
| 503 Other(describe) |      |        |
| Lab                 | %    | MgO    |
| 77                  | 0.41 | -3.350 |
| Std Dev             | 0.39 | -1.000 |
| 77                  | 0.39 | -0.670 |
| 65                  | 0.39 | 0.000  |
| Median              | 0.39 | 0.000  |
| 56                  | 0.38 | 0.670  |
| Std Dev             | 0.38 | 1.000  |
| 19                  | 0.35 | 4.690  |

|                           |       |        |
|---------------------------|-------|--------|
| 601 Insoluble-AFPC IX.4.A |       |        |
| Lab                       | %     | Al     |
| 45                        | 12.22 | -5.455 |
| 55                        | 12.22 | -5.455 |
| 52                        | 11.83 | -2.995 |
| Std Dev                   | 11.51 | -1.000 |
| 15                        | 11.46 | -0.631 |
| 49                        | 11.43 | -0.473 |
| 9                         | 11.41 | -0.315 |
| 13                        | 11.38 | -0.126 |
| 26                        | 11.36 | -0.032 |
| 30                        | 11.36 | -0.032 |

|         |       |       |
|---------|-------|-------|
| 13      | 11.36 | 0.000 |
| Median  | 11.36 | 0.000 |
| 9       | 11.35 | 0.032 |
| 10      | 11.35 | 0.032 |
| 24      | 11.25 | 0.662 |
| 10      | 11.23 | 0.788 |
| Std Dev | 11.20 | 1.000 |
| 35      | 11.18 | 1.104 |
| 24      | 11.12 | 1.513 |
| 45      | 11.10 | 1.608 |
| 35      | 10.76 | 3.752 |
| 21      | 10.28 | 6.779 |

|                     |       |        |
|---------------------|-------|--------|
| 602 Other(describe) |       |        |
| Lab                 | %     | Al     |
| 19                  | 12.48 | -1.999 |
| Std Dev             | 12.04 | -1.000 |
| 266                 | 11.80 | -0.454 |
| Median              | 11.60 | 0.000  |
| 6                   | 11.40 | 0.454  |
| 6                   | 11.32 | 0.636  |

|                             |      |        |
|-----------------------------|------|--------|
| 651 Gasometric-AFPC IX.13.B |      |        |
| Lab                         | %    | CO2    |
| 52                          | 3.74 | -1.772 |
| 13                          | 3.67 | -1.152 |
| 24                          | 3.67 | -1.152 |
| 24                          | 3.66 | -1.019 |
| Std Dev                     | 3.65 | -1.000 |
| 77                          | 3.60 | -0.532 |
| 9                           | 3.56 | -0.177 |
| 9                           | 3.56 | -0.177 |
| Median                      | 3.54 | 0.000  |
| 6                           | 3.52 | 0.177  |
| 6                           | 3.51 | 0.266  |
| 13                          | 3.49 | 0.443  |
| 30                          | 3.49 | 0.443  |
| Std Dev                     | 3.43 | 1.000  |
| 49                          | 3.27 | 2.392  |
| 15                          | 3.19 | 3.145  |
| 21                          | 2.54 | 8.860  |

|                     |   |     |
|---------------------|---|-----|
| 652 Other(describe) |   |     |
| Lab                 | % | CO2 |

|         |      |        |
|---------|------|--------|
| 35      | 6.45 | -1.748 |
| 35      | 6.30 | -1.660 |
| Std Dev | 5.18 | -1.000 |
| 55      | 3.59 | -0.062 |
| Median  | 3.49 | 0.000  |
| 65      | 3.38 | 0.062  |
| 56      | 3.34 | 0.086  |
| 266     | 2.97 | 0.304  |

| 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 |

|         |       |        |
|---------|-------|--------|
| 92      | 46.04 | -3.464 |
| 92      | 45.45 | -2.447 |
| 78      | 45.31 | -2.206 |
| 78      | 45.18 | -1.982 |
| Std Dev | 44.61 | -1.000 |
| 13      | 44.53 | -0.862 |
| 21      | 44.50 | -0.801 |
| 49      | 44.46 | -0.741 |
| 13      | 44.14 | -0.181 |
| 75      | 44.09 | -0.109 |
| 10      | 44.03 | 0.000  |
| Median  | 44.03 | 0.000  |
| 10      | 43.94 | 0.155  |
| 9       | 43.92 | 0.198  |
| 9       | 43.90 | 0.224  |
| 6       | 43.84 | 0.336  |
| 6       | 43.64 | 0.681  |
| Std Dev | 43.45 | 1.000  |
| 45      | 43.40 | 1.086  |
| 45      | 42.87 | 1.999  |
| 52      | 42.60 | 2.465  |
| 75      | 42.46 | 2.702  |

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

| 704 Permanganate |   |     |
|------------------|---|-----|
| Lab              | % | CaO |

|         |       |        |
|---------|-------|--------|
| 241     | 43.71 | -1.340 |
| Std Dev | 43.65 | -1.000 |
| Median  | 43.46 | 0.000  |
| Std Dev | 43.27 | 1.000  |
| 30      | 43.21 | 1.340  |

| 705 EDTA Volumetric-AFPC IX.12.C |       |        |
|----------------------------------|-------|--------|
| Lab                              | %     | CaO    |
| 35                               | 45.89 | -0.569 |
| 35                               | 45.51 | 0.000  |
| Median                           | 45.51 | 0.000  |
| Std Dev                          | 44.84 | 1.000  |
| 266                              | 44.10 | 2.111  |

| 706 Other(describe) |       |        |
|---------------------|-------|--------|
| Lab                 | %     | CaO    |
| 65                  | 44.41 | -2.948 |
| 77                  | 44.30 | -1.769 |
| Std Dev             | 44.23 | -1.000 |
| 15                  | 44.23 | -0.965 |
| 24                  | 44.17 | -0.375 |
| 24                  | 44.14 | 0.000  |
| Median              | 44.14 | 0.000  |
| 19                  | 44.13 | 0.054  |
| 55                  | 44.10 | 0.375  |
| Std Dev             | 44.04 | 1.000  |
| 56                  | 43.99 | 1.554  |
| 77                  | 43.70 | 4.663  |

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

| 712 ICP-induced coupled plasma-AFPC IX.12.D |       |        |    |
|---|-------|--------|----|
| Lab   | %     | CaO    | dB |
| 13  | 44.85 | -2.280 |    |
| 21  | 44.82 | -2.170 |    |
| 49  | 44.72 | -1.803 |    |
| Std Dev                                     | 44.49 | -1.000 |    |
| 13  | 44.45 | -0.852 |    |
| 75  | 44.34 | -0.454 |    |
| 10  | 44.30 | -0.323 |    |
| 10  | 44.21 | 0.000  |    |
| Median                                      | 44.21 | 0.000  |    |

|         |       |       |
|---------|-------|-------|
| 9       | 44.20 | 0.034 |
| 9       | 44.20 | 0.048 |
| 6       | 44.08 | 0.488 |
| Std Dev | 43.93 | 1.000 |
| 6       | 43.92 | 1.056 |
| 52      | 42.83 | 4.936 |
| 75      | 42.72 | 5.324 |

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

| 714 Permanganate |       |        |    |
|------------------|-------|--------|----|
| Lab              | %     | CaO    | dB |
| 241              | 43.93 | -1.340 |    |
| Std Dev          | 43.87 | -1.000 |    |
| Median           | 43.68 | 0.000  |    |
| Std Dev          | 43.50 | 1.000  |    |
| 30               | 43.44 | 1.340  |    |

| 715 EDTA Volumetric-AFPC IX.12.C |       |        |    |
|----------------------------------|-------|--------|----|
| Lab                              | %     | CaO    | dB |
| 35                               | 46.01 | -0.419 |    |
| 35                               | 45.75 | 0.000  |    |
| Median                           | 45.75 | 0.000  |    |
| Std Dev                          | 45.14 | 1.000  |    |
| 266                              | 44.37 | 2.261  |    |

| 716 Other(describe) |       |        |    |
|---------------------|-------|--------|----|
| Lab                 | %     | CaO    | dB |
| 24                  | 44.45 | -1.050 |    |
| Std Dev             | 44.45 | -1.000 |    |
| 15                  | 44.45 | -0.929 |    |
| 77                  | 44.41 | -0.008 |    |
| Median              | 44.41 | 0.000  |    |
| 24                  | 44.41 | 0.008  |    |
| 55                  | 44.38 | 0.852  |    |
| Std Dev             | 44.37 | 1.000  |    |
| 77                  | 43.79 | 14.824 |    |

| 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 |
| 35                                      | 3.71 | -2.233      |
| 52                                      | 3.71 | -2.233      |
| 13                                      | 3.62 | -1.429      |
| 13                                      | 3.58 | -1.027      |
| Std Dev                                 | 3.57 | -1.000      |
| 9                                       | 3.57 | -0.983      |
| 9                                       | 3.54 | -0.715      |
| 15                                      | 3.51 | -0.402      |
| 24                                      | 3.49 | -0.223      |
| 6                                       | 3.47 | -0.045      |
| 30                                      | 3.46 | 0.000       |
| 55                                      | 3.46 | 0.000       |
| Median                                  | 3.46 | 0.000       |
| 6                                       | 3.43 | 0.313       |
| 49                                      | 3.42 | 0.357       |
| 21                                      | 3.40 | 0.536       |
| 35                                      | 3.40 | 0.536       |
| 24                                      | 3.39 | 0.625       |
| 26                                      | 3.36 | 0.893       |
| Std Dev                                 | 3.35 | 1.000       |
| 75                                      | 3.26 | 1.831       |
| 75                                      | 3.20 | 2.367       |
| 266                                     | 3.19 | 2.412       |

| 803 Other( describe) |      |             |
|----------------------|------|-------------|
| Lab                  | %    | Fluorine, F |
| 19                   | 3.66 | -2.821      |
| Std Dev              | 3.53 | -1.000      |
| 65                   | 3.47 | -0.141      |
| Median               | 3.46 | 0.000       |
| 77                   | 3.45 | 0.141       |
| Std Dev              | 3.39 | 1.000       |
| 77                   | 3.34 | 1.693       |

| 911 Atomic Absorption-AFPC |     |             |
|----------------------------|-----|-------------|
| Lab                        | ppm | Arsenic, As |
| 55                         | 0.2 | 0.000       |
| Median                     | 0.2 | 0.000       |

| 912 ICP-induced coupled plasma-AFPC IX.15. |      |             |
|--|------|-------------|
| Lab  | ppm  | Arsenic, As |
| 35   | 13.0 | -1.962      |

|         |      |        |
|---------|------|--------|
| 35      | 12.0 | -1.484 |
| Std Dev | 11.0 | -1.000 |
| 78      | 9.5  | -0.287 |
| 24      | 9.4  | -0.239 |
| 24      | 8.9  | 0.000  |
| Median  | 8.9  | 0.000  |
| 78      | 8.3  | 0.311  |
| Std Dev | 6.8  | 1.000  |
| 77      | 6.7  | 1.053  |
| 52      | 5.2  | 1.771  |
| 266     | 4.8  | 1.962  |

|                     |     |             |
|---------------------|-----|-------------|
| 913 Other(describe) |     |             |
| Lab                 | ppm | Arsenic, As |
| 13                  | 8.2 | -0.555      |
| 77                  | 6.6 | 0.000       |
| Median              | 6.6 | 0.000       |
| Std Dev             | 3.7 | 1.000       |
| 15                  | 0.5 | 2.125       |

|                                    |     |             |
|------------------------------------|-----|-------------|
| 921 Atomic Absorption-AFPC IX.11.A |     |             |
| Lab                                | ppm | Cadmium, Cd |
| 55                                 | 7   | 0.000       |
| Median                             | 7   | 0.000       |

|   |     |             |
|---|-----|-------------|
| 922 ICP-induced coupled plasma-AFPC IX.11.B |     |             |
| Lab   | ppm | Cadmium, Cd |
| 75  | 6   | -1.608      |
| 78  | 6   | -1.514      |
| 78  | 6   | -1.374      |
| 75  | 6   | -1.340      |
| 77  | 6   | -1.340      |
| Std Dev                                     | 6   | -1.000      |
| 24  | 5   | -0.536      |
| 24  | 5   | 0.000       |
| 35  | 5   | 0.000       |
| 35  | 5   | 0.000       |
| 45  | 5   | 0.000       |
| 45  | 5   | 0.000       |
| 77  | 5   | 0.000       |
| Median                                      | 5   | 0.000       |
| 52  | 5   | 0.268       |
| 266   | 4   | 0.978       |

|                     |     |             |
|---------------------|-----|-------------|
| 923 Other(describe) |     |             |
| Lab                 | ppm | Cadmium, Cd |
| 15                  | 30  | -1.340      |
| Std Dev             | 27  | -1.000      |
| Median              | 18  | 0.000       |
| Std Dev             | 9   | 1.000       |
| 13                  | 6   | 1.340       |

|                                    |     |            |
|------------------------------------|-----|------------|
| 931 Atomic Absorption-AFPC IX.16.B |     |            |
| Lab                                | ppm | Cobalt, Co |
| 55                                 | 50  | 0.000      |
| Median                             | 50  | 0.000      |

|   |     |            |
|---|-----|------------|
| 932 ICP-induced coupled plasma-AFPC IX.16.A |     |            |
| Lab   | ppm | Cobalt, Co |
| 78  | 39  | -1.382     |
| 78  | 39  | -1.382     |
| Std Dev                                     | 34  | -1.000     |
| 24  | 32  | -0.846     |
| 35  | 30  | -0.670     |
| 24  | 29  | -0.624     |
| 266   | 26  | -0.293     |
| 35  | 22  | 0.000      |
| Median                                      | 22  | 0.000      |
| 75  | 20  | 0.172      |
| 75  | 14  | 0.653      |
| 77  | 14  | 0.670      |
| 77  | 13  | 0.754      |
| 45  | 11  | 0.921      |
| Std Dev                                     | 10  | 1.000      |
| 45  | 7   | 1.256      |

|                     |     |            |
|---------------------|-----|------------|
| 933 Other(describe) |     |            |
| Lab                 | ppm | Cobalt, Co |
| 13                  | 21  | -1.340     |
| Std Dev             | 18  | -1.000     |
| Median              | 11  | 0.000      |
| Std Dev             | 3   | 1.000      |
| 15                  | 1   | 1.340      |

|                                    |     |             |
|------------------------------------|-----|-------------|
| 941 Atomic Absorption-AFPC IX.16.B |     |             |
| Lab                                | ppm | Mercury, Hg |
| 55                                 | 0.1 | 0.000       |
| Median                             | 0.1 | 0.000       |

|   |     |             |
|---|-----|-------------|
| 942 ICP-induced coupled plasma-AFPC IX.16.A |     |             |
| Lab   | ppm | Mercury, Hg |
| 35  | 1.0 | -2.404      |
| Std Dev                                     | 0.5 | -1.000      |
| 266   | 0.1 | 0.000       |
| Median                                      | 0.1 | 0.000       |
| 35  | 0.0 | 0.276       |

|                     |     |             |
|---------------------|-----|-------------|
| 943 Other(describe) |     |             |
| Lab                 | ppm | Mercury, Hg |
| 15                  | 1.3 | -1.340      |
| Std Dev             | 1.2 | -1.000      |
| Median              | 0.8 | 0.000       |
| Std Dev             | 0.5 | 1.000       |
| 13                  | 0.4 | 1.340       |

|                                    |     |                |
|------------------------------------|-----|----------------|
| 951 Atomic Absorption-AFPC IX.16.B |     |                |
| Lab                                | ppm | Molybdenum, Mo |
| 55                                 | 30  | 0.000          |
| Median                             | 30  | 0.000          |

|   |     |                |
|---|-----|----------------|
| 952 ICP-induced coupled plasma-AFPC IX.16.A |     |                |
| Lab   | ppm | Molybdenum, Mo |
| 78  | 19  | -0.369         |
| 266   | 19  | -0.335         |
| 77  | 19  | -0.134         |
| 78  | 19  | -0.134         |
| 24  | 19  | 0.000          |
| Median                                      | 19  | 0.000          |
| Std Dev                                     | 17  | 1.000          |
| 24  | 17  | 1.139          |
| 77  | 17  | 1.206          |
| 45  | 8   | 7.236          |
| 45  | 8   | 7.236          |

|                     |     |                |
|---------------------|-----|----------------|
| 953 Other(describe) |     |                |
| Lab                 | ppm | Molybdenum, Mo |
| 13                  | 20  | -1.340         |
| Std Dev             | 17  | -1.000         |
| Median              | 10  | 0.000          |
| Std Dev             | 3   | 1.000          |
| 15                  | 0   | 1.340          |

|                                    |     |            |
|------------------------------------|-----|------------|
| 961 Atomic Absorption-AFPC IX.16.B |     |            |
| Lab                                | ppm | Nickel, Ni |
| 55                                 | 36  | 0.000      |
| Median                             | 36  | 0.000      |

|  |     |            |
|--|-----|------------|
| 962 ICP-induced coupled plasma-AFPC IX.16. |     |            |
| Lab  | ppm | Nickel, Ni |
| 52   | 34  | -2.987     |
| Std Dev                                    | 27  | -1.000     |
| 78   | 25  | -0.530     |
| 75   | 25  | -0.433     |
| 78   | 25  | -0.391     |
| 75   | 24  | -0.168     |
| 266  | 24  | -0.112     |
| 24   | 23  | -0.028     |
| Median                                     | 23  | 0.000      |
| 77   | 23  | 0.028      |
| 77   | 22  | 0.307      |
| 24   | 21  | 0.586      |
| Std Dev                                    | 20  | 1.000      |
| 45   | 19  | 1.145      |
| 45   | 18  | 1.424      |
| 35   | 15  | 2.261      |
| 35   | 14  | 2.540      |

|                     |     |            |
|---------------------|-----|------------|
| 963 Other(describe) |     |            |
| Lab                 | ppm | Nickel, Ni |
| 19                  | 28  | -0.729     |
| 19                  | 26  | -0.300     |
| Median              | 25  | 0.000      |
| 13                  | 23  | 0.300      |
| Std Dev             | 20  | 1.000      |
| 15                  | 11  | 2.831      |

|                                    |     |          |
|------------------------------------|-----|----------|
| 971 Atomic Absorption-AFPC IX.16.B |     |          |
| Lab                                | ppm | Lead, Pb |
| 55                                 | 15  | 0.000    |
| Median                             | 15  | 0.000    |

|  |     |          |
|--|-----|----------|
| 972 ICP-induced coupled plasma-AFPC IX.16. |     |          |
| Lab  | ppm | Lead, Pb |
| 266  | 13  | -3.518   |
| 35   | 11  | -1.977   |
| 35   | 10  | -1.307   |

|         |    |        |
|---------|----|--------|
| Std Dev | 10 | -1.000 |
| 78      | 9  | -0.402 |
| 78      | 8  | 0.000  |
| Median  | 8  | 0.000  |
| 77      | 8  | 0.034  |
| 77      | 8  | 0.034  |
| Std Dev | 7  | 1.000  |
| 24      | 4  | 2.881  |
| 24      | 4  | 2.915  |

|                     |     |          |
|---------------------|-----|----------|
| 973 Other(describe) |     |          |
| Lab                 | ppm | Lead, Pb |
| 13                  | 11  | -1.340   |
| Std Dev             | 10  | -1.000   |
| Median              | 7   | 0.000    |
| Std Dev             | 4   | 1.000    |
| 15                  | 3   | 1.340    |

|                                    |     |              |
|------------------------------------|-----|--------------|
| 981 Atomic Absorption-AFPC IX.16.B |     |              |
| Lab                                | ppm | Selenium, Se |
| Median                             | 0   | 0.000        |

|   |     |              |
|---|-----|--------------|
| 982 ICP-induc coupled plasma-AFPC IX.16.A |     |              |
| Lab                                       | ppm | Selenium, Se |
| 77  | 2   | -1.340       |
| Std Dev                                   | 1   | -1.000       |
| Median                                    | 1   | 0.000        |
| Std Dev                                   | 1   | 1.000        |
| 266                                       | 1   | 1.340        |

|                     |     |              |
|---------------------|-----|--------------|
| 983 Other(describe) |     |              |
| Lab                 | ppm | Selenium, Se |
| 15                  | 44  | -1.340       |
| Std Dev             | 39  | -1.000       |
| Median              | 24  | 0.000        |
| Std Dev             | 9   | 1.000        |
| 13                  | 4   | 1.340        |

|                                    |     |          |
|------------------------------------|-----|----------|
| 991 Atomic Absorption-AFPC IX.16.B |     |          |
| Lab                                | ppm | Zinc, Zn |
| 55                                 | 73  | 0.000    |
| Median                             | 73  | 0.000    |

|   |     |          |
|---|-----|----------|
| 992 ICP-induced coupled plasma-AFPC IX.16.A |     |          |
| Lab   | ppm | Zinc, Zn |
| 24  | 111 | -5.306   |
| 24  | 107 | -4.814   |
| Std Dev                                     | 75  | -1.000   |
| 75  | 72  | -0.546   |
| 35  | 71  | -0.468   |
| 75  | 70  | -0.306   |
| 78  | 70  | -0.288   |
| 78  | 69  | -0.168   |
| Median                                      | 67  | 0.000    |
| 52  | 66  | 0.168    |
| 35  | 62  | 0.612    |
| 77  | 61  | 0.732    |
| 77  | 59  | 0.972    |
| Std Dev                                     | 59  | 1.000    |
| 266   | 56  | 1.308    |
| 45  | 54  | 1.573    |
| 45  | 41  | 3.133    |

|                     |     |          |
|---------------------|-----|----------|
| 993 Other(describe) |     |          |
| Lab                 | ppm | Zinc, Zn |
| 13                  | 72  | -0.776   |
| 19                  | 63  | -0.271   |
| Median              | 58  | 0.000    |
| 19                  | 53  | 0.271    |
| Std Dev             | 40  | 1.000    |
| 15                  | 3   | 2.957    |