

- Pass 1 Results for 80 Labs - - Pass 2 Results for 77 Labs -

| Method | AOAC Ref. | Method Code | No. of Labs | Grand Avg. | Std. Dev. | Average Range of Dups | No. of Labs | Grand Avg. | Std. Dev. | Average Range of Dups |
|---|-----------|-------------|-------------|------------|-----------|-----------------------|-------------|------------|-----------|-----------------------|
| Ammoniacal Nitrogen, MgO Distillation | 920.03 | 001.10 | 7 | 2.15 | 4.52 | 0.03 | 7 | 2.15 | 4.52 | 0.03 |
| Ammoniacal Nitrogen, Other | | 001.99 | 6 | 2.72 | 4.43 | 0.07 | 5 | 2.83 | 4.89 | 0.03 |
| Method Group 001.XX PCT | | | 13 | 2.41 | 4.40 | 0.05 | 12 | 2.43 | 4.59 | 0.03 |
| Water Insoluble Nitrogen, Meth I | 945.01 | 003.10 | 7 | 12.07 | 0.27 | 0.06 | 7 | 12.07 | 0.27 | 0.06 |
| Water Insoluble Nitrogen, Other | | 003.99 | 2 | 12.35 | 0.19 | 0.10 | 2 | 12.35 | 0.19 | 0.10 |
| Method Group 003.XX PCT | | | 9 | 12.13 | 0.28 | 0.07 | 9 | 12.13 | 0.28 | 0.07 |
| Ammon & Nitrate N, Devarda | 892.01 | 009.10 | 1 | 0.20 | 0.00 | 0.00 | 1 | 0.20 | 0.00 | 0.00 |
| Ammon & Nitrate N, Other | | 009.99 | 1 | 1.02 | 0.00 | 0.00 | 1 | 1.02 | 0.00 | 0.00 |
| Method Group 009.XX PCT | | | 2 | 0.61 | 0.47 | 0.00 | 2 | 0.61 | 0.47 | 0.00 |
| Total Nitrogen, Modified Comprehensive | 978.02 | 010.11 | 10 | 12.88 | 0.14 | 0.05 | 10 | 12.88 | 0.14 | 0.05 |
| Total Nitrogen, Salicylic | 955.04D | 010.12 | 4 | 13.02 | 0.11 | 0.10 | 4 | 13.02 | 0.11 | 0.10 |
| Total Nitrogen, Raney | 970.03 | 010.16 | 1 | 12.79 | 0.04 | 0.05 | 1 | 12.79 | 0.04 | 0.05 |
| Total Nitrogen, Combustion | | 010.60 | 52 | 13.08 | 0.12 | 0.06 | 47 | 13.08 | 0.10 | 0.04 |
| Total Nitrogen, Other | | 010.99 | 2 | 13.14 | 0.31 | 0.04 | 2 | 13.14 | 0.31 | 0.04 |
| Method Group 010.XX PCT | | | 73 | 13.04 | 0.17 | 0.06 | 69 | 13.04 | 0.17 | 0.05 |
| Total Phosphate, Grav Quimociac | 962.02 | 020.10 | 1 | 1.92 | 0.03 | 0.04 | 1 | 1.92 | 0.03 | 0.04 |
| Total Phosphate, Spectrometric | 958.01 | 020.20 | 2 | 2.09 | 0.02 | 0.03 | 2 | 2.09 | 0.02 | 0.03 |
| Total Phosphate, ICP | | 020.50 | 4 | 2.06 | 0.04 | 0.03 | 4 | 2.06 | 0.04 | 0.03 |
| Total Phosphate, Other | | 020.99 | 1 | 1.99 | 0.02 | 0.03 | 1 | 1.99 | 0.02 | 0.03 |
| Method Group 020.XX PCT | | | 9 | 2.02 | 0.09 | 0.04 | 9 | 2.02 | 0.09 | 0.04 |
| Dir Available Phosphate, Grav Quimociac | 960.03E | 041.10 | 1 | 1.79 | 0.06 | 0.09 | 1 | 1.79 | 0.06 | 0.09 |
| Dir Available Phosphate, ICP | | 041.50 | 3 | 1.74 | 0.14 | 0.05 | 3 | 1.74 | 0.14 | 0.05 |
| Dir Available Phosphate, EDTA Extract | 993.01 | 041.60 | 1 | 2.08 | 0.01 | 0.01 | 1 | 2.08 | 0.01 | 0.01 |
| Method Group 041.XX PCT | | | 5 | 1.82 | 0.17 | 0.05 | 5 | 1.82 | 0.17 | 0.05 |
| Water Soluble Phosphate, Spectrometric | 970.01 | 048.20 | 2 | 0.49 | 0.26 | 0.02 | 2 | 0.49 | 0.26 | 0.02 |
| Soluble Potash, ICP (Oxalate) | | 050.50 | 1 | 0.33 | 0.00 | 0.01 | 1 | 0.33 | 0.00 | 0.01 |
| Soluble Potash, ICP (Citrate) | | 050.51 | 4 | 0.34 | 0.05 | 0.06 | 4 | 0.34 | 0.05 | 0.06 |
| Soluble Potash, Flame (Citrate) | 983.02(b) | 050.61 | 1 | 0.36 | 0.00 | 0.00 | 1 | 0.36 | 0.00 | 0.00 |
| Soluble Potash, Other | | 050.99 | 4 | 0.41 | 0.11 | 0.03 | 4 | 0.41 | 0.11 | 0.03 |
| Method Group 050.XX PCT | | | 10 | 0.37 | 0.08 | 0.04 | 9 | 0.38 | 0.07 | 0.02 |
| Free Water, Vacuum Oven | 965.08B | 060.00 | 3 | 2.40 | 1.17 | 0.09 | 3 | 2.40 | 1.17 | 0.09 |
| Acid Soluble Calcium, ICP | | 101.30 | 12 | 1.78 | 0.08 | 0.03 | 11 | 1.78 | 0.08 | 0.02 |
| Acid Soluble Calcium, Other | | 101.99 | 1 | 2.10 | 0.01 | 0.01 | 1 | 2.10 | 0.01 | 0.01 |
| Method Group 101.XX PCT | | | 13 | 1.80 | 0.12 | 0.03 | 12 | 1.81 | 0.12 | 0.02 |
| Acid Soluble Magnesium, ICP | | 121.30 | 14 | 0.13 | 0.01 | 0.00 | 13 | 0.13 | 0.01 | 0.00 |
| Method Group 121.XX PCT | | | 14 | 0.13 | 0.01 | 0.00 | 13 | 0.13 | 0.01 | 0.00 |
| Sulfur, Gravimetric | 980.02a | 144.01 | 11 | 0.29 | 0.24 | 0.03 | 10 | 0.26 | 0.23 | 0.02 |
| Sulfur, Gravimetric | 980.02b | 144.02 | 1 | 2.22 | 0.18 | 0.26 | 1 | 2.22 | 0.18 | 0.26 |
| Sulfur, Spectrometric | | 144.70 | 1 | 1.71 | 0.02 | 0.03 | 1 | 1.71 | 0.02 | 0.03 |

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|--|-----------|-------------|-------------|------------|-----------|-----------------------|-------------|------------|-----------|-----------------------|
| Sulfur, Other | | 144.99 | 19 | 1.77 | 0.19 | 0.05 | 17 | 1.74 | 0.14 | 0.04 |
| Method Group 144.XX PCT | | | 36 | 1.22 | 0.76 | 0.05 | 34 | 1.17 | 0.75 | 0.04 |
| Arsenic, ICP | | 151.30 | 2 | 0.43 | 0.49 | 0.04 | 2 | 0.43 | 0.49 | 0.04 |
| Arsenic, Other | | 151.99 | 2 | 0.23 | 0.08 | 0.05 | 2 | 0.23 | 0.08 | 0.05 |
| Method Group 151.XX PPM | | | 4 | 0.33 | 0.34 | 0.04 | 4 | 0.33 | 0.34 | 0.04 |
| Acid Soluble Boron, Other | | 165.99 | 4 | 0.012 | 0.020 | 0.001 | 4 | 0.012 | 0.020 | 0.001 |
| Method Group 165.XX PCT | | | 5 | 0.050 | 0.094 | 0.041 | 4 | 0.012 | 0.020 | 0.001 |
| Cadmium, ICP | | 181.30 | 5 | 0.05 | 0.07 | 0.01 | 4 | 0.05 | 0.08 | 0.00 |
| Water Soluble Chlorine, Other | | 190.99 | 1 | 0.30 | 0.00 | 0.01 | 1 | 0.30 | 0.00 | 0.01 |
| Chromium, Atomic Absorption | | 191.00 | 1 | 7.65 | 1.20 | 1.70 | 1 | 7.65 | 1.20 | 1.70 |
| Chromium, ICP | | 191.30 | 8 | 7.28 | 1.86 | 0.57 | 8 | 7.28 | 1.86 | 0.57 |
| Chromium, Other | | 191.99 | 2 | 9.02 | 1.77 | 0.10 | 2 | 9.02 | 1.77 | 0.10 |
| Method Group 191.XX PPM | | | 11 | 7.63 | 1.86 | 0.59 | 11 | 7.63 | 1.86 | 0.59 |
| Acid Soluble Cobalt, ICP | 965.11 | 202.30 | 10 | 2.38 | 1.39 | 0.10 | 10 | 2.38 | 1.39 | 0.10 |
| Acid Soluble Cobalt, Other | | 202.99 | 3 | 3.99 | 1.03 | 0.50 | 3 | 3.99 | 1.03 | 0.50 |
| Method Group 202.XX PPM | | | 13 | 2.75 | 1.47 | 0.19 | 12 | 2.56 | 1.34 | 0.10 |
| Acid Soluble Copper, Atomic Absorption | 975.01 | 221.00 | 1 | 0.0013 | 0.0000 | 0.0000 | 1 | 0.0013 | 0.0000 | 0.0000 |
| Acid Soluble Copper, ICP | | 221.30 | 19 | 0.0015 | 0.0007 | 0.0001 | 15 | 0.0013 | 0.0005 | 0.0000 |
| Acid Soluble Copper, Other | | 221.99 | 3 | 0.0012 | 0.0001 | 0.0001 | 3 | 0.0012 | 0.0001 | 0.0001 |
| Method Group 221.XX PCT | | | 23 | 0.0014 | 0.0006 | 0.0001 | 19 | 0.0013 | 0.0005 | 0.0000 |
| Acid Soluble Iron, ICP | | 241.30 | 12 | 0.03 | 0.00 | 0.00 | 11 | 0.03 | 0.00 | 0.00 |
| Method Group 241.XX PCT | | | 12 | 0.03 | 0.00 | 0.00 | 11 | 0.03 | 0.00 | 0.00 |
| Lead, ICP | | 251.30 | 4 | 1.46 | 1.43 | 0.23 | 4 | 1.46 | 1.43 | 0.23 |
| Lead, Other | | 251.99 | 3 | 2.36 | 3.16 | 0.49 | 3 | 2.36 | 3.16 | 0.49 |
| Method Group 251.XX PPM | | | 7 | 1.84 | 2.27 | 0.34 | 6 | 1.08 | 1.27 | 0.17 |
| Acid Soluble Manganese, ICP | 972.02a | 261.30 | 8 | 0.002 | 0.000 | 0.000 | 7 | 0.002 | 0.000 | 0.000 |
| Acid Soluble Manganese, Other | | 261.99 | 1 | 0.002 | 0.000 | 0.000 | 1 | 0.002 | 0.000 | 0.000 |
| Method Group 261.XX PCT | | | 9 | 0.002 | 0.000 | 0.000 | 8 | 0.002 | 0.000 | 0.000 |
| Mercury, Atomic Absorption | | 281.00 | 1 | 0.00 | 0.00 | 0.00 | 1 | 0.00 | 0.00 | 0.00 |
| Mercury, ICP | | 281.30 | 2 | 0.10 | 0.12 | 0.03 | 2 | 0.10 | 0.12 | 0.03 |
| Method Group 281.XX PPM | | | 3 | 0.07 | 0.10 | 0.02 | 3 | 0.07 | 0.10 | 0.02 |
| Molybdenum, ICP | | 289.30 | 6 | 0.87 | 0.30 | 0.09 | 6 | 0.87 | 0.30 | 0.09 |
| Molybdenum, Other | | 289.99 | 2 | 0.88 | 0.13 | 0.10 | 2 | 0.88 | 0.13 | 0.10 |
| Method Group 289.XX PPM | | | 8 | 0.87 | 0.26 | 0.09 | 8 | 0.87 | 0.26 | 0.09 |
| Nickel, ICP | | 291.30 | 6 | 4.13 | 0.88 | 0.50 | 6 | 4.13 | 0.88 | 0.50 |
| Nickel, Other | | 291.99 | 2 | 4.51 | 0.29 | 0.43 | 2 | 4.51 | 0.29 | 0.43 |
| Method Group 291.XX PPM | | | 8 | 4.23 | 0.79 | 0.48 | 8 | 4.23 | 0.79 | 0.48 |
| Selenium, ICP | | 301.30 | 4 | 1.74 | 1.60 | 0.08 | 4 | 1.74 | 1.60 | 0.08 |
| Selenium, Other | | 301.99 | 3 | 0.60 | 0.12 | 0.04 | 3 | 0.60 | 0.12 | 0.04 |

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|---|-----------|-------------|-------------|------------|-----------|-----------------------|-------------|------------|-----------|-----------------------|
| Method Group 301.XX PPM | | | 7 | 1.25 | 1.31 | 0.06 | 7 | 1.25 | 1.31 | 0.06 |
| Sodium, Other | | 311.99 | 6 | 0.21 | 0.04 | 0.01 | 5 | 0.21 | 0.05 | 0.00 |
| Acid Soluble Zinc, Atomic Absorption .. | 975.02 | 321.00 | 4 | 0.012 | 0.001 | 0.001 | 4 | 0.012 | 0.001 | 0.001 |
| Acid Soluble Zinc, ICP | | 321.30 | 23 | 0.011 | 0.001 | 0.000 | 21 | 0.011 | 0.001 | 0.000 |
| Acid Soluble Zinc, Other | | 321.99 | 1 | 0.012 | 0.000 | 0.000 | 1 | 0.012 | 0.000 | 0.000 |
| Method Group 321.XX PCT | | | 28 | 0.012 | 0.001 | 0.001 | 26 | 0.011 | 0.001 | 0.000 |
| Water Soluble Zinc, ICP | | 325.30 | 1 | 0.012 | 0.000 | 0.000 | 1 | 0.012 | 0.000 | 0.000 |

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index |
|--|----------|-------|---|----------|-------|---|----------|-------|---|----------|-------|---|----------|-------|
| Meth: 001.10 PCT Ammoniacal Nitrogen <u>MgO Distillation</u> | | | Meth: 003.10 PCT Water Insoluble Nitr <u>Meth I</u> | | | Meth: 009.99 PCT Ammon & Nitrate N <u>Other</u> | | | Meth: 010.60 PCT Total Nitrogen <u>Combustion</u> | | | Meth: 010.60 PCT Total Nitrogen <u>Combustion</u> | | |
| 309 | 12.73 | 2.34 | 220 | 12.42 | 1.28 | 027 | 1.02 | .00 | 351 | 13.50 s | 4.26 | 307 | 13.07 | -.43 |
| Avg | 2.15 | | 029 | 12.38 | 1.15 | | | | 325 | 13.45 s | 3.78 | 360 | 13.06 | -.47 |
| 117 | 1.84 | -.07 | 117 | 12.17 | .44 | Meth: 009.XX PCT <u>Ammon & Nitrate N</u> | | | 230 | 13.35 s | 3.73 | 095 | 13.04 | -.48 |
| 029 | 0.14 | -.44 | 023 | 12.14 | .30 | 027 | 1.02 | .87 | 262 | 13.35 | 2.77 | 055 | 13.03 | -.55 |
| 444 | 0.13 | -.45 | Avg | 12.07 | | Avg | 0.61 | | 232 | 13.23 R | 2.00 | 231 | 13.04 | -.55 |
| 230 | 0.12 | -.45 | 090 | 11.85 | -.79 | 309 | 0.20 | -.87 | 072 | 13.25 R | 1.99 | 420 | 13.07 | -.59 |
| 291 | 0.06 | -.46 | 291 | 11.79 | -1.01 | | | | 296 | 13.24 | 1.71 | 372 | 13.00 | -.85 |
| 420 | 0.06 | -.46 | 372 | 11.72 | -1.27 | Meth: 010.11 PCT Total Nitrogen <u>Modified Comprehensi</u> | | | 426 | 13.22 | 1.41 | 136 | 13.01 | -.92 |
| Meth: 001.99 PCT Ammoniacal Nitrogen <u>Other</u> | | | Meth: 003.99 PCT Water Insoluble Nitr <u>Other</u> | | | 211 | 13.10 | 1.58 | 453 | 13.20 | 1.19 | 131 | 12.99 | -.97 |
| 137 | 12.07 | 1.89 | 234 | 12.50 | .95 | 322 | 12.99 | .78 | 043 | 13.13 | .95 | 291 | 12.98 | -1.16 |
| Avg | 2.83 | | Avg | 12.35 | | 105 | 12.98 | .71 | 247 | 13.18 | .94 | 390 | 13.02 R | -1.19 |
| 220 | 2.18 R | -.14 | 027 | 12.21 | -.77 | 029 | 12.94 | .50 | 102 | 13.17 | .89 | 073 | 12.96 | -1.25 |
| 096 | 1.17 | -.34 | Meth: 003.XX PCT <u>Water Insoluble Nitr</u> | | | 114 | 12.93 | .34 | 024 | 13.17 | .84 | 234 | 12.95 | -1.42 |
| 255 | 0.79 | -.42 | 234 | 12.50 | 1.36 | Avg | 12.88 | | 028 | 13.15 | .80 | 233 | 12.94 | -1.46 |
| 372 | 0.10 | -.56 | 220 | 12.42 | 1.02 | 416 | 12.86 | -.18 | 049 | 13.16 | .75 | 035 | 12.94 | -1.62 |
| 027 | 0.04 | -.57 | 029 | 12.38 | .90 | 371 | 12.87 | -.49 | 425 | 13.15 | .63 | 027 | 12.89 | -1.97 |
| Meth: 001.XX PCT <u>Ammoniacal Nitrogen</u> | | | 027 | 12.21 | .29 | 220 | 12.80 | -.65 | 292 | 13.15 | .63 | 428 | 12.90 R | -2.13 |
| 309 | 12.73 | 2.24 | 117 | 12.17 | .27 | 090 | 12.67 | -1.54 | 040 | 13.15 | .63 | 402 | 12.83 | -2.64 |
| 137 | 12.07 | 2.10 | 023 | 12.14 | .11 | 073 | 12.68 | -1.56 | 086 | 13.13 | .61 | 023 | 12.74 A | -3.51 |
| Avg | 2.43 | | Avg | 12.13 | | Meth: 010.12 PCT Total Nitrogen <u>Salicylic</u> | | | 443 | 13.14 | .59 | 451 | 12.70 s | -4.07 |
| 220 | 2.18 R | -.06 | 090 | 11.85 | -1.00 | 397 | 13.15 | 1.25 | 409 | 13.12 | .48 | 009 | 12.74 s | -4.23 |
| 117 | 1.84 | -.13 | 291 | 11.79 | -1.22 | Avg | 13.02 | | 406 | 13.13 | .45 | 255 | 12.66 s | -4.31 |
| 096 | 1.17 | -.28 | 372 | 11.72 | -1.46 | 455 | 13.02 | -.06 | 025 | 13.12 | .39 | 444 | 12.52 s | -5.74 |
| 255 | 0.79 | -.36 | Meth: 009.10 PCT Ammon & Nitrate N <u>Devarda</u> | | | 185 | 12.97 | -.53 | 177 | 13.10 | .38 | Meth: 010.99 PCT Total Nitrogen <u>Other</u> | | |
| 029 | 0.14 | -.50 | 309 | 0.20 | .00 | 117 | 12.95 | -1.29 | 037 | 13.09 | .31 | 422 | 13.62 S | 1.57 |
| 444 | 0.13 | -.50 | Meth: 010.16 PCT Total Nitrogen <u>Raney</u> | | | 389 | 13.10 | .17 | 029 | 13.10 | .27 | 354 | 13.41 | .87 |
| 230 | 0.12 | -.51 | 300 | 12.79 | .71 | 324 | 13.10 | .17 | 096 | 13.10 | .20 | Avg | 13.14 | |
| 372 | 0.10 | -.51 | Meth: 010.16 PCT Total Nitrogen <u>Raney</u> | | | Avg | 13.08 | | 106 | 13.10 | .17 | 420 | 12.88 | -.86 |
| 291 | 0.06 | -.52 | 300 | 12.79 | .71 | 393 | 13.07 | -.17 | 330 | 13.10 | .17 | Meth: 010.XX PCT Total Nitrogen <u>Total Nitrogen</u> | | |
| 420 | 0.06 | -.52 | Meth: 010.16 PCT Total Nitrogen <u>Raney</u> | | | 034 | 13.06 | -.26 | 007 | 13.10 | .17 | 422 | 13.62 s | 3.42 |
| 027 | 0.04 | -.52 | 300 | 12.79 | .71 | 041 | 13.06 | -.29 | 389 | 13.10 | .17 | 351 | 13.50 | 2.70 |
| | | | | | | 377 | 13.05 | -.35 | 324 | 13.10 | .17 | 325 | 13.45 | 2.42 |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | | | | | | | |
|-----------------------|----------|-------|-----------------------|----------|-------|------------------------|----------|---------|------------------------|----------|--------|------------------------|----------|------------------|--------|-------|------------------|------|--|------|-------|
| Meth: 010.XX PCT | | | Meth: 010.XX PCT | | | Meth: 020.10 PCT | | | Meth: 020.XX PCT | | | Meth: 050.50 PCT | | | | | | | | | |
| <u>Total Nitrogen</u> | | | <u>Total Nitrogen</u> | | | <u>Total Phosphate</u> | | | <u>Total Phosphate</u> | | | <u>Soluble Potash</u> | | | | | | | | | |
| 230 | 13.35 s | 2.33 | 041 | 13.06 | .08 | 307 | 1.84 | -2.09 | 420 | 0.33 | .71 | 420 | 0.33 | .71 | | | | | | | |
| 354 | 13.41 | 2.14 | 377 | 13.05 | .07 | 444 | 1.92 | .71 | 443 | 0.00 s | -22.50 | | | | | | | | | | |
| 262 | 13.35 | 1.83 | Avg | 13.04 | | | | | | | | | | | | | | | | | |
| 072 | 13.25 R | 1.36 | 055 | 13.03 | -.10 | Meth: 020.20 PCT | | | Meth: 041.10 PCT | | | Meth: 050.51 PCT | | | | | | | | | |
| 232 | 13.23 R | 1.34 | 095 | 13.04 | -.12 | <u>Total Phosphate</u> | | | Dir Available Phosph | | | Soluble Potash | | | | | | | | | |
| 296 | 13.24 | 1.21 | 231 | 13.04 | -.15 | <u>Spectrometric</u> | | | <u>Grav Quimociac</u> | | | <u>ICP (Citrate)</u> | | | | | | | | | |
| 426 | 13.22 | 1.05 | 455 | 13.02 | -.17 | 420 | 2.09 | .46 | 009 | 1.79 | -.71 | 389 | 0.38 | .71 | | | | | | | |
| 453 | 13.20 | .93 | 372 | 13.00 | -.26 | Avg | 2.09 | | | | | 393 | 0.35 | .30 | | | | | | | |
| 247 | 13.18 | .78 | 131 | 12.99 | -.33 | 232 | 2.09 | -1.13 | Meth: 041.50 PCT | | | 009 | | | 0.35 | .25 | | | | | |
| 102 | 13.17 | .75 | 322 | 12.99 | -.34 | | | | Dir Available Phosph | | | Avg | | | 0.34 | | | | | | |
| 024 | 13.17 | .72 | 136 | 13.01 | -.35 | Meth: 020.50 PCT | | | <u>ICP</u> | | | 444 | | | 0.30 | -1.69 | | | | | |
| 043 | 13.13 | .70 | 105 | 12.98 | -.40 | <u>Total Phosphate</u> | | | 009 | | | 1.91 | 1.26 | | | | | | | | |
| 397 | 13.15 | .70 | 291 | 12.98 | -.45 | <u>ICP</u> | | | Avg | | | 1.74 | | | | | | | | | |
| 028 | 13.15 | .67 | 185 | 12.97 | -.48 | 389 | 2.10 | 1.08 | 393 | 1.67 | -.64 | Meth: 050.60 PCT | | | | | | | | | |
| 049 | 13.16 | .67 | 073 | 12.96 | -.49 | 393 | 2.07 | .69 | 325 | 1.65 | -.71 | Soluble Potash | | | | | | | | | |
| 425 | 13.15 | .60 | 234 | 12.95 | -.58 | Avg | 2.06 | | Meth: 041.60 PCT | | | <u>Flame (Oxalate)</u> | | | | | | | | | |
| 040 | 13.15 | .60 | 390 | 13.02 | -.58 | 453 | 2.05 | -.50 | Dir Available Phosph | | | 443 | | | 0.00 S | .00 | | | | | |
| 292 | 13.15 | .60 | 233 | 12.94 | -.60 | 444 | 2.01 | -1.27 | <u>EDTA Extract</u> | | | Meth: 050.61 PCT | | | | | | | | | |
| 086 | 13.13 | .56 | 029 | 12.94 | -.63 | 307 | 1.84 s | -5.40 | 024 | | | 2.08 | -.71 | Soluble Potash | | | | | | | |
| 443 | 13.14 | .56 | 114 | 12.93 | -.69 | Meth: 020.99 PCT | | | Meth: 041.XX PCT | | | <u>Flame (Citrate)</u> | | | | | | | | | |
| 406 | 13.13 | .49 | 035 | 12.94 | -.73 | <u>Total Phosphate</u> | | | Dir Available Phosph | | | 024 | | | 0.36 | .00 | | | | | |
| 409 | 13.12 | .47 | 027 | 12.89 | -.90 | <u>Other</u> | | | 024 | | | 2.08 | 1.50 | Meth: 050.99 PCT | | | | | | | |
| 025 | 13.12 | .46 | 117 | 12.95 R | -.93 | 422 | 1.99 | .71 | 009 | | | 1.91 | .56 | Soluble Potash | | | | | | | |
| 177 | 13.10 | .37 | 420 | 12.88 | -.99 | Avg | 1.99 | | Avg | | | 1.82 | | Other | | | | | | | |
| 029 | 13.10 | .36 | 428 | 12.90 R | -1.03 | 443 | 0.00 S | -104.47 | 009 | | | 1.79 | -.32 | 422 | | | 0.55 | 1.31 | | | |
| 420 | 13.07 | .35 | 416 | 12.86 | -1.11 | Meth: 020.XX PCT | | | 393 | | | 1.67 | -.91 | Avg | | | 0.41 | | | | |
| 389 | 13.10 | .34 | 371 | 12.87 | -1.11 | <u>Total Phosphate</u> | | | 325 | | | 1.65 | -1.00 | 325 | | | 0.41 | -.05 | | | |
| 106 | 13.10 | .34 | 402 | 12.83 | -1.29 | 389 | 2.10 | .93 | Meth: 048.20 PCT | | | 232 | | | 0.41 | -.14 | 307 | | | 0.27 | -1.33 |
| 330 | 13.10 | .34 | 220 | 12.80 | -1.45 | 420 | 2.09 | .82 | Water Soluble Phosph | | | 232 | | | 0.41 | .43 | Meth: 050.XX PCT | | | | |
| 007 | 13.10 | .34 | 300 | 12.79 | -1.52 | 232 | 2.09 | .81 | <u>Spectrometric</u> | | | 420 | | | 0.71 | .87 | Soluble Potash | | | | |
| 324 | 13.10 | .34 | 023 | 12.74 | -1.79 | 393 | 2.07 | .63 | 420 | | | 0.71 | .87 | 232 | | | 0.41 | .43 | | | |
| 037 | 13.09 | .33 | 451 | 12.70 X | -2.12 | Avg | 2.02 | | Avg | | | 0.49 | | 325 | | | 0.41 | .39 | | | |
| 096 | 13.10 | .32 | 073 | 12.68 | -2.20 | 444 | 2.01 | -.21 | 393 | | | 0.26 | -.87 | Avg | | | 0.38 | | | | |
| 211 | 13.10 | .31 | 090 | 12.67 | -2.20 | 422 | 1.99 | -.29 | 389 | | | 0.38 | | 389 | | | 0.38 | -.20 | | | |
| 307 | 13.07 | .29 | 009 | 12.74 s | -2.24 | 444 | 1.92 | -1.10 | | | | | | | | | | | | | |
| 360 | 13.06 | .26 | 255 | 12.66 | -2.25 | | | | | | | | | | | | | | | | |
| 393 | 13.07 | .17 | 444 | 12.52 s | -3.08 | | | | | | | | | | | | | | | | |
| 034 | 13.06 | .12 | | | | | | | | | | | | | | | | | | | |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index |
|-----------------------------|----------|--------|-----------------------------|----------|--------|-----------------------------|----------|-------|----------------------|----------|-------|------------------|----------|--------|
| Meth: 050.XX PCT | | | Meth: 101.99 PCT | | | Meth: 121.30 PCT | | | Meth: 144.01 PCT | | | Meth: 144.99 PCT | | |
| <u>Soluble Potash</u> | | | <u>Acid Soluble Calcium</u> | | | <u>Acid Soluble Magnesi</u> | | | <u>Sulfur</u> | | | <u>Sulfur</u> | | |
| 024 | 0.36 | -.22 | 024 | 2.10 | .71 | 420 | 0.13 | -.64 | 095 | 0.24 | -.09 | 354 | 1.70 | -.32 |
| 009 | 0.35 | -.38 | <u>Other</u> | | | 232 | 0.12 | -.82 | 043 | 0.19 | -.33 | 232 | 1.69 | -.33 |
| 393 | 0.35 | -.47 | Meth: 101.XX PCT | | | 393 | 0.12 | -1.22 | 324 | 0.19 | -.33 | 255 | 1.68 | -.50 |
| 420 | 0.33 | -.57 | <u>Acid Soluble Calcium</u> | | | Meth: 121.99 PCT | | | 055 | 0.18 | -.38 | 096 | 1.63 | -.81 |
| 444 | 0.30 R | -1.49 | 432 | 2.25 s | 3.65 | <u>Acid Soluble Magnesi</u> | | | 117 | 0.17 | -.39 | 136 | 1.31 | -3.12 |
| 307 | 0.27 | -1.51 | 422 | 2.10 | 2.41 | <u>Other</u> | | | 029 | 0.17 | -.42 | 300 | 0.77 s | -6.98 |
| 443 | 0.00 s | -5.05 | 393 | 1.96 | 1.28 | 422 0.23 S .00 | | | 230 | 0.17 | -.42 | 027 | 0.22 s | -10.98 |
| Meth: 060.00 PCT | | | 102 | 1.87 | .56 | Meth: 121.XX PCT | | | 114 | 0.13 | -.56 | 330 | 0.20 s | -11.09 |
| Free Water | | | 453 | 1.83 | .17 | <u>Acid Soluble Magnesi</u> | | | Meth: 144.02 PCT | | | Meth: 144.XX PCT | | |
| <u>Vacuum Oven</u> | | | Avg | 1.81 | | 432 0.31 s 16.80 | | | <u>Sulfur</u> | | | <u>Sulfur</u> | | |
| 096 | 3.62 | 1.04 | 131 | 1.80 | -.06 | 422 0.23 s 9.45 | | | <u>Gravimetric</u> | | | 360 | 2.34 | 1.55 |
| 247 | 2.55 | .13 | 065 | 1.77 | -.26 | 444 0.16 2.58 | | | 292 2.22 .71 | | | 292 | 2.22 R | 1.40 |
| Avg | 2.40 | | 389 | 1.80 | -.30 | 049 0.14 R 1.95 | | | Meth: 144.70 PCT | | | 102 | 1.98 | 1.07 |
| 416 | 1.02 | -1.18 | 390 | 1.79 R | -.49 | 102 0.14 .94 | | | <u>Sulfur</u> | | | 291 | 1.88 | .94 |
| Meth: 101.30 PCT | | | 420 | 1.74 | -.54 | 433 0.14 .79 | | | <u>Spectrometric</u> | | | 233 | 1.87 | .92 |
| <u>Acid Soluble Calcium</u> | | | 232 | 1.72 | -.69 | 389 0.14 .69 | | | 393 1.71 -.71 | | | 220 | 1.87 | .92 |
| <u>ICP</u> | | | 433 | 1.72 | -.75 | Avg 0.13 | | | Meth: 144.99 PCT | | | 351 | 1.81 | .84 |
| 432 | 2.25 s | 5.50 | 009 | 1.70 | -.90 | 453 0.13 -.26 | | | <u>Sulfur</u> | | | 453 | 1.78 | .80 |
| 393 | 1.96 | 2.13 | 307 | 1.66 | -1.20 | 057 0.13 -.32 | | | 360 2.34 A 4.37 | | | 009 | 1.76 | .79 |
| 102 | 1.87 | 1.10 | 057 | 0.01 s | -14.88 | 057 0.13 -.38 | | | 102 1.98 1.73 | | | 390 | 1.75 R | .77 |
| 390 | 1.79 R | .65 | Meth: 121.30 PCT | | | 065 0.13 -.38 | | | 291 1.88 1.05 | | | 057 | 1.75 | .77 |
| 453 | 1.83 | .54 | <u>Acid Soluble Magnesi</u> | | | 009 0.13 -.49 | | | 220 1.87 1.01 | | | 422 | 1.75 | .77 |
| 389 | 1.80 | .45 | <u>ICP</u> | | | 131 0.13 -.54 | | | 390 1.75 R .62 | | | 307 | 1.75 | .77 |
| 131 | 1.80 | .29 | 432 | 0.31 s | 16.80 | 307 0.13 -.63 | | | 351 1.81 .52 | | | 023 | 1.74 | .75 |
| Avg | 1.78 | | 444 | 0.16 | 2.58 | 420 0.13 -.64 | | | 307 1.75 .29 | | | 389 | 1.74 | .75 |
| 065 | 1.77 | -.06 | 049 | 0.14 R | 1.95 | 232 0.12 -.82 | | | 390 1.75 R .62 | | | 137 | 1.73 | .74 |
| 420 | 1.74 | -.46 | 102 | 0.14 | .94 | 393 0.12 -1.22 | | | 351 1.81 .52 | | | 393 | 1.71 | .71 |
| 232 | 1.72 | -.67 | 433 | 0.14 | .79 | Meth: 144.01 PCT | | | 307 1.75 .29 | | | 354 | 1.70 | .70 |
| 433 | 1.72 | -.75 | 389 | 0.14 | .69 | <u>Sulfur</u> | | | 453 1.78 .28 | | | 232 | 1.69 | .69 |
| 009 | 1.70 | -.98 | Avg | 0.13 | | <u>Gravimetric</u> | | | 009 1.76 .26 | | | 255 | 1.68 | .67 |
| 307 | 1.66 | -1.40 | 453 | 0.13 | -.26 | 233 1.87 s 7.06 | | | 023 1.74 .13 | | | 096 | 1.63 | .60 |
| 057 | 0.01 s | -20.85 | 057 | 0.13 | -.32 | 372 0.92 2.88 | | | 422 1.75 .11 | | | 136 | 1.31 | .18 |
| | | | 065 | 0.13 | -.38 | 397 0.64 R 1.69 | | | 057 1.75 .10 | | | Avg | 1.17 | |
| | | | 009 | 0.13 | -.49 | 262 0.27 .03 | | | Avg 1.74 | | | 372 | 0.92 | -.34 |
| | | | 131 | 0.13 | -.54 | Avg 0.26 | | | 137 1.73 -.05 | | | 300 | 0.77 | -.53 |
| | | | 307 | 0.13 | -.63 | | | | 389 1.74 -.11 | | | 397 | 0.64 | -.71 |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index |
|---------------------------------------|----------|--------|--|----------|-------|--|----------|-------|---|----------|-------|---|----------|--------|
| <u>Meth: 144.XX PCT Sulfur</u> | | | <u>Meth: 165.00 PCT Acid Soluble Boron Spectrometric</u> | | | <u>Meth: 191.00 PPM Chromium Atomic Absorption</u> | | | <u>Meth: 191.XX PPM Chromium</u> | | | <u>Meth: 202.XX PPM Acid Soluble Cobalt</u> | | |
| 262 | 0.27 | -1.20 | 393 | 1.430 S | .00 | 220 | 7.65 | -.71 | 393 | 0.00 s | -4.10 | 102 | 1.46 | -.83 |
| 095 | 0.24 | -1.24 | <u>Meth: 165.99 PCT Acid Soluble Boron Other</u> | | | <u>Meth: 191.30 PPM Chromium ICP</u> | | | <u>Meth: 202.30 PPM Acid Soluble Cobalt ICP</u> | | | 230 | 1.28 | -.96 |
| 027 | 0.22 | -1.27 | 409 | 0.200 s | 10.45 | 009 | 10.15 | 1.57 | 057 | 4.14 | 1.26 | 372 | 0.00 | -1.91 |
| 330 | 0.20 | -1.29 | 422 | 0.045 | 1.62 | 037 | 9.28 | 1.08 | 009 | 4.00 | 1.17 | <u>Meth: 221.00 PCT Acid Soluble Copper Atomic Absorption</u> | | |
| 043 | 0.19 | -1.31 | Avg | 0.012 | | 065 | 9.01 | .94 | 037 | 3.94 | 1.12 | 043 | 0.0013 | .71 |
| 324 | 0.19 | -1.31 | 444 | 0.003 | -.47 | Avg | 7.28 | | 393 | 3.36 | .70 | <u>Meth: 221.30 PCT Acid Soluble Copper ICP</u> | | |
| 055 | 0.18 | -1.32 | 232 | 0.001 | -.57 | 372 | 6.39 | -.50 | 065 | 2.56 | .16 | 330 | 0.1000 s | 192.20 |
| 117 | 0.17 | -1.33 | 433 | 0.000 | -.58 | 230 | 6.13 | -.62 | Avg | 2.38 | | 402 | 0.0060 s | 9.09 |
| 230 | 0.17 | -1.34 | <u>Meth: 165.XX PCT Acid Soluble Boron</u> | | | <u>Meth: 191.99 PPM Chromium Other</u> | | | <u>Meth: 202.99 PPM Acid Soluble Cobalt Other</u> | | | 372 | 0.0025 | 4.29 |
| 029 | 0.17 | -1.34 | 393 | 1.430 s | 72.33 | 409 | 10.55 | .87 | 136 | 5.05 | 1.21 | 393 | 0.0025 | 2.20 |
| 114 | 0.13 | -1.38 | 409 | 0.200 R | 10.45 | Avg | 9.02 | | 409 | 3.99 | | 444 | 0.0020 | 1.30 |
| <u>Meth: 151.30 PPM Arsenic ICP</u> | | | 422 | 0.045 | 1.62 | 231 | 7.49 | -.87 | 231 | 2.95 | -1.02 | 354 | 0.0016 | .52 |
| 372 | 53.55 S | 107.45 | Avg | 0.012 | | <u>Meth: 191.XX PPM Chromium</u> | | | <u>Meth: 202.XX PPM Acid Soluble Cobalt</u> | | | 049 | 0.0015 R | .38 |
| 230 | 0.85 | .87 | 444 | 0.003 | -.47 | 409 | 10.55 | .87 | 409 | 3.98 | -.05 | 102 | 0.0015 R | .38 |
| Avg | 0.43 | | 232 | 0.001 | -.57 | Avg | 9.02 | | 231 | 2.95 | -1.02 | 324 | 0.0015 R | .37 |
| 393 | 0.00 X | -.86 | 433 | 0.000 | -.58 | 231 | 7.49 | -.87 | 409 | 3.98 | -.05 | 433 | 0.0015 | .36 |
| <u>Meth: 151.99 PPM Arsenic Other</u> | | | <u>Meth: 181.30 PPM Cadmium ICP</u> | | | <u>Meth: 191.XX PPM Chromium</u> | | | <u>Meth: 202.XX PPM Acid Soluble Cobalt</u> | | | 389 | 0.0015 | .25 |
| 409 | 0.29 | .94 | 393 | 0.19 | 1.60 | 409 | 10.55 | 1.57 | 136 | 5.05 R | 1.91 | 009 | 0.0013 | -.04 |
| Avg | 0.23 | | Avg | 0.05 | | 009 | 10.15 | 1.39 | 057 | 4.14 | 1.17 | 233 | 0.0013 | -.08 |
| 136 | 0.17 | -.79 | 102 | 0.03 | -.27 | 037 | 9.28 | .89 | 057 | 4.14 | 1.17 | 057 | 0.0013 | -.11 |
| <u>Meth: 151.XX PPM Arsenic</u> | | | 065 | 0.04 R | -.39 | 065 | 9.01 | .75 | 009 | 4.00 | 1.07 | 065 | 0.0013 | -.12 |
| 372 | 53.55 s | 154.40 | 230 | 0.00 | -.66 | 220 | 7.65 | .46 | 409 | 3.98 | 1.06 | 247 | 0.0013 | -.16 |
| 230 | 0.85 | 1.53 | 372 | 0.00 | -.66 | Avg | 7.63 | | 037 | 3.94 | 1.02 | 232 | 0.0013 | -.19 |
| Avg | 0.33 | | <u>Meth: 190.99 PCT Water Soluble Chlori Other</u> | | | 231 | 7.49 | -.08 | 393 | 3.36 | .59 | 095 | 0.0012 | -.26 |
| 409 | 0.29 | -.16 | 422 | 0.30 | .71 | 372 | 6.39 | -.69 | 231 | 2.95 | .29 | 307 | 0.0011 | -.45 |
| 136 | 0.17 | -.47 | <u>Meth: 190.99 PCT Water Soluble Chlori Other</u> | | | 444 | 6.28 | -.79 | 231 | 2.95 | .29 | 230 | 0.0010 | -.65 |
| 393 | 0.00 X | -.95 | 422 | 0.30 | .71 | 230 | 6.13 | -.81 | Avg | 2.56 | | 041 | 0.0000 | -2.60 |
| | | | | | | 232 | 5.85 | -.97 | 065 | 2.56 | -.10 | | | |
| | | | | | | 247 | 5.13 | -1.35 | 247 | 1.55 | -.75 | | | |
| | | | | | | | | | 232 | 1.55 | -.75 | | | |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index |
|----------------------------|----------|----------|--------------------------|----------|--------|-------------------------------|----------|----------|-------------------------------|----------|---------|-------------------------|----------|-------|
| <u>Meth: 221.99 PCT</u> | | | <u>Meth: 241.30 PCT</u> | | | <u>Meth: 241.XX PCT</u> | | | <u>Meth: 261.30 PCT</u> | | | <u>Meth: 281.30 PPM</u> | | |
| <u>Acid Soluble Copper</u> | | | <u>Acid Soluble Iron</u> | | | <u>Acid Soluble Iron</u> | | | <u>Acid Soluble Manganese</u> | | | <u>Mercury</u> | | |
| <u>Other</u> | | | <u>ICP</u> | | | <u>ICP</u> | | | <u>ICP</u> | | | <u>ICP</u> | | |
| 422 | 0.0035 | S 18.20 | 307 | 0.03 | R 1.72 | 307 | 0.00 | s -12.05 | 389 | 0.002 | -0.39 | Avg | 0.10 | |
| 231 | 0.0014 | 1.03 | 065 | 0.04 | 1.30 | Meth: 251.30 PPM | | | 057 | 0.002 | -0.71 | 372 | 0.00 | -0.85 |
| 220 | 0.0013 | .43 | 389 | 0.04 | 1.20 | Lead | | | 247 | 0.002 | -0.84 | Meth: 281.XX PPM | | |
| Avg | 0.0012 | | 102 | 0.04 | .85 | <u>ICP</u> | | | 232 | 0.002 | -1.19 | <u>Mercury</u> | | |
| 409 | 0.0011 | -1.12 | 131 | 0.03 | .77 | 372 | 3.66 | 1.55 | 444 | 0.002 | s -3.79 | 444 | 0.20 | 1.30 |
| Meth: 221.XX PCT | | | 009 | 0.03 | .33 | Avg 1.46 | | | Meth: 261.99 PCT | | | Avg 0.07 | | |
| <u>Acid Soluble Copper</u> | | | 057 | 0.03 | .17 | 393 1.36 -0.07 | | | <u>Acid Soluble Manganese</u> | | | 230 0.00 -0.63 | | |
| 330 | 0.1000 | s 215.19 | Avg | 0.03 | | 230 0.46 -0.70 | | | <u>Other</u> | | | 372 0.00 -0.64 | | |
| 402 | 0.0060 | s 10.21 | 049 | 0.03 | -0.56 | 065 0.34 X -0.78 | | | 409 | 0.002 | .00 | Meth: 289.30 PPM | | |
| 422 | 0.0035 | s 4.88 | 433 | 0.03 | -0.78 | Meth: 251.99 PPM | | | 422 | 0.002 | S .00 | Molybdenum | | |
| 372 | 0.0035 | A 4.83 | 232 | 0.03 | -0.99 | Lead | | | Avg 0.002 | | | <u>ICP</u> | | |
| 393 | 0.0025 | 2.49 | 453 | 0.03 | -1.16 | <u>Other</u> | | | Meth: 261.XX PCT | | | 372 3.57 S 9.05 | | |
| 444 | 0.0020 | 1.49 | 444 | 0.03 | -1.63 | 136 6.40 1.30 | | | <u>Acid Soluble Manganese</u> | | | 393 1.28 1.40 | | |
| 354 | 0.0016 | .62 | Meth: 241.99 PCT | | | Avg 2.36 | | | 102 0.002 1.54 | | | 057 1.10 .89 | | |
| 102 | 0.0015 | R .45 | <u>Acid Soluble Iron</u> | | | 231 0.34 -.64 | | | 009 0.002 R 1.36 | | | 065 0.93 .26 | | |
| 049 | 0.0015 | R .45 | <u>Other</u> | | | 409 0.33 -.64 | | | 433 0.002 1.32 | | | Avg 0.87 | | |
| 324 | 0.0015 | R .44 | 307 | 0.00 | S .00 | Meth: 251.XX PPM | | | 065 0.002 .45 | | | 433 0.80 -.25 | | |
| 433 | 0.0015 | .43 | 422 | 0.05 | S .00 | <u>Lead</u> | | | 389 0.002 .31 | | | 230 0.66 -.68 | | |
| 389 | 0.0015 | .31 | Avg | 0.00 | | 136 6.40 R 4.23 | | | Avg 0.002 | | | 220 0.43 -1.47 | | |
| 231 | 0.0014 | .13 | Meth: 241.XX PCT | | | 372 3.66 2.04 | | | 057 0.002 -.47 | | | Meth: 289.99 PPM | | |
| 043 | 0.0013 | .06 | <u>Acid Soluble Iron</u> | | | 393 1.36 .22 | | | 247 0.002 -.60 | | | Molybdenum | | |
| Avg | 0.0013 | | 422 | 0.05 | s 4.84 | Avg 1.08 | | | 232 0.002 -.92 | | | <u>Other</u> | | |
| 009 | 0.0013 | -0.02 | 307 | 0.03 | R 1.72 | 230 0.46 -.50 | | | 409 0.002 -1.29 | | | 231 0.98 .91 | | |
| 233 | 0.0013 | -0.07 | 065 | 0.04 | 1.30 | 231 0.34 -.58 | | | 444 0.002 s -3.43 | | | Avg 0.88 | | |
| 057 | 0.0013 | -0.09 | 389 | 0.04 | 1.20 | 065 0.34 X -.59 | | | 422 0.002 s -3.43 | | | 409 0.78 -.82 | | |
| 065 | 0.0013 | -0.10 | 102 | 0.04 | .85 | 409 0.33 -.60 | | | Meth: 281.00 PPM | | | Meth: 289.XX PPM | | |
| 247 | 0.0013 | -0.15 | 131 | 0.03 | .77 | Meth: 261.30 PCT | | | <u>Mercury</u> | | | <u>Molybdenum</u> | | |
| 232 | 0.0013 | -0.18 | 009 | 0.03 | .33 | <u>Acid Soluble Manganese</u> | | | 230 0.00 .71 | | | 372 3.57 s 10.30 | | |
| 220 | 0.0013 | -0.18 | 057 | 0.03 | .17 | <u>ICP</u> | | | Meth: 281.30 PPM | | | 393 1.28 1.58 | | |
| 095 | 0.0012 | -0.26 | Avg | 0.03 | | 102 0.002 1.46 | | | <u>Mercury</u> | | | 057 1.10 1.00 | | |
| 307 | 0.0011 | -0.47 | 049 | 0.03 | -0.56 | 009 0.002 R 1.38 | | | <u>Atomic Absorption</u> | | | 231 0.98 .49 | | |
| 409 | 0.0011 | -0.51 | 433 | 0.03 | -0.78 | 433 0.002 1.23 | | | 230 0.00 .71 | | | 065 0.93 .28 | | |
| 230 | 0.0010 | -0.69 | 232 | 0.03 | -0.99 | 065 0.002 .31 | | | 444 0.20 .89 | | | Avg 0.87 | | |
| 041 | 0.0000 | -2.87 | 453 | 0.03 | -1.16 | Avg 0.002 | | | | | | | | |
| | | | 444 | 0.03 | -1.63 | | | | | | | | | |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

| Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index | Lab | Average* | Index |
|-------------------------|----------|-------|-------------------------|----------|-------|--------------------------|----------|--------|--------------------------|----------|--------|---------------------------|----------|-------|
| <u>Meth: 289.XX PPM</u> | | | <u>Meth: 301.30 PPM</u> | | | <u>Meth: 321.00 PCT</u> | | | <u>Meth: 321.99 PCT</u> | | | <u>Meth: 321.XX PCT</u> | | |
| <u>Molybdenum</u> | | | <u>Selenium</u> | | | <u>Acid Soluble Zinc</u> | | | <u>Acid Soluble Zinc</u> | | | <u>Acid Soluble Zinc</u> | | |
| 433 | 0.80 | -.30 | ICP | | | <u>Atomic Absorption</u> | | | <u>Other</u> | | | 307 | 0.010 | -1.16 |
| 409 | 0.78 | -.36 | 393 | 3.72 | 1.24 | 029 | 0.013 | 1.06 | 422 | 0.014 S | 14.12 | 433 | 0.010 | -1.36 |
| 230 | 0.66 | -.79 | 230 | 2.62 | .55 | 043 | 0.013 | .81 | 231 | 0.012 | .71 | 372 | 0.010 | -2.02 |
| 220 | 0.43 | -1.68 | Avg | 1.74 | | Avg | 0.012 | | Avg | 0.012 | | | | |
| <u>Meth: 291.30 PPM</u> | | | 065 | 0.63 | -.70 | 028 | 0.011 | -.57 | <u>Meth: 321.XX PCT</u> | | | <u>Meth: 325.30 PCT</u> | | |
| <u>Nickel</u> | | | 372 | 0.00 | -1.09 | 220 | 0.011 | -1.18 | <u>Acid Soluble Zinc</u> | | | <u>Water Soluble Zinc</u> | | |
| <u>ICP</u> | | | <u>Meth: 301.99 PPM</u> | | | <u>Meth: 321.30 PCT</u> | | | 432 | 0.140 s | 135.57 | <u>ICP</u> | | |
| 009 | 5.25 | 1.29 | <u>Selenium</u> | | | <u>Acid Soluble Zinc</u> | | | 330 | 0.100 s | 93.11 | 095 | 0.012 | .71 |
| 444 | 4.42 | .71 | <u>Other</u> | | | <u>ICP</u> | | | 041 | 0.016 s | 5.64 | | | |
| 065 | 4.47 | .39 | 231 | 0.75 | 1.24 | 432 | 0.140 s | 137.97 | 390 | 0.015 s | 4.62 | | | |
| 037 | 4.31 | .28 | Avg | 0.60 | | 330 | 0.100 s | 94.78 | 422 | 0.014 s | 3.41 | | | |
| Avg | 4.13 | | 409 | 0.56 | -.27 | 041 | 0.016 s | 5.80 | 402 | 0.014 R | 2.89 | | | |
| 232 | 3.65 | -.67 | 296 | 0.48 | -.94 | 390 | 0.015 s | 4.77 | 409 | 0.013 | 1.75 | | | |
| 247 | 2.70 | -1.62 | <u>Meth: 301.XX PPM</u> | | | 402 | 0.014 R | 3.02 | 029 | 0.013 | 1.56 | | | |
| <u>Meth: 291.99 PPM</u> | | | <u>Selenium</u> | | | 409 | 0.013 | 1.86 | 043 | 0.013 | 1.23 | | | |
| <u>Nickel</u> | | | 393 | 3.72 | 1.88 | 255 | 0.013 | 1.33 | 255 | 0.013 | 1.23 | | | |
| <u>Other</u> | | | 230 | 2.62 | 1.04 | 102 | 0.013 | 1.27 | 102 | 0.013 | 1.17 | | | |
| 136 | 4.60 | 1.10 | Avg | 1.25 | | 037 | 0.012 | 1.12 | 037 | 0.012 | 1.03 | | | |
| Avg | 4.51 | | 231 | 0.75 | -.38 | 131 | 0.012 | .90 | 131 | 0.012 | .80 | | | |
| 409 | 4.42 | -.54 | 065 | 0.63 | -.48 | 354 | 0.012 | .87 | 354 | 0.012 | .79 | | | |
| <u>Meth: 291.XX PPM</u> | | | 409 | 0.56 | -.52 | 324 | 0.012 | .72 | 324 | 0.012 | .63 | | | |
| <u>Nickel</u> | | | 296 | 0.48 | -.58 | 096 | 0.012 | .47 | 231 | 0.012 | .46 | | | |
| 009 | 5.25 | 1.34 | 372 | 0.00 | -.95 | 009 | 0.012 | .30 | 096 | 0.012 | .38 | | | |
| 444 | 4.42 | .75 | <u>Meth: 311.99 PCT</u> | | | 065 | 0.012 | .28 | 009 | 0.012 | .22 | | | |
| 136 | 4.60 | .61 | <u>Sodium</u> | | | Avg | 0.011 | | 065 | 0.012 | .20 | | | |
| 065 | 4.47 | .32 | <u>Other</u> | | | 233 | 0.011 | -.32 | Avg | 0.011 | | | | |
| 409 | 4.42 | .29 | 422 | 0.29 | 1.82 | 230 | 0.011 | -.39 | 233 | 0.011 | -.35 | | | |
| 037 | 4.31 | .24 | 307 | 0.21 R | .38 | 027 | 0.011 | -.43 | 028 | 0.011 | -.37 | | | |
| Avg | 4.23 | | 102 | 0.21 | .03 | 247 | 0.011 | -.44 | 230 | 0.011 | -.46 | | | |
| 232 | 3.65 | -.86 | Avg | 0.21 | | 057 | 0.011 | -.63 | 027 | 0.011 | -.51 | | | |
| 247 | 2.70 | -1.95 | 009 | 0.19 | -.42 | 049 | 0.011 | -.66 | 247 | 0.011 | -.52 | | | |
| | | | 057 | 0.18 | -.61 | 232 | 0.011 | -.76 | 057 | 0.011 | -.69 | | | |
| | | | 232 | 0.17 | -.81 | 444 | 0.011 | -1.07 | 049 | 0.011 | -.73 | | | |
| | | | | | | 307 | 0.010 | -1.09 | 232 | 0.011 | -.83 | | | |
| | | | | | | 389 | 0.011 R | -1.14 | 444 | 0.011 | -1.12 | | | |
| | | | | | | 433 | 0.010 | -1.31 | 220 | 0.011 | -1.12 | | | |
| | | | | | | 372 | 0.010 | -1.97 | 389 | 0.011 R | -1.15 | | | |

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Method Evaluation - Z Values Based on 1 Reports

| Method Code | Number Of Labs | Avg Bias of Labs | Std Dev of Biases | Std Dev Within Labs | Method Code | Number Of Labs | Avg Bias of Labs | Std Dev of Biases | Std Dev Within Labs |
|-------------|----------------|------------------|-------------------|---------------------|-------------|----------------|------------------|-------------------|---------------------|
| 001.10 | 7 | 0.00 | 1.04 | 0.00 | 191.30 | 9 | - 0.43 | 1.61 | 0.17 |
| 001.99 | 6 | - 0.02 | 0.95 | 0.01 | 191.99 | 2 | 0.00 | 1.22 | 0.03 |
| 001.XX | 13 | 0.00 | 0.98 | 0.01 | 191.XX | 12 | - 0.34 | 1.52 | 0.20 |
| 003.10 | 7 | 0.00 | 1.03 | 0.13 | 202.30 | 10 | 0.00 | 1.03 | 0.05 |
| 003.99 | 2 | 0.00 | 1.09 | 0.40 | 202.99 | 3 | 0.00 | 1.02 | 0.37 |
| 003.XX | 9 | 0.00 | 1.02 | 0.17 | 202.XX | 13 | 0.14 | 1.10 | 0.14 |
| 009.XX | 2 | 0.00 | 1.22 | 0.00 | 221.30 | 21 | 9.8310 | 41.848 | 0.0951 |
| 010.11 | 10 | 0.00 | 0.99 | 0.25 | 221.99 | 4 | 4.4433 | 8.9276 | 1.9755 |
| 010.12 | 4 | 0.00 | 0.82 | 0.61 | 221.XX | 26 | 9.0802 | 42.111 | 0.2362 |
| 010.60 | 59 | - 0.16 | 1.77 | 0.61 | 241.30 | 12 | 0.02 | 0.85 | 0.67 |
| 010.99 | 3 | 0.52 | 1.25 | 0.08 | 241.99 | 2 | 0.00 | 0.00 | 0.00 |
| 010.XX | 74 | 0.04 | 1.13 | 0.36 | 241.XX | 13 | - 0.10 | 2.31 | 1.84 |
| 020.20 | 2 | 0.00 | 0.16 | 0.86 | 251.30 | 4 | 0.00 | 1.07 | 0.09 |
| 020.50 | 5 | - 1.03 | 2.45 | 0.83 | 251.99 | 3 | 0.00 | 1.11 | 0.13 |
| 020.99 | 2 | - 52.23 | 73.87 | 0.50 | 251.XX | 7 | 0.60 | 1.85 | 0.22 |
| 020.XX | 9 | - 2.43 | 7.58 | 0.35 | 261.30 | 9 | - 0.151 | 1.106 | 1.192 |
| 041.50 | 3 | 0.00 | 1.09 | 0.22 | 261.99 | 2 | 0.000 | 0.000 | 0.000 |
| 041.XX | 4 | - 0.05 | 1.16 | 0.25 | 261.XX | 11 | - 0.220 | 1.092 | 1.363 |
| 048.20 | 2 | 0.00 | 1.22 | 0.04 | 281.30 | 2 | 0.00 | 1.20 | 0.18 |
| 048.XX | 2 | 0.00 | 1.22 | 0.04 | 281.XX | 3 | 0.00 | 1.10 | 0.17 |
| 050.51 | 4 | 0.00 | 0.64 | 0.75 | 289.30 | 7 | 1.29 | 3.54 | 0.26 |
| 050.99 | 4 | 0.00 | 1.06 | 0.19 | 289.99 | 2 | 0.00 | 1.09 | 0.40 |
| 050.XX | 11 | - 0.56 | 1.77 | 0.36 | 289.XX | 9 | 1.14 | 3.55 | 0.28 |
| 060.00 | 3 | 0.00 | 1.12 | 0.05 | 291.30 | 6 | 0.00 | 0.98 | 0.34 |
| 060.XX | 3 | 0.00 | 1.12 | 0.05 | 291.99 | 2 | 0.00 | 0.46 | 0.80 |
| 101.30 | 14 | - 1.09 | 5.94 | 0.25 | 291.XX | 8 | 0.00 | 0.96 | 0.36 |
| 101.XX | 15 | - 0.76 | 4.12 | 0.17 | 301.30 | 4 | 0.00 | 1.08 | 0.03 |
| 121.30 | 15 | 1.15 | 4.43 | 0.51 | 301.99 | 3 | 0.00 | 1.09 | 0.19 |
| 121.XX | 16 | 1.67 | 4.76 | 0.50 | 301.XX | 7 | 0.00 | 1.04 | 0.03 |
| 144.01 | 12 | 0.73 | 2.25 | 0.11 | 311.99 | 6 | 0.02 | 0.95 | 0.16 |
| 144.99 | 22 | - 1.12 | 3.78 | 0.21 | 311.XX | 6 | 0.02 | 0.95 | 0.16 |
| 144.XX | 36 | 0.06 | 1.01 | 0.05 | 321.00 | 4 | 0.000 | 0.990 | 0.373 |
| 151.30 | 3 | 35.82 | 62.04 | 0.18 | 321.30 | 27 | 9.015 | 31.486 | 2.254 |
| 151.99 | 2 | 0.00 | 1.11 | 0.36 | 321.99 | 2 | 3.889 | 5.500 | 8.348 |
| 151.XX | 5 | 30.88 | 69.05 | 0.20 | 321.XX | 33 | 7.303 | 28.089 | 2.062 |
| 165.99 | 5 | 1.845 | 4.231 | 2.196 | | | | | |
| 165.XX | 6 | 13.140 | 27.925 | 8.264 | | | | | |
| 181.30 | 5 | - 0.05 | 0.94 | 0.14 | | | | | |
| 181.XX | 5 | - 0.05 | 0.94 | 0.14 | | | | | |