

Method Proficiency For All Labs

Magruder Fertilizer PT Program

Methods: 131

Sample # 220111

Regular PT Scheme

Labs Reporting: 86

Soil Supplement

Statistical Summary

Issue Date : 02/28/2022

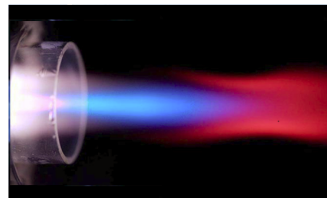
| Method Code | Analyte & Method Sample # 220111 | # Tests Submitted | # Tests in Robust Calculations | Raw Mean | Raw SD | Assigned Value Robust Mean | IA at Method Value | Robust sd | Robust Uncertainty (U) | Robust % RSD | Method IA Ratio | Average Range (R-bar) | Horwitz %RSD |
|-------------|---|-------------------|--------------------------------|----------|--------|-------------------------------|--------------------|-----------|------------------------|--------------|-----------------|-----------------------|--------------|
| 001.99 | Ammoniacal N, Other (%) | 1 | | 0.0805 | | | | | | | | | |
| 005.99 | Urea N, Other (%) | 1 | | 0.0071 | | | | | | | | | |
| 010.12 | Total N, Salicylic (%) | 1 | | 0.0490 | | | | | | | | | |
| 010.60 | Total N, Combustion (%) | 4 | 4 | 0.2316 | 0.1982 | 0.2316 | 0.4900 | 0.1982 | 0.1239 | 85.59% | 0.94 | 0.0138 | 4.98% |
| 010.99 | Total N, Other (%) | 1 | | 0.0930 | | | | | | | | | |
| 020.50 | Total P2O5, ICP (%) | 5 | 3 | 0.0429 | 0.0586 | 0.0682 | | 0.0666 | 0.0481 | 97.71% | | 0.0050 | 5.99% |
| 020.99 | Total P2O5, Other (%) | 1 | | 0.0323 | | | | | | | | | |
| 041.20 | Direct Available P2O5, Spectrophotometric (%) | 1 | | 0.0070 | | | | | | | | | |
| 041.21 | Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. | 2 | 2 | 0.0488 | 0.0195 | | | | | | | | |
| 041.50 | Direct Available P2O5, ICP (%) | 1 | | 0.1000 | | | | | | | | | |
| 050.32 | Soluble K2O, AA (Citrate-EDTA) (%) | 1 | | 0.2950 | | | | | | | | | |
| 050.50 | Soluble K2O, ICP (Oxalate) (%) | 1 | | 0.2827 | | | | | | | | | |
| 050.51 | Soluble K2O, ICP (Citrate) (%) | 1 | | 0.3050 | | | | | | | | | |
| 050.52 | Soluble K2O, ICP (Citrate-EDTA) (%) | 2 | 2 | 0.2673 | 0.0103 | | | | | | | | |
| 050.99 | Soluble K2O, Other (%) | 7 | 5 | 0.3259 | 0.3296 | 0.4163 | 0.4100 | 0.3496 | 0.1955 | 83.99% | 1.99 | 0.0174 | 4.56% |
| 060.99 | Water (Free), Other (%) | 1 | | 1.292 | | | | | | | | | |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 10 | 10 | 24.04 | 1.441 | 24.11 | 1.0000 | 1.080 | 0.4270 | 4.48% | 2.52 | 0.5300 | 2.04% |
| 101.01 | Acid Soluble Ca, AA, organic 965.09 (24%) | 1 | | 25.54 | | | | | | | | | |
| 101.03 | Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual ε | 1 | | 25.03 | | | | | | | | | |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 19 | 18 | 25.23 | 3.557 | 24.71 | 1.0000 | 2.139 | 0.6302 | 8.66% | 4.98 | 0.5989 | 2.01% |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 5 | 5 | 25.21 | 1.863 | 25.21 | 1.0000 | 1.863 | 1.042 | 7.39% | 4.34 | 0.2280 | 1.99% |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 16 | 15 | 24.34 | 0.9307 | 24.37 | 1.0000 | 0.5654 | 0.1825 | 2.32% | 1.32 | 0.2915 | 2.03% |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 7 | 7 | 24.11 | 0.8329 | 24.31 | 1.0000 | 0.3940 | 0.1862 | 1.62% | 0.92 | 0.2152 | 2.03% |
| 101.99 | Acid Soluble Ca, Other (24%) | 19 | 19 | 23.40 | 4.389 | 24.42 | 1.0000 | 1.471 | 0.4218 | 6.02% | 3.43 | 0.3202 | 2.02% |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 10 | 10 | 6.677 | 0.6777 | 6.749 | 0.5374 | 0.5857 | 0.2315 | 8.68% | 2.54 | 0.2097 | 3.00% |
| 121.01 | Acid Soluble Mg, AA, organic 965.09 (5%) | 1 | | 7.643 | | | | | | | | | |
| 121.02 | Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C (5%) | 1 | | 6.900 | | | | | | | | | |
| 121.03 | Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual ε | 1 | | 6.954 | | | | | | | | | |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 20 | 19 | 6.744 | 0.7241 | 6.689 | 0.5344 | 0.6083 | 0.1744 | 9.09% | 2.65 | 0.1024 | 3.00% |

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|-------------|--|-------------------|--------------------------------|----------|--------|-------------------------------|--------------------|-----------|------------------------|--------------|-----------------|-----------------------|-------------|
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 6 | 6 | 6.772 | 0.3075 | 6.785 | 0.5393 | 0.3164 | 0.1614 | 4.66% | 1.37 | 0.1422 | 3.00% |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 15 | 15 | 6.712 | 0.6426 | 6.771 | 0.5386 | 0.5686 | 0.1835 | 8.40% | 2.46 | 0.2358 | 3.00% |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 5 | 5 | 5.429 | 0.8193 | 5.429 | 0.4715 | 0.8193 | 0.4580 | 15.09% | 4.05 | 0.1420 | 3.10% |
| 121.99 | Acid Soluble Mg, Other (5%) | 18 | 18 | 5.951 | 1.690 | 5.923 | 0.4962 | 1.265 | 0.3727 | 21.35% | 5.94 | 0.1145 | 3.06% |
| 131.00 | Water Soluble Mg, AA (%) | 2 | 2 | 0.0133 | 0.0112 | | | | | | | | |
| 131.30 | Water Soluble Mg, ICP (%) | 2 | 2 | 0.0220 | 0.0028 | | | | | | | | |
| 131.70 | Water Soluble Mg, Titrimetric (EDTA) (%) | 2 | 2 | 3.774 | 5.298 | | | | | | | | |
| 131.99 | Water Soluble Mg, Other (%) | 2 | 2 | 1.997 | 0.0000 | | | | | | | | |
| 143.99 | Elemental S, Other (%) | 1 | | 0.1670 | | | | | | | | | |
| 145.99 | Sulfate S, HCl soluble, Other (%) | 1 | | 0.0600 | | | | | | | | | |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 5 | 4 | 0.1826 | 0.0715 | 0.2032 | 0.2102 | 0.0630 | 0.0394 | 31.00% | 0.70 | 0.0241 | 5.08% |
| 148.99 | Total S, Other (%) | 2 | 2 | 0.1680 | 0.0820 | | | | | | | | |
| 149.04 | S - HNO3 soluble, ICP (%) | 2 | 2 | 0.1285 | 0.0297 | | | | | | | | |
| 151.30 | Acid Soluble As, ICP (ppm) | 3 | 1 | 3.583 | 5.570 | 0.1285 | | 0.0297 | 0.0371 | 23.11% | | 0.0400 | 21.78% |
| 151.32 | Acid Soluble As, ICP, 2006.03 (ppm) | 1 | | 0.5680 | | | | | | | | | |
| 151.33 | Acid Soluble As, ICP, 2017.02 (ppm) | 4 | 2 | 3.058 | 4.676 | 1.117 | | 0.7097 | 0.6273 | 63.55% | | 0.0332 | 15.73% |
| 151.34 | Acid Soluble As, ICP, EPA 3050B/6010C (ppm) | 1 | | 0.3000 | | | | | | | | | |
| 151.99 | Acid Soluble As, Other (ppm) | 7 | 4 | 2.123 | 4.390 | 3.338 | | 5.813 | 3.633 | 174.13% | | 0.3827 | 13.34% |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 11 | 10 | 0.0232 | 0.0114 | 0.0203 | 0.0060 | 0.0080 | 0.0032 | 39.36% | 3.08 | 0.0004 | 7.19% |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 10 | 7 | 19.58 | 61.88 | 0.0106 | 0.0046 | 0.0062 | 0.0029 | 58.60% | 3.15 | 0.0002 | 7.93% |
| 165.99 | Acid Soluble B, Other (%) | 21 | 19 | 0.0189 | 0.0304 | 0.0102 | 0.0045 | 0.0044 | 0.0013 | 43.13% | 2.26 | 0.0024 | 7.98% |
| 171.10 | Water Soluble B, Spectrophotometric (%) | 3 | 3 | 0.0203 | 0.0055 | 0.0203 | | 0.0055 | 0.0040 | 27.09% | | 0.0053 | 7.19% |
| 181.00 | Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid | 1 | | 0.1836 | | | | | | | | | |
| 181.30 | Acid Soluble Cd, ICP (ppm) | 3 | 3 | 0.8923 | 0.8745 | 0.8923 | | 0.8745 | 0.6311 | 98.01% | | 0.9492 | 16.27% |
| 181.32 | Acid Soluble Cd, ICP, 2006.03 (ppm) | 1 | | 0.4945 | | | | | | | | | |
| 181.33 | Acid Soluble Cd, ICP, 2017.02 (ppm) | 4 | 2 | 1.293 | 2.472 | 0.0850 | | 0.0282 | 0.0249 | 33.21% | | 0.0074 | 22.00% |
| 181.34 | Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm) | 2 | 0 | 0.3000 | 0.2828 | | | | | | | | |
| 181.99 | Acid Soluble Cd, Other (ppm) | 6 | 2 | 2.733 | 6.017 | 0.4175 | | 0.4702 | 0.4156 | 112.63% | | 0.2550 | 18.24% |
| 190.00 | Water Soluble Cl, Titrimetric (%) | 1 | | 0.2950 | | | | | | | | | |
| 191.00 | Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid | 1 | | 2.305 | | | | | | | | | |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 6 | 6 | 1,658 | 319.0 | 1,725 | | 192.1 | 98.02 | 11.13% | | 89.56 | 5.21% |
| 191.32 | Acid Soluble Cr, ICP, 2006.03 (ppm) | 2 | 2 | 1,878 | 711.7 | | | | | | | | |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 5 | 5 | 2,646 | 440.6 | 2,646 | | 440.6 | 246.3 | 16.65% | | 137.0 | 4.89% |
| 191.34 | Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm) | 3 | 3 | 1,996 | 223.2 | 1,996 | | 223.2 | 161.1 | 11.18% | | 261.7 | 5.10% |
| 191.99 | Acid Soluble Cr, Other (ppm) | 6 | 6 | 1,931 | 388.4 | 1,977 | | 329.9 | 168.4 | 16.69% | | 57.69 | 5.10% |
| 202.30 | Acid Soluble Co, ICP (ppm) | 5 | 5 | 36.60 | 14.86 | 36.60 | 11.9807 | 14.86 | 8.305 | 40.59% | 2.89 | 3.251 | 9.31% |
| 202.32 | Acid Soluble Co, ICP, 2006.03 (ppm) | 3 | 3 | 44.68 | 30.17 | 44.68 | 14.4054 | 30.17 | 21.77 | 67.52% | 4.88 | 2.084 | 9.03% |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 7 | 6 | 80.82 | 25.15 | 76.01 | 23.8031 | 24.23 | 12.36 | 31.88% | 2.37 | 1.744 | 8.34% |
| 202.34 | Acid Soluble Co, ICP, EPA 3050B/6010C (ppm) | 3 | 3 | 34.58 | 5.314 | 34.58 | 11.3744 | 5.314 | 3.835 | 15.37% | 1.09 | 5.705 | 9.39% |
| 202.99 | Acid Soluble Co, Other (ppm) | 7 | 7 | 57.65 | 29.63 | 57.65 | 18.2950 | 33.61 | 15.88 | 58.29% | 4.28 | 4.186 | 8.69% |

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|-------------|--|----------------------|-----------------------------------|----------|--------|-------------------------------|-----------------------|-----------|---------------------------|--------------|-----------------|--------------------------|--------------|
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 11 | 8 | 0.0202 | 0.0228 | 0.0080 | 0.0058 | 0.0031 | 0.0014 | 38.28% | 1.23 | 0.0006 | 8.27% |
| 221.02 | Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C (%) | 1 | | 0.0060 | | | | | | | | | |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 12 | 10 | 0.0232 | 0.0589 | 0.0058 | 0.0056 | 0.0023 | 0.0009 | 39.09% | 0.94 | 0.0003 | 8.69% |
| 221.32 | Acid Soluble Cu, ICP, test portion 2006.03A-C (%) | 3 | 3 | 19.44 | 33.66 | 19.44 | 1.0000 | 33.66 | 24.29 | 173.16% | 78.43 | 0.2202 | 2.27% |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 10 | 9 | 51.65 | 163.3 | 0.0058 | 0.0056 | 0.0010 | 0.0004 | 16.46% | 0.40 | 0.0004 | 8.69% |
| 221.99 | Acid Soluble Cu, Other (%) | 18 | 16 | 0.0248 | 0.0490 | 0.0079 | 0.0058 | 0.0061 | 0.0019 | 77.82% | 2.46 | 0.0021 | 8.30% |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 13 | 13 | 3.816 | 0.5493 | 3.817 | 0.3867 | 0.5307 | 0.1840 | 13.91% | 3.20 | 0.1284 | 3.27% |
| 241.02 | Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C (%) | 2 | 2 | 4.110 | 1.047 | | | | | | | | |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 17 | 17 | 3.941 | 0.3511 | 3.940 | 0.3990 | 0.3687 | 0.1118 | 9.36% | 2.15 | 0.1571 | 3.25% |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 6 | 5 | 5,846 | 14,308 | 4.376 | 0.4426 | 0.3329 | 0.1861 | 7.61% | 1.75 | 0.1078 | 3.20% |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 11 | 11 | 3.898 | 0.3374 | 3.898 | 0.3948 | 0.3826 | 0.1442 | 9.81% | 2.26 | 0.0666 | 3.26% |
| 241.70 | Acid Soluble Fe, Titrimetric (%) | 1 | | 4.895 | | | | | | | | | |
| 241.99 | Acid Soluble Fe, Other (%) | 17 | 17 | 3.419 | 0.9681 | 3.524 | 0.3574 | 0.8055 | 0.2442 | 22.86% | 5.25 | 0.0961 | 3.31% |
| 251.00 | Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid | 2 | 2 | 2.376 | 1.593 | | | | | | | | |
| 251.30 | Acid Soluble Pb, ICP (ppm) | 3 | 2 | 20.01 | 33.34 | 30.01 | | 40.29 | 35.61 | 134.22% | | 1.666 | 9.59% |
| 251.32 | Acid Soluble Pb, ICP, 2006.03 (ppm) | 1 | | 1.182 | | | | | | | | | |
| 251.33 | Acid Soluble Pb, ICP, 2017.02 (ppm) | 4 | 2 | 2.836 | 1.609 | 1.673 | | 0.5904 | 0.5219 | 35.30% | | 0.0236 | 14.81% |
| 251.34 | Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm) | 2 | 0 | 2.750 | 3.182 | | | | | | | | |
| 251.99 | Acid Soluble Pb, Other (ppm) | 7 | 7 | 12.64 | 14.95 | 12.64 | | 16.95 | 8.009 | 134.14% | | 1.694 | 10.92% |
| 261.00 | Acid Soluble Mn, AA, Mn2+ only (%) | 1 | | 1.050 | | | | | | | | | |
| 261.11 | Acid Soluble Mn, AA, total Mn (%) | 1 | | 0.8500 | | | | | | | | | |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 10 | 10 | 0.6846 | 0.1285 | 0.6860 | 0.0736 | 0.1428 | 0.0564 | 20.82% | 4.52 | 0.0340 | 4.23% |
| 261.14 | Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (%) | 1 | | 0.9250 | | | | | | | | | |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 7 | 7 | 0.7546 | 0.0906 | 0.7546 | 0.0805 | 0.1027 | 0.0485 | 13.61% | 2.97 | 0.0188 | 4.17% |
| 261.31 | Acid Soluble Mn, ICP, test portion 972.02b (%) | 2 | 2 | 0.7533 | 0.0025 | | | | | | | | |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 6 | 6 | 0.7778 | 0.0761 | 0.7778 | 0.0828 | 0.0863 | 0.0440 | 11.09% | 2.43 | 0.0177 | 4.15% |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 5 | 5 | 1,315 | 2,938 | 1,315 | 1.0000 | 2,938 | 1,643 | 223.47% | 6846.54 | 0.4904 | 0.28% |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 12 | 12 | 0.7684 | 0.0483 | 0.7671 | 0.0817 | 0.0519 | 0.0187 | 6.76% | 1.48 | 0.0223 | 4.16% |
| 261.99 | Acid Soluble Mn, Other (%) | 18 | 18 | 0.6635 | 0.1587 | 0.6830 | 0.0733 | 0.1201 | 0.0354 | 17.58% | 3.82 | 0.0275 | 4.24% |
| 281.00 | Acid Soluble Hg, AA (ppm) | 1 | | 0.2000 | | | | | | | | | |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 5 | 2 | 0.0620 | 0.0578 | 0.1045 | | 0.0275 | 0.0243 | 26.33% | | 0.0052 | 22.00% |
| 281.99 | Acid Soluble Hg, Other (ppm) | 9 | 5 | 1.022 | 2.556 | 1.707 | | 3.421 | 1.913 | 200.43% | | 0.1067 | 14.76% |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 9 | 9 | 68.21 | 31.19 | 70.84 | 22.2513 | 18.66 | 7.773 | 26.34% | 1.95 | 1.704 | 8.42% |
| 289.32 | Acid Soluble Mo, ICP, 2006.03 (30ppm) | 3 | 3 | 73.33 | 27.93 | 73.33 | 22.9993 | 27.93 | 20.16 | 38.09% | 2.83 | 3.821 | 8.38% |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 10 | 9 | 85.73 | 20.78 | 88.00 | 27.3998 | 17.12 | 7.132 | 19.45% | 1.46 | 1.960 | 8.15% |
| 289.34 | Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm) | 4 | 4 | 77.28 | 6.948 | 77.28 | 24.1834 | 6.948 | 4.343 | 8.99% | 0.67 | 3.968 | 8.32% |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 6 | 6 | 77.90 | 41.41 | 77.90 | 24.3698 | 46.96 | 23.96 | 60.28% | 4.49 | 2.375 | 8.31% |
| 291.00 | Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid | 1 | | 408.5 | | | | | | | | | |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 6 | 6 | 274.4 | 71.71 | 274.4 | | 81.32 | 41.50 | 29.64% | | 10.82 | 6.87% |
| 291.32 | Acid Soluble Ni, ICP, 2006.03 (ppm) | 1 | | 171.2 | | | | | | | | | |

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|-------------|---|-------------------|--------------------------------|----------|--------|-------------------------------|--------------------|-----------|------------------------|--------------|-----------------|-----------------------|--------------|
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 7 | 7 | 377.3 | 71.28 | 381.8 | | 70.16 | 33.15 | 18.38% | | 7.843 | 6.54% |
| 291.34 | Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm) | 3 | 3 | 318.4 | 32.26 | 318.4 | | 32.26 | 23.28 | 10.13% | | 22.15 | 6.72% |
| 291.99 | Acid Soluble Ni, Other (ppm) | 9 | 9 | 264.4 | 118.2 | 264.4 | | 134.1 | 55.87 | 50.72% | | 8.538 | 6.91% |
| 301.30 | Acid Soluble Se, ICP (ppm) | 2 | 1 | 7.909 | 2.958 | | | | | | | | |
| 301.32 | Acid Soluble Se, ICP, 2006.03 (ppm) | 1 | | 7.279 | | | | | | | | | |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 5 | 4 | 6.362 | 5.254 | 7.950 | | 4.471 | 2.794 | 56.24% | | 1.343 | 11.71% |
| 301.34 | Acid Soluble Se, ICP, EPA 3050B/6010C (ppm) | 2 | 2 | 3.564 | 3.515 | | | | | | | | |
| 301.99 | Acid Soluble Se, Other (ppm) | 5 | 4 | 2.674 | 2.933 | 3.343 | | 2.913 | 1.821 | 87.16% | | 0.1290 | 13.34% |
| 311.00 | Sodium, AA (%) | 1 | | 0.2405 | | | | | | | | | |
| 311.33 | Sodium, ICP, test portion as in 2017.02 (%) | 4 | 4 | 0.8748 | 0.0322 | 0.8748 | 0.0925 | 0.0322 | 0.0201 | 3.68% | 0.81 | 0.0151 | 4.08% |
| 311.99 | Sodium, Other (%) | 1 | | 0.8200 | | | | | | | | | |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 11 | 10 | 0.0102 | 0.0135 | 0.0062 | 0.0056 | 0.0033 | 0.0013 | 52.25% | 1.35 | 0.0004 | 8.59% |
| 321.02 | Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C (%) | 1 | | 0.0260 | | | | | | | | | |
| 321.20 | Acid Soluble Zn, Zincon Ion Exchange (%) | 1 | | 0.0020 | | | | | | | | | |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 9 | 6 | 0.0063 | 0.0038 | 0.0050 | 0.0055 | 0.0045 | 0.0023 | 90.08% | 1.92 | 0.0001 | 8.87% |
| 321.32 | Acid Soluble Zn, ICP, test portion 2006.03A-C (%) | 3 | 3 | 0.0029 | 0.0006 | 0.0029 | 0.0053 | 0.0006 | 0.0004 | 21.54% | 0.27 | 0.0008 | 9.65% |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 9 | 7 | 4.133 | 12.39 | 0.0037 | 0.0054 | 0.0006 | 0.0003 | 17.22% | 0.28 | 0.0004 | 9.29% |
| 321.99 | Acid Soluble Zn, Other (%) | 16 | 15 | 0.0245 | 0.0383 | 0.0161 | 0.0066 | 0.0258 | 0.0083 | 160.09% | 9.09 | 0.0020 | 7.45% |
| 325.30 | Water Soluble Zn, ICP (%) | 1 | | 0.0020 | | | | | | | | | |
| 325.99 | Water Soluble Zn, Other (%) | 1 | | 0.0013 | | | | | | | | | |
| 431.10 | Soluble Si in nonliquids, Na2CO3-NH4NO3 extraction, spectro | 3 | 3 | 2.001 | 0.1198 | 2.001 | | 0.1198 | 0.0865 | 5.99% | | 0.2165 | 3.60% |
| 431.99 | Soluble Si in nonliquids, Other (1.9%) | 4 | 4 | 4,713 | 9,416 | 4,713 | | 9,416 | 5,885 | 199.79% | | 0.4853 | 0.15% |

The Method IA Ratio = 2.33 * Robust SD / IA at the Method Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting. The Horwitz %RSD is calculated using the Thompson Modification, Analyst,2000,125,385-386.



Method Proficiency For All Labs

Magruder Fertilizer PT Program

Sample # 220111

Regular PT Scheme

Soil Supplement

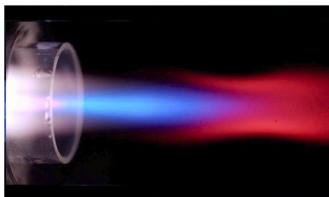
Method Precision Report

Issue Date : 02/28/2022

| Method Code | Analyte & Method | # Tests Submitted | # Tests Used in Precision Calcs | Mean | SD | Between Labs sL | Within Labs sr | Reproducibility SR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr |
|-------------|---|-------------------|---------------------------------|--------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|-------|
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 10 | 9 | 24.13 | 1.502 | 1.483 | 0.3371 | 1.521 | 6.15% | 1.40% | 6.30% | 4.512 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 19 | 17 | 24.52 | 1.760 | 1.714 | 0.5702 | 1.806 | 6.99% | 2.33% | 7.37% | 3.167 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 5 | 5 | 25.21 | 1.863 | 1.858 | 0.1901 | 1.868 | 7.37% | 0.75% | 7.41% | 9.827 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 16 | 13 | 24.48 | 0.4427 | 0.4155 | 0.2158 | 0.4683 | 1.70% | 0.88% | 1.91% | 2.169 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 7 | 6 | 24.41 | 0.2517 | 0.2053 | 0.2061 | 0.2909 | 0.84% | 0.84% | 1.19% | 1.412 |
| 101.99 | Acid Soluble Ca, Other (24%) | 19 | 18 | 24.33 | 1.729 | 1.714 | 0.3214 | 1.744 | 7.04% | 1.32% | 7.17% | 5.426 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 10 | 9 | 6.846 | 0.4392 | 0.4201 | 0.1813 | 0.4576 | 6.14% | 2.65% | 6.68% | 2.524 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 20 | 18 | 6.611 | 0.5616 | 0.5571 | 0.1011 | 0.5662 | 8.43% | 1.53% | 8.56% | 5.600 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 6 | 6 | 6.772 | 0.3075 | 0.2920 | 0.1362 | 0.3222 | 4.31% | 2.01% | 4.76% | 2.366 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 15 | 13 | 6.809 | 0.4714 | 0.4437 | 0.2249 | 0.4975 | 6.52% | 3.30% | 7.31% | 2.212 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 5 | 5 | 5.429 | 0.8193 | 0.8158 | 0.1071 | 0.8228 | 15.03% | 1.97% | 15.16% | 7.683 |
| 121.99 | Acid Soluble Mg, Other (5%) | 18 | 17 | 5.687 | 1.304 | 1.302 | 0.1016 | 1.306 | 22.89% | 1.79% | 22.96% | 12.85 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 11 | 10 | 0.0206 | 0.0076 | 0.0076 | 0.0005 | 0.0076 | 36.88% | 2.20% | 36.95% | 16.78 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 10 | 6 | 0.0098 | 0.0055 | 0.0055 | 0.0001 | 0.0055 | 56.64% | 0.83% | 56.65% | 67.88 |
| 165.99 | Acid Soluble B, Other (%) | 21 | 18 | 0.0102 | 0.0053 | 0.0050 | 0.0024 | 0.0056 | 49.05% | 23.39% | 54.34% | 2.323 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 6 | 5 | 1,783 | 104.7 | 82.99 | 90.24 | 122.6 | 4.65% | 5.06% | 6.88% | 1.359 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 6 | 5 | 1,906 | 428.6 | 428.2 | 25.15 | 429.0 | 22.47% | 1.32% | 22.51% | 17.05 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 7 | 6 | 75.40 | 22.63 | 22.60 | 1.593 | 22.66 | 29.97% | 2.11% | 30.05% | 14.22 |
| 202.99 | Acid Soluble Co, Other (ppm) | 7 | 7 | 57.65 | 29.63 | 29.53 | 3.588 | 29.74 | 51.22% | 6.22% | 51.59% | 8.289 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 11 | 8 | 0.0127 | 0.0152 | 0.0152 | 0.0005 | 0.0152 | 119.64% | 4.24% | 119.72% | 28.23 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 12 | 9 | 0.0059 | 0.0023 | 0.0023 | 0.0002 | 0.0023 | 38.69% | 3.34% | 38.83% | 11.62 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 10 | 9 | 0.0058 | 0.0008 | 0.0008 | 0.0004 | 0.0009 | 13.65% | 6.97% | 15.33% | 2.199 |
| 221.99 | Acid Soluble Cu, Other (%) | 18 | 16 | 0.0135 | 0.0172 | 0.0170 | 0.0031 | 0.0173 | 126.03% | 22.76% | 128.06% | 5.626 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 13 | 13 | 3.816 | 0.5493 | 0.5422 | 0.1247 | 0.5563 | 14.21% | 3.27% | 14.58% | 4.463 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 17 | 16 | 3.982 | 0.3177 | 0.3044 | 0.1288 | 0.3305 | 7.64% | 3.23% | 8.30% | 2.567 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 6 | 5 | 4.376 | 0.3329 | 0.3249 | 0.1026 | 0.3407 | 7.43% | 2.34% | 7.79% | 3.321 |

| Method Code | Analyte & Method | # Tests Submitted | # Tests Used in Precision Calcs | Mean | SD | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr |
|-------------|---|-------------------|---------------------------------|--------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|-------|
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 11 | 11 | 3.898 | 0.3374 | 0.3345 | 0.0623 | 0.3402 | 8.58% | 1.60% | 8.73% | 5.461 |
| 241.99 | Acid Soluble Fe, Other (%) | 17 | 16 | 3.593 | 0.6723 | 0.6694 | 0.0894 | 0.6753 | 18.63% | 2.49% | 18.79% | 7.556 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 7 | 7 | 12.64 | 14.95 | 14.88 | 2.092 | 15.02 | 117.71% | 16.55% | 118.87% | 7.181 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 10 | 9 | 0.6796 | 0.1353 | 0.1336 | 0.0297 | 0.1369 | 19.66% | 4.36% | 20.14% | 4.616 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 7 | 7 | 0.7546 | 0.0906 | 0.0899 | 0.0159 | 0.0913 | 11.91% | 2.11% | 12.09% | 5.744 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 6 | 6 | 0.7778 | 0.0761 | 0.0754 | 0.0139 | 0.0767 | 9.70% | 1.79% | 9.86% | 5.500 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 12 | 12 | 0.7684 | 0.0483 | 0.0457 | 0.0219 | 0.0507 | 5.95% | 2.85% | 6.60% | 2.315 |
| 261.99 | Acid Soluble Mn, Other (%) | 18 | 17 | 0.6931 | 0.0998 | 0.0982 | 0.0250 | 0.1013 | 14.17% | 3.60% | 14.62% | 4.058 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 9 | 8 | 76.73 | 19.09 | 19.05 | 1.723 | 19.13 | 24.83% | 2.25% | 24.93% | 11.10 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 10 | 8 | 91.21 | 12.43 | 12.35 | 1.990 | 12.51 | 13.54% | 2.18% | 13.71% | 6.285 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 6 | 6 | 77.90 | 41.41 | 41.39 | 1.925 | 41.43 | 53.13% | 2.47% | 53.19% | 21.52 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 6 | 6 | 274.4 | 71.71 | 71.37 | 9.882 | 72.05 | 26.01% | 3.60% | 26.26% | 7.291 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 7 | 7 | 377.3 | 71.28 | 71.11 | 7.102 | 71.46 | 18.85% | 1.88% | 18.94% | 10.06 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 9 | 9 | 264.4 | 118.2 | 118.1 | 6.989 | 118.3 | 44.69% | 2.64% | 44.77% | 16.93 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 11 | 10 | 0.0062 | 0.0029 | 0.0029 | 0.0004 | 0.0029 | 45.83% | 6.67% | 46.32% | 6.949 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 9 | 5 | 0.0056 | 0.0042 | 0.0042 | 0.0000 | 0.0042 | 75.80% | 0.57% | 75.80% | 133.5 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 9 | 7 | 0.0037 | 0.0006 | 0.0005 | 0.0004 | 0.0006 | 13.28% | 10.41% | 16.88% | 1.621 |
| 321.99 | Acid Soluble Zn, Other (%) | 16 | 15 | 0.0248 | 0.0396 | 0.0396 | 0.0030 | 0.0397 | 159.88% | 12.02% | 160.33% | 13.34 |

Notes: Precision data calculated when 5 or more Tests included.



Method Proficiency For All Labs

Magruder Fertilizer PT Program

Methods: 131

Sample # 220111

Regular PT Scheme

Labs Reporting: 86

Soil Supplement

Lab Values

Issue Date : 02/28/2022

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 001.99 | Ammoniacal N, Other (%) | 0524 | 0.0805 | 0.1549 | | | | 1 | | | 0 |
| 005.99 | Urea N, Other (%) | 0524 | 0.0071 | 0.0102 | | | | 1 | | | 0 |
| 010.12 | Total N, Salicylic (%) | 0568 | 0.0490 | 0.0011 | | | | 1 | | | 0 |
| 010.60 | Total N, Combustion (%) | 0472 | 0.0320 | 0.0100 | 0.2316 | 0.1982 | 0.0138 | 4 | -1.01 | | 0 |
| 010.60 | Total N, Combustion (%) | 0354 | 0.1545 | 0.0050 | 0.2316 | 0.1982 | 0.0138 | 4 | -0.39 | | 0 |
| 010.60 | Total N, Combustion (%) | 0325 | 0.2400 | 0.0400 | 0.2316 | 0.1982 | 0.0138 | 4 | 0.04 | | 0 |
| 010.60 | Total N, Combustion (%) | 0422 | 0.5000 | 0.0000 | 0.2316 | 0.1982 | 0.0138 | 4 | 1.35 | | 0 |
| 010.99 | Total N, Other (%) | 0524 | 0.0930 | 0.0183 | | | | 1 | | | 0 |
| 020.50 | Total P2O5, ICP (%) | 0422 | 0.0268 | 0.0011 | 0.0682 | 0.0666 | 0.0050 | 3 | -0.62 | | 0 |
| 020.50 | Total P2O5, ICP (%) | 0524 | 0.0328 | 0.0039 | 0.0682 | 0.0666 | 0.0050 | 3 | -0.53 | | 0 |
| 020.50 | Total P2O5, ICP (%) | 0472 | 0.1450 | 0.0100 | 0.0682 | 0.0666 | 0.0050 | 3 | 1.15 | | 0 |
| 020.50 | Total P2O5, ICP (%) | 0552 | 0.0000 | 0.0000 | 0.0682 | 0.0666 | 0.0050 | 3 | | | 4 |
| 020.50 | Total P2O5, ICP (%) | 0527 | < 0.01 | | 0.0682 | 0.0666 | 0.0050 | 3 | | | 5 |
| 020.99 | Total P2O5, Other (%) | 0515 | 0.0323 | 0.0024 | | | | 1 | | | 0 |
| 041.20 | Direct Available P2O5, Spectrophotometric (%) | 0553 | < 0.007 | | | | | 0 | | | 5 |
| 041.21 | Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. | 0568 | 0.0350 | 0.0100 | | | | 2 | | | 0 |
| 041.21 | Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. | 0354 | 0.0625 | 0.0190 | | | | 2 | | | 0 |
| 041.50 | Direct Available P2O5, ICP (%) | 0325 | < 0.1 | | | | | 0 | | | 5 |
| 050.32 | Soluble K2O, AA (Citrate-EDTA) (%) | 0472 | 0.2950 | 0.0300 | | | | 1 | | | 0 |
| 050.50 | Soluble K2O, ICP (Oxalate) (%) | 0422 | 0.2827 | 0.0264 | | | | 1 | | | 0 |
| 050.51 | Soluble K2O, ICP (Citrate) (%) | 0568 | 0.3050 | 0.0300 | | | | 1 | | | 0 |
| 050.52 | Soluble K2O, ICP (Citrate-EDTA) (%) | 0354 | 0.2600 | 0.0020 | | | | 2 | | | 0 |
| 050.52 | Soluble K2O, ICP (Citrate-EDTA) (%) | 0423 | 0.2745 | 0.0050 | | | | 2 | | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0524 | 0.2358 | 0.0078 | 0.4163 | 0.3496 | 0.0174 | 5 | -0.45 | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0515 | 0.2360 | 0.0275 | 0.4163 | 0.3496 | 0.0174 | 5 | -0.45 | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0563 | 0.2718 | 0.0062 | 0.4163 | 0.3496 | 0.0174 | 5 | -0.36 | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0527 | 0.2980 | 0.0053 | 0.4163 | 0.3496 | 0.0174 | 5 | -0.30 | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0553 | 1.040 | 0.0400 | 0.4163 | 0.3496 | 0.0174 | 5 | 1.56 | | 0 |
| 050.99 | Soluble K2O, Other (%) | 0325 | 0.2000 | 0.2000 | 0.4163 | 0.3496 | 0.0174 | 5 | -0.54 | | 1 |
| 050.99 | Soluble K2O, Other (%) | 0552 | 0.0000 | 0.0000 | 0.4163 | 0.3496 | 0.0174 | 5 | | | 4 |
| 060.99 | Water (Free), Other (%) | 0510 | 1.292 | 0.0100 | | | | 1 | | | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0157 | 21.00 | 0.6000 | 24.11 | 1.080 | 0.5300 | 10 | -2.67 | Low | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0580 | 23.11 | 0.0800 | 24.11 | 1.080 | 0.5300 | 10 | -0.86 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0485 | 23.29 | 1.760 | 24.11 | 1.080 | 0.5300 | 10 | -0.70 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0534 | 23.85 | 0.3000 | 24.11 | 1.080 | 0.5300 | 10 | -0.22 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0513 | 24.02 | 0.0700 | 24.11 | 1.080 | 0.5300 | 10 | -0.08 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0029 | 24.54 | 0.2800 | 24.11 | 1.080 | 0.5300 | 10 | 0.37 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0553 | 24.60 | 1.000 | 24.11 | 1.080 | 0.5300 | 10 | 0.42 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0533 | 24.70 | 0.4000 | 24.11 | 1.080 | 0.5300 | 10 | 0.51 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0535 | 24.75 | 0.5000 | 24.11 | 1.080 | 0.5300 | 10 | 0.55 | OK | 0 |
| 101.00 | Acid Soluble Ca, AA, inorganic 965.09 (24%) | 0073 | 26.59 | 0.3100 | 24.11 | 1.080 | 0.5300 | 10 | 2.13 | High | 0 |
| 101.01 | Acid Soluble Ca, AA, organic 965.09 (24%) | 0415 | 25.54 | 0.4025 | | | | 1 | | | 0 |
| 101.03 | Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual a | 0546 | 25.03 | 0.0624 | | | | 1 | | | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0255 | 21.79 | 1.180 | 24.71 | 2.139 | 0.5989 | 18 | -1.36 | Low | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0102 | 21.97 | 0.1200 | 24.71 | 2.139 | 0.5989 | 18 | -1.28 | Low | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0231 | 22.87 | 0.1100 | 24.71 | 2.139 | 0.5989 | 18 | -0.86 | Low | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0568 | 23.15 | 0.7000 | 24.71 | 2.139 | 0.5989 | 18 | -0.73 | Low | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0234 | 23.75 | 1.170 | 24.71 | 2.139 | 0.5989 | 18 | -0.45 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0451 | 23.99 | 0.5800 | 24.71 | 2.139 | 0.5989 | 18 | -0.33 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0377 | 24.04 | 0.8600 | 24.71 | 2.139 | 0.5989 | 18 | -0.31 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0397 | 24.09 | 0.0110 | 24.71 | 2.139 | 0.5989 | 18 | -0.29 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0035 | 24.20 | 1.200 | 24.71 | 2.139 | 0.5989 | 18 | -0.24 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0157 | 24.20 | 1.200 | 24.71 | 2.139 | 0.5989 | 18 | -0.24 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0325 | 24.26 | 1.570 | 24.71 | 2.139 | 0.5989 | 18 | -0.21 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0360 | 24.75 | 0.2300 | 24.71 | 2.139 | 0.5989 | 18 | 0.02 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0354 | 24.85 | 0.3000 | 24.71 | 2.139 | 0.5989 | 18 | 0.07 | OK | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0291 | 27.02 | 0.0300 | 24.71 | 2.139 | 0.5989 | 18 | 1.08 | High | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0433 | 27.20 | 0.5200 | 24.71 | 2.139 | 0.5989 | 18 | 1.17 | High | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0049 | 27.30 | 0.9700 | 24.71 | 2.139 | 0.5989 | 18 | 1.21 | High | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0452 | 27.38 | 0.0200 | 24.71 | 2.139 | 0.5989 | 18 | 1.25 | High | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0444 | 38.23 | 0.0100 | 24.71 | 2.139 | 0.5989 | 18 | 6.32 | High | 0 |
| 101.30 | Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%) | 0324 | 24.45 | 4.700 | 24.71 | 2.139 | 0.5989 | 18 | -0.12 | OK | 1 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 0521 | 22.89 | 0.0000 | 25.21 | 1.863 | 0.2280 | 5 | -1.24 | | 0 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 0028 | 24.25 | 0.3000 | 25.21 | 1.863 | 0.2280 | 5 | -0.51 | | 0 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 0423 | 24.76 | 0.1700 | 25.21 | 1.863 | 0.2280 | 5 | -0.24 | | 0 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 0220 | 26.59 | 0.4300 | 25.21 | 1.863 | 0.2280 | 5 | 0.74 | | 0 |
| 101.32 | Acid Soluble Ca, ICP, test portion 2006.03A-C (24%) | 0095 | 27.55 | 0.2400 | 25.21 | 1.863 | 0.2280 | 5 | 1.26 | | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0472 | 21.52 | 0.1700 | 24.37 | 0.5654 | 0.2915 | 15 | -5.05 | Low | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0025 | 23.65 | 0.5000 | 24.37 | 0.5654 | 0.2915 | 15 | -1.28 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0542 | 23.86 | 0.9500 | 24.37 | 0.5654 | 0.2915 | 15 | -0.91 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0136 | 23.95 | 0.1000 | 24.37 | 0.5654 | 0.2915 | 15 | -0.75 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0043 | 24.08 | 0.4200 | 24.37 | 0.5654 | 0.2915 | 15 | -0.52 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0260 | 24.30 | 0.4000 | 24.37 | 0.5654 | 0.2915 | 15 | -0.13 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0169 | 24.31 | 0.2000 | 24.37 | 0.5654 | 0.2915 | 15 | -0.11 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0177 | 24.44 | 0.4616 | 24.37 | 0.5654 | 0.2915 | 15 | 0.12 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0117 | 24.44 | 0.5051 | 24.37 | 0.5654 | 0.2915 | 15 | 0.12 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0037 | 24.49 | 0.0070 | 24.37 | 0.5654 | 0.2915 | 15 | 0.20 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0292 | 24.57 | 0.1300 | 24.37 | 0.5654 | 0.2915 | 15 | 0.34 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0527 | 24.82 | 0.1260 | 24.37 | 0.5654 | 0.2915 | 15 | 0.80 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0040 | 24.85 | 0.0200 | 24.37 | 0.5654 | 0.2915 | 15 | 0.85 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0588 | 25.10 | 0.2000 | 24.37 | 0.5654 | 0.2915 | 15 | 1.29 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0563 | 25.19 | 0.1830 | 24.37 | 0.5654 | 0.2915 | 15 | 1.46 | OK | 0 |
| 101.33 | Acid Soluble Ca, ICP, 2017.02 (24%) | 0515 | 25.82 | 3.544 | 24.37 | 0.5654 | 0.2915 | 15 | 2.56 | High | 1 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0510 | 22.29 | 0.0917 | 24.31 | 0.3940 | 0.2152 | 7 | -4.63 | Low | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0544 | 24.12 | 0.0300 | 24.31 | 0.3940 | 0.2152 | 7 | -0.45 | OK | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0548 | 24.16 | 0.4800 | 24.31 | 0.3940 | 0.2152 | 7 | -0.35 | OK | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0532 | 24.32 | 0.1900 | 24.31 | 0.3940 | 0.2152 | 7 | 0.01 | OK | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0200 | 24.55 | 0.0300 | 24.31 | 0.3940 | 0.2152 | 7 | 0.53 | OK | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0529 | 24.60 | 0.4000 | 24.31 | 0.3940 | 0.2152 | 7 | 0.66 | OK | 0 |
| 101.70 | Acid Soluble Ca, Titrimetric (24%) | 0522 | 24.73 | 0.2850 | 24.31 | 0.3940 | 0.2152 | 7 | 0.96 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0578 | 6.659 | 0.0100 | 24.42 | 1.471 | 0.3202 | 19 | -12.08 | Low | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0476 | 19.54 | 0.2079 | 24.42 | 1.471 | 0.3202 | 19 | -3.32 | Low | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0481 | 21.05 | 0.7700 | 24.42 | 1.471 | 0.3202 | 19 | -2.30 | Low | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0552 | 22.85 | 0.3100 | 24.42 | 1.471 | 0.3202 | 19 | -1.07 | Low | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0389 | 23.70 | 0.2200 | 24.42 | 1.471 | 0.3202 | 19 | -0.49 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0498 | 24.00 | 0.8000 | 24.42 | 1.471 | 0.3202 | 19 | -0.29 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0560 | 24.14 | 0.0300 | 24.42 | 1.471 | 0.3202 | 19 | -0.20 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0551 | 24.41 | 0.0200 | 24.42 | 1.471 | 0.3202 | 19 | -0.01 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0559 | 24.41 | 0.0200 | 24.42 | 1.471 | 0.3202 | 19 | -0.01 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0561 | 24.73 | 0.2900 | 24.42 | 1.471 | 0.3202 | 19 | 0.21 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0547 | 24.90 | 0.2000 | 24.42 | 1.471 | 0.3202 | 19 | 0.32 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0027 | 24.90 | 0.5450 | 24.42 | 1.471 | 0.3202 | 19 | 0.33 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0405 | 24.95 | 0.9000 | 24.42 | 1.471 | 0.3202 | 19 | 0.36 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0368 | 25.07 | 0.0287 | 24.42 | 1.471 | 0.3202 | 19 | 0.44 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0587 | 25.41 | 0.1900 | 24.42 | 1.471 | 0.3202 | 19 | 0.67 | OK | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0558 | 25.57 | 0.0642 | 24.42 | 1.471 | 0.3202 | 19 | 0.78 | High | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0042 | 25.73 | 0.8200 | 24.42 | 1.471 | 0.3202 | 19 | 0.89 | High | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0515 | 26.19 | 0.5887 | 24.42 | 1.471 | 0.3202 | 19 | 1.20 | High | 0 |
| 101.99 | Acid Soluble Ca, Other (24%) | 0519 | 26.44 | 0.0700 | 24.42 | 1.471 | 0.3202 | 19 | 1.37 | High | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0534 | 5.150 | 0.5000 | 6.749 | 0.5857 | 0.2097 | 10 | -2.54 | Low | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0029 | 6.314 | 0.0250 | 6.749 | 0.5857 | 0.2097 | 10 | -0.69 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0485 | 6.384 | 0.3520 | 6.749 | 0.5857 | 0.2097 | 10 | -0.58 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0553 | 6.500 | 0.6000 | 6.749 | 0.5857 | 0.2097 | 10 | -0.39 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0580 | 6.800 | 0.0000 | 6.749 | 0.5857 | 0.2097 | 10 | 0.08 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0535 | 6.800 | 0.2000 | 6.749 | 0.5857 | 0.2097 | 10 | 0.08 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0533 | 6.835 | 0.2300 | 6.749 | 0.5857 | 0.2097 | 10 | 0.14 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0040 | 6.965 | 0.0700 | 6.749 | 0.5857 | 0.2097 | 10 | 0.34 | OK | 0 |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0513 | 7.395 | 0.0300 | 6.749 | 0.5857 | 0.2097 | 10 | 1.03 | High | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 121.00 | Acid Soluble Mg, AA, inorganic 965.09 (5%) | 0073 | 7.625 | 0.0900 | 6.749 | 0.5857 | 0.2097 | 10 | 1.39 | High | 0 |
| 121.01 | Acid Soluble Mg, AA, organic 965.09 (5%) | 0415 | 7.643 | 0.0396 | | | | 1 | | | 0 |
| 121.02 | Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C (5%) | 0498 | 6.900 | 0.2000 | | | | 1 | | | 0 |
| 121.03 | Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual a | 0546 | 6.954 | 0.0050 | | | | 1 | | | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0234 | 5.290 | 0.0600 | 6.689 | 0.6083 | 0.1024 | 19 | -2.30 | Low | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0255 | 6.089 | 0.2960 | 6.689 | 0.6083 | 0.1024 | 19 | -0.99 | Low | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0102 | 6.170 | 0.0400 | 6.689 | 0.6083 | 0.1024 | 19 | -0.85 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0397 | 6.209 | 0.0616 | 6.689 | 0.6083 | 0.1024 | 19 | -0.79 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0444 | 6.225 | 0.0700 | 6.689 | 0.6083 | 0.1024 | 19 | -0.76 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0231 | 6.305 | 0.0900 | 6.689 | 0.6083 | 0.1024 | 19 | -0.63 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0568 | 6.405 | 0.0100 | 6.689 | 0.6083 | 0.1024 | 19 | -0.47 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0035 | 6.410 | 0.2400 | 6.689 | 0.6083 | 0.1024 | 19 | -0.46 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0157 | 6.565 | 0.2900 | 6.689 | 0.6083 | 0.1024 | 19 | -0.20 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0451 | 6.573 | 0.0070 | 6.689 | 0.6083 | 0.1024 | 19 | -0.19 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0377 | 6.700 | 0.2400 | 6.689 | 0.6083 | 0.1024 | 19 | 0.02 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0433 | 6.745 | 0.0500 | 6.689 | 0.6083 | 0.1024 | 19 | 0.09 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0354 | 6.880 | 0.0200 | 6.689 | 0.6083 | 0.1024 | 19 | 0.31 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0325 | 6.985 | 0.1700 | 6.689 | 0.6083 | 0.1024 | 19 | 0.49 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0360 | 7.025 | 0.1300 | 6.689 | 0.6083 | 0.1024 | 19 | 0.55 | OK | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0049 | 7.430 | 0.0111 | 6.689 | 0.6083 | 0.1024 | 19 | 1.22 | High | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0452 | 7.440 | 0.1000 | 6.689 | 0.6083 | 0.1024 | 19 | 1.23 | High | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0291 | 7.555 | 0.0100 | 6.689 | 0.6083 | 0.1024 | 19 | 1.42 | High | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0200 | 8.785 | 0.0500 | 6.689 | 0.6083 | 0.1024 | 19 | 3.45 | High | 0 |
| 121.30 | Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%) | 0324 | 7.085 | 0.6300 | 6.689 | 0.6083 | 0.1024 | 19 | 0.65 | OK | 1 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0521 | 6.229 | 0.0000 | 6.785 | 0.3164 | 0.1422 | 6 | -1.57 | Low | 0 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0095 | 6.715 | 0.3100 | 6.785 | 0.3164 | 0.1422 | 6 | -0.20 | OK | 0 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0220 | 6.730 | 0.1400 | 6.785 | 0.3164 | 0.1422 | 6 | -0.16 | OK | 0 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0423 | 6.907 | 0.0630 | 6.785 | 0.3164 | 0.1422 | 6 | 0.34 | OK | 0 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0028 | 6.910 | 0.3200 | 6.785 | 0.3164 | 0.1422 | 6 | 0.35 | OK | 0 |
| 121.32 | Acid Soluble Mg, ICP, test portion 2006.03A-C (5%) | 0292 | 7.140 | 0.0200 | 6.785 | 0.3164 | 0.1422 | 6 | 1.00 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0169 | 5.031 | 0.0080 | 6.771 | 0.5686 | 0.2358 | 15 | -3.06 | Low | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0043 | 5.910 | 0.2200 | 6.771 | 0.5686 | 0.2358 | 15 | -1.51 | Low | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0542 | 5.965 | 0.0300 | 6.771 | 0.5686 | 0.2358 | 15 | -1.42 | Low | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0025 | 6.610 | 0.1400 | 6.771 | 0.5686 | 0.2358 | 15 | -0.28 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0561 | 6.670 | 0.0200 | 6.771 | 0.5686 | 0.2358 | 15 | -0.18 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0588 | 6.685 | 0.3500 | 6.771 | 0.5686 | 0.2358 | 15 | -0.15 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0037 | 6.765 | 0.0560 | 6.771 | 0.5686 | 0.2358 | 15 | -0.01 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0136 | 6.765 | 0.0300 | 6.771 | 0.5686 | 0.2358 | 15 | -0.01 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0055 | 6.920 | 0.8200 | 6.771 | 0.5686 | 0.2358 | 15 | 0.26 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0260 | 6.995 | 0.6500 | 6.771 | 0.5686 | 0.2358 | 15 | 0.39 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0515 | 7.120 | 0.9669 | 6.771 | 0.5686 | 0.2358 | 15 | 0.61 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0527 | 7.266 | 0.0218 | 6.771 | 0.5686 | 0.2358 | 15 | 0.87 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0472 | 7.270 | 0.0400 | 6.771 | 0.5686 | 0.2358 | 15 | 0.88 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0117 | 7.275 | 0.0421 | 6.771 | 0.5686 | 0.2358 | 15 | 0.89 | OK | 0 |
| 121.33 | Acid Soluble Mg, ICP, 2017.02 (5%) | 0177 | 7.427 | 0.1424 | 6.771 | 0.5686 | 0.2358 | 15 | 1.15 | High | 0 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 0529 | 4.795 | 0.1900 | 5.429 | 0.8193 | 0.1420 | 5 | -0.77 | | 0 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 0548 | 4.865 | 0.0700 | 5.429 | 0.8193 | 0.1420 | 5 | -0.69 | | 0 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 0518 | 5.155 | 0.0900 | 5.429 | 0.8193 | 0.1420 | 5 | -0.33 | | 0 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 0532 | 5.530 | 0.1600 | 5.429 | 0.8193 | 0.1420 | 5 | 0.12 | | 0 |
| 121.70 | Acid Soluble Mg, Titrimetric (EDTA) (5%) | 0535 | 6.800 | 0.2000 | 5.429 | 0.8193 | 0.1420 | 5 | 1.67 | | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0578 | 2.601 | 0.0470 | 5.923 | 1.265 | 0.1145 | 18 | -2.63 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0476 | 3.325 | 0.0187 | 5.923 | 1.265 | 0.1145 | 18 | -2.05 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0551 | 5.027 | 0.0020 | 5.923 | 1.265 | 0.1145 | 18 | -0.71 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0560 | 5.067 | 0.1480 | 5.923 | 1.265 | 0.1145 | 18 | -0.68 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0559 | 5.085 | 0.0100 | 5.923 | 1.265 | 0.1145 | 18 | -0.66 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0481 | 5.175 | 0.2100 | 5.923 | 1.265 | 0.1145 | 18 | -0.59 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0519 | 5.245 | 0.1100 | 5.923 | 1.265 | 0.1145 | 18 | -0.54 | Low | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0042 | 5.590 | 0.1400 | 5.923 | 1.265 | 0.1145 | 18 | -0.26 | OK | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0524 | 5.597 | 0.0304 | 5.923 | 1.265 | 0.1145 | 18 | -0.26 | OK | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0515 | 5.660 | 0.3580 | 5.923 | 1.265 | 0.1145 | 18 | -0.21 | OK | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0552 | 6.655 | 0.0900 | 5.923 | 1.265 | 0.1145 | 18 | 0.58 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0405 | 6.795 | 0.1700 | 5.923 | 1.265 | 0.1145 | 18 | 0.69 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0389 | 6.873 | 0.0930 | 5.923 | 1.265 | 0.1145 | 18 | 0.75 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0027 | 6.940 | 0.2440 | 5.923 | 1.265 | 0.1145 | 18 | 0.80 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0587 | 6.970 | 0.1200 | 5.923 | 1.265 | 0.1145 | 18 | 0.83 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0547 | 6.985 | 0.0300 | 5.923 | 1.265 | 0.1145 | 18 | 0.84 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0368 | 7.087 | 0.0304 | 5.923 | 1.265 | 0.1145 | 18 | 0.92 | High | 0 |
| 121.99 | Acid Soluble Mg, Other (5%) | 0558 | 10.44 | 0.2090 | 5.923 | 1.265 | 0.1145 | 18 | 3.57 | High | 0 |
| 131.00 | Water Soluble Mg, AA (%) | 0558 | 0.0054 | 0.0001 | | | | 2 | | | 0 |
| 131.00 | Water Soluble Mg, AA (%) | 0485 | 0.0213 | 0.0001 | | | | 2 | | | 0 |
| 131.30 | Water Soluble Mg, ICP (%) | 0405 | 0.0200 | 0.0000 | | | | 2 | | | 0 |
| 131.30 | Water Soluble Mg, ICP (%) | 0444 | 0.0240 | 0.0060 | | | | 2 | | | 0 |
| 131.70 | Water Soluble Mg, Titrimetric (EDTA) (%) | 0535 | 0.0275 | 0.0050 | | | | 2 | | | 0 |
| 131.70 | Water Soluble Mg, Titrimetric (EDTA) (%) | 0510 | 7.520 | 0.0520 | | | | 2 | | | 0 |
| 131.99 | Water Soluble Mg, Other (%) | 0551 | 1.997 | 0.0020 | | | | 2 | | | 0 |
| 131.99 | Water Soluble Mg, Other (%) | 0559 | 1.997 | 0.0020 | | | | 2 | | | 0 |
| 143.99 | Elemental S, Other (%) | 0389 | 0.1670 | 0.0060 | | | | 1 | | | 0 |
| 145.99 | Sulfate S, HCl soluble, Other (%) | 0553 | 0.0600 | 0.0000 | | | | 1 | | | 0 |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 0546 | 0.1512 | 0.0019 | 0.2032 | 0.0630 | 0.0241 | 4 | -0.83 | | 0 |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 0563 | 0.1655 | 0.0099 | 0.2032 | 0.0630 | 0.0241 | 4 | -0.60 | | 0 |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 0472 | 0.2050 | 0.0100 | 0.2032 | 0.0630 | 0.0241 | 4 | 0.03 | | 0 |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 0515 | 0.2914 | 0.0745 | 0.2032 | 0.0630 | 0.0241 | 4 | 1.40 | | 0 |
| 148.07 | Total S, ICP, test portion as in 2017.02 (%) | 0527 | < 0.1 | | 0.2032 | 0.0630 | 0.0241 | 4 | | | 5 |
| 148.99 | Total S, Other (%) | 0354 | 0.1100 | 0.0200 | | | | 2 | | | 0 |
| 148.99 | Total S, Other (%) | 0422 | 0.2259 | 0.0016 | | | | 2 | | | 0 |
| 149.04 | S - HNO3 soluble, ICP (%) | 0524 | 0.1075 | 0.0220 | | | | 2 | | | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 149.04 | S - HNO3 soluble, ICP (%) | 0423 | 0.1495 | 0.0010 | | | | 2 | | | 0 |
| 151.30 | Acid Soluble As, ICP (ppm) | 0524 | 0.7483 | 0.0400 | | | | 1 | | | 0 |
| 151.30 | Acid Soluble As, ICP (ppm) | 0255 | 0.0000 | 0.0000 | | | | 1 | | | 4 |
| 151.30 | Acid Soluble As, ICP (ppm) | 0547 | < 10 | | | | | 1 | | | 5 |
| 151.32 | Acid Soluble As, ICP, 2006.03 (ppm) | 0476 | 0.5680 | 0.0380 | | | | 1 | | | 0 |
| 151.33 | Acid Soluble As, ICP, 2017.02 (ppm) | 0548 | 0.6150 | 0.0100 | | | | 2 | | | 0 |
| 151.33 | Acid Soluble As, ICP, 2017.02 (ppm) | 0563 | 1.619 | 0.0563 | | | | 2 | | | 0 |
| 151.33 | Acid Soluble As, ICP, 2017.02 (ppm) | 0527 | < 0.0001 | | | | | 2 | | | 5 |
| 151.33 | Acid Soluble As, ICP, 2017.02 (ppm) | 0117 | < 10 | | | | | 2 | | | 5 |
| 151.34 | Acid Soluble As, ICP, EPA 3050B/6010C (ppm) | 0368 | < 0.3 | | | | | 0 | | | 5 |
| 151.99 | Acid Soluble As, Other (ppm) | 0558 | 0.1082 | 0.0007 | 3.338 | 5.813 | 0.3827 | 4 | -0.47 | | 0 |
| 151.99 | Acid Soluble As, Other (ppm) | 0519 | 0.4950 | 0.0300 | 3.338 | 5.813 | 0.3827 | 4 | -0.41 | | 0 |
| 151.99 | Acid Soluble As, Other (ppm) | 0498 | 0.7000 | 0.0000 | 3.338 | 5.813 | 0.3827 | 4 | -0.38 | | 0 |
| 151.99 | Acid Soluble As, Other (ppm) | 0220 | 12.05 | 1.500 | 3.338 | 5.813 | 0.3827 | 4 | 1.27 | | 0 |
| 151.99 | Acid Soluble As, Other (ppm) | 0578 | < 0.01 | | 3.338 | 5.813 | 0.3827 | 4 | | | 5 |
| 151.99 | Acid Soluble As, Other (ppm) | 0481 | < 0.5 | | 3.338 | 5.813 | 0.3827 | 4 | | | 5 |
| 151.99 | Acid Soluble As, Other (ppm) | 0405 | < 1 | | 3.338 | 5.813 | 0.3827 | 4 | | | 5 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0578 | 0.0102 | 0.0001 | 0.0203 | 0.0080 | 0.0004 | 10 | -1.18 | Low | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0055 | 0.0115 | 0.0010 | 0.0203 | 0.0080 | 0.0004 | 10 | -1.02 | Low | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0558 | 0.0165 | 0.0003 | 0.0203 | 0.0080 | 0.0004 | 10 | -0.45 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0028 | 0.0185 | 0.0010 | 0.0203 | 0.0080 | 0.0004 | 10 | -0.21 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0481 | 0.0200 | 0.0000 | 0.0203 | 0.0080 | 0.0004 | 10 | -0.03 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0580 | 0.0200 | 0.0000 | 0.0203 | 0.0080 | 0.0004 | 10 | -0.03 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0535 | 0.0205 | 0.0010 | 0.0203 | 0.0080 | 0.0004 | 10 | 0.02 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0029 | 0.0235 | 0.0010 | 0.0203 | 0.0080 | 0.0004 | 10 | 0.37 | OK | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0498 | 0.0300 | 0.0000 | 0.0203 | 0.0080 | 0.0004 | 10 | 1.13 | High | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0553 | 0.0350 | 0.0000 | 0.0203 | 0.0080 | 0.0004 | 10 | 1.71 | High | 0 |
| 165.00 | Acid Soluble B, Spectrophotometric (%) | 0405 | < 0.05 | | 0.0203 | 0.0080 | 0.0004 | 10 | | | 5 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0397 | 0.0040 | 0.0002 | 0.0106 | 0.0062 | 0.0002 | 7 | -0.96 | Low | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0389 | 0.0063 | 0.0002 | 0.0106 | 0.0062 | 0.0002 | 7 | -0.62 | OK | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0542 | 0.0080 | 0.0000 | 0.0106 | 0.0062 | 0.0002 | 7 | -0.38 | OK | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0234 | 0.0100 | 0.0000 | 0.0106 | 0.0062 | 0.0002 | 7 | -0.09 | OK | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0422 | 0.0104 | 0.0000 | 0.0106 | 0.0062 | 0.0002 | 7 | -0.03 | OK | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0433 | 0.0155 | 0.0010 | 0.0106 | 0.0062 | 0.0002 | 7 | 0.72 | High | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0292 | 0.0200 | 0.0000 | 0.0106 | 0.0062 | 0.0002 | 7 | 1.37 | High | 0 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0548 | 195.7 | 0.0700 | 0.0106 | 0.0062 | 0.0002 | 7 | 28528.86 | High | 2 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0324 | < 0.01 | | 0.0106 | 0.0062 | 0.0002 | 7 | | | 5 |
| 165.30 | Acid Soluble B, ICP, test portion in 982.01 (%) | 0354 | < 0.01 | | 0.0106 | 0.0062 | 0.0002 | 7 | | | 5 |
| 165.99 | Acid Soluble B, Other (%) | 0255 | 0.0010 | 0.0000 | 0.0102 | 0.0044 | 0.0024 | 19 | -2.09 | Low | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0515 | 0.0054 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -1.10 | Low | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0452 | 0.0060 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.96 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0368 | 0.0076 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.60 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0095 | 0.0077 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.57 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 165.99 | Acid Soluble B, Other (%) | 0524 | 0.0078 | 0.0009 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.55 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0423 | 0.0080 | 0.0000 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.49 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0136 | 0.0092 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.23 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0117 | 0.0098 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.10 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0260 | 0.0098 | 0.0009 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.10 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0472 | 0.0100 | 0.0000 | 0.0102 | 0.0044 | 0.0024 | 19 | -0.04 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0527 | 0.0105 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | 0.06 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0551 | 0.0107 | 0.0002 | 0.0102 | 0.0044 | 0.0024 | 19 | 0.12 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0559 | 0.0109 | 0.0001 | 0.0102 | 0.0044 | 0.0024 | 19 | 0.15 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0049 | 0.0110 | 0.0020 | 0.0102 | 0.0044 | 0.0024 | 19 | 0.19 | OK | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0220 | 0.0155 | 0.0010 | 0.0102 | 0.0044 | 0.0024 | 19 | 1.21 | High | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0042 | 0.0190 | 0.0100 | 0.0102 | 0.0044 | 0.0024 | 19 | 2.01 | High | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0519 | 0.0250 | 0.0100 | 0.0102 | 0.0044 | 0.0024 | 19 | 3.38 | High | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0552 | 0.1400 | 0.0200 | 0.0102 | 0.0044 | 0.0024 | 19 | 29.60 | High | 0 |
| 165.99 | Acid Soluble B, Other (%) | 0562 | 0.0625 | 0.0210 | 0.0102 | 0.0044 | 0.0024 | 19 | 11.93 | High | 1 |
| 165.99 | Acid Soluble B, Other (%) | 0547 | < 0.01 | | 0.0102 | 0.0044 | 0.0024 | 19 | | | 5 |
| 171.10 | Water Soluble B, Spectrophotometric (%) | 0538 | 0.0150 | 0.0100 | 0.0203 | 0.0055 | 0.0053 | 3 | -0.97 | | 0 |
| 171.10 | Water Soluble B, Spectrophotometric (%) | 0537 | 0.0200 | 0.0000 | 0.0203 | 0.0055 | 0.0053 | 3 | -0.06 | | 0 |
| 171.10 | Water Soluble B, Spectrophotometric (%) | 0533 | 0.0260 | 0.0060 | 0.0203 | 0.0055 | 0.0053 | 3 | 1.03 | | 0 |
| 181.00 | Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid | 0397 | 0.1836 | 0.0044 | | | | 1 | | | 0 |
| 181.30 | Acid Soluble Cd, ICP (ppm) | 0444 | 0.3150 | 0.0100 | 0.8923 | 0.8745 | 0.9492 | 3 | -0.66 | | 0 |
| 181.30 | Acid Soluble Cd, ICP (ppm) | 0524 | 0.4635 | 0.0485 | 0.8923 | 0.8745 | 0.9492 | 3 | -0.49 | | 0 |
| 181.30 | Acid Soluble Cd, ICP (ppm) | 0255 | 1.899 | 2.789 | 0.8923 | 0.8745 | 0.9492 | 3 | 1.15 | | 0 |
| 181.32 | Acid Soluble Cd, ICP, 2006.03 (ppm) | 0476 | 0.4945 | 0.1090 | | | | 1 | | | 0 |
| 181.33 | Acid Soluble Cd, ICP, 2017.02 (ppm) | 0548 | 0.0650 | 0.0100 | | | | 2 | | | 0 |
| 181.33 | Acid Soluble Cd, ICP, 2017.02 (ppm) | 0563 | 0.1049 | 0.0048 | | | | 2 | | | 0 |
| 181.33 | Acid Soluble Cd, ICP, 2017.02 (ppm) | 0527 | < 0.0001 | | | | | 2 | | | 5 |
| 181.33 | Acid Soluble Cd, ICP, 2017.02 (ppm) | 0117 | < 5 | | | | | 2 | | | 5 |
| 181.34 | Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm) | 0368 | < 0.1 | | | | | 0 | | | 5 |
| 181.34 | Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm) | 0547 | < 0.5 | | | | | 0 | | | 5 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0519 | 0.0850 | 0.0100 | | | | 2 | | | 0 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0535 | 0.7500 | 0.5000 | | | | 2 | | | 0 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0405 | < 0.01 | | | | | 2 | | | 5 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0578 | < 0.05 | | | | | 2 | | | 5 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0481 | < 0.5 | | | | | 2 | | | 5 |
| 181.99 | Acid Soluble Cd, Other (ppm) | 0558 | < 15 | | | | | 2 | | | 5 |
| 190.00 | Water Soluble Cl, Titrimetric (%) | 0553 | 0.2950 | 0.0100 | | | | 1 | | | 0 |
| 191.00 | Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid | 0397 | 2,305 | 40.50 | | | | 1 | | | 0 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0444 | 1,036 | 122.0 | 1,725 | 192.1 | 89.56 | 6 | -3.20 | NA | 0 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0389 | 1,638 | 32.00 | 1,725 | 192.1 | 89.56 | 6 | -0.40 | NA | 0 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0027 | 1,750 | 100.0 | 1,725 | 192.1 | 89.56 | 6 | 0.11 | NA | 0 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0524 | 1,781 | 7.371 | 1,725 | 192.1 | 89.56 | 6 | 0.26 | NA | 0 |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0035 | 1,821 | 265.0 | 1,725 | 192.1 | 89.56 | 6 | 0.44 | NA | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 191.30 | Acid Soluble Cr, ICP (ppm) | 0452 | 1,926 | 11.00 | 1,725 | 192.1 | 89.56 | 6 | 0.93 | NA | 0 |
| 191.32 | Acid Soluble Cr, ICP, 2006.03 (ppm) | 0476 | 1,375 | 170.0 | | | | 2 | | | 0 |
| 191.32 | Acid Soluble Cr, ICP, 2006.03 (ppm) | 0220 | 2,382 | 71.00 | | | | 2 | | | 0 |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 0136 | 2,102 | 110.0 | 2,646 | 440.6 | 137.0 | 5 | -1.24 | | 0 |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 0548 | 2,327 | 3.700 | 2,646 | 440.6 | 137.0 | 5 | -0.72 | | 0 |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 0563 | 2,712 | 7.940 | 2,646 | 440.6 | 137.0 | 5 | 0.15 | | 0 |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 0527 | 2,877 | 42.28 | 2,646 | 440.6 | 137.0 | 5 | 0.52 | | 0 |
| 191.33 | Acid Soluble Cr, ICP, 2017.02 (ppm) | 0515 | 3,213 | 521.1 | 2,646 | 440.6 | 137.0 | 5 | 1.29 | | 0 |
| 191.34 | Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm) | 0547 | 1,750 | 260.0 | 1,996 | 223.2 | 261.7 | 3 | -1.10 | | 0 |
| 191.34 | Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm) | 0515 | 2,054 | 155.1 | 1,996 | 223.2 | 261.7 | 3 | 0.26 | | 0 |
| 191.34 | Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm) | 0368 | 2,185 | 370.0 | 1,996 | 223.2 | 261.7 | 3 | 0.84 | | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0519 | 1,210 | 34.13 | 1,977 | 329.9 | 57.69 | 6 | -2.07 | NA | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0481 | 1,893 | 55.60 | 1,977 | 329.9 | 57.69 | 6 | -0.23 | NA | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0535 | 2,000 | 0.0000 | 1,977 | 329.9 | 57.69 | 6 | 0.06 | NA | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0405 | 2,052 | 10.00 | 1,977 | 329.9 | 57.69 | 6 | 0.20 | NA | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0578 | 2,059 | 202.0 | 1,977 | 329.9 | 57.69 | 6 | 0.22 | NA | 0 |
| 191.99 | Acid Soluble Cr, Other (ppm) | 0042 | 2,375 | 44.40 | 1,977 | 329.9 | 57.69 | 6 | 1.07 | NA | 0 |
| 202.30 | Acid Soluble Co, ICP (ppm) | 0389 | 19.47 | 0.9100 | 36.60 | 14.86 | 3.251 | 5 | -1.15 | | 0 |
| 202.30 | Acid Soluble Co, ICP (ppm) | 0397 | 25.49 | 0.1710 | 36.60 | 14.86 | 3.251 | 5 | -0.75 | | 0 |
| 202.30 | Acid Soluble Co, ICP (ppm) | 0027 | 38.00 | 2.000 | 36.60 | 14.86 | 3.251 | 5 | 0.09 | | 0 |
| 202.30 | Acid Soluble Co, ICP (ppm) | 0035 | 42.85 | 10.10 | 36.60 | 14.86 | 3.251 | 5 | 0.42 | | 0 |
| 202.30 | Acid Soluble Co, ICP (ppm) | 0524 | 57.21 | 3.072 | 36.60 | 14.86 | 3.251 | 5 | 1.39 | | 0 |
| 202.32 | Acid Soluble Co, ICP, 2006.03 (ppm) | 0521 | 15.07 | 0.0000 | 44.68 | 30.17 | 2.084 | 3 | -0.98 | | 0 |
| 202.32 | Acid Soluble Co, ICP, 2006.03 (ppm) | 0476 | 43.60 | 5.832 | 44.68 | 30.17 | 2.084 | 3 | -0.04 | | 0 |
| 202.32 | Acid Soluble Co, ICP, 2006.03 (ppm) | 0423 | 75.38 | 0.4200 | 44.68 | 30.17 | 2.084 | 3 | 1.02 | | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0136 | 36.00 | 0.4000 | 76.01 | 24.23 | 1.744 | 6 | -1.47 | Low | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0548 | 61.44 | 0.0400 | 76.01 | 24.23 | 1.744 | 6 | -0.54 | OK | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0563 | 83.01 | 4.289 | 76.01 | 24.23 | 1.744 | 6 | 0.26 | OK | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0527 | 85.38 | 1.129 | 76.01 | 24.23 | 1.744 | 6 | 0.34 | OK | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0037 | 90.47 | 2.345 | 76.01 | 24.23 | 1.744 | 6 | 0.53 | OK | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0546 | 96.10 | 2.261 | 76.01 | 24.23 | 1.744 | 6 | 0.74 | OK | 0 |
| 202.33 | Acid Soluble Co, ICP, 2017.02 (ppm) | 0515 | 113.3 | 41.95 | 76.01 | 24.23 | 1.744 | 6 | 1.37 | High | 1 |
| 202.34 | Acid Soluble Co, ICP, EPA 3050B/6010C (ppm) | 0368 | 29.50 | 9.000 | 34.58 | 5.314 | 5.705 | 3 | -0.96 | | 0 |
| 202.34 | Acid Soluble Co, ICP, EPA 3050B/6010C (ppm) | 0515 | 34.14 | 3.116 | 34.58 | 5.314 | 5.705 | 3 | -0.08 | | 0 |
| 202.34 | Acid Soluble Co, ICP, EPA 3050B/6010C (ppm) | 0547 | 40.10 | 5.000 | 34.58 | 5.314 | 5.705 | 3 | 1.04 | | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0519 | 8.875 | 0.0500 | 57.65 | 33.61 | 4.186 | 7 | -1.31 | Low | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0578 | 26.15 | 6.070 | 57.65 | 33.61 | 4.186 | 7 | -0.85 | Low | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0481 | 57.75 | 3.300 | 57.65 | 33.61 | 4.186 | 7 | 0.00 | OK | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0220 | 69.50 | 1.000 | 57.65 | 33.61 | 4.186 | 7 | 0.32 | OK | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0255 | 74.38 | 7.480 | 57.65 | 33.61 | 4.186 | 7 | 0.45 | OK | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0405 | 74.90 | 3.400 | 57.65 | 33.61 | 4.186 | 7 | 0.46 | OK | 0 |
| 202.99 | Acid Soluble Co, Other (ppm) | 0535 | 92.00 | 8.000 | 57.65 | 33.61 | 4.186 | 7 | 0.92 | High | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0029 | 0.0054 | 0.0002 | 0.0080 | 0.0031 | 0.0006 | 8 | -0.78 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0040 | 0.0058 | 0.0009 | 0.0080 | 0.0031 | 0.0006 | 8 | -0.68 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0531 | 0.0063 | 0.0005 | 0.0080 | 0.0031 | 0.0006 | 8 | -0.53 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0535 | 0.0063 | 0.0005 | 0.0080 | 0.0031 | 0.0006 | 8 | -0.53 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0485 | 0.0072 | 0.0002 | 0.0080 | 0.0031 | 0.0006 | 8 | -0.25 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0536 | 0.0103 | 0.0015 | 0.0080 | 0.0031 | 0.0006 | 8 | 0.66 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0538 | 0.0105 | 0.0010 | 0.0080 | 0.0031 | 0.0006 | 8 | 0.74 | OK | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0577 | 0.0500 | 0.0000 | 0.0080 | 0.0031 | 0.0006 | 8 | 12.49 | High | 0 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0533 | 0.0650 | 0.0040 | 0.0080 | 0.0031 | 0.0006 | 8 | 16.95 | High | 1 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0553 | < 0.005 | | 0.0080 | 0.0031 | 0.0006 | 8 | | | 5 |
| 221.00 | Acid Soluble Cu, AA, inorganic 965.09 (%) | 0580 | < 0.05 | | 0.0080 | 0.0031 | 0.0006 | 8 | | | 5 |
| 221.02 | Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C (%) | 0498 | 0.0060 | 0.0000 | | | | 1 | | | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0234 | 0.0030 | 0.0000 | 0.0058 | 0.0023 | 0.0003 | 10 | -1.23 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0255 | 0.0040 | 0.0000 | 0.0058 | 0.0023 | 0.0003 | 10 | -0.79 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0035 | 0.0042 | 0.0004 | 0.0058 | 0.0023 | 0.0003 | 10 | -0.70 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0397 | 0.0044 | 0.0001 | 0.0058 | 0.0023 | 0.0003 | 10 | -0.63 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0377 | 0.0055 | 0.0010 | 0.0058 | 0.0023 | 0.0003 | 10 | -0.12 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0452 | 0.0056 | 0.0002 | 0.0058 | 0.0023 | 0.0003 | 10 | -0.08 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0049 | 0.0066 | 0.0003 | 0.0058 | 0.0023 | 0.0003 | 10 | 0.34 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0422 | 0.0071 | 0.0002 | 0.0058 | 0.0023 | 0.0003 | 10 | 0.59 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0451 | 0.0083 | 0.0006 | 0.0058 | 0.0023 | 0.0003 | 10 | 1.12 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0354 | 0.0100 | 0.0000 | 0.0058 | 0.0023 | 0.0003 | 10 | 1.87 | OK | 0 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0552 | 0.2100 | 0.0200 | 0.0058 | 0.0023 | 0.0003 | 10 | 90.45 | High | 2 |
| 221.30 | Acid Soluble Cu, ICP, test portion inorganic 965.09 (%) | 0324 | < 0.01 | | 0.0058 | 0.0023 | 0.0003 | 10 | | | 5 |
| 221.32 | Acid Soluble Cu, ICP, test portion 2006.03A-C (%) | 0220 | 0.0054 | 0.0003 | 19.44 | 33.66 | 0.2202 | 3 | -0.58 | | 0 |
| 221.32 | Acid Soluble Cu, ICP, test portion 2006.03A-C (%) | 0095 | 0.0055 | 0.0003 | 19.44 | 33.66 | 0.2202 | 3 | -0.58 | | 0 |
| 221.32 | Acid Soluble Cu, ICP, test portion 2006.03A-C (%) | 0423 | 58.31 | 0.6600 | 19.44 | 33.66 | 0.2202 | 3 | 1.15 | | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0043 | 0.0045 | 0.0010 | 0.0058 | 0.0010 | 0.0004 | 9 | -1.24 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0177 | 0.0050 | 0.0001 | 0.0058 | 0.0010 | 0.0004 | 9 | -0.80 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0542 | 0.0050 | 0.0000 | 0.0058 | 0.0010 | 0.0004 | 9 | -0.75 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0527 | 0.0059 | 0.0001 | 0.0058 | 0.0010 | 0.0004 | 9 | 0.07 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0515 | 0.0060 | 0.0009 | 0.0058 | 0.0010 | 0.0004 | 9 | 0.17 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0546 | 0.0060 | 0.0002 | 0.0058 | 0.0010 | 0.0004 | 9 | 0.22 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0117 | 0.0061 | 0.0001 | 0.0058 | 0.0010 | 0.0004 | 9 | 0.26 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0037 | 0.0065 | 0.0010 | 0.0058 | 0.0010 | 0.0004 | 9 | 0.70 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0136 | 0.0072 | 0.0002 | 0.0058 | 0.0010 | 0.0004 | 9 | 1.38 | OK | 0 |
| 221.33 | Acid Soluble Cu, ICP, 2017.02 (%) | 0548 | 516.5 | 0.0500 | 0.0058 | 0.0010 | 0.0004 | 9 | 501358.51 | High | 2 |
| 221.99 | Acid Soluble Cu, Other (%) | 0578 | 0.0016 | 0.0000 | 0.0079 | 0.0061 | 0.0021 | 16 | -1.02 | Low | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0476 | 0.0030 | 0.0000 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.79 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0027 | 0.0040 | 0.0000 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.63 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0515 | 0.0045 | 0.0003 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.56 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0368 | 0.0046 | 0.0007 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.54 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0558 | 0.0048 | 0.0002 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.50 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0481 | 0.0050 | 0.0000 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.47 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 221.99 | Acid Soluble Cu, Other (%) | 0524 | 0.0051 | 0.0003 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.46 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0405 | 0.0060 | 0.0003 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.31 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0547 | 0.0060 | 0.0000 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.30 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0551 | 0.0076 | 0.0002 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.04 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0559 | 0.0076 | 0.0002 | 0.0079 | 0.0061 | 0.0021 | 16 | -0.04 | OK | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0537 | 0.0150 | 0.0100 | 0.0079 | 0.0061 | 0.0021 | 16 | 1.17 | High | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0389 | 0.0406 | 0.0013 | 0.0079 | 0.0061 | 0.0021 | 16 | 5.35 | High | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0042 | 0.0460 | 0.0100 | 0.0079 | 0.0061 | 0.0021 | 16 | 6.24 | High | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0519 | 0.0550 | 0.0100 | 0.0079 | 0.0061 | 0.0021 | 16 | 7.71 | High | 0 |
| 221.99 | Acid Soluble Cu, Other (%) | 0562 | 0.2100 | 0.0400 | 0.0079 | 0.0061 | 0.0021 | 16 | 33.07 | High | 1 |
| 221.99 | Acid Soluble Cu, Other (%) | 0587 | < 0.02 | | 0.0079 | 0.0061 | 0.0021 | 16 | | | 5 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0534 | 2.750 | 0.1000 | 3.817 | 0.5307 | 0.1284 | 13 | -2.01 | Low | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0536 | 3.110 | 0.0400 | 3.817 | 0.5307 | 0.1284 | 13 | -1.33 | Low | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0538 | 3.230 | 0.0400 | 3.817 | 0.5307 | 0.1284 | 13 | -1.11 | Low | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0553 | 3.745 | 0.0100 | 3.817 | 0.5307 | 0.1284 | 13 | -0.14 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0533 | 3.815 | 0.1900 | 3.817 | 0.5307 | 0.1284 | 13 | 0.00 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0580 | 3.865 | 0.0100 | 3.817 | 0.5307 | 0.1284 | 13 | 0.09 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0485 | 3.905 | 0.2500 | 3.817 | 0.5307 | 0.1284 | 13 | 0.17 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0029 | 3.906 | 0.0590 | 3.817 | 0.5307 | 0.1284 | 13 | 0.17 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0531 | 3.950 | 0.1000 | 3.817 | 0.5307 | 0.1284 | 13 | 0.25 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0535 | 3.950 | 0.1000 | 3.817 | 0.5307 | 0.1284 | 13 | 0.25 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0040 | 4.060 | 0.3800 | 3.817 | 0.5307 | 0.1284 | 13 | 0.46 | OK | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0513 | 4.450 | 0.0400 | 3.817 | 0.5307 | 0.1284 | 13 | 1.19 | High | 0 |
| 241.00 | Acid Soluble Fe, AA, inorganic 965.09 (%) | 0577 | 4.875 | 0.3500 | 3.817 | 0.5307 | 0.1284 | 13 | 1.99 | High | 0 |
| 241.02 | Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C (%) | 0292 | 3.370 | 0.0000 | | | | 2 | | | 0 |
| 241.02 | Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C (%) | 0498 | 4.850 | 0.1000 | | | | 2 | | | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0035 | 3.285 | 0.5500 | 3.940 | 0.3687 | 0.1571 | 17 | -1.78 | Low | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0255 | 3.547 | 0.2070 | 3.940 | 0.3687 | 0.1571 | 17 | -1.07 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0102 | 3.565 | 0.0300 | 3.940 | 0.3687 | 0.1571 | 17 | -1.02 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0234 | 3.575 | 0.0700 | 3.940 | 0.3687 | 0.1571 | 17 | -0.99 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0397 | 3.666 | 0.0392 | 3.940 | 0.3687 | 0.1571 | 17 | -0.74 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0444 | 3.840 | 0.0400 | 3.940 | 0.3687 | 0.1571 | 17 | -0.27 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0451 | 3.904 | 0.1930 | 3.940 | 0.3687 | 0.1571 | 17 | -0.10 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0231 | 3.915 | 0.0500 | 3.940 | 0.3687 | 0.1571 | 17 | -0.07 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0433 | 3.930 | 0.1200 | 3.940 | 0.3687 | 0.1571 | 17 | -0.03 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0324 | 3.950 | 0.1000 | 3.940 | 0.3687 | 0.1571 | 17 | 0.03 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0552 | 3.970 | 0.0600 | 3.940 | 0.3687 | 0.1571 | 17 | 0.08 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0360 | 4.105 | 0.2300 | 3.940 | 0.3687 | 0.1571 | 17 | 0.45 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0377 | 4.105 | 0.4700 | 3.940 | 0.3687 | 0.1571 | 17 | 0.45 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0354 | 4.220 | 0.0000 | 3.940 | 0.3687 | 0.1571 | 17 | 0.76 | OK | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0049 | 4.402 | 0.0238 | 3.940 | 0.3687 | 0.1571 | 17 | 1.25 | High | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0452 | 4.405 | 0.1500 | 3.940 | 0.3687 | 0.1571 | 17 | 1.26 | High | 0 |
| 241.30 | Acid Soluble Fe, ICP, test portion inorganic 965.09 (%) | 0422 | 4.621 | 0.3380 | 3.940 | 0.3687 | 0.1571 | 17 | 1.85 | High | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0423 | 3.946 | 0.0690 | 4.376 | 0.3329 | 0.1078 | 5 | -1.13 | | 0 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0220 | 4.125 | 0.0500 | 4.376 | 0.3329 | 0.1078 | 5 | -0.66 | | 0 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0028 | 4.480 | 0.1400 | 4.376 | 0.3329 | 0.1078 | 5 | 0.27 | | 0 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0095 | 4.570 | 0.2800 | 4.376 | 0.3329 | 0.1078 | 5 | 0.51 | | 0 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0521 | 4.759 | 0.0000 | 4.376 | 0.3329 | 0.1078 | 5 | 1.00 | | 0 |
| 241.32 | Acid Soluble Fe, ICP, test portion 2006.03A-C (%) | 0548 | 35,052 | 0.1100 | 4.376 | 0.3329 | 0.1078 | 5 | 91891.50 | | 2 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0472 | 3.340 | 0.0000 | 3.898 | 0.3826 | 0.0666 | 11 | -1.37 | Low | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0043 | 3.550 | 0.0400 | 3.898 | 0.3826 | 0.0666 | 11 | -0.85 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0542 | 3.570 | 0.0000 | 3.898 | 0.3826 | 0.0666 | 11 | -0.80 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0563 | 3.576 | 0.0273 | 3.898 | 0.3826 | 0.0666 | 11 | -0.79 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0515 | 3.931 | 0.0981 | 3.898 | 0.3826 | 0.0666 | 11 | 0.08 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0136 | 3.995 | 0.1300 | 3.898 | 0.3826 | 0.0666 | 11 | 0.24 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0037 | 4.013 | 0.1170 | 3.898 | 0.3826 | 0.0666 | 11 | 0.28 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0117 | 4.119 | 0.0235 | 3.898 | 0.3826 | 0.0666 | 11 | 0.54 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0260 | 4.160 | 0.1200 | 3.898 | 0.3826 | 0.0666 | 11 | 0.64 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0177 | 4.248 | 0.1666 | 3.898 | 0.3826 | 0.0666 | 11 | 0.86 | OK | 0 |
| 241.33 | Acid Soluble Fe, ICP, 2017.02 (%) | 0527 | 4.379 | 0.0105 | 3.898 | 0.3826 | 0.0666 | 11 | 1.18 | High | 0 |
| 241.70 | Acid Soluble Fe, Titrimetric (%) | 0220 | 4.895 | 0.1300 | | | | 1 | | | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0578 | 0.6388 | 0.0570 | 3.524 | 0.8055 | 0.0961 | 17 | -3.58 | Low | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0476 | 2.252 | 0.0600 | 3.524 | 0.8055 | 0.0961 | 17 | -1.58 | Low | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0481 | 2.280 | 0.0600 | 3.524 | 0.8055 | 0.0961 | 17 | -1.54 | Low | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0519 | 2.610 | 0.2600 | 3.524 | 0.8055 | 0.0961 | 17 | -1.13 | Low | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0515 | 3.312 | 0.1831 | 3.524 | 0.8055 | 0.0961 | 17 | -0.26 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0562 | 3.550 | 0.1000 | 3.524 | 0.8055 | 0.0961 | 17 | 0.03 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0524 | 3.552 | 0.0705 | 3.524 | 0.8055 | 0.0961 | 17 | 0.04 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0551 | 3.703 | 0.0020 | 3.524 | 0.8055 | 0.0961 | 17 | 0.22 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0559 | 3.704 | 0.0010 | 3.524 | 0.8055 | 0.0961 | 17 | 0.22 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0405 | 3.725 | 0.0900 | 3.524 | 0.8055 | 0.0961 | 17 | 0.25 | OK | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0042 | 3.895 | 0.2500 | 3.524 | 0.8055 | 0.0961 | 17 | 0.46 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0537 | 3.975 | 0.0500 | 3.524 | 0.8055 | 0.0961 | 17 | 0.56 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0558 | 3.978 | 0.1678 | 3.524 | 0.8055 | 0.0961 | 17 | 0.56 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0389 | 4.053 | 0.0860 | 3.524 | 0.8055 | 0.0961 | 17 | 0.66 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0547 | 4.125 | 0.1500 | 3.524 | 0.8055 | 0.0961 | 17 | 0.75 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0587 | 4.275 | 0.0300 | 3.524 | 0.8055 | 0.0961 | 17 | 0.93 | High | 0 |
| 241.99 | Acid Soluble Fe, Other (%) | 0368 | 4.500 | 0.0165 | 3.524 | 0.8055 | 0.0961 | 17 | 1.21 | High | 0 |
| 251.00 | Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid | 0498 | 1.250 | 0.1000 | | | | 2 | | | 0 |
| 251.00 | Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid | 0397 | 3.502 | 0.0832 | | | | 2 | | | 0 |
| 251.30 | Acid Soluble Pb, ICP (ppm) | 0524 | 1.528 | 0.3319 | | | | 2 | | | 0 |
| 251.30 | Acid Soluble Pb, ICP (ppm) | 0027 | 58.50 | 3.000 | | | | 2 | | | 0 |
| 251.30 | Acid Soluble Pb, ICP (ppm) | 0255 | 0.0000 | 0.0000 | | | | 2 | | | 4 |
| 251.32 | Acid Soluble Pb, ICP, 2006.03 (ppm) | 0476 | 1.182 | 0.0160 | | | | 1 | | | 0 |
| 251.33 | Acid Soluble Pb, ICP, 2017.02 (ppm) | 0548 | 1.255 | 0.0300 | | | | 2 | | | 0 |
| 251.33 | Acid Soluble Pb, ICP, 2017.02 (ppm) | 0527 | 2.090 | 0.0172 | | | | 2 | | | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 251.33 | Acid Soluble Pb, ICP, 2017.02 (ppm) | 0136 | < 3 | | | | | 2 | | | 5 |
| 251.33 | Acid Soluble Pb, ICP, 2017.02 (ppm) | 0117 | < 5 | | | | | 2 | | | 5 |
| 251.34 | Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm) | 0368 | < 0.5 | | | | | 0 | | | 5 |
| 251.34 | Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm) | 0547 | < 5 | | | | | 0 | | | 5 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0481 | 0.6000 | 0.1000 | 12.64 | 16.95 | 1.694 | 7 | -0.64 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0519 | 1.270 | 0.0400 | 12.64 | 16.95 | 1.694 | 7 | -0.61 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0405 | 1.900 | 0.4000 | 12.64 | 16.95 | 1.694 | 7 | -0.57 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0578 | 4.985 | 0.3060 | 12.64 | 16.95 | 1.694 | 7 | -0.41 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0220 | 12.50 | 5.000 | 12.64 | 16.95 | 1.694 | 7 | -0.01 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0535 | 31.00 | 6.000 | 12.64 | 16.95 | 1.694 | 7 | 0.98 | NA | 0 |
| 251.99 | Acid Soluble Pb, Other (ppm) | 0558 | 36.21 | 0.0135 | 12.64 | 16.95 | 1.694 | 7 | 1.26 | NA | 0 |
| 261.00 | Acid Soluble Mn, AA, Mn2+ only (%) | 0553 | 1.050 | 0.0200 | | | | 1 | | | 0 |
| 261.11 | Acid Soluble Mn, AA, total Mn (%) | 0577 | 0.8500 | 0.0600 | | | | 1 | | | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0536 | 0.4610 | 0.0020 | 0.6860 | 0.1428 | 0.0340 | 10 | -1.47 | Low | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0538 | 0.4690 | 0.0020 | 0.6860 | 0.1428 | 0.0340 | 10 | -1.41 | Low | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0534 | 0.6000 | 0.0000 | 0.6860 | 0.1428 | 0.0340 | 10 | -0.56 | Low | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0485 | 0.7295 | 0.1370 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.28 | OK | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0580 | 0.7300 | 0.0200 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.29 | OK | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0531 | 0.7450 | 0.0100 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.38 | OK | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0535 | 0.7450 | 0.0100 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.38 | OK | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0533 | 0.7700 | 0.1200 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.55 | High | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0029 | 0.7830 | 0.0140 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.63 | High | 0 |
| 261.12 | Acid Soluble Mn, AA, inorganic 965.09 (%) | 0040 | 0.8135 | 0.0250 | 0.6860 | 0.1428 | 0.0340 | 10 | 0.83 | High | 0 |
| 261.14 | Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (%) | 0292 | 0.9250 | 0.0300 | | | | 1 | | | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0234 | 0.6250 | 0.0100 | 0.7546 | 0.1027 | 0.0188 | 7 | -1.14 | Low | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0035 | 0.6715 | 0.0070 | 0.7546 | 0.1027 | 0.0188 | 7 | -0.73 | Low | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0444 | 0.7300 | 0.0200 | 0.7546 | 0.1027 | 0.0188 | 7 | -0.22 | OK | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0433 | 0.7515 | 0.0430 | 0.7546 | 0.1027 | 0.0188 | 7 | -0.03 | OK | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0354 | 0.7950 | 0.0100 | 0.7546 | 0.1027 | 0.0188 | 7 | 0.36 | OK | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0422 | 0.8143 | 0.0117 | 0.7546 | 0.1027 | 0.0188 | 7 | 0.53 | OK | 0 |
| 261.30 | Acid Soluble Mn, ICP, test portion 972.02a (%) | 0452 | 0.8950 | 0.0300 | 0.7546 | 0.1027 | 0.0188 | 7 | 1.24 | High | 0 |
| 261.31 | Acid Soluble Mn, ICP, test portion 972.02b (%) | 0324 | 0.7515 | 0.0570 | | | | 2 | | | 0 |
| 261.31 | Acid Soluble Mn, ICP, test portion 972.02b (%) | 0360 | 0.7550 | 0.0100 | | | | 2 | | | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0397 | 0.6928 | 0.0033 | 0.7778 | 0.0863 | 0.0177 | 6 | -0.88 | Low | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0231 | 0.7100 | 0.0200 | 0.7778 | 0.0863 | 0.0177 | 6 | -0.70 | OK | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0377 | 0.7600 | 0.0200 | 0.7778 | 0.0863 | 0.0177 | 6 | -0.18 | OK | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0451 | 0.7757 | 0.0292 | 0.7778 | 0.0863 | 0.0177 | 6 | -0.02 | OK | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0049 | 0.8331 | 0.0239 | 0.7778 | 0.0863 | 0.0177 | 6 | 0.57 | OK | 0 |
| 261.32 | Acid Soluble Mn, ICP, test portion inorganic 965.09 (%) | 0552 | 0.8950 | 0.0100 | 0.7778 | 0.0863 | 0.0177 | 6 | 1.21 | High | 0 |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 0220 | 0.7950 | 0.0300 | 1,315 | 2,938 | 0.4904 | 5 | -0.45 | | 0 |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 0095 | 0.8150 | 0.0500 | 1,315 | 2,938 | 0.4904 | 5 | -0.45 | | 0 |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 0028 | 0.8415 | 0.0210 | 1,315 | 2,938 | 0.4904 | 5 | -0.45 | | 0 |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 0423 | 0.8545 | 0.0010 | 1,315 | 2,938 | 0.4904 | 5 | -0.45 | | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 261.34 | Acid Soluble Mn, ICP, test portion 2006.03A-C (%) | 0548 | 6,571 | 2.350 | 1,315 | 2,938 | 0.4904 | 5 | 1.79 | | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0043 | 0.7000 | 0.0200 | 0.7671 | 0.0519 | 0.0223 | 12 | -1.29 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0472 | 0.7050 | 0.0100 | 0.7671 | 0.0519 | 0.0223 | 12 | -1.20 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0542 | 0.7300 | 0.0000 | 0.7671 | 0.0519 | 0.0223 | 12 | -0.71 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0515 | 0.7357 | 0.0356 | 0.7671 | 0.0519 | 0.0223 | 12 | -0.60 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0546 | 0.7593 | 0.0013 | 0.7671 | 0.0519 | 0.0223 | 12 | -0.15 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0136 | 0.7600 | 0.0000 | 0.7671 | 0.0519 | 0.0223 | 12 | -0.14 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0037 | 0.7660 | 0.0200 | 0.7671 | 0.0519 | 0.0223 | 12 | -0.02 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0177 | 0.7721 | 0.0557 | 0.7671 | 0.0519 | 0.0223 | 12 | 0.10 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0117 | 0.7975 | 0.0080 | 0.7671 | 0.0519 | 0.0223 | 12 | 0.59 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0563 | 0.8079 | 0.0664 | 0.7671 | 0.0519 | 0.0223 | 12 | 0.79 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0260 | 0.8265 | 0.0410 | 0.7671 | 0.0519 | 0.0223 | 12 | 1.15 | OK | 0 |
| 261.35 | Acid Soluble Mn, ICP, 2017.02 (%) | 0527 | 0.8603 | 0.0096 | 0.7671 | 0.0519 | 0.0223 | 12 | 1.80 | High | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0578 | 0.1595 | 0.0083 | 0.6830 | 0.1201 | 0.0275 | 18 | -4.36 | Low | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0481 | 0.4950 | 0.0100 | 0.6830 | 0.1201 | 0.0275 | 18 | -1.57 | Low | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0476 | 0.5045 | 0.0070 | 0.6830 | 0.1201 | 0.0275 | 18 | -1.49 | Low | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0368 | 0.5936 | 0.0563 | 0.6830 | 0.1201 | 0.0275 | 18 | -0.75 | Low | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0551 | 0.6020 | 0.0002 | 0.6830 | 0.1201 | 0.0275 | 18 | -0.67 | Low | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0515 | 0.6446 | 0.0390 | 0.6830 | 0.1201 | 0.0275 | 18 | -0.32 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0027 | 0.6790 | 0.0360 | 0.6830 | 0.1201 | 0.0275 | 18 | -0.03 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0562 | 0.6900 | 0.0600 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.06 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0524 | 0.6996 | 0.0450 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.14 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0519 | 0.7000 | 0.0400 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.14 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0558 | 0.7100 | 0.0553 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.22 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0255 | 0.7235 | 0.0450 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.34 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0537 | 0.7500 | 0.0200 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.56 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0405 | 0.7525 | 0.0110 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.58 | OK | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0389 | 0.7907 | 0.0041 | 0.6830 | 0.1201 | 0.0275 | 18 | 0.90 | High | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0587 | 0.8050 | 0.0100 | 0.6830 | 0.1201 | 0.0275 | 18 | 1.02 | High | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0547 | 0.8060 | 0.0460 | 0.6830 | 0.1201 | 0.0275 | 18 | 1.02 | High | 0 |
| 261.99 | Acid Soluble Mn, Other (%) | 0042 | 0.8375 | 0.0010 | 0.6830 | 0.1201 | 0.0275 | 18 | 1.29 | High | 0 |
| 281.00 | Acid Soluble Hg, AA (ppm) | 0117 | < 0.2 | | | | | 0 | | | 5 |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 0548 | 0.0850 | 0.0100 | | | | 2 | | | 0 |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 0563 | 0.1239 | 0.0004 | | | | 2 | | | 0 |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 0515 | 0.0000 | 0.0000 | | | | 2 | | | 4 |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 0527 | < 0.001 | | | | | 2 | | | 5 |
| 281.30 | Acid Soluble Hg, ICP (ppm) | 0476 | < 0.1 | | | | | 2 | | | 5 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0368 | 0.0018 | 0.0000 | 1.707 | 3.421 | 0.1067 | 5 | -0.44 | | 0 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0035 | 0.0030 | 0.0020 | 1.707 | 3.421 | 0.1067 | 5 | -0.43 | | 0 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0524 | 0.0036 | 0.0003 | 1.707 | 3.421 | 0.1067 | 5 | -0.43 | | 0 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0519 | 0.7250 | 0.0500 | 1.707 | 3.421 | 0.1067 | 5 | -0.25 | | 0 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0578 | 7.802 | 0.4810 | 1.707 | 3.421 | 0.1067 | 5 | 1.55 | | 0 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0405 | < 0.01 | | 1.707 | 3.421 | 0.1067 | 5 | | | 5 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0547 | < 0.05 | | 1.707 | 3.421 | 0.1067 | 5 | | | 5 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0558 | < 0.1 | | 1.707 | 3.421 | 0.1067 | 5 | | | 5 |
| 281.99 | Acid Soluble Hg, Other (ppm) | 0481 | < 0.5 | | 1.707 | 3.421 | 0.1067 | 5 | | | 5 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0324 | 0.0075 | 0.0002 | 70.84 | 18.66 | 1.704 | 9 | -3.50 | Low | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0397 | 54.75 | 1.032 | 70.84 | 18.66 | 1.704 | 9 | -0.80 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0234 | 63.50 | 1.000 | 70.84 | 18.66 | 1.704 | 9 | -0.36 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0377 | 65.40 | 3.600 | 70.84 | 18.66 | 1.704 | 9 | -0.27 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0524 | 72.28 | 0.8979 | 70.84 | 18.66 | 1.704 | 9 | 0.07 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0433 | 77.50 | 5.000 | 70.84 | 18.66 | 1.704 | 9 | 0.33 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0452 | 80.47 | 1.630 | 70.84 | 18.66 | 1.704 | 9 | 0.48 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0255 | 81.97 | 0.1800 | 70.84 | 18.66 | 1.704 | 9 | 0.55 | OK | 0 |
| 289.30 | Acid Soluble Mo, ICP (30ppm) | 0049 | 118.0 | 2.000 | 70.84 | 18.66 | 1.704 | 9 | 2.33 | High | 0 |
| 289.32 | Acid Soluble Mo, ICP, 2006.03 (30ppm) | 0476 | 47.55 | 7.464 | 73.33 | 27.93 | 3.821 | 3 | -0.92 | | 0 |
| 289.32 | Acid Soluble Mo, ICP, 2006.03 (30ppm) | 0521 | 69.44 | 0.0000 | 73.33 | 27.93 | 3.821 | 3 | -0.14 | | 0 |
| 289.32 | Acid Soluble Mo, ICP, 2006.03 (30ppm) | 0220 | 103.0 | 4.000 | 73.33 | 27.93 | 3.821 | 3 | 1.06 | | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0548 | 35.49 | 0.0600 | 88.00 | 17.12 | 1.960 | 9 | -2.83 | Low | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0563 | 67.25 | 3.344 | 88.00 | 17.12 | 1.960 | 9 | -1.12 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0423 | 78.18 | 1.860 | 88.00 | 17.12 | 1.960 | 9 | -0.53 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0542 | 90.50 | 1.000 | 88.00 | 17.12 | 1.960 | 9 | 0.13 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0136 | 93.05 | 0.1000 | 88.00 | 17.12 | 1.960 | 9 | 0.27 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0515 | 97.63 | 1.830 | 88.00 | 17.12 | 1.960 | 9 | 0.52 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0037 | 99.59 | 0.1340 | 88.00 | 17.12 | 1.960 | 9 | 0.62 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0546 | 101.2 | 5.362 | 88.00 | 17.12 | 1.960 | 9 | 0.71 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0527 | 102.3 | 3.947 | 88.00 | 17.12 | 1.960 | 9 | 0.77 | OK | 0 |
| 289.33 | Acid Soluble Mo, ICP, 2017.02 (30ppm) | 0117 | 92.12 | 16.24 | 88.00 | 17.12 | 1.960 | 9 | 0.22 | OK | 1 |
| 289.34 | Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm) | 0515 | 70.93 | 5.981 | 77.28 | 6.948 | 3.968 | 4 | -0.91 | | 0 |
| 289.34 | Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm) | 0368 | 74.25 | 7.500 | 77.28 | 6.948 | 3.968 | 4 | -0.44 | | 0 |
| 289.34 | Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm) | 0547 | 76.90 | 1.400 | 77.28 | 6.948 | 3.968 | 4 | -0.05 | | 0 |
| 289.34 | Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm) | 0291 | 87.04 | 0.9900 | 77.28 | 6.948 | 3.968 | 4 | 1.40 | | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0519 | 37.10 | 0.1900 | 77.90 | 46.96 | 2.375 | 6 | -0.77 | Low | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0578 | 44.77 | 3.240 | 77.90 | 46.96 | 2.375 | 6 | -0.63 | Low | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0042 | 54.23 | 2.820 | 77.90 | 46.96 | 2.375 | 6 | -0.45 | OK | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0220 | 79.50 | 1.000 | 77.90 | 46.96 | 2.375 | 6 | 0.03 | OK | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0405 | 108.0 | 4.000 | 77.90 | 46.96 | 2.375 | 6 | 0.57 | High | 0 |
| 289.99 | Acid Soluble Mo, Other (30ppm) | 0481 | 143.8 | 3.000 | 77.90 | 46.96 | 2.375 | 6 | 1.25 | High | 0 |
| 291.00 | Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid | 0397 | 408.5 | 15.96 | | | | 1 | | | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0444 | 161.0 | 28.00 | 274.4 | 81.32 | 10.82 | 6 | -1.24 | NA | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0035 | 214.0 | 10.00 | 274.4 | 81.32 | 10.82 | 6 | -0.66 | NA | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0389 | 288.8 | 14.30 | 274.4 | 81.32 | 10.82 | 6 | 0.16 | NA | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0524 | 315.9 | 7.708 | 274.4 | 81.32 | 10.82 | 6 | 0.46 | NA | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0027 | 320.0 | 0.0000 | 274.4 | 81.32 | 10.82 | 6 | 0.50 | NA | 0 |
| 291.30 | Acid Soluble Ni, ICP (ppm) | 0452 | 346.5 | 4.900 | 274.4 | 81.32 | 10.82 | 6 | 0.79 | NA | 0 |
| 291.32 | Acid Soluble Ni, ICP, 2006.03 (ppm) | 0476 | 171.2 | 28.65 | | | | 1 | | | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0548 | 244.9 | 0.0700 | 381.8 | 70.16 | 7.843 | 7 | -1.76 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0563 | 343.4 | 19.15 | 381.8 | 70.16 | 7.843 | 7 | -0.50 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0136 | 347.5 | 7.000 | 381.8 | 70.16 | 7.843 | 7 | -0.44 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0515 | 407.5 | 0.0710 | 381.8 | 70.16 | 7.843 | 7 | 0.33 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0037 | 409.9 | 12.94 | 381.8 | 70.16 | 7.843 | 7 | 0.36 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0117 | 437.2 | 7.548 | 381.8 | 70.16 | 7.843 | 7 | 0.71 | NA | 0 |
| 291.33 | Acid Soluble Ni, ICP, 2017.02 (ppm) | 0527 | 450.5 | 8.120 | 381.8 | 70.16 | 7.843 | 7 | 0.89 | NA | 0 |
| 291.34 | Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm) | 0515 | 284.7 | 1.458 | 318.4 | 32.26 | 22.15 | 3 | -1.04 | | 0 |
| 291.34 | Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm) | 0547 | 321.5 | 35.00 | 318.4 | 32.26 | 22.15 | 3 | 0.10 | | 0 |
| 291.34 | Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm) | 0368 | 349.0 | 30.00 | 318.4 | 32.26 | 22.15 | 3 | 0.95 | | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0558 | 85.85 | 0.2820 | 264.4 | 134.1 | 8.538 | 9 | -1.23 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0578 | 92.93 | 3.000 | 264.4 | 134.1 | 8.538 | 9 | -1.18 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0519 | 168.7 | 10.56 | 264.4 | 134.1 | 8.538 | 9 | -0.66 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0481 | 290.2 | 3.300 | 264.4 | 134.1 | 8.538 | 9 | 0.18 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0535 | 305.0 | 10.00 | 264.4 | 134.1 | 8.538 | 9 | 0.28 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0220 | 316.5 | 13.00 | 264.4 | 134.1 | 8.538 | 9 | 0.36 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0405 | 359.0 | 14.00 | 264.4 | 134.1 | 8.538 | 9 | 0.65 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0255 | 365.1 | 7.800 | 264.4 | 134.1 | 8.538 | 9 | 0.69 | NA | 0 |
| 291.99 | Acid Soluble Ni, Other (ppm) | 0042 | 396.0 | 14.90 | 264.4 | 134.1 | 8.538 | 9 | 0.91 | NA | 0 |
| 301.30 | Acid Soluble Se, ICP (ppm) | 0524 | 5.817 | 0.6356 | | | | 1 | | | 0 |
| 301.30 | Acid Soluble Se, ICP (ppm) | 0547 | < 10 | | | | | 1 | | | 5 |
| 301.32 | Acid Soluble Se, ICP, 2006.03 (ppm) | 0476 | 7.279 | 0.2780 | | | | 1 | | | 0 |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 0043 | 4.190 | 0.9800 | 7.950 | 4.471 | 1.343 | 4 | -0.84 | | 0 |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 0548 | 4.460 | 0.0200 | 7.950 | 4.471 | 1.343 | 4 | -0.78 | | 0 |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 0563 | 9.654 | 0.2645 | 7.950 | 4.471 | 1.343 | 4 | 0.38 | | 0 |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 0037 | 13.50 | 4.107 | 7.950 | 4.471 | 1.343 | 4 | 1.24 | | 0 |
| 301.33 | Acid Soluble Se, ICP, 2017.02 (ppm) | 0527 | < 0.01 | | 7.950 | 4.471 | 1.343 | 4 | | | 5 |
| 301.34 | Acid Soluble Se, ICP, EPA 3050B/6010C (ppm) | 0515 | 1.078 | 0.5652 | | | | 2 | | | 0 |
| 301.34 | Acid Soluble Se, ICP, EPA 3050B/6010C (ppm) | 0368 | 6.050 | 2.900 | | | | 2 | | | 0 |
| 301.99 | Acid Soluble Se, Other (ppm) | 0519 | 0.0100 | 0.0000 | 3.343 | 2.913 | 0.1290 | 4 | -1.14 | | 0 |
| 301.99 | Acid Soluble Se, Other (ppm) | 0578 | 1.800 | 0.0960 | 3.343 | 2.913 | 0.1290 | 4 | -0.53 | | 0 |
| 301.99 | Acid Soluble Se, Other (ppm) | 0481 | 5.560 | 0.4200 | 3.343 | 2.913 | 0.1290 | 4 | 0.76 | | 0 |
| 301.99 | Acid Soluble Se, Other (ppm) | 0405 | 6.000 | 0.0000 | 3.343 | 2.913 | 0.1290 | 4 | 0.91 | | 0 |
| 301.99 | Acid Soluble Se, Other (ppm) | 0255 | 0.0000 | 0.0000 | 3.343 | 2.913 | 0.1290 | 4 | | | 4 |
| 311.00 | Sodium, AA (%) | 0553 | 0.2405 | 0.0190 | | | | 1 | | | 0 |
| 311.33 | Sodium, ICP, test portion as in 2017.02 (%) | 0260 | 0.8425 | 0.0050 | 0.8748 | 0.0322 | 0.0151 | 4 | -1.00 | | 0 |
| 311.33 | Sodium, ICP, test portion as in 2017.02 (%) | 0423 | 0.8586 | 0.0051 | 0.8748 | 0.0322 | 0.0151 | 4 | -0.50 | | 0 |
| 311.33 | Sodium, ICP, test portion as in 2017.02 (%) | 0563 | 0.8813 | 0.0434 | 0.8748 | 0.0322 | 0.0151 | 4 | 0.20 | | 0 |
| 311.33 | Sodium, ICP, test portion as in 2017.02 (%) | 0527 | 0.9167 | 0.0070 | 0.8748 | 0.0322 | 0.0151 | 4 | 1.30 | | 0 |
| 311.99 | Sodium, Other (%) | 0354 | 0.8200 | 0.0000 | | | | 1 | | | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0029 | 0.0036 | 0.0003 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.77 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0485 | 0.0040 | 0.0001 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.65 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0040 | 0.0040 | 0.0000 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.64 | OK | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|--|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0553 | 0.0040 | 0.0000 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.64 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0531 | 0.0053 | 0.0004 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.27 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0533 | 0.0053 | 0.0004 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.27 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0535 | 0.0055 | 0.0010 | 0.0062 | 0.0033 | 0.0004 | 10 | -0.21 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0577 | 0.0095 | 0.0010 | 0.0062 | 0.0033 | 0.0004 | 10 | 0.93 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0538 | 0.0105 | 0.0010 | 0.0062 | 0.0033 | 0.0004 | 10 | 1.22 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0536 | 0.0108 | 0.0002 | 0.0062 | 0.0033 | 0.0004 | 10 | 1.30 | OK | 0 |
| 321.00 | Acid Soluble Zn, AA, inorganic 965.09 (%) | 0580 | < 0.05 | | 0.0062 | 0.0033 | 0.0004 | 10 | | | 5 |
| 321.02 | Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C (%) | 0498 | 0.0260 | 0.0000 | | | | 1 | | | 0 |
| 321.20 | Acid Soluble Zn, Zincon Ion Exchange (%) | 0049 | < 0.002 | | | | | 0 | | | 5 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0035 | 0.0007 | 0.0001 | 0.0050 | 0.0045 | 0.0001 | 6 | -0.86 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0451 | 0.0024 | 0.0003 | 0.0050 | 0.0045 | 0.0001 | 6 | -0.53 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0452 | 0.0034 | 0.0000 | 0.0050 | 0.0045 | 0.0001 | 6 | -0.32 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0422 | 0.0038 | 0.0000 | 0.0050 | 0.0045 | 0.0001 | 6 | -0.24 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0292 | 0.0100 | 0.0000 | 0.0050 | 0.0045 | 0.0001 | 6 | 0.98 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0552 | 0.0100 | 0.0000 | 0.0050 | 0.0045 | 0.0001 | 6 | 0.98 | OK | 0 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0255 | 0.0065 | 0.0010 | 0.0050 | 0.0045 | 0.0001 | 6 | 0.29 | OK | 1 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0324 | < 0.01 | | 0.0050 | 0.0045 | 0.0001 | 6 | | | 5 |
| 321.30 | Acid Soluble Zn, ICP, test portion inorganic 965.09 (%) | 0354 | < 0.01 | | 0.0050 | 0.0045 | 0.0001 | 6 | | | 5 |
| 321.32 | Acid Soluble Zn, ICP, test portion 2006.03A-C (%) | 0423 | 0.0025 | 0.0010 | 0.0029 | 0.0006 | 0.0008 | 3 | -0.62 | | 0 |
| 321.32 | Acid Soluble Zn, ICP, test portion 2006.03A-C (%) | 0220 | 0.0026 | 0.0003 | 0.0029 | 0.0006 | 0.0008 | 3 | -0.54 | | 0 |
| 321.32 | Acid Soluble Zn, ICP, test portion 2006.03A-C (%) | 0095 | 0.0036 | 0.0010 | 0.0029 | 0.0006 | 0.0008 | 3 | 1.15 | | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0542 | 0.0030 | 0.0000 | 0.0037 | 0.0006 | 0.0004 | 7 | -0.99 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0117 | 0.0032 | 0.0001 | 0.0037 | 0.0006 | 0.0004 | 7 | -0.77 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0055 | 0.0033 | 0.0009 | 0.0037 | 0.0006 | 0.0004 | 7 | -0.63 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0546 | 0.0039 | 0.0004 | 0.0037 | 0.0006 | 0.0004 | 7 | 0.29 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0037 | 0.0040 | 0.0000 | 0.0037 | 0.0006 | 0.0004 | 7 | 0.44 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0136 | 0.0041 | 0.0003 | 0.0037 | 0.0006 | 0.0004 | 7 | 0.51 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0043 | 0.0045 | 0.0010 | 0.0037 | 0.0006 | 0.0004 | 7 | 1.15 | OK | 0 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0548 | 37.17 | 0.0400 | 0.0037 | 0.0006 | 0.0004 | 7 | 52839.45 | High | 2 |
| 321.33 | Acid Soluble Zn, ICP, 2017.02 (%) | 0527 | < 0.001 | | 0.0037 | 0.0006 | 0.0004 | 7 | | | 5 |
| 321.99 | Acid Soluble Zn, Other (%) | 0515 | 0.0019 | 0.0001 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.55 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0027 | 0.0020 | 0.0000 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.55 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0389 | 0.0021 | 0.0001 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.55 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0368 | 0.0025 | 0.0006 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.53 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0405 | 0.0028 | 0.0003 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.52 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0481 | 0.0030 | 0.0000 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.51 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0524 | 0.0032 | 0.0001 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.50 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0558 | 0.0033 | 0.0001 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.50 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0551 | 0.0036 | 0.0002 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.49 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0559 | 0.0036 | 0.0002 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.49 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0547 | 0.0045 | 0.0010 | 0.0161 | 0.0258 | 0.0020 | 15 | -0.45 | Low | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0519 | 0.0450 | 0.0100 | 0.0161 | 0.0258 | 0.0020 | 15 | 1.12 | High | 0 |

| Method Code | Analyte Name and Method (Units) | Lab Code | Lab Data | | Method Values | | | # Tests | Magruder CS Z Score | Method IA Status | Flag |
|-------------|---|----------|----------|--------|---------------|--------|--------|---------|---------------------|------------------|------|
| | | | Value | Range | Rob Mean | Rob SD | R-bar | | | | |
| 321.99 | Acid Soluble Zn, Other (%) | 0562 | 0.0890 | 0.0080 | 0.0161 | 0.0258 | 0.0020 | 15 | 2.83 | High | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0537 | 0.0950 | 0.0100 | 0.0161 | 0.0258 | 0.0020 | 15 | 3.06 | High | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0042 | 0.1100 | 0.0000 | 0.0161 | 0.0258 | 0.0020 | 15 | 3.64 | High | 0 |
| 321.99 | Acid Soluble Zn, Other (%) | 0587 | < 0.02 | | 0.0161 | 0.0258 | 0.0020 | 15 | | | 5 |
| 325.30 | Water Soluble Zn, ICP (%) | 0476 | 0.0020 | 0.0000 | | | | 1 | | | 0 |
| 325.99 | Water Soluble Zn, Other (%) | 0578 | 0.0013 | 0.0002 | | | | 1 | | | 0 |
| 431.10 | Soluble Si in nonliquids, Na2CO3-NH4NO3 extraction, spectro | 0515 | 1.868 | 0.5196 | 2.001 | 0.1198 | 0.2165 | 3 | -1.11 | | 0 |
| 431.10 | Soluble Si in nonliquids, Na2CO3-NH4NO3 extraction, spectro | 0220 | 2.035 | 0.0500 | 2.001 | 0.1198 | 0.2165 | 3 | 0.28 | | 0 |
| 431.10 | Soluble Si in nonliquids, Na2CO3-NH4NO3 extraction, spectro | 0136 | 2.100 | 0.0800 | 2.001 | 0.1198 | 0.2165 | 3 | 0.83 | | 0 |
| 431.99 | Soluble Si in nonliquids, Other (1.9%) | 0519 | 1.125 | 0.0500 | 4,713 | 9,416 | 0.4853 | 4 | -0.50 | | 0 |
| 431.99 | Soluble Si in nonliquids, Other (1.9%) | 0368 | 1.382 | 0.0611 | 4,713 | 9,416 | 0.4853 | 4 | -0.50 | | 0 |
| 431.99 | Soluble Si in nonliquids, Other (1.9%) | 0578 | 12.17 | 0.3000 | 4,713 | 9,416 | 0.4853 | 4 | -0.50 | | 0 |
| 431.99 | Soluble Si in nonliquids, Other (1.9%) | 0548 | 18,836 | 1.530 | 4,713 | 9,416 | 0.4853 | 4 | 1.50 | | 0 |

Interpreting Z Scores and Flags:

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower and Green indicates within the IA range about the Robust mean. Method codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.