

Analyte	EPA METHOD ¹	MDL ²³	PQL ²³
Aluminum	200.7	0.033	0.500
Arsenic	200.7	0.020	0.500
Barium	200.7	0.014	0.500
Boron	200.7	0.010	0.050
Cadmium	200.7	0.010	0.050
Calcium	200.7	0.022	0.500
Chromium	200.7	0.010	0.500
Copper	200.7	0.002	0.050
Iron	200.7	0.004	0.050
Lead	200.7	0.014	0.050
Magnesium	200.7	0.020	0.500
Manganese	200.7	0.002	0.050
Molybdenum	200.7	0.006	0.050
Nickel	200.7	0.005	0.050
Phosphorus	200.7	0.015	0.100
Potassium	200.7	0.030	0.500
Selenium	200.7	0.029	0.500
Silicon	200.7	0.020	0.500
Sodium	200.7	0.010	0.500
Sulfur	200.7	0.030	0.500
Zinc	200.7	0.031	0.050
NO3-N	353.2	0.148	0.500
NH4-N	350.1 (mod)	0.0625	0.500
TKN (low)	351.2	0.125	0.500
TKN (high)	351.2	0.125	5.000
OrthoP	365.1	0.0025	0.010
Total P	365.1	0.0025	0.010
Chloride	325.2	0.570	4.000
pH	150.1	N/A	0.1 SU
EC	120.1	N/A	10 µS/cm

¹All referenced U.S. EPA methods pertain to the analysis of liquids and do not address the preparation of solid samples.

²Unless specified all units are mg/l.

³The reported Method Detection Limit (MDL) and Practical Quantitation Limit (PQL) apply to analytes in solution. For liquid extracts or digests derived from solid samples, these limits must be adjusted using appropriate conversion factors:

- **Example 1:** Mehlich-3 (M3) soil extraction: Conversion factor 10×

$$\frac{X \text{ mg of analyte}}{l \text{ of M3 solution}} \times \frac{1 \text{ l of M3 solution}}{1000 \text{ ml of M3 solution}} \times \frac{10 \times 25 \text{ ml of M3 solution}}{12.5 \text{ g of soil}} \times \frac{1000 \text{ g of soil}}{1 \text{ kg of soil}} = \frac{10 \times X \text{ mg of analyte}}{\text{kg of soil}}$$

- **Example 2:** Digestion of plant tissue (Dry Matter basis): Conversion factor 100×

$$\frac{Y \text{ mg of analyte}}{l \text{ of solution}} \times \frac{1 \text{ l of solution}}{1000 \text{ ml of solution}} \times \frac{100 \times 20 \text{ ml of solution}}{10.2 \text{ g of DM}} \times \frac{1000 \text{ g of DM}}{1 \text{ kg of DM}} = \frac{100 \times Y \text{ mg of analyte}}{\text{kg of DM}}$$

- **Example 3:** Conversion from percent to mg/kg: Conversion factor 10,000×

$$\frac{Z\% \text{ of analyte}}{1} = \frac{10,000 \times Z \text{ mg of analyte}}{\text{kg of DM}}$$