6390 Joyce Drive
#100
Golden, CO 80403

PHONE 303-940-0033
FAX 303-940-0043
www.wibby.com

# Instructions for:
# *WP Trace Metals Low Level (cat # PT-TMLL-WP)*

### *STANDARD DESCRIPTION*

- The WP Trace Metals Low Level standard is provided in a vial that contains approximately 21 mL of concentrate.
- The WP Trace Metals Low Level vial is preserved with nitric acid.
- Store the standard in the unopened vial at room temperature (~ 20 - 25°C).

### *ADDITIONAL INFORMATION*

- The standard has been provided as a concentrate that must be diluted prior to analysis.
- After diluting the standard per the instructions below, the standard will contain approximately 1.0% nitric acid. You may add a different amount of acid during the dilution of the concentrate than the suggested 10 mL to matrix match the sample to your calibration standards.
- Although it is not necessary to digest the diluted sample prior to analysis, if your normal procedure calls for digesting samples we recommend that you follow your normal procedure.

### *STANDARD PREPARATION, ANALYSIS and STORAGE*

1. For best results, the PT standards should be stored at room temperature (~ 20 - 25°C).
2. Add approximately 900 mL of ASTM Type 1 water to a 1000 mL class A volumetric flask.
3. Carefully add 10.0 mL of nitric acid to the flask as a preservative.
4. Transfer exactly 1.00 mL of the PT standard concentrate to the flask using a class A volumetric pipette.
5. Bring the flask to volume with ASTM Type 1 water.
6. Mix the solution by inverting the volumetric flask a minimum of three times.
7. The standard is now ready for preparation and analysis per the selected method(s).
8. The sample should be analyzed as soon as possible after dilution,
9. Report all results in µg/L per the reporting instructions contained in this booklet.
10. Store the diluted standard and any remaining concentrate at room temperature (~ 20 - 25°C).

6390 Joyce Drive
#100
Golden, CO 80403

PHONE 303-940-0033
FAX 303-940-0043
www.wibby.com

# Instructions for:
# *WP Trace Metals Low Level (cat # PT-TMLL-WP) - Continued*

***CONCENTRATION RANGE and PTRL***

- After preparation per these instructions, the standard will contain the analytes in the following table at a certified Concentration within the ranges shown.
- The NELAC Proficiency Testing Reporting Limit (PTRL) is provided as guidance when analyzing NELAC PT standards. At a minimum, the laboratory should use a method that is sensitive enough to generate quantitative results at the PTRL shown.

| Analyte | Units | Concentration Range | PTRL |
|---|---|---|---|
| Aluminum | µg/L | 2.00 - 40.0 | NA |
| Antimony | µg/L | 0.950 - 9.00 | NA |
| Arsenic | µg/L | 0.700 - 9.00 | NA |
| Barium | µg/L | 1.00 - 25.0 | NA |
| Beryllium | µg/L | 0.080 - 9.00 | NA |
| Boron | µg/L | 8.00 - 20.0 | NA |
| Cadmium | µg/L | 0.080 - 7.50 | NA |
| Chromium | µg/L | 0.170 - 10.0 | NA |
| Cobalt | µg/L | 0.280 - 10.0 | NA |
| Copper | µg/L | 0.400 - 9.00 | NA |
| Iron | µg/L | 2.00 - 40.0 | NA |
| Lead | µg/L | 0.700 - 30.0 | NA |
| Manganese | µg/L | 0.700 - 40.0 | NA |
| Molybdenum | µg/L | 0.600 - 6.00 | NA |
| Nickel | µg/L | 0.800 - 30.0 | NA |
| Selenium | µg/L | 0.900 - 20.0 | NA |
| Silver | µg/L | 0.260 - 6.00 | NA |
| Strontium | µg/L | 0.300 - 3.00 | NA |
| Thallium | µg/L | 0.600 - 9.00 | NA |
| Vanadium | µg/L | 0.550 - 20.0 | NA |
| Zinc | µg/L | 1.00 - 20.0 | NA |