

**Instructions for:
UST BTEX in Soil-(Cat # PT-BTEX-USTS)**

SCOPE AND APPLICATION

Wibby Environmental's UST BTEX in Soil Proficiency Testing Standard is designed to be used with all USEPA Methods. You should be familiar with the method(s) before analyzing the standard. If you have any questions about the use of these standards, please contact Wibby Environmental Customer Service at 1-866-WibbyPT (866-942-2978).

SAMPLE PREPARATION AND ANALYSIS

1. For best results, the PT standard should be refrigerated and then brought to room temperature (near 20°C) when used.
2. The UST BTEX standard includes two separate containers; a VOA vial containing approximately 12 g of Blank Solid Matrix and a 2 ml flame-sealed ampule containing the analytes of interest. The solvent for the BTEX concentrate is methanol.
3. **Direct Purge Method:**
 - a. Open the Blank Soil Matrix vial and transfer 5.00 g of the matrix into your sparger cell.
 - b. Carefully open the ampule containing the Volatiles concentrate by snapping off the top at the narrow part of the neck.
 - c. Transfer exactly 50 µL (micro liters) of the concentrate onto the Blank Soil Matrix in the sparger cell using a gas tight syringe. Add the spike below the surface of the matrix.
 - d. Add 5 ml of organic free deionized water to the sparger cell containing the Blank Solid Matrix and concentrate. The standard is now ready for analysis.
4. **Methanol Extraction Method:**
 - a. Open the Blank Soil Matrix vial and transfer 5.00 g of the matrix into your extraction vessel.
 - b. Carefully open the ampule containing the BTEX concentrate by snapping off the top at the narrow part of the neck.
 - c. Transfer exactly 50.0 µL (micro liters) of the concentrate onto the Blank Soil Matrix in the extraction vessel using a gas-tight syringe. Add the spike below the surface of the matrix.
 - d. Immediately add 5.0 ml of purge-and-trap grade methanol to the extraction vessel cell containing the Blank Solid Matrix and concentrate. The standard is now ready for extraction and analysis.

REPORTING RESULTS

1. For the purposes of reporting results, the percent moisture of the PT standard is 0% and the sample weight is 5.0 g.
2. Report results to three significant figures.
3. Report your results on line at www.wibby.com. Click on the "Online Data Entry" link or the "PT Manage" link.
4. You may also report your results using the Data Reporting Sheets enclosed with your standards. FAX your results to Wibby Environmental at 303-940-0043 or mail the results to Wibby Environmental, 6390 Joyce Drive, #100, Golden, CO, 80403.
5. Wibby Environmental must receive all results prior to the study closing date shown on the Data Reporting Sheets.

SAFETY

These standards are designed for use by laboratory professionals who are familiar with handling environmental reference materials as well as hazardous materials. If you have any questions about the safe handling of these standards or require a Material Safety Data Sheet (MSDS,) please contact Wibby Environmental at 1-866-WibbyPT (866-942-2978).

CONCENTRATION RANGE and PTRL

1. The standard will contain the analyte listed below at a certified Concentration within the range shown.
2. 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
BTEX in Soil (PT-BTEX-USTS)			
Benzene	µg/kg	20.0 - 200	10.0
Ethylbenzene	µg/kg	20.0 - 200	9.40
Toluene	µg/kg	20.0 - 200	11.0
Xylenes, total	µg/kg	40.0 - 400	18.0
Methyl-t-butyl ether	µg/kg	20.0 - 200	7.80