



TECHNICAL BULLETIN

TO-17 Active Air Sampling

USEPA Method TO-17 offers an active sampling method that will report both volatile organic compounds (VOC) and Diesel range compounds (DRO) with one set of collection media. Separation and detection is achieved by using a thermal desorption (TD) tube technology developed by Perkin Elmer called SVI™ Soil Vapor Intrusion. This patent pending product utilizes a multi-bed construction that extends into the DRO range while maintaining the lighter VOC components.

In addition to the thermal desorption (TD) tubes, a calibrated sampling pump is necessary to collect a sample. For ease of use, the laboratory provides SKC pocket pumps™ that can be rented and supplied with pre set flow rates.

The reporting limit achieved with this technique is based on sample collection volume. The calibrated flow rate in mls/min and the collection time in minutes are used to determine the total liters of sample collected. The final sample concentration is determined from the GC/MS output (in total nanograms) and the volume of sample collected (in liters). The final concentration in ng/L is equivalent to ug/m3.

To illustrate this concept, the following table indicates two different scenarios with reporting limits (by compound type) that correspond to (1) Liter and (10) liter collected sample.

Compound type	1 Liter RL ug/m3	10 Liter RL ug/m3
VOC's	2	0.2
Light end PAH's	5	0.5
DRO	250	25

For more information regarding compounds offered and/or media: Contact your Pace Sales representative or call the Air Technical hot-line (612) 607-6386.