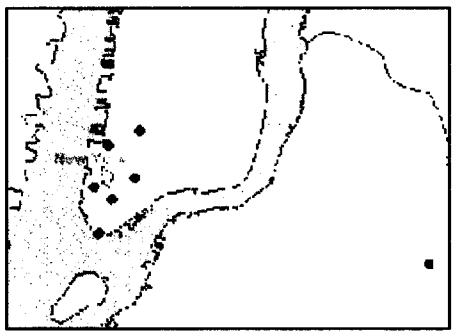
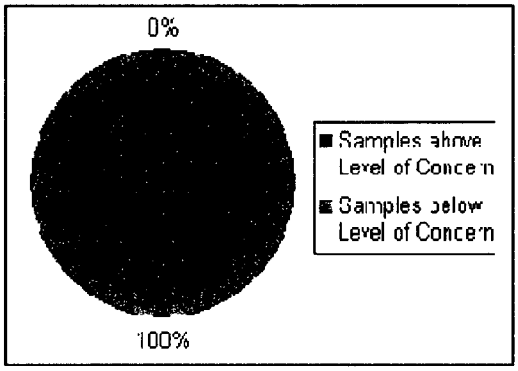
PM 10 Air Monitoring Data Summary for NYC WTC Sampling

Totals (for sampling through 02/05/02, in ug/m3)	
Total Samples	4210
Samples above Level of Concern	4
Samples below Level of Concern	4206
Percent Above 150 ug/m3	0.10
Maximum Value (09/13/01 at Albany St.)	316.57
Minimum	-3.73
Level of Concern	150
Average	27.58





Particles in the air can be different sizes; when smaller than 10 micrometers in diameter, they can be inhaled into the lungs. These particles, also called "PM10," include both fine smoke and coarse dust.*** EPA sets the level of concern for PM10 to caution sensitive groups, including children, the elderly, and people with heart or lung disease, about exposures to coarse dust particles. The PM10 level of concern for sensitive groups is 150 ug/m3** for 24-hour average exposure. This level is based on EPA's Air Quality Index. Above this level, we recommend that sensitive groups reduce their exposure. Most healthy adults, children and the elderly are expected to recover quickly from any symptoms of short-term exposure like coughing, wheezing, or eye or throat irritation. EPA expects the long-term risks from these short-term exposures to be low.

There are two methods for measuring particulate matter (PM) being used at the monitoring sites presented on the EPA website.

The filter method is based on ambient air being drawn through a filter which traps particles. This provides a 24-hour integrated sample. After the sample is taken, the filter is collected, weighed in a laboratory, and recorded by laboratory staff. This is the method that is being used for PM10 monitoring at the Park Row, Borough of Manhattan Community College, and Coast Guard sites.

The continuous method is based on ambient air being drawn into a chamber to be analyzed mechanically and the recorded electronically. We have installed continuous monitors for PM 2.5 at all of the sites in lower Manhattan. We also have continuous monitors for PM10 at the Albany Street and Wall Street sites.

The primary difference between filter and continuous methods is that the continuous monitors report hourly-average concentrations and a daily average of the 24 one-hour averages, while the filter-based monitors provide one 24-hour average concentration.