



Single sample producing multi element measurements:

The cost associated with the collection, processing, and quality assurance of compliance sampling is extensive with single results machines. The Xact product line is focused upon the leveraging of a single sample collection producing multiple element results.

If one were to employ traditional methods to accomplish the capabilities of the Xact series here is what would need to be undertaken. The sampling method would need to collect sufficient sample mass in one hour for the analytical method's detection limits. That sample would then need to be recovered and shipped to a lab. At least two analytical methods would be required to report the 24 elements of the Xact. The analysis of 24 metals in an hour would be grossly expensive and on a continuous bases unrealistic. The data would then require QA/QC before reporting.

When developing a complete picture of the monitored site, "single-threaded" HiVol TSP samples will be collected, but will in turn be insufficient to provide the comprehensive view. The multi-dimensional data required to accomplish forensic work to fugitive source is impossible with traditional methods. When multi-metal measurements and monitoring is needed, the cost per sample is reduced compared to that of the single sample/single result method. For example: a single sample/single result operation may have an acquisition cost of \$45,000-\$50,000. A multi-metal measurement with the Xact would have an acquisition cost of \$10,000 per result. Thus if four or more metals need to be monitored, the Xact would provide a lower total cost of acquisition. In addition the annual cost of operation would be significantly lower for the Xact as support time required would be less than one-man day per month. The high reliability of the instrument and the data transfer capability would mean a nearly stand alone operation, until sensing tape required changing.