

QUESTIONABLE PRACTICES IN THE LABORATORY

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SW-846 is a collection of performance-based methods used by the US Army Corps of Engineers (USACE) for execution of environmental restoration projects. These methods provide guidance for the running of various organic and inorganic protocols that can be used for the analysis of samples from a variety of sample matrices. During recent laboratory audits conducted by the USACE, certain questionable practices have been observed, especially in the organic analysis areas.

Most people have a relatively good idea of what constitutes a fraudulent activity today. The concepts of dry-labing, peak shaving, peak enhancing, or time traveling are well understood. These practices clearly involve the deliberate direct manipulation and/or alteration of data, often to achieve or meet method QC criteria. Unfortunately, these practices are still being observed today. In addition, there are a new group of questionable practices now being observed that often involve the selective exclusion of data to achieve or meet method QC criteria.

Should the above questionable practices be considered as examples of fraudulent activities? Some of the laboratories have described these practices as the common approach used by everyone, yet when described to people within EPA (e.g., the MICE Hotline), the clear response is that these approaches were never intended. The background history will be discussed as to how and why these practices have developed and what can be done to overcome them. Potential solutions might include the following: 1) More prescriptive methods (probably not) or more clearly written guidance? 2) Training for lab staff on GLP to include statistics? 3) Rethinking the way laboratory services are contracted for? 4) Collecting additional data from the laboratory for more detailed data validations? 5) The use a standardized data-reporting format and better data validation software? 6) Etc.

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