

Untapped Power of Data Validation

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Many costly and important remedial decisions are made based on environmental analytical data. The quality of the analytical data will directly impact the overall project decisions that are made on the basis of the data. Using environmental data, without understanding the quality of the data, can leave the railroad with unnecessary liabilities. What happens when poor-quality data results in inaction when action should have been taken or results in of a notice of violation (NOV), when in fact an exceedance did not occur?

There are many common misconceptions regarding environmental laboratory data. For example, do you believe any of the following statements?

- The laboratory is accredited; therefore, my data must be accurate.
- The laboratory follows the published analytical method; therefore, my data must be acceptable.
- Only the laboratory impacts the quality of the analytical data.

This presentation will provide real-world, recent case studies of issues observed during routine data validation. Issues run the gamut from incorrect concentrations reported, incorrect compounds reported, incorrect detection limits reported, to field collection issues. The case studies will detail how the issue was discovered during validation, how it was resolved (re-reporting or resampling in some cases), and the impact of the issue, which is oftentimes financial. Catching and resolving the data quality issues prior to regulatory submission, or remedial decision-making based on data of unknown quality has helped the railroad avoid costly mistakes.