

## RECENT RADIOLOGICAL EVENT AT WIPP, ANALYTICAL CHALLENGES

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The presentation will provide a brief overview of a recent radiological event at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, NM. In this presentation, the environmental implications will be evaluated; however, the main focus will be on WIPP Laboratories' response.

The incident presented the laboratory with a series of challenges as the WIPP site responded to the radioactive release. Several hundred samples were delivered to the laboratory to identify the isotopes of interest, to determine both the extent of the release and the amount of contamination to both the environment and to staff. In addition to the increased workload, the clients needed a fast turnaround time to supply information to the regulators and stakeholders. During a four month window, WIPP Labs successfully completed the analysis of approximately a normal years' worth of samples requiring destructive analysis. Rapid digestion and separation methods were utilized within the prep lab in order to meet the TAT demands of the clients. An extra data reviewer was brought in and second shift was implemented in order to take samples from raw form to counting and reporting in hours rather than days or weeks. The samples ranged in activity from background level bioassay and environmental samples, to air monitoring samples that contained activity orders of magnitude higher than the background. Due to the sensitive nature of dealing with bioassay samples, it was extremely important to avoid any instances of cross contamination. The lab has successfully accomplished this despite completing all of the work within one lab that contains three fume hoods.