

4/10/97, 01 Pu+BLO

**From:** Steven Reneau <sreneau@lanl.gov>  
**To:** RTPMAINIHUB.INTERNET("etheric@trill.com","chris\_han...  
**Date:** Tuesday, May 6, 1997 2:59 pm  
**Subject:** Reach P-4 Sediment Sampling

Sediment sampling in reach P-4 is scheduled for Tuesday, May 8, likely extending into Wednesday, May 9. Collection of a minimum of 39 samples is planned, based on the number felt necessary to meet investigation objectives. Objectives include reducing uncertainty in total contaminant inventory and in horizontal and vertical variations in contamination. The planned distribution of samples between geomorphic units, stratigraphic layers or facies within a geomorphic unit, and between sub-reaches (P-4 West and East) is summarized on an attached spreadsheet, along with a preliminary breakdown of the total Pu inventory and the rationale for collection of specific samples. A 2nd spreadsheet summarizes available Pu data, subdividing these analyses into "bins" of similar age and sedimentary facies; this subdivision is key in the inventory calculation and in planning for the upcoming sampling event. Actual sample sites and depth intervals will be decided during the next week and during sampling, to obtain adequate spatial coverage and to sample appropriate stratigraphic levels.

Accompanying sampling, and possibly preceding sampling, some additional field alpha measurements will be made in areas that may contain Pu high enough to recognize with field instruments (>25-50 pCi/g: overbank sediments in P-4 west). If high alpha readings are obtained, one or more samples will be collected at such sites. Some replicate samples will also be collected to evaluate if more precise estimates of Pu concentration can be made with the field instruments by making measurements in a more controlled laboratory environment.

The actual number of samples to be collected within specific geomorphic units and stratigraphic layers is still flexible. It is expected that some additional samples will be collected based on the judgment of the field team, in order to adequately characterize depth variations etc. Input is welcome prior to that time on other factors that should be considered.

If you cannot read the attachments but would like copies, please let me know and I will FAX you copies.

Steve



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**CC:** R6DAL02.R6TOXIC2(HILL-KIM)