



## Project Status Update for Allegany Ballistics Laboratory

### Restoration Advisory Board

October 7, 2005

This document provides a summary of the status of the active projects for the Installation Restoration Program sites at Allegany Ballistics Laboratory (ABL). The intent of this document is to provide an update to the ABL Restoration Advisory Board (RAB) members.

**Site 1:** The Site 1 groundwater extraction system remains active for this area. A pilot study was initiated in 2005 to determine the effectiveness of treating groundwater contamination by introducing chemical oxidants into the subsurface. In May 2005, sodium persulfate ( $\text{NaSO}_4$ ) was pumped into the alluvial aquifer and potassium permanganate ( $\text{KMnO}_4$ ) was pumped into the bedrock aquifer to treat "DNAPL" (dense non-aqueous phase liquid) present in the saturated soils beneath Site 1. This DNAPL is essentially pure trichloroethene that acts as a continuing source for groundwater contamination. The  $\text{NaSO}_4$  and  $\text{KMnO}_4$  were added to attack this source and decrease the existing dissolved concentrations of contaminants in the groundwater. The initial data from this study are encouraging and show a drop in groundwater contamination. However, additional rounds of groundwater sampling are required prior to making conclusions on the success of this study.

The soil at Site 1 is the subject of an ongoing remedial investigation (RI). The draft RI report for this area was submitted to the regulator agencies for review in the summer of 2005. This document is expected to be finalized this fall.

**Site 2:** A risk assessment report was finalized for Site 2 in July 2005. A Proposed Remedial Action Plan for this site is currently being prepared and will be presented to the RAB and the public for review and comment. Based on the site conditions, it is expected that no further action will be required at this site.

**Site 3:** A risk assessment report was finalized for Site 3 in July 2005. A Proposed Remedial Action Plan for this site is currently being prepared and will be presented to the RAB and the public for review and comment. Based on the site conditions, it is expected that no further action will be required at this site.

**Site 4B:** A pilot study was completed at Site 4B in July 2005. The pilot study evaluated the use of X-Ray Fluorescence (XRF) technology in guiding a soil remediation. XRF was used to determine silver, iron and manganese concentrations in soil. The intent was to use this instrument "real time" as the contaminated soils were being removed in order to guide the excavation and determine when we are out of the contaminated area. A Pilot Study Report is currently being prepared.

**Site 5:** A Record of Decision (ROD) for Site 5 groundwater, surface water and sediment is expected to be signed in October 2005. Following signature of this document, a permeable reactive barrier (PRB) will be constructed. The PRB will use iron filings to treat groundwater contamination downgradient of the landfill. It is expected that this construction activity will be completed by the end of this year.

**Site 10:** A Final Record of Decision (ROD) for Site 10 groundwater was signed in September 2005. The ROD documents the final remedial action, which is extraction and treatment of groundwater from the alluvial and bedrock aquifers at this site. This remediation system is operational.

A risk assessment report was finalized for Site 10 Soil in 2005. A Proposed Remedial Action Plan for Site 10 soil is currently being prepared and will be presented to the RAB and the public for review and comment. Based on the site conditions, it is expected that no further action will be required for soil at this site.

**Site 11:** A Final Remedial Investigation report was issued for Site 11 in 2005. This report indicates that there is a localized area of groundwater contamination at this site. The ABL Partnering Team is considering implementing a pilot study to determine the most effective approach to address groundwater contamination at this site.

**Site 12:** A removal action was completed in 2005 to address soil contamination at Site 12. It is expected that no additional action will be required for soil. A remedial investigation is underway to evaluate the nature and extent of groundwater contamination at Site 12.