



environmental management, inc.

MEMORANDUM

From: Deni Chambers, Principal-in-Charge
Derrick Willis, Project Manager

Date: July 9, 2010

To: Mr. Matt Paque, Tronox

RE: Manganese Tailings Pile Confirmation Sampling

The Nevada Division of Environmental Protection (NDEP) has requested that confirmation sampling be performed at the location of the former manganese tailings pile at the Tronox facility in Henderson, Nevada (the Site) following removal of the manganese tailings. Sampling will be conducted following procedures set forth in Northgate's Pre-Confirmation Sampling Work Plan¹ and the BMI standard operating procedures (SOPs)².

The objective of the sampling program is to confirm that manganese tailings are removed and that associated chemicals (manganese, cobalt and arsenic) are below the following screening levels. NDEP's basic comparison levels (BCLs) for manganese and cobalt are 13,700 and 331 milligrams per kilogram (mg/kg), respectively, and background concentration for arsenic is 7.2 mg/kg.

Soil samples will be collected using a slide-hammer sampler from 21 locations at a depth of 0-6 inches below ground surface (bgs) as shown on Figure 1. Nine of the sample locations will be placed in a grid pattern across the main portion of the manganese tailings area; four will be located along the eastern property boundary; two will be located along the west boundary of the tailings area; four will be located along the north boundary of the tailings area; and one each will be located beneath polygons Remediation Zones (RZ) -C-46 and -C-47 (northeast corner).

Additional samples will be collected from 6-12 inches bgs at each sampling location; these samples will be placed on hold pending receipt of analytical results of the shallow samples.

Results will be presented in the Human Health Risk Assessment and Closure report for RZ-C.

If you have any questions about this sampling program, please contact us.

¹ Northgate. 2010. Final Revised Pre-Confirmation Work Plan, Remediation Zones RZ-A Through RZ-E, Phase B Investigation, Tronox Facility, Henderson, Nevada. March 25.

² ERM-West, Inc. 2009. BRC Field Sampling and Standard Operating Procedures, BMI Common Areas, Clark County, Nevada. December.