



environmental management, inc.

MEMORANDUM

From: Deni Chambers, CEM
Derrick Willis, CEM

Date: December 3, 2010

To: Ms. Shannon Harbour, PE, Nevada Division of Environmental Protection
(NDEP)
RE: Former Manganese Tailings Pile Area Remediation

Confirmation sampling was conducted at the location of the former manganese tailings pile at the Tronox facility in Henderson, Nevada (the Site) following removal of the manganese tailings in accordance with the Revised Manganese Tailings Pile Confirmation Sampling Memo, dated July 27, 2010.

The objective of the confirmation sampling program was to evaluate whether manganese tailings related chemicals (manganese, cobalt and arsenic) were removed to levels below the project Comparison Criteria during the Manganese Tailings Pile remediation. The Comparison Criteria are NDEP's Basic Comparison Levels (BCLs) for manganese and cobalt (13,700 and 331 milligrams per kilogram (mg/kg), respectively), and background concentration for arsenic (7.2 mg/kg).

Results of the confirmation sampling are presented on Figure 1. In addition, analytical results from the Phase B sampling program, conducted prior to removal of the tailings pile, are also presented; the depth intervals corrected to reflect removal of the tailings pile. Results indicate that there are residual concentrations of manganese, cobalt and arsenic above Comparison Criteria at shallow depths in several areas of the southern portion of the manganese tailings area. Please note that the analytical data presented will serve as pre-confirmation sample data for proposed remediation areas.

Shown on Figure 1 are three new proposed excavation polygons (RZ-C-45B, RZ-C-45C and RZ-C-45D) to be excavated to depths of 1, 3 and 1 foot below ground surface, respectively, in order to remove the residual chemicals described above. Please note that the southern boundary of the proposed excavation polygons butt up against the toe of slope of the former manganese tailings pile area (lower elevation) to the roadway and leach plant area (higher elevation).

Tronox requests your review and approval of the proposed excavation areas. If you have any questions about this memorandum, please contact us.

