

MEMORANDUM

From: Deni Chambers, Principal-in-Charge **Date:** August 5, 2010

Josh W. Otis, Project Manager

environmental management, inc.

To: Shannon Harbour, P.E.

Nevada Division of Environmental Protection (NDEP)

RE: Groundwater Treatment and Capture Zone Evaluation Monthly Status

Memorandum and Schedule Update.

July 2010, Tronox Facility, Henderson, Nevada

This memorandum presents a summary of the July 2010 deliverables, meetings, and field activities related to the on-going work related to the extraction and treatment of groundwater impacted with perchlorate and hexavalent chromium at the Tronox facility in Henderson, Nevada (the "Site"). Specifically, this memorandum discusses activities related to the following tasks: proposed groundwater extraction and treatment system (GWETS) improvements, capture zone evaluation fieldwork, investigation of the on-Site barrier wall, development of a Site-wide hydrogeologic flow model, and evaluation of soil flushing as a remedial technology at the Site. An updated work schedule is attached.

Activities Completed During Last Period July 2010

Deliverables

Responses to May 24, 2010 NDEP comments on the Capture Zone Evaluation Work Plan, Tronox LLC, Henderson, NV dated July 7, 2010.

Meetings

None

Field Activities

- (Capture Zone Evaluation) Mobilized well development crew and began development of newly-installed wells at Athens Road well field and on-Site.
- (Capture Zone Evaluation) Conducted exploratory pot-hole excavations at several locations along barrier wall and collected samples of wall material for laboratory permeability testing.
- (Capture Zone Evaluation, GWETS) Surveyed location and elevation for newly-installed and repaired wells.
- (Soil Flushing) Shipped soil and groundwater materials to Prima Environmental (testing laboratory); constructed columns for laboratory tests.

- (GWETS) Drilled and installed or repaired the following compliance monitoring wells:
 - Wells PC-135A, ARP-2A, and ARP-3A (replacement monitoring wells, Athens Road well field); and
 - Exhume, repair, and recomplete well PC-136 (buried monitoring well, Athens Road well field).
- (GWETS) Completed draft plans and specifications for hook-up of 4"-diameter wells downgradient of barrier wall to existing treatment system; contacted contractors for qualifications.

Activities to be Completed During Next Period August 2010 (and anticipated submittal dates)

Deliverables

 Monthly Status Memorandum and Schedule Update for the month of August, 2010 (September 3)

Field Activities

- (Capture Zone Evaluation) Finish well development activities.
- (Capture Zone Evaluation) Begin pumping, monitoring at 4" wells downgradient of barrier wall.
- (Soil Flushing) Complete column tests.
- (GWETS) Plans/specifications for electrical upgrade.

Meetings

• Hydrogeologic modeling meeting with NDEP, Companies, and consultants involved in the various models under development at the BMI complex.

