

MEMORANDUM

From: Deni Chambers, Principal-in-Charge **Date:** July 6, 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.

June 2010, Tronox Facility, Henderson, Nevada

This memorandum presents a summary of the June 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 June 2010

Deliverables

Revised Hydrogeologic Modeling Work Plan and response-to-comments (RTC) dated June 7, 2010.

Meetings

None

Field Activities

- (Capture Zone Evaluation) Drilled and installed the following on-Site wells:
 - M-181, M-182, and M-186 (screened in the UMCf along the eastern boundary with Timet):
 - o I-AC and I-AD (recovery wells south of the east end of the barrier wall);
 - M-180 (piezometer/monitoring well for I-AD);
 - M-140, M-171, M-178, and M-179 (4" recovery wells in 'dead zone' area downgradient of barrier wall); and
- (Capture Zone Evaluation) Drilled and installed the following off-Site wells at the Athens

Road well field:

- Wells PC-141, PC-142, PC-143, PC-145, PC-146, PC-147, and PC-150 (monitoring wells in Athens Road well field);
- o PC-148 and PC-149 (monitoring wells screened in the 'Muddy Creek High'); and
- ART-7B (Deeper/replacement recovery well for ART-7A in Athens Road well field).
- (Soil Flushing) Following NDEP approval of the REVISED Work Plan to Evaluate In-Situ Soil Fushing of Perchlorate Impacted Soil dated May 27, 2010, issued notice-to-proceed to Prima Environmental and arranged shipment of soil and water samples for column studies.
- (GWETS) Drilled and installed the following replacement compliance monitoring wells:
 - Replacement compliance monitoring well M-48A; and
 - Replacement monitoring well M-148A.
- (GWETS) Completed annual groundwater sampling event.
- (GWETS) Site walk with electrical contractor to at Interceptor well field; drafting of plans and specifications for electrical service upgrade.

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

Deliverables

- Response to NDEP comments on the Capture Zone Evaluation Work Plan dated May 13, 2010 (July 6)
- Monthly Status Memorandum and Schedule Update for the month of July, 2010 (August 5)

Field Activities

- (Capture Zone Evaluation) Installation of remaining wells proposed in the *Capture Zone Evaluation Work Plan* dated May 13, 2010.
- (Capture Zone Evaluation) Well Development and survey.
- (Capture Zone Evaluation) Barrier wall sampling and survey
- (Soil Flushing) Column tests.

Meetings

None currently scheduled.

