



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

STATE OF NEVADA
Department of Conservation & Natural Resources
Brian Sandoval, Governor
Bradley Crowell, Director
Greg Lovato, Administrator

October 11, 2018

Jay A. Steinberg
Nevada Environmental Response Trust
35 East Wacker Drive, Suite 1550
Chicago, IL 60601

Re: **Tronox LLC (TRX) Facility
Nevada Environmental Response Trust (Trust) Property
NDEP Facility ID #H-000539**
Nevada Division of Environmental Protection (NDEP) Response to: *AP Area Down and
Up Flushing Treatability Study Results Report*

Dated: July 27, 2018

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and provides comments in Attachment A. A revised Deliverable should be submitted **by 12/28/2018** based on the comments found in Attachment A. The Trust should additionally provide an annotated response-to-comments letter as part of the revised Deliverable.

The NDEP has received and reviewed the Trust's above-identified Deliverable and finds that the document is acceptable.

Please contact the undersigned with any questions at wdong@ndep.nv.gov or 702-486-2850 x252.

Sincerely,

WeiQuan Dong, P.E.
Bureau of Industrial Site Cleanup
NDEP-Las Vegas City Office

WD:cp

EC:

James Dotchin, NDEP BISC Las Vegas
Carlton Parker, NDEP BISC Las Vegas
Allan Delorme, Ramboll Environ
Alison Fong, U.S. Environmental Protection Agency, Region 9
Andrew Barnes, Geosyntec
Andrew Steinberg, Nevada Environmental Response Trust
Anna Springsteen, Neptune & Company Inc.
Betty Kuo Brinton, MWDH2O
Brenda Pohlmann, City of Henderson

Brian Waggle, Hargis + Associates
Carol Nagai, MWDH2O
Chinny Esakkiperumal, Olin Corporation
Chris Ritchie, Ramboll Environ
Chuck Elmendorf, Stauffer Management Company, LLC
Dan Pastor, P.E. TetraTech
Dave Share, Olin
Dave Johnson, LVVWD
David Parker, Central Arizona Water Conservation District
Derek Amidon, Tetrattech
Ebrahim Juma, Clean Water Team
Ed Modiano, de maximis, inc.
Eric Fordham, Geopentech
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Gary Carter, Endeavour
George Crouse, Syngenta Crop Protection, Inc.
Harry Van Den Berg, AECOM
Jay Steinberg, Nevada Environmental Response Trust
Jeff Gibson, Endeavour
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Joanne Otani
Joe Kelly, Montrose Chemical Corporation of CA
Joe Leedy, Clean Water Team
John Edgcomb, Edgcomb Law Group
John Pekala, Ramboll Environ
Kelly McIntosh, GEI Consultants
Kevin Fisher, LV Valley Water District
Kirk Stowers, Broadbent & Associates
Kirsten Lockhart, Neptune & Company Inc.
Kim Kuwabara, Ramboll Environ
Kurt Fehling, The Fehling Group
Kyle Gadley, Geosyntec
Kyle Hansen, Tetrattech
Lee Farris, BRC
Marcia Scully, Metropolitan Water District of Southern California
Maria Lopez, Water District of Southern California
Mark Duffy, U.S. Environmental Protection Agency, Region 9
Mark Paris, Landwell
Michael J. Bogle, Womble Carlyle Sandridge & Rice, LLP
Michael Long, Hargis +
Mickey Chaudhuri, Metropolitan Water District of Southern California
Nicholas Pogoncheff, PES Environmental, Inc.
Orestes Morfin, CAP
Paul Black, Neptune and Company, Inc.
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Steven Anderson, LVVWD
Tanya O'Neill, Foley & Lardner L
Todd Tietjen, SNWA

Attachment A

1. Section 5.2.2 Down Flushing System Performance. Figure 7B is not 3D plots. If the paper copy can't easily reflect the 3D features, NERT should include a digital 3D plots. NDEP also suggests a 3D geological block model for 1) Plot 1 and 2) Plot 2, and 3) Table 2 Down Flushing Perchlorate Mass Reduction. NDEP would like more details on the perchlorate mass estimation should be included in this report. The parameters including perchlorate concentration and porosity should be interpolated first by the sampling intervals, then summed by geologic media, i.e., 1) unsaturated Qal, 2) Saturated Qal, 3) Entire Qal and 4) UMCf.
2. Section 5.5.3 Tracer Dye, Page 29. Tracer dyes were used to evaluate the vertical and horizontal distribution of the injections, as well as the groundwater flow rate, but the report states that the tracer dyes have not been observed at any of the downgradient monitoring wells, approximately 420 days following the initial injections. Is NERT still monitoring wells for evidence of traces? Report on page 30 states it could take as much as 784 days for that distance and this report cover 420 days. The reasons stated in the report on page 30 all have implications to CSM.
3. Figures 5a and 5b. Pre-injection Soil Concentration at Depth for Plots 1 and 2. NDEP suggests adding corresponding figures for the perchlorate concentration of the confirmation sampling samples.
4. Appendix B Summary Data Tables (Summary of Down Flushing Soil Analytic Results for Plots 1 and 2). There are several boring locations at which the perchlorate concentrations of the confirmation sampling samples are greater than the perchlorate concentrations of baseline sampling samples. What natural process in the site could have increasing concentrations? NDEP would like a double check on this discrepancy. Since this data was used for the mass reduction and Figures 7B and 7C, they need to be checked if discrepancies are found.
5. Many tables in Appendix still have red "DRAFT". Please remove it in next revision.