



May 31, 2019

Jay A. Steinberg
Nevada Environmental Response Trust
35 East Wacker Drive, Suite 690
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: *Semi-annual
Remedial Performance Memorandum for Chromium and Perchlorate (July through
December 2018)*

Dated: May 1, 2019

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and finds that the document is acceptable with the following comments noted for the Administrative Record:

1. Section 3.2.4 Well Field Capture Efficiency: The mass not captured by SWF is 4.6 lbs./day and Figure 6 (Las Vegas Wash Loading September – December 2018) shows that the 7.5 lbs./day of perchlorate was gained for the reach from LVW 6.6 Sunrise Mountain to LVW 6.05 Pabco Road. The reach from LVW 6.6 Sunrise Mountain to LVW 6.05 Pabco Road corresponds the NERT core plume. Section 3.2.5.1 Horizontal Mass Flux: "The estimated mass flux across the transect is 33 lbs./day for the portion upstream of the Pabco Road weir (associated with the AMPAC/Endeavour plume) and 56 lbs/day for the portion downstream of the Pabco Road weir (associated with the NERT Site and Eastside Study Area plume)". Section 3.2.6 Perchlorate Mass Loading in Las Vegas Wash: "The perchlorate flux reported by AMPAC/Endeavour for July to December 2018 of 13.9 lbs/day is approximately equal to the calculated flux in this period of 13.3 lbs/day, as shown in the table above." and "The Shallow Capture Zone Assessment Memorandum submitted by Geosyntec on behalf of AMPAC/Endeavour also concludes that a portion of AMPAC/Endeavour's reported perchlorate flux in shallow groundwater is captured by the SWF (Geosyntec 2017)". Where does the uncaptured 4.6 lbs./day of perchlorate from SWF go? NDEP suggests more comprehensive and definitive analysis on the sources of the perchlorate mass loading to SWF and the reach from LVW 7.2 Duck Creek and LVW 6.05 Pabco Road.
2. Figure 5a Horizontal Mass Flux Estimates shows 15 lbs./day of perchlorate crossing the eastern NERT property boundary and this mass flux is much bigger than the perchlorate mass loading from the TIMET groundwater extraction well field. This figure and other capture zone figures also show that the groundwater flux crossing this boundary are almost completely captured. It is difficult to estimate the horizontal mas flux but NDEP requests that the horizontal and vertical mass fluxes be calibrated with the mass fluxes measured.

3. Section 3.2.6 Perchlorate Mass Loading in Las Vegas Wash and Figure 6 Las Vegas Wash Loading September – December 2018. NDEP suggests that only one sample be taken for each transect based on statistical analysis of the data presented in Table 11 (Las Vegas Wash Perchlorate Mass Loading, September 2018 - March 2019). These sampling IDs are: LVW 6.6-2, LVW 5.3-2, LVW 4.75-3, LVW 4.2-3 and LVW 3.5-3. The single sample locations (LVW 8.85, LVW 7.2, LVW 6.05, and LVW 0.55) stay same.

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:

Jeffrey Kinder, Deputy Administrator NDEP
Frederick Perdomo, Deputy Administrator NDEP
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 Loffman, lepetomane
Brian Waggle, Hargis + Associates
Carol Nagai, MWDH2O
Carrie Hunt, 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
Gary Carter, Endeavour
George Crouse, Syngenta Crop Protection, Inc.
Greg Kodweis, SNWA
Harry Van Den Berg, AECOM
Jay Steinberg, Nevada Environmental Response Trust
Jeff Gibson, Endeavour

Jill Teraoka, MWDH2O
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
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.
Paul Hackenberry, Hackenberry Associates, LLC
Patti Meeks, Neptune & Company Inc.
Peggy Roefer, CRC
Ranajit Sahu, BRC
Richard Pfarrer, TIMET
Rick Kellogg, BRC
R9LandSubmit@EPA.gov
Steve Clough, Nevada Environmental Response Trust
Steven Anderson, LVVWD
Tanya O'Neill, Foley & Lardner L
Todd Tietjen, SNWA