

# TECHNICAL MEMORANDUM

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**To:** Nevada Environmental Response Trust

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**Cc:** Nevada Division of Environmental Protection  
United States Environmental Protection Agency

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**From:** Dana Grady

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**Date:** November 3, 2020

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**Subject:** Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report

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At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum which summarizes Tetra Tech's progress during September 2020 toward successfully implementing the Las Vegas Wash Bioremediation Pilot Study.

## Task Progress Update: September 2020

### Task M19 – Las Vegas Wash Pilot Study

- Current Status
  - Drilling began on February 10, 2020 and continued through June 12, 2020, which included the installation and development of 175 injection and monitoring wells.
  - Drilling activities were temporarily suspended pending approval from the City of Henderson (COH) to install the remaining upgradient monitoring wells located in the COH landfill. Approval from COH was received on July 27, 2020.
  - Air knifing activities on the COH landfill were performed on August 3 through August 5, 2020.
  - Although drilling activities for the remaining wells located within the COH landfill were originally planned to begin on August 10, 2020, all field work associated with the Las Vegas Wash Bioremediation Pilot Study was temporarily suspended from August 7 through September 1, 2020 due to a pair of nesting yellow-tailed cuckoos that were observed along the Las Vegas Wash near Bostick Weir. As a result, drilling of the final monitoring wells within the COH landfill began on September 14, 2020.
  - Drilling activities on the City of Henderson landfill involved installation of 15 monitoring wells, as two of the originally planned 17 monitoring wells were eliminated due to soil lithology observed in the field during well installation. Drilling activities were completed on September 22, 2020. Well development of the 15 newly installed monitoring wells began on September 28 and is ongoing. The 15 newly installed monitoring wells in the City of Henderson landfill, including existing monitoring well DBMW-20, were surveyed on September 28, 2020.

- A final layout map and construction details of all injection and monitoring wells will be provided in the October monthly progress report upon completion of well development and receipt of final survey data.
- Baseline groundwater sampling of all Phase 1 monitoring wells and all newly installed Phase 2 injection, extraction, and monitoring wells began on September 28, 2020 with a scheduled duration of two weeks. Groundwater analytical results from baseline sampling will be provided in future monthly progress reports when data are available.
- Access negotiations with COH for the use of a portion of their landfill as a staging area during injections are on-going.
- Schedule and Progress Updates
  - Well development and baseline groundwater and surface water sampling activities are scheduled to be completed in October 2020.
  - The remaining aquifer testing will be performed following completion of well development activities on COH property and approval of the Underground Injection Control (UIC) permit modification request, which was submitted to the Bureau of Water Pollution Control (BWPC) on June 18, 2020.
  - On August 4, 2020, the Trust provided the complete Las Vegas Wash Bioremediation Pilot Study Work Plan Addendum package and NDEP approval letter in response to a request for this documentation made by Andrew Kowler with BWPC on August 3, 2020. Based on email correspondence received from BWPC on August 26, 2020, the UIC Permit Modification Request currently remains under BWPC review.
- Health and Safety
  - There were no safety incidents related to Task M19 during September 2020.
  - Safety measures continue to be implemented to minimize potential exposure to COVID-19, including the use of face coverings, gloves, and hand sanitizer, as well as protocols for monitoring temperatures, minimizing the number of people on site at one time, and evaluating tasks to increase physical distance between personnel.

## CERTIFICATION

### Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report

**Nevada Environmental Response Trust Site  
(Former Tronox LLC Site)  
Henderson, Nevada**

#### Nevada Environmental Response Trust (NERT) Representative Certification

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Signature:** Jay A Steinberg **Not Individually, but Solely as President of the Trustee**, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

**Name:** Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

**Title:** Solely as President and not individually

**Company:** Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Date:** 11/3/2020

## CERTIFICATION

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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

**Description of Services Provided:** Las Vegas Wash Bioremediation Pilot Study Monthly Progress Report, Nevada Environmental Response Trust Site, Henderson, Nevada.



**Kyle Hansen, CEM**  
Field Operations Manager/Geologist  
Tetra Tech, Inc.

November 3, 2020

Date

Nevada CEM Certificate Number: 2167  
Nevada CEM Expiration Date: September 18, 2022