

# TECHNICAL MEMORANDUM

To:	Nevada Environmental Response Trust
Cc:	Nevada Division of Environmental Protection United States Environmental Protection Agency
From:	Chris Hayes
Date:	March 21, 2022
Subject:	Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum to summarize Tetra Tech's progress during February 2022 toward successfully implementing the Unit 4 Source Area In-Situ Bioremediation (ISB) Treatability Study.

#### Task Progress Update: February 2022

#### Task M21 - Unit 4 Source Area ISB Treatability Study

- Current Status
  - Phase 2 of the Unit 4 Source Area ISB Treatability Study is ongoing. The following activities were completed in February 2022 as part of the design and implementation:
    - Drilling activities for the Area 1 and Area 2 injection/extraction and monitoring wells began on January 4, 2022 and are expected to continue through March 2022. As of February 28, 2022, four injection/extraction wells and 26 monitoring wells have been installed and 13 newly installed wells have been developed. A final layout map and construction details of all injection and monitoring wells will be provided in future monthly progress reports upon completion of the drilling effort.
    - A geotechnical evaluation of the truck route from the Unit 4 building to the GWETS Process Tanks formerly used for AP-5 Pond closure was conducted on February 11, 2022. The GWETS Process Tanks will be used to receive extracted groundwater (up to 4x daily) generated through operations associated with the Unit 4 Source Area ISB Treatability Study. This extracted groundwater will subsequently be processed by Envirogen Technologies, Inc, (ETI), operator of the GWETS, consistent with an agreement between ETI and the Trust.
    - A Water Appropriations Permit allowing groundwater extraction activities as part of the Unit 4 Source Area ISB Treatability Study was issued by Nevada Division of Water Resources on February 25, 2022.

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#### • Schedule and Progress Updates

 Installation of Area 1 and Area 2 injection/extraction and monitoring wells and subsequent well development will continue through March 2022. A request for a UIC Permit Modification will be submitted to the Bureau of Water Pollution Control in March 2022 to include well maintenance chemicals to the list of approved injectates.

#### Health and Safety

o There were no health and safety incidents related to Task M21 during February 2022.

#### CERTIFICATION

#### Unit 4 Source Area In-Situ Bioremediation Treatability 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: Ox A Steily	Not Individually, but Solely as President of the Trustee , no	ot individually,
but solely in his representative capacity as President	of the Nevada Environmental Response Tru	ust Trustee
Name: Jay A. Steinberg, not individually, but solely Environmental Response Trust Trustee	in his representative capacity as President	t of the Nevada
Title: Solely as President and not individually		
<b>Company:</b> Le Petomane XXVII, Inc., not individual Environmental Response Trust Trustee	lly, but solely in its representative capacity a	as the Nevada
7/21/22 Date:	_	

#### **CERTIFICATION**

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:** Prepared Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report.

David S. Wilson, CEM

Principal Engineer Tetra Tech, Inc.

Nevada CEM Certificate Number: 2385

Nevada CEM Expiration Date: September 19, 2022

March 21, 2022

Date

## **Figures**

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