

OFFICE OF THE NEVADA ENVIRONMENTAL RESPONSE TRUST TRUSTEE

**Le Petomane XXVII, Inc., Not Individually, But Solely as the Nevada Environmental Response Trust Trustee
35 East Wacker Drive - Suite 690
Chicago, Illinois 60601
Tel: (702) 960-4309**

July 21, 2020

Dr. Weiquan Dong, P.E.
Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
375 E. Warm Springs Road, Suite 200
Las Vegas NV 89119

RE: Revised Data Validation Summary Report and Electronic Data Deliverable
Las Vegas Wash Zero-Valent Iron Treatability Study
Nevada Environmental Response Trust
Henderson, Nevada

Dear Dr. Dong:

The Nevada Environmental Response Trust (NERT) is pleased to present the Revised Data Validation Summary Report and Electronic Data Deliverable associated with the Las Vegas Wash Zero-Valent Iron Treatability Study for Nevada Division of Environmental Protection (NDEP) review. This submittal addresses the comments in your letter dated June 10, 2020. As requested, NERT is also providing annotated responses to comments.

If you have any questions or concerns regarding this matter, feel to contact me at (702) 960-4309 or at steve.clough@nert-trust.com.

Office of the Nevada Environmental Response Trust



Stephen R. Clough, P.G., CEM
Remediation Director
CEM Certification Number: 2399, exp. 3/24/21

Cc (via NERT Sharefile Distribution):

Jeff Kinder, NDEP, Deputy Administrator
Frederick Perdomo, NDEP, Deputy Administrator
James Dotchin, NDEP, Chief, Bureau of Industrial Site Cleanup
Carlton Parker, NDEP, Bureau of Industrial Site Cleanup
Alan Pineda, NDEP, Bureau of Industrial Site Cleanup
Christa Smaling, NDEP, Bureau of Industrial Site Cleanup
Alison Fong, U.S. Environmental Protection Agency, Region 9
Mark Duffy, U.S. Environmental Protection Agency, Region 9
Jay Steinberg, as President of the Nevada Environmental Response Trust Trustee and not individually
Andrew Steinberg, as Vice President of the Nevada Environmental Response Trust Trustee and not individually
Brian Loffman, Le Petomane, Inc.
Tanya C. O'Neill, Foley and Lardner, LLP
Allan DeLorme, Ramboll

Office of the Nevada Environmental Response Trust Trustee
July 21, 2020

John Pekala, Ramboll
Kim Kuwabara, Ramboll
Dan Pastor, Tetra Tech
David Bohmann, Tetra Tech

Cc (via NERT Stakeholder Sharefile Distribution):

Betty Kuo, Metropolitan Water District of Southern California
Brenda Pohlmann, City of Henderson
Carol Nagai, Metropolitan Water District of Southern California
Dave Johnson, LV Valley Water District
David Parker, Central Arizona Project
Eric Fordham, Geopentech
Jill Teraoka, Metropolitan Water District of Southern California
Kevin Fisher, LV Valley Water District
Marcia Scully, Metropolitan Water District of Southern California
Maria Lopez, Metropolitan Water District of Southern California
Mauricio Santos, Metropolitan Water District of Southern California
Mickey Chaudhuri, Metropolitan Water District of Southern California
Orestes Morfin, Central Arizona Project
Peggy Roefer, Colorado River Commission
Steven Anderson, LV Valley Water District
Todd Tietjen, Southern Nevada Water Authority

Cc (via NERT BMI Companies Sharefile Distribution):

Anna Springsteen, Neptune Inc.
Kirk Stowers, Broadbent Inc.
Kristen Lockhart, Neptune Inc.
Kurt Fehling, The Fehling Group
Patti Meeks, Neptune Inc.
Paul Black, Neptune Inc.
Chinny Esakkiperumal, Olin Corporation
Chuck Elmendorf, Stauffer
Curt Richards, Olin Corporation
Dave Share, Olin Corporation
Ebrahim Juma, Clark County Water Quality
Ed Modiano, de maximus
Jeff Gibson, Endeavour LLC
Joe Kelly, Montrose Chemical
Joe Leedy, Clark County Water Quality
John Solvie, Clark County Water Quality
Kevin Lombardozzi, Valhi
Kyle Gadley, Geosyntec
Lee C. Farris, Landwell
Mark Paris, Landwell
Nick Pogoncheff, PES Environmental, Inc.
Ranajit Sahu, BRC
Richard Pfarrer, TIMET
John Holmstrom, EMD

| NDEP Comment | Response to Comment |
|---|--|
| DVSR Comments | |
| <p>1. Section 1.0, sample count: The text states there are 40 environmental and QC samples; however, the EDD has 41 "NORM" samples and 7 QC samples and Table 1 has 30 environmental samples and 11 QC samples. Please correct these discrepancies. (Also, please note that, as written, "40 environmental and quality control samples" implies a total of 40 samples.)</p> | <p>The dataset contains 48 unique samples: 41 primary samples, four (4) field duplicates (FD), two (2) equipment blanks (EB), and one (1) field blank (FB). In the DVSR, Section 1.0 has been revised to state that there are 48 environmental and quality control samples. The EDD contains 48 unique samples. In this dataset, each row in Table I of the DVSR is a unique sample, and Table I contains 48 unique samples. No changes have been made to the EDD or to Table I.</p> <p>For technical background:</p> <p>Eleven (11) rows in Table I were samples analyzed by Pace Analytical Services for dissolved hydrogen gas. These samples were taken at a different time from their related sample analyzed by Eurofins because the field sampling method for dissolved hydrogen gas requires specialized equipment. In the EDD, to preserve the unique sample times, all 11 samples have "H2" appended to the sample name in sample_id_field. In Table I, "H2" was not appended to the Client Sample ID in order to keep the sample IDs consistent with the laboratory data packages. In this data submittal, each row in Table I is a unique sample.</p> <p>Table I contains four pairs of primary and field duplicate samples. Each pair has a numbered "FD" QC Type to note which primary and field duplicate samples are related. The four field duplicate samples have "-FD" appended to the sample name in the Client Sample ID column. Table I contains seven QC samples: four (4) field duplicates (FD), two (2) equipment blanks (EB), and one (1) field blank (FB). This is consistent with the EDD.</p> |
| <p>2. Section 1.0, laboratories: The text states that the samples were analyzed by Eurofins and Pace. The "lab_id" field in the EDD also lists "LLI." If this was not a Pace or Eurofins subcontract laboratory, it should be identified in the text.</p> | <p>The lab_id "LLI" in the EDD refers to Eurofins Lancaster Laboratories, which is part of Eurofins network of laboratories. No revisions have been made to the DVSR or EDD.</p> |
| <p>3. Section 1.0, methods and analytes: The ferrous iron method is identified as SM 3500-FE D in the text but is reported only as SM 3500 in the EDD. The text states that the analyte reported by the Lloyd Kahn method is total organic carbon; however, the</p> | <p>The method for ferrous iron has been updated to "SM3500-FE D" in the EDD to be consistent with the method listed in the DVSR text.</p> |

| NDEP Comment | Response to Comment |
|--|--|
| <p>EDD reports this analyte only as carbon (if the text is corrected, please note that total organic carbon is referenced in several locations in the text.). Please correct these discrepancies</p> | <p>In addition, the analyte reported by Lloyd Kahn has been updated to "Total Organic Carbon" in the EDD.</p> |
| <p>4. Table II, footnotes: The "-" symbol is identified as not applicable to Stage 2A validation in all footnotes, including the table presenting only Stage 2B requirements (page 24 of the PDF). This specific instance should be revised to define the symbol as not applicable to Stage 2B validation.</p> | <p>Table II has been updated to include the definition of "-" = Not applicable for Stage 2B review" for the list of Stage 2B requirements.</p> |
| <p>5. Section 4.2.1, holding times: Please check the holding times for nitrate. When reported on its own (i.e., not as nitrate/nitrite), the aqueous method holding time is 48 hours instead of 28 days.</p> | <p>The text in Section 4.2.1 has been reviewed and the third paragraph correctly states the holding time criteria is 48 hours for water samples. For clarity, the paragraph has been revised to note that the qualified results mentioned are water samples. The text now states:</p> <p style="padding-left: 40px;">For water samples, one nitrate as nitrate result, one nitrate as nitrogen result, 22 ferric iron results, and 28 ferrous iron results were qualified as detected estimated (J-) or non-detected estimated (UJ) due to an exceedance of holding time criteria. The analysis holding time criteria is 48 hours for water samples.</p> |
| <p>6. EDD, calibration range exceeded: There are 10 results for chloride and sulfate with laboratory "E" qualifiers. This usually indicates the result was reported above the linear range of the calibration. Should these results have been qualified during validation?</p> | <p>The 10 results for chloride and sulfate with laboratory "E" qualifiers listed in the EDD were not reported in the data package. The laboratory set these results to Reportable "No" in the EDD and they were not counted in the result total in Section 6.4; however, the results were incorrectly marked as validated and were therefore included in the EDD. The 10 results have been removed from the EDD; no revisions were made to the DVSR.</p> |
| EDD Review | |
| <p>1. 6 records with matrix WG are missing entry in field litho. Sample ID: ZTS-MW113-20191203, ZTS-MW113-20191206H2, ZTS-MW114-20191206, ZTS-MW114-20191206H2, ZTS-MW115-20191206, ZTS-MW115-20191206H2. Please add this information if it is available.</p> | <p>The information for field litho has been added to the EDD for the six records.</p> |