

**TIMET**  
**Response to NDEP's March 21, 2013 Correspondence**

1. Section 3.2 Organics, page 9, please reference the "U.S. EPA HRA Manual, 1989, Section 5.9 Further Reduction in the Number of Chemicals" for the five percent frequency of detection.

**TIMET Response:** The text has been revised to reflect this reference.

2. Appendix A, NDEP provides the following comments:
  - a. Attachment A – NDEP Comments and TIMET's Response to Comments (RTCs), TIMET RTC #1, NDEP October 12, 2012 Correspondence, NDEP will review the maps included in the March 13, 2013 Deliverable.

**TIMET Response:** TIMET submitted updated versions of these maps to the NDEP in the Excavation Plan Technical Memorandum deliverable dated March 22, 2013.

- b. Attachment A – NDEP Comments and TIMET's RTCs, TIMET RTC #8, NDEP October 12, 2012 Correspondence, NDEP specifically requested that screening decisions in Tables E-1 and E-2 to be included on those Tables. TIMET did not provide the requested changes to these tables. Due to the numerous errors found between Table 2 and Table E-2, NDEP is again requesting that decisions indicated in Tables E-1 and E-2, then TIMET should provide a column in these Tables that indicate the decision. TIMET included the decisions in Table 2. A cross check of Tables 2, 3, and E-2 shows the following:
      - i. Table 2 - Organic Screening Results, SVOA – 4,4-DDE indicates No exceedance of LBCLs; however, Table E-2 shows that one of six samples exceeded DAF1 (frequency of detection was 100 percent for six samples collected).

**TIMET Response:** Screening decisions have been added to Tables E-1 and E-2. Table 2 has been corrected to show the DAF-1 exceedance for 4-4-DDE. The decision to exclude 4,4-DDE from LSSL development was developed in consideration of the pesticide methodology results which suggest this parameter will not drive the removal action.

- ii. Table 2 - Organic Screening Results, SVOA – Dibenzofuran indicates No detections; however, Table E-2 shows that there were two detections.

**TIMET Response:** The notation in the Rationale column for dibenzofuran should read “FOD < 5%” since there were 2 detections out of 248 samples. Table 2 has been revised accordingly.

- iii. Table 2 - Organic Screening Results, Pesticide – Chlordane shows No exceedance of LBCLs; however, Table E-2 shows that there were no detections for the analyte. This is comment applies for various analytes compared between Table 2 and Table E-2 and has not been repeated in each instance.

**TIMET Response:** Table 2 has been revised accordingly.

- iv. Table E-2 Inorganic Concentrations Compared to LBCL DAF, NDEP provided an LBCL DAF1 for octachlorostyrene (listed in Table 3), which does not appear to be included in Table E-2.

**TIMET Response:** The entry for octachlorostyrene has been included in Table E-2.

Please include the screening decisions in Tables E-1 and E-2 as was originally requested and correct the above inconsistencies.

**TIMET Response:** Screening decisions have been added to Tables E-1 and E-2. The tables have been cross-checked with Table 2 and corrections were made as appropriate.

- c. Attachment A – NDEP Comments and TIMET’s RTCs, RTC #5.c., NDEP discussed this matter with TIMET in February 2013 and proposed either using the LBCL of 0.03 mg/kg instead of the LSSL or calculate the LSSL using the MCL for THM. Please revise to include the proposed solutions.

**TIMET Response:** The LBCL of 0.03 mg/kg has been used.

- d. Issues Raised During Meetings with NDEP/TIMET Technical Teams (As Reflected in Meeting Minutes for February 5, 2013 and February 8, 2013), NDEP provides the following comments:
  - i. RTC 1, the February 5, 2013 meeting minutes should be quoted verbatim and not paraphrased. Please revise to include the finalized version of the meeting minutes issued by NDEP.

**TIMET Response:** TIMET is unclear what is meant by this comment, as copies of both referenced meeting minutes were included in Appendix A of TIMET’s previous submittal (Revision #4).

3. Appendix D – Statistical Evaluation of Inorganics and Radionuclides, Exploratory Data Analysis Section. Boxplots and quantile plots were not provided as part of this Deliverable. Please include these plots as supporting information in the form of an Appendix in all future Deliverables to support the conclusions being drawn in Appendix D (e.g., “Analytes with an asterisk failed only one of four Gilbert’s Toolbox tests, and did not exceed background upon exploratory data analysis.”). The NDEP was able to create these plots as part of this review in order to verify claims made in the text and expedite the review. These plots can be found in Attachments B and C.

**TIMET Response:** These plots have been included in Appendix D.

4. Appendix D – Statistical Evaluation of Inorganics and Radionuclides, Summary of Inorganic COPC Selection for Leaching Evaluation Section. NDEP does not agree with the conclusions in the text, “Upon evaluation of Table D-1, analytes eliminated as COPCs in the 0-10 ft bgs interval because Gilbert’s toolbox confirms they are within the range of shallow McCullough soils background are aluminum, calcium, lithium\*, magnesium\*, nickel, palladium, silicon, strontium, titanium\*, thallium\*, uranium\*, vanadium\* and zirconium. (Analytes with an asterisk failed only one of four Gilbert’s Toolbox tests, and did not exceed background upon exploratory data analysis.)”. Upon further exploration of the boxplots and probability plots that were created by the NDEP, it appears that lithium, magnesium, thallium, titanium, uranium, and vanadium failed the background comparisons and should be carried through as COPCs (see Attachment B for the plots). Please revise as necessary.

**TIMET Response:** Appendix D has been modified such that lithium, magnesium, thallium, titanium, uranium and vanadium are carried through as COPCs.

5. Appendix D – Statistical Evaluation of Inorganics and Radionuclides, background comparisons, NDEP would like to note the following for future Deliverables. Most of the metals failed background comparisons, but the effect for nearly all of these metals is that failure of background comparisons occurs because of “tail effects”. That is, most of the data are similar to background, but there is a sizeable minority for which this is not the case. This implies the potential for spatial differences at the site, which should be explored. If spatial differences provide the explanation for the background comparison failures, then it might be the case that only a portion of the site is contaminated. Spatial plots are also needed to determine if this is the case.

**TIMET Response:** Comment noted.

6. Appendix F – Laboratory Data Reports, it appears that there is no discussion in the main body of the report or in this Appendix regarding the approval status of the data

that was used to develop the Deliverable. Please reference the specific data validation summary reports (DVSRs) and the related NDEP approval letters.

**TIMET Response:** TIMET performed data validation on data collected from the BMI Beta / Northwestern Ditches in two phases.

Data validation of data collected in 2011 was presented to the NDEP in a document dated January 4, 2012 entitled *Data Validation Summary Report for 2011 Beta and Northwest Ditches Soil Data*. Due to a change in NDEP case officers, the NDEP did not respond to this submittal and, in 2013, requested a re-submittal of this document taking into account updated NDEP data validation guidance. TIMET submitted a revised data validation summary report (DVSR) to the NDEP on March 19, 2013; responded to NDEP comments on the DVSR report on April 10, 2013; provided clarification of the DVSR in electronic mail (e-mail) dated April 23, 2013; and received NDEP approval of the DVSR for 2011 data on April 29, 2013.

Data validation of data collected in 2012 (as a result of a data gap work plan) was presented to the NDEP in a document dated October 29, 2012 entitled *Data Validation Summary Report, 2012 Beta and Northwest Ditches Soil Data*. TIMET provided a response to NDEP comments on the DVSR on January 7, 2013; submitted a revised EDD by e-mail on January 31, 2013; and received NDEP approval of the DVSR for 2012 data on February 12, 2013.

The main body of the report has been revised to include this information.

7. Figure 2 – Locations of Soil Borings Relative to Beta/Northwestern Ditches, please provide the location of the proposed excavation for the slurry wall on this Figure or an alternate Figure to verify the statements within the body of the text regarding sample locations to be excavated.

**TIMET Response:** The approximate alignment of the proposed slurry wall has been added to Figure 2.

8. Tables, all tables have undefined formatting such as yellow highlighting, red font, strike through, etc. Please include definitions for these formats in the notes for each table.

**TIMET Response:** The undefined formatting was intended to denote changes from prior revisions and is not relevant to the current submittal. The undefined formatting has been removed and those chemicals shown with strike-out lines on Tables 3 and 4 (previously denoting the chemicals have been dropped from LSSL development) have been removed from the Tables in accordance with the screening decisions identified in Tables 1 and 2 (and E-1 and E-2).

9. Table 3 – Calculation of LSSLs at DAF-1 for Beta/Northwestern Ditch, NDEP provides the following comments:
- a. The Kd reference for Ra-226 and Ra-228 is listed as “b” (SSL guidance) but should be “f” (RAIS database) based on the Kd value and lack of Kd value for Ra in the SSL guidance. Please revise as necessary.

**TIMET Response:** Table 3 has been revised accordingly.

- b. TIMET states that there are no risk-based groundwater concentrations available for four compounds. Please include a foot note and update the text to state that calcium, sodium, and potassium are nutrients and no LSSLs need to be developed and include the niobium LSSL provided by NDEP. For future reference, TIMET should derive risk-based concentrations in accordance with the Nevada Administrative Code or request that NDEP complete this task on TIMET’s behalf or provide justification that the sample locations for these compounds are in areas to be excavated and an LSSL would not be needed to be developed.

**TIMET Response:** Table E-1 has been revised accordingly.

- c. The perchlorate LBCL is 0.185 mg/kg not 0.0263 mg/kg as listed in Table 3. Please revise as necessary.

**TIMET Response:** Table 3 has been revised accordingly.