



# **Central Valley Regional Data Center**

## CV RDC Chemistry Transformer Protocol

The chemistry transformer enables a user to automatically populate the same information multiple times using an excel macro.

March 8, 2013



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| Date of       | Document  | Page   | Amendment to CV RDC Chemistry Documentation |
|---------------|-----------|--------|---|
| Amendment     | Section   | Number |   |
| March 8, 2013 | Section 2 | 7      | Updated Data Checker link.                  |



## 1. CV RDC CHEMISTRY TRANSFORMER

## **1.1 TEMPLATES**

This transformer was originally built by the Surface Water Ambient Monitoring Program (SWAMP) and can support the CV RDC templates.

## **1.2 OPEN TRANSFORMER**

For water and sediment chemistry, open the CV RDC chemistry transformer. If a laboratory has already met with a SWAMP/CV RDC database manager, the toxicity transformer may be altered to fit the lab more specifically. In that case the name of the file would end with the laboratories name. The date refers to when the file was last updated.

Enable macros when opening file (security should be set at least on medium for this).

## **1.3 CREATE A COPY**

The original ChemTransformer file should remain as your master file. Therefore save the opened transformer under a different name to record the data entered and generated from the macro. Example CV RDC file naming convention can be found at: <u>http://mlj-</u><u>llc.com/documents/CVRDC/CVRDC File Batch Name Convention</u>

## **1.4 TAB DESCRIPTIONS WITHIN FILE**

Each tab/worksheet is explained below:

Notes Tab: Contains notes on required fields and updates.

LabBatch Tab: Contains batch information.

<u>Results Tab</u>: Contain results information where after entering the required information and running the macro it produces your Results "Modified" tab. Once this is made please rename this modified tab to Results and the original results tab can be named Results-org.

## **1.5 POPULATE SAMPLE INFORMATION IN TRANSFORMER**

Fill in sample information Column B through N for environmental samples analyzed with information provided by the project.

Add in **LabSampleID** information in Column A from lab results.

**Control samples:** Add in information for LABQA samples using AnalysisDate (test start date) as the SampleDate. **SampleID** provided by the project may also be added

## **1.6 POPULATE REST OF INFORMATION IN TRANSFORMER**

Information for the following is already filled in the transformer and can be used as a template, however all cells added must match current CV RDC Toxicity <u>LookUp lists</u>.



(All of these headers are in red)

PreparationPreservation (Default null value = None)

PreparationPreservationDate (Default null value = 01/Jan/1950 00:00)

DigestExtractMethod (Default null value = None)

**DigestExtractDate** (Default null value = 01/Jan/1950 00:00)

**LabBatch**; batches MUST be unique. Example CV RDC batch naming convention can be found at: <u>http://mlj-llc.com/documents/CVRDC/CVRDC\_File\_Batch Name\_Convention</u>. The following format is designed to ensure that batches are unique and won't be duplicated by either another laboratory or even within the same laboratory. Each LabBatch includes quality assurance samples plus the environmental samples run with that control.

AnalysisDate LabReplicate MatrixName MethodName FractionName DilFactor AnalyteName, Unit, MDL and RL are left blank and filled in by the tox transformer .

**Result, ResultqualCode, QACode, ExpectedValue and LabResultcomments** double check or fill in after you run the transformer.

## **1.7** FILL IN CHEMISTRY RESULTS.

Fill in Units, MDL and RL for each AnalyteName within rows 2-4.

Add all applicable results.

DOUBLE CHECK RESULTS.



## 1.8 RUN (DATATRANSFORMER) MACROS

| Microsoft Excel - CVRDC_ChemTransformer 2011_0913   |  |             |    |          |      |       |   |        |            |           |                                       |          |              |          |          |          |          |          |          |           |          |                  |          |            |             |              |
|---|--|-------------|----|----------|------|-------|---|--------|------------|-----------|---------------------------------------|----------|--------------|----------|----------|----------|----------|----------|----------|-----------|----------|------------------|----------|------------|-------------|--------------|
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|   | A  | B           |    |          |      |       |   | AL     |            | Constitut |                                       |          |              | AO       | AP       | AQ       | ΔR ΔS ΔΤ |          |          | WA VA IIA |          |                  | AX       | AY         | AZ          |              |
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|   |  |             |    |          |      |       |   |        |            | <b>*</b>  | Visual Basic                          | Editor   | A            | lt+F11   |          |          |          |          |          |           |          |                  |          |            |             |              |
|   |  |             |    |          |      |       |   |        |            | -         |                                       |          | - ALL CL     | a. F11   |          |          |          |          |          |           |          |                  |          |            |             |              |
|   |  |             |    |          |      |       |   |        | l          | •         | Microsoft Script Editor Ait+Snift+F11 |          |              | 1        |          |          |          |          |          |           |          |                  |          |            |             |              |
|   |  |             |    |          |      |       |   |        |            | s<br>B    |                                       |          |              |          |          |          |          |          |          |           |          |                  |          |            |             |              |
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| 2   |  |             |    |          |      |       |   | _      | _          | Units     | mg/Kg dw                              | mg/Kg dw | mg/Kg dw     | mg/Kg dw | mg/Kg dw | mg/Kg dw | mg/Kg dw | mg/Kg dw | mg/Kg dw | mg/Kg dw  | mg/Kg dw | %                | ng/L     |            |             |              |
| 3   |  |             |    |          |      |       |   | _      | _          | MDL       | 0.008                                 | 0.100    | 0.100        | 0.002    | 0.030    | 0.003    | 0.003    | 0.006    | 0.002    | 0.100     | 0.020    | -88              | 0.200    |            |             |              |
| 4   | 0005 0074  |             |    | -        |      |       | _ | _      | _          | RL        | 0.020                                 | 0.300    | 0.300        | 0.006    | 0.090    | 0.009    | 0.009    | 0.018    | 0.006    | 0.300     | 0.060    | -88              | 0.200    |            |             |              |
| 5   | 2005-2074  | 201PNG010   | 1  | -        |      |       |   | _      |            |           | 0.141                                 | 3.54     | 1.63         | 0.662    | 0.678    | 48.1     | 2.03     | 0.004    | 0.151    | 1.46      | 56.2     | 72.86            |          |            |             |              |
| 6   | 2005-2075  | 201EAS020   | 1  | -        |      |       |   | -      |            |           | 0.001                                 | 0.721    | 0.340        | 0.001    | 0.586    | 1.95     | 0.798    | 0.006    | 0.001    | 0.933     | 21.4     | 81.76            |          |            |             |              |
| -   | 2005-2075 MS                                     | 201EA5020   | 1  | -        |      |       |   | -      |            |           | 0.465                                 | 18.4     | 102          | 0.514    | 3.04     | 7.55     | 2.45     | 38.3     | 2.64     | 3.20      | 12.4     | 71.45            |          |            |             |              |
| Ö   | 2005-2075 MSD                                    | 201EA5020   | 1  | -        |      |       |   | -      | _          |           | 0.473                                 | 18.7     | 107          | 0.509    | 2.84     | 7.44     | 2.4/     | 37.2     | 2.59     | 2.96      | 13.1     | 74.68            |          |            |             |              |
| 9   | 2005-2076  | 2012802010  | 1  | -        |      |       | - | _      | _          |           | 0.141                                 | 3.54     | 1.63         | 0.062    | 0.678    | 48.1     | 2.03     | 0.004    | 0.151    | 1.46      | 56.2     | 75.00            |          |            |             |              |
| 10  | 2005-2090  | 20384X030   | 1  | -        |      |       |   | -      | _          |           | 0.003                                 | 3.12     | 33.0         | 0.019    | 0.100    | 0.750    | 0.202    | 0.001    | 0.000    | 0.599     | 11.7     | 75.03            |          |            |             |              |
| 1   | 2000-2097  | 20-30-44030 | 1  | -        |      |       |   | -      |            |           | 0.003                                 | 3.12     | 33.0         | 0.019    | 0.100    | 0.750    | 0.202    | 0.001    | 0.000    | 0.009     | 11.7     | 75.03            |          |            |             |              |
| 14  | Method Blank                                     | LABQA       | 1  | -        |      |       |   | -      |            |           | 0.010                                 | 0.070    | 0.090        | 0.001    | 0.020    | 0.002    | 0.002    | 0.002    | 0.001    | 0.090     | 0.010    | 100.0            |          |            |             |              |
|   | PS-amons-MDX-01-22                               | LABUA       | 1  | -        |      |       |   | _      |            |           | 0.704                                 | 1.05     | 0.025        | 8.49     | 15.5     | 28.9     | 2.02     | 3.25     | 13.3     | 1.33      | 20.9     | 5.901            | 0.425    |            |             |              |
| 14  | 2005-6306  | 713CRNVBD   | 1  | -        |      |       |   | _      |            |           |                                       |          |              |          |          |          |          | -        |          |           |          |                  | 0.135    |            |             |              |
| 1:  | 2000-0300-0                                      | 71-SCRNVBD  | 4  | -        |      |       | - | _      |            |           |                                       |          |              |          |          |          |          |          |          |           |          |                  | 0.133    |            |             |              |
| 10  | 2000-031   | 715CPVEG1   | 4  | -        |      |       | _ | _      | _          |           |                                       |          |              |          |          |          |          | -        |          |           |          |                  | 0.051    |            |             |              |
| 11  | 2000-0310<br>3005 6940 mp                        | 715CPV002   | 4  | -        |      |       | - | -      | _          |           |                                       |          |              |          |          |          |          |          |          |           |          |                  | 0.040    |            |             |              |
| 10  | 2000-0310-08                                     | 7150PV002   | 1  | -        |      |       | _ | _      | _          |           |                                       |          |              |          |          |          |          |          |          |           |          |                  | 0.000    |            |             |              |
| 18  | 2000-0310-050                                    | 7156PV002   | 1  | -        |      |       | - | -      |            |           |                                       |          |              |          |          |          |          |          |          |           |          |                  | 0.000    |            |             |              |
|   |  |             |    |          |      |       |   |        |            |           |                                       |          |              |          |          |          |          |          |          |           |          |                  |          |            |             |              |

In 2003: Tools/Macro/ Macros/DataTransformer

Run

In 2007: View/Macros/ViewMacros/DataTransformer

Run

Answer pop-up questions. Please note that the following are only for example purposes, and depending on water quality parameters or result types, your macro work book may be different. Please answer the questions as they pertain to your results, not this checklist.

1) Is this data surrogate corrected? = No

2) Enter the row number of the first sample? = 5

## **1.9** RENAME RESULTS TAB

After running the macro a new "Results Modified" tab is created. Please rename this tab to Results and the original results tab to "Results-org".

#### **1.10** CHECK RESULTS.



Check all highlighted cells from the transformer.

Cells with no values will be highlighted in red; should be replaced with -88 or deleted if not applicable.

Also cells with 0 will be highlighted in red for verification.

After checking all highlighted cells, get rid of highlights.

Make sure that the results entered have the correct number of significant figures.

**1.11** ADD ADDITIONAL INFORMATION TO TOXSUMMARY AND TOXRESULTS.

**ExpectedValue-** if applicable; this column may be blank. Apply expected values for MS, LCS and surrogates.

**LabResultComments** – Any applicable comments can be added here.



You have now created a file with a LabBatch and Results sheet that can hold various chemistry results

You can now check this file for current CV RDC formatting and business rules through the CV RDC data checker: http://checker.cv.mpsl.mlml.calstate.edu/CVRDC/CVRDCUpload.php. Please address any applicable errors. Once all applicable errors are addressed please submit your data to the CV RDC through the data checker.

