Test Level Authorization of Uploaded Results for Bench Biology Samples

1. INTRODUCTION

1.1. This procedure provides instruction for authorization of data for bench biology samples. Sample results are uploaded through LIMS QC Manager and saved as a review file (filename.REV). Once the data has been verified by two analysts (per SOP BG-01), the results can be authorized. Authorization is required to pass the samples for Job Authorization, followed by Certification. This procedure applies to the following LIMS Analysis IDs: CHLSUITE-W, CHL-CORR-P, CHL-MDFL-W, DW-PLATECT, FCOLI-MF, FC-MF-CL, ECOLI-18QT, TCOLI -18QT, ENT-24-QT, EC-18QT-CL, EN24-QT-CL.

2. DATA REVIEW

2.1. Remove paperclip from the packet to be authorized and check all printouts for errors. If corrections were made during verification, ensure these are updated in LIMS QC Manager. Checkmark and initial pages as they are reviewed for documentation.

2.2. Check the samples and test IDs on the Run-Log printout against the appropriate worksheets for the day. The worksheets should have already been checked for errors.

2.3. Login to LIMS QC Manager. Select the appropriate instrument and open the review file to be authorized. The file name is the title on the QC Manager Results printout.

2.4. Highlight all the data in the Sample Table.

2.5. Select Tools > Show NCRs from the menu. If applicable, add a comment or qualifier to any sample/result related to an NCR (Non-Conformance Report). Attach a copy of the relevant NCR to the end of the packet.

> **Note: If the authorizing analyst finds missing documents (e.g., NCR or LIMS Results Editor print-out) or if results need qualifiers, the packet will be returned to the analyst who uploaded the data. Instructions for the required amendments will be provided. Once the packet is re-uploaded with the necessary adjustments, the authorizing analyst will continue the review process.**

2.6. Check **Analyst**, **Date**, and **Time** changes. Also, check for **Prep Batch** and **Analysis Batch** IDs.

2.7. Check the instrument printout against the Run-Log printout to make sure all the information is the same and is correct. For example, check Sample IDs, volumes, and test IDs on each page. There is a printed report for micro analyses instead of an instrument printout. This step is done during the two-person verification process.

2.8. Make note of failed controls, standards, dups, and other sample discrepancies.

2.9. On QC Manager print-out, check that correct rows are flagged for upload. See SOP BB-031 for the appropriate data to upload for each analysis type. Check the Remarks column for correct qualifiers. For duplicate results reported as an average, an “A” qualifier must be included. If a comment exists for lab duplicates, ensure a comment is attached to all sample rows for the batch and the average row. The comment for the lab duplicates should include the value of the

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duplicate not reported unless the value is not applicable. Comments for other samples in the batch do not need to contain values.

2.10. If there are any QC control failures, ensure samples are appropriately flagged and comments have been added. See SOP BB-31 for QC acceptance limits and protocols for limit failures.

2.11. Check LIMS values and significant figures. If any values are changed, add a comment in the notes section of the QC Manager and on the QC Manager printout.

2.11.1. For Quanti-Tray results, ensure LIMS values are displayed in standard notation and rounded to the tenths place (e.g., 10 U should be changed to 10.0 U).

2.11.2. For chlorophyll results, confirm that each LIMS value has the correct number of significant figures. LIMS values should have two significant figures, but round them to three if necessary

2.11.3. In Membrane Filtration QCM files, change the reported values to a whole number. LIMS values should be changed from scientific notation to standard notation.

2.11.4. For averages, ensure that QCM uses the smallest number of significant figures between the values.

2.12. Save by selecting **File → Save (Ctrl+S)**.

2.13. In LIMS, open the Data Review/ Authorize tab. Select **Laboratory → Administrative → Data Review/ Authorize.** Select the QC tab, highlight the appropriate batch ID and hit execute. Check that all the appropriate BLK's and RPD's are uploaded. If there are any duplicate results, highlight the results with no edits and select **Toggle "X" Status.**

3. AUTHORIZATION

3.1. Select **Tools → Upload → By Upload Flag**.

3.2. Note: If the message "Warning! You are uploading a spike RPD without its corresponding recoveries." appears in the **QC Manager & Results Upload** window, click OK.

3.3. Check the Error Log for any necessary corrections.

3.4. NOTE: The Error Log needs to be cleared before continuing with the authorization process of all tests. Click once on the check mark button to **Authorize Test by Upload**. Click on the Select All button and click **Authorize Selected Tests**. Click **Close**. Close out of the **Result & QC Upload** window and close QC Manager.

3.5. Sign and date the Uploaded LIMS line on the stamped QC Manager Results printout and staple pages together.

4. REFERENCES

4.1. DEP SOP, BG-01 Data-Entry Verification

4.2. DEP SOP, BB-31 LIMS QC Manager Data Uploading Instructions for Bench Biology and Microbiology Samples

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APPENDIX OF CHANGES

06/11/2009	SOP reviewed and edited to update according to current procedures. Deleted Section 3.4 regarding micro hold time printouts which are no longer used.
07/23/2010	SOP reviewed and edited to update according to current procedures.
06/12/2012	SOP reviewed and edited to update according to current procedures.
04/28/2014	Added tests ECOLI-QT, EC-QT-CL, ENT-24-QT, EN24-QT-CL, and CHL-MDFL-W to **Introduction**. Added Steps 2.5.-2.8. to **Data Review.**
01/22/2015	Formatted for 508 compliance.
03/05/2015	Removed uploading step.
12/23/2016	Removed old test IDs.
12/19/2017	Edited LIMS Analysis IDs in Introduction. Added LIMS result and significant figure review to section 2. DATA REVIEW
12/30/2019	Eliminated references to Sediment Particle Size analysis.
12/15/2020	Edited text to clarify instructions and improve sentence flow.
12/30/2020	Added a Note to section 2.5 in DATA REVIEW.
12/22/2021	SOP reviewed and edited to update according to current procedures. Added a Note to section 3.3. Remove details for BOD analysis authorization. Added TCOLI-18QT test ID, and corrected grammar errors throughout the text.
12/01/2022	Edited section 3.4 to remove reference to the chlorophyll/phaeophytin ratio.
12/12/2023	Added section 2.14. to give instructions for checking the Data Review/ Authorize tab in LIMS.
11/18/2024	Edited section 2.12 for instructions on reporting significant figures. Language and flow of the document were improved for clarity and readability.
11/28/2025	Refined wording and structure to improve clarity and consistency.

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