FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399

Ron DeSantis
Governor

Alexis A. Lambert
Secretary

VIA EMAIL
Read receipt requested

June 6, 2025

Dr. Sean McGlynn
McGlynn Laboratories, Inc.
568 Beverly Court
Tallahassee, FL 32301
Email: mcglynnlabs@gmail.com

Re: Final Audit Report for Laboratory Records Audit

Dear Dr. McGlynn:

Thank you for responding to the preliminary audit report for the Laboratory Records Audit of McGlynn Laboratories, Inc. (MLI), DOH ID E81676. The Florida Department of Environmental Protection (department or DEP) has reviewed all information and laboratory responses and provided auditor responses to each of your responses to the preliminary report. The intention of the auditor responses is to provide feedback to help improve the overall quality system of MLI. A summary of findings deemed critical to data usability is described in the audit conclusions section of the final report.

Attached is the final audit report detailing the audit procedure, a summary of audit findings, and the department's audit conclusions. Also attached are the detailed findings tables listing the procedural and documentary deficiencies, as determined by the department auditors, responses from the audited party, and the department's response to the corrective actions proposed by the laboratory. This final audit report will be posted on the department's website at https://floridadep.gov/dear/florida-dep-laboratory/content/fdep-biological-and-audit-report-search. The detailed findings tables are available from the department upon request.

As noted in the report, the department concludes that the corrective actions for the laboratory do not meet the department's minimum quality assurance standards. MLI's plan for corrective actions and their implementation was

incomplete and unclear for many audit findings and auditors found those corrective actions not acceptable. MLI's implementation of corrective actions is essential for improvement of the laboratory's quality system. Several significant findings in the audit were deemed critical to data usability for waterbody assessments under the Impaired Waters Rule, Chapter 62-303, F.A.C., and other DEP uses. Critical findings and data usability recommendations are summarized in the final report for each affected analyte. The deficiencies affected chlorophyll, alkalinity, color, total phosphorus, nitrite, nitrate (reported as nitrate-nitrite) and total Kjeldahl nitrogen analyses, and involved inconsistent or inaccurate laboratory procedures, documentation, record keeping, QA/QC and reporting.

NOTE: The audit evaluated the indicated data for the use(s) described in the final audit report. The usability of the audited data for other purposes or the usability of data produced by the audited organization for other analytes or other date ranges must be determined separately according to applicable requirements in Rule 62-160.670, F.A.C.

Under Chapter 120 of the Florida Statutes, McGlynn Laboratories, Inc., and any other person whose substantial interests are affected by the department's agency action, may challenge the attached final audit report, including the corrective actions and the data usability analysis. The process to challenge any portion of this agency action is described below in the Notice of Rights section.

If you have any questions or concerns about this final audit report, please feel free to contact Jessica Patronis by email, Jessica.Patronis@FloridaDEP.gov.

Notice of Rights

This action is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this agency action becomes only proposed agency action, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the department. Because an administrative hearing may result in the reversal or substantial modification of this action, the petitioner is advised not to proceed until the deadlines noted below for filing a petition for an administrative hearing or request for an extension of time have expired.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569

and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov. Also, a copy of the petition shall be mailed to the addressee of this order at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the addressee of this order must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the addressee of this order must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated

by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

This determination constitutes an order of the department. Subject to the provisions of paragraph 120.68(7)(a) of the Florida Statutes, which may require a remand for an administrative hearing, the addressee of this order has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rules 9.110 and 9.190 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, or via electronic correspondence at Agency_Clerk@FloridaDEP.gov and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

David Whiting, Deputy Director
Division of Environmental Assessment
and Restoration
2600 Blair Stone Road
Tallahassee, FL 32399
Tel No.: (850) 245-8191

Attachments:
Final Audit Report

Copies furnished to:
Katie Slattery, Florida DEP Office of General Counsel
Kevin O'Donnell, Program Administrator, Water Quality Evaluation & TMDL Program
Jessica Mostyn, Environmental Administrator, Watershed Assessment Section
File

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this determination, including all copies, was e-mailed before the close of business on June 6, 2025 to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(7),
Florida Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.

Clerk 6/6/25 Date

Final Audit Report
McGlynn Laboratories, Inc.
DOH ID E81676
Laboratory Records Audit
Conducted April 12, 2024

Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration
May 16, 2025

Introduction

The Florida Department of Environmental Protection's (DEP or department) Division of Environmental Assessment and Restoration (DEAR) requested a laboratory records audit of McGlynn Laboratories, Inc. (MLI). The Aquatic Ecology and Quality Assurance section (AEQAS) conducted the audit in accordance with Rules 62-160.650 and 62-160.670, Florida Administrative Code (F.A.C.). The purpose of this audit was to verify that MLI is complying with the quality assurance (QA) requirements of the QA Rule, Chapter 62-160, F.A.C., and correctly implementing approved analytical methods, including acceptable quality control, and maintaining adequate laboratory documentation. DEAR requested the audit to evaluate whether MLI data could be used for waterbody assessments under the Impaired Waters Rule, Chapter 62-303, F.A.C.

Audit Description

AEQAS staff requested analytical and quality control records for samples representing the laboratory's analysis of chlorophyll *a*, alkalinity, color, total phosphorus, nitrite, nitrate (reported as nitrate-nitrite), ammonia, and total Kjeldahl nitrogen. AEQAS audited 22 sampling events from January 2018 – December 2022 from which data were submitted to DEP (Table 1). Records were initially requested from MLI on July 20, 2023, and several records submission extensions were requested by MLI. MLI requested a meeting which was held on December 22, 2023, between DEP auditing staff Sarah Noble and Jessica Patronis, DEP attorney Kenneth Hayman, MLI staff Katy McGlynn and Dr. Sean McGlynn and attorney Thomas Crapps, representing MLI, to agree upon a records submission timeline. Records were received in two submissions within the agreed-upon dates of January 31, 2024, and February 29, 2024. AEQAS auditors reviewed records pertaining to the selected samples, which included the laboratory's certification information, applicable versions of the quality manual and laboratory SOPs, sample chain of custody documents, lab sample receipt information, reagent traceability information, lab quality assurance and quality control results, and laboratory reports. Records that were requested but not provided for the audit included detection limit studies, raw and original calibration and quality control records, raw instrument analytical records, support equipment logs, including refrigerator and freezer temperature logs and original digestion logs. The AEQAS auditing team requested an audit overview and introductory meeting with MLI's staff on March 4, 2024. MLI declined the introductory meeting due to illness and instead requested that AEQAS auditors send questions in writing. AEQAS provided the questions about MLI's documentation and procedures via email on March 25, 2024, but MLI was unable to respond. On April 12, 2024, AEQAS conducted the audit of MLI's submitted records package. Further correspondence about the audit was conducted via email. Unfortunately, MLI's quality assurance officer, Katy McGlynn, unexpectedly passed away on May 16, 2024.

MLI's quality manuals and laboratory SOPs, Chapter 62-160, F.A.C., The NELAC Institute (TNI) 2016 standards and analytical methods pertaining to MLI's DOH certification credentials for the audited samples provided the criteria for the audit and all findings. DEP personnel involved in the audit were Jessica Patronis, Sarah Noble, Kristen Sapp, Aaryn Letson, Jacqueline Krebs, and Jennifer Piacente. Quality Assurance Officer, Katy McGlynn, and Technical Director, Dr. Sean McGlynn, were the contacts for MLI.

Preliminary Audit Report and Implementation of Corrective Actions

A preliminary audit report of findings and deficiencies was sent to Dr. McGlynn of MLI on July 9, 2024. Deficient policies, practices, or records that did not comply with evaluation criteria for lab analysis along with the department's recommended or required corrective actions are detailed in this report. The following issues resulted in numerous findings in the preliminary audit report. MLI did not provide raw, original records sufficient for auditors to establish an audit trail, including reconstructing calculations to verify QC information and analytical results provided for the audit (TNI V1M2-2016-Rev2.1, 4.13.2.1). The laboratory's record keeping system did not allow the history of the sample and associated data to be readily understood through the documentation (TNI V1M2-2016-Rev2.1, 4.13.3 a). Samples with lab ID beginning in WS were not originally issued to a client in the form of a formal lab report, which is not a requirement. Instead of providing the information necessary for interpretation of results in the original format, as requested, MLI chose to create lab reports specific to the audit. This approach resulted in numerous transcription and copy-paste errors so that bench sheets, lab reported result pages, QA/QC report pages, linked log entries and WIN uploaded results did not agree. Additional transcription and copy-paste errors occurred in the reagent log and sample acceptance logs specifically assembled and provided for the audit.

MLI's attorney, Thomas Crapps, contacted DEP on July 10, 2024, requesting an extension to the Chapter 62-160.650(5), F.A.C. required 45-day response due date of August 23, 2024. An additional 45 days to respond was granted due to Dr. McGlynn's hardships. AEQAS staff corresponded by email and telephone with Dr. McGlynn and by email and video conference with Thomas Crapps to provide guidance on expectations for MLI's required response to the preliminary audit report. Dr. McGlynn requested an additional 21 days to respond to the preliminary report, which was also granted, for a total of 111 days. Dr. McGlynn responded to the preliminary audit report on the amended due date of October 28, 2024. Many corrective actions required additional information to establish an audit trail. Additional records were provided with MLI's response on October 28, 2024. However, these additional records did not address all findings and required corrective actions, and overall documentation was incomplete for reconstruction of records. The auditors reviewed all information and laboratory responses and provided MLI with auditor responses to each of MLI's responses to the preliminary report. The intention of the auditor responses is to provide feedback to help improve the overall quality system of MLI. A summary of findings deemed critical to data usability is described in the audit conclusions section below.

Audit Conclusions

Based on the findings from this audit, DEP has determined that the corrective actions for the laboratory do not meet the department's minimum quality assurance standards. MLI's plan for corrective actions and their implementation was incomplete and unclear for many audit findings and auditors found those corrective actions not acceptable. MLI's implementation of corrective

actions is essential for improvement of the laboratory's quality system. Several significant findings in the audit were deemed critical to data usability for waterbody assessments under the Impaired Waters Rule, Chapter 62-303, F.A.C., and other DEP uses. Critical findings and data usability recommendations are summarized below for each affected analyte. The deficiencies affected chlorophyll, alkalinity, color, total phosphorus, nitrite, nitrate (reported as nitrate-nitrite) and total Kjeldahl nitrogen analyses, and involved inconsistent or inaccurate laboratory procedures, documentation, record keeping, QA/QC and reporting. Detailed findings tables listing the procedural and documentary deficiencies, as determined by the department auditors, responses from the audited party, and the department's response to the corrective actions proposed by the laboratory are available from the department upon request.

Universal:

- Auditors were unable to determine if appropriate method detection limit (MDL) determination procedures were followed. Missing documentation and/or inappropriate MDL determination procedures may have affected low level results. Low level results should be considered estimated for samples analyzed during the audited period (analysis dates 1/8/2018 through 12/24/2022).
- MLI created lab reports for the audit that included many transcription errors, missing, and erroneous information. These errors led to findings that that may not have represented errors in the original analyses. However, due to the magnitude of conflicting, incomplete and erroneous documentation, the original analyses could not be sufficiently verified for the audit. In addition, there were numerous instances in which prefilled datasheet cells contained information not applicable or not accurate for the analytical run.
- Erroneous recordkeeping, such as labeling of working standards as "PQLstd" led to auditor error in reconstructing PQL or LOQ verifications. MLIs recordkeeping practices left no indication of appropriate PQL or LOQ verifications being run at the required frequency. These missing QC elements affect samples for all analytes except chlorophyll with results that fell below the reported PQL/LOQ but above the reported MDL/LOD. No audited TP, TKN or ammonia sample results were at or below the PQL/LOQ.
- Auditors could not confirm that QC samples were run with analytical or prep batches, as applicable, for alkalinity and color. Identical concentrations, percent recoveries and QC volumes were recorded for PQLstds, CC1 and CC2 across months of associated samples. CC values are expected to vary between analysis runs, while the PQL standards should vary at least quarterly. Analysis times were not documented for these QC samples.
- Reagent Traceability logs lack sufficient information to determine date of receipt, date of preparation and expiration date for all standards, reagents and reference materials.

Chlorophyll (pigments include chlorophyll *a* – corrected, chlorophyll *a* – uncorrected, chlorophyll *b*, chlorophyll *c*, and pheophytin *a*):

Caution should be taken for use of chlorophyll data for samples with analysis dates of July 28, 2018 through December 24, 2022, and results shall be considered estimated values.

- Erroneous or no documentation of sample temperature upon receipt for samples analyzed from 7/28/2018 through 12/31/2019 and all field blanks analyzed for the audited period.
- Documentation issues included linkage of freezer ID and chlorophyll filter lot information to samples, inconsistent or inappropriate use of methods and documented SOP procedures.
- Auditors were unable to track or verify standards used for chlorophyll analyses due to MLI's record keeping practices.
- QA/QC data associated with the audited period may be affected by use of QA/QC standards with very high concentrations in relation to the expected sample concentration range.
- Two findings involved transcription errors that may have resulted in incorrect preparation and analysis dates for four samples in WIN (sample IDs 22-0999C, WS1471, WS1792, and WS22-0371).
- QA/QC results including standard check samples, field blanks and laboratory blanks associated with all chlorophyll samples could not be sufficiently verified using the absorbances provided for the audit.
- Auditors could not verify calculated sample results because bench sheets containing absorptions and lab reports provided for the audit did not contain sufficient raw data.
- The MLI SOP does not describe how laboratory quality control samples are processed for analysis.
- Matrix duplicate precision QA/QC data on the records provided for the audit were insufficient and/or inaccurate.
- Sample results for sample IDs WS1471, 20-1419C, and 22-1562C may be affected by poorly clarified extract solution.

Alkalinity:

Caution should be taken for use of alkalinity data for samples with analysis dates of January 1, 2019 through December 17, 2022, and results shall be considered estimated values.

- MLI was unable to provide raw documentation containing all required elements of the titration curve used for standardization of reagents. pH measurements for the titration curve were missing from the titration records, meaning auditors were unable to reconstruct the standardization of reagents. Additionally, MLI was unable to provide adequate records to describe why reagents used in the alkalinity analysis of two audited samples were listed as color standards in the Reagent Traceability Log.
- SM 2320 B specifies a potentiometric titration for samples with alkalinity less than 20 mg/L. MLI did not follow the low-alkalinity method for audited samples with result

values that fell below 20 mg/L. The 6 audited samples affected by this finding must be qualified with a "J" and considered as estimated values.

- Multiple QC elements were either incomplete or missing from alkalinity analyses. The secondary source standards, PQL standards and CC standards used in the analyses had very high concentrations in relation to the observed sample concentration range, meaning that the samples were not quantitatively bracketed by standard checks. Additionally, the initial and final pH for QC samples (Field Blank, Lab Blanks 1 and 2, Matrix Duplicates, SSStds, CCs, and PQLstds) were not recorded. Identical concentrations, percent recoveries and QC volumes were recorded for PQLstds, CC1 and CC2 across months of associated samples. CC values are expected to vary between analysis runs, while the PQL standards should vary at least quarterly.

Color:

Caution should be taken for use of color data for samples with analysis dates of January 8, 2018 through December 24, 2022, and results shall be considered estimated values.

- Multiple documentation issues affected the color samples analyzed during the audited period, including;
    - Sample identification numbers not matching the sample IDs reported in WIN,
    - MDLs and PQLs listed on laboratory reports did not match the MDLs and PQLs uploaded to WIN,
    - Field filters used for color analyses were not linked to the associated samples,
    - Identical absorbance values were recorded across each analytical run for Field Blanks, Lab Blank 1 and Lab Blank 2.
    - Identical concentrations, percent recoveries and QC volumes were recorded for PQLstds, CC1 and CC2 across months of associated samples. CC values are expected to vary between analysis runs, while the PQL standards should vary at least quarterly.
    - SSStd Lot# ACS Color Std. Lot: N2500 (30CP) is not included in reagent traceability log.
    - For sample IDs WS20-671 and WS20-672, the collection and analysis dates and times listed on the Lab Report, Sample Acceptance Log and COC do not match the dates listed in WIN. Data usability for these sample IDs is limited until appropriate changes are made in WIN.
    - Sample ID 19-0010F (WS1868) was unable to be audited due to missing documentation. The laboratory report submitted for this sample was incorrectly named, and contained bench sheet data for samples collected during a separate sampling event (IDs 19-0452F and 19-0457F). The laboratory was unable to provide the correct documentation in response to the preliminary audit report.

- Per SM 2120 C, color standards are to be kept for only 1 month. Verification standards used in all color analyses for the audited period were created on 5/5/17. Sufficient documentation was not provided for auditors to verify the dates of which reagents were verified and/or expiration dates were extended.
- Four audited samples fell outside of the stated percent similarity of verification standard range (95%-105%). These sample result values may be considered as estimate values, and must be J qualified with a comment explaining the verifications were not within the acceptance range.

TP & TKN:

Caution should be taken for use of TP and TKN data for samples with analysis dates of January 1, 2019 through December 17, 2022, and results shall be considered estimated values.

- MLI was unable to provide raw digestion records with sufficient information to reconstruct the full digestion process. Digestion times are preprinted and do not represent exact times of digestions, which led to overlap between digestion and analysis times of samples.
- Raw instrument data was not provided for auditors to recreate the percent recovery calculation for SSStds, PQLstds, or Matrix Spikes.
- MLI did not provide adequate documentation for auditors to verify that parent standards R101489, R101694, R101684, R101568, R101606, R101566, R101583, R101565, R101678 and R101656 were not expired at the time of analysis.
- Laboratory control samples (LCS), including laboratory fortified blanks and laboratory fortified blank duplicates, are not processed through the entire preparatory method (e.g. digestion).

Ammonia:

Based on the audit findings, DEP does not have any recommendation against the use of ammonia data for samples with analysis dates of January 1, 2019 through December 17, 2022.

- Auditors noted transcription errors between the MLI records and WIN, such as between Sample IDs and analysis times. Affected samples must be updated in WIN.
- MLI was unable to explain a discrepancy between the actual PQLstd value (0.13ppm) and the working standard value (0.5ppm) that should be equivalent.

Nitrite:

Caution should be taken for use of nitrite data for samples with analysis dates of January 8, 2018 through December 24, 2022, and results shall be considered estimated values.

- Auditors noted transcription errors between the MLI records and WIN, such as between Sample IDs. Affected samples must be updated in WIN.
- The reagent traceability logs submitted by MLI do not clearly document how standards were prepared, nor the relationship between "parent" and "child" standards. Auditors were not able to verify that reagents are prepared and verified according to Standard Methods.
- MLI was unable to provide documentation linking the field filters used for nitrite analyses to the samples being analyzed.
- Auditor calculations of the matrix spike recovery values did not match the matrix spike recovery results reported by MLI. Auditors reported calculation results that varied greater than 0.5% from the reported value. Additionally, the auditor calculations of PQL percent recovery calculations did not match the results reported by MLI for multiple samples, with differences of up to 8%. These discrepancies may be attributed to significant figures being rounded in the QA/QC sheets provided by MLI. Regardless, MLI is expected to be able to provide raw data values for the purposes of this audit.
- MLI does not document specific dates, times, and analytical results for standards being run along with sample batches. MLI records contain a note explaining that standards are analyzed consecutively within the sample set between the beginning and end times listed on the laboratory bench sheet.

Nitrate:

Caution should be taken for use of nitrate data for samples with analysis dates of January 8, 2018 through December 24, 2022, and results shall be considered estimated values.

- Auditors noted transcription errors between the MLI records and WIN, such as between reported MDLs and PQLs, sample analysis times, collection times, and result values. In one case, the analysis time came before the sample collection time. In another, the audit calculated result value did not match the laboratory reported result. These transcription errors also led to samples being incorrectly qualified in WIN.
- MLI was unable to provide documentation linking the field filters used for nitrate analyses to the samples being analyzed.
- The reagent traceability logs submitted by MLI do not clearly document how standards were prepared, nor the relationship between "parent" and "child" standards. Auditors were not able to verify that reagents are prepared and verified according to Standard Methods.
- MLI did not provide adequate documentation for auditors to verify that standards R101547, R101491, R101599, R101659A and R101524 were not expired at the time of analysis.
- The documentation submitted by MLI clearly indicated that standards R101491 and R101547 were used in the nitrate analysis of sample 19-0452F. These standards are listed

in MLI's reagent traceability file as nitrite standards, not nitrate standards as they were used.

- MLI was unable to provide sufficient documentation of pH checks or necessary pH adjustments for samples or field blanks. SM requires that sample pH is adjusted to between 7 and 9. Auditors were unable to verify that sample and field blank pH were adequate for analysis.
- Auditor calculations of the matrix spike recovery values did not match the matrix spike recovery results reported by MLI. Auditors reported calculation results that varied greater than 0.5% from the reported value. Additionally, the auditor calculations of PQL percent recovery calculations did not match the results reported by MLI for multiple samples, with differences of up to 8%. These discrepancies may be attributed to significant figures being rounded in the QA/QC sheets provided by MLI. Regardless, MLI is required by TNI to be able to provide raw data values for the purposes of this audit.
- Auditors were unable to verify the %RSD calculation, and instead calculated Relative Percent Difference (RPD) using the information available. Some duplicates associated with the nitrate analyses failed the RPD acceptance criteria of +/- 20%.
- MLI does not document specific dates, times, and analytical results for standards being run along with sample batches. MLI records contain a note explaining that standards are analyzed consecutively within the sample set between the beginning and end times listed on the laboratory bench sheet.

NOTE: The audit evaluated the indicated data for the use(s) described in this report. The usability of the audited data for other purposes or the usability of data produced by the audited organization for other analytes or other date ranges must be determined separately according to applicable requirements in Rule 62-160.670, F.A.C.

Table 1. Audited samples for the laboratory records audit of McGlynn Laboratories, Inc. conducted by DEP, April 2024.

Monitoring Location ID	Collection Date, Time	Lab Sample ID	Analyte[1]	Method[2]
WS P	1/4/2018 9:00	WS1202	color, NOx, NO_2	SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B
WS P	7/26/2018 9:00	WS1472	color, NOx	SM2120 C, SM4500-NO_3 E
WS B	7/26/2018 10:30	WS1471	Chl, color, NOx	SM10200H, SM2120 C, SM4500-NO_3 E
KILLEARNY3	12/26/2018 16:20	18-1466	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
WS P	1/10/2019 9:00	WS1686	color, NOx	SM2120 C, SM4500-NO_3 E
WS P	1/11/2019 9:00	WS1687	color, NOx	SM2120 C, SM4500-NO_3 E
KILLEARNY3	3/25/2019 10:30	19-0452	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
WS P	3/31/2019 9:00	WS1787	color, NOx	SM2120 C, SM4500-NO_3 E
WS B	4/4/2019 10:45	WS1792	Chl, color, NOx	SM10200H, SM2120 C, SM4500-NO_3 E
WS P	4/19/2019 9:00	WS1815	color, NOx	SM2120 C, SM4500-NO_3 E
KANTURK3	12/31/2019 10:45	19-1883F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
WS P	2/27/2020 9:00	WS20-277	color, NOx	SM2120 C, SM4500-NO_3 E
WS P	6/23/2020 9:00	WS20-401	color, NOx	SM2120 C, SM4500-NO_3 E
TAL-OUT	9/26/2020 10:00	20-1419F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
WS P	4/1/2021 9:00	WS20-671. WS20-672	color, NOx	SM2120 C, SM4500-NO_3 E
KINSAIL2	6/26/2021 13:15	21-0941F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
TAL-HC	12/20/2021 13:50	21-1520F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E

KILLEARNY3	2/27/2022 10:50	22-0146F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
TAL-OUT	5/31/2022 12:10	22-0999F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
KILLEARNY1	9/27/2022 11:10	22-1562F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
KILLEARNY2	12/7/2022 15:10	22-1794F	Alk, NH_3, chl, color, NOx, NO_2, TKN, TP	SM2320 B, SM4500-NH_3 D, SM10200H, SM2120 C, SM4500-NO_3 E, SM4500-NO_2 B, SM4500-NH_3 D (TKN), SM4500-P E
WS B	12/22/2022 10:00	WS22-0371	Chl, color, NOx	SM10200H, SM2120 C, SM4500-NO_3 E

[1] Analytes: Alkalinity (Alk), ammonia (NH_3), chlorophylls (chl), color- true (color), nitrate-nitrite (NOx), nitrite (NO_2), total Kjeldahl nitrogen (TKN), total phosphorus (TP)

[2] Method: Standard Methods for the Examination of Water and Wastewater, Online Edition, 2320 Alkalinity, B. Titration Method (SM2320 B); 4500-NH_3 Nitrogen (Ammonia), D. Ammonia-Selective Electrode Method (SM4500-NH_3 D); 10200 Chlorophyll, H. Spectrophotometric Determination of Chlorophyll, 2011 (SM10200H); 2120 Color, C. Spectrophotometric—Single-Wavelength Method (SM2120 C); Nitrate-Nitrite with 48 hour hold time by 4500-NO_3^- Nitrogen (Nitrate) E. Cadmium Reduction Method (SM4500-NO_3 E); 4500-NO_2^- Nitrogen (Nitrite) B. Colorimetric Method (SM4500-NO_2 B), Total Kjeldahl Nitrogen by 4500-NH_3 Nitrogen (Ammonia), D. Ammonia-Selective Electrode Method (SM4500-NH_3 D (TKN)), Total Phosphorus (28 day hold time) by 4500-P Phosphorus E. Ascorbic Acid Method (SM4500-P E).