

NYS Department of Health - Wadsworth Center
Environmental Laboratory Approval Program
Assessment Report

Lab: 11642 USGS NATIONAL WATER QUALITY LABORATORY
Address: BLDG 95-DENVER FEDERAL CENTER
DENVER, CO 80225-0585

Assessment ID: 2806
Assessment Date: 08/04/11
Assessment Type: General Assessment
Primary Assessor: Zgodnik, Tom

INTRODUCTION

Deficiency 504 The laboratory does not make accurate statements concerning their NELAP accreditation fields of testing and NELAP accreditation status. (Chapter 4 Sec. 4.6.1, Chapter 6 Sec. 6.8.a.2 NELAC 2003)

Assessor: Denicola, Kathie

Comments: The lab is not certified for, but reports Chloromethane, cis- and trans-1,2-Dichloroethylene by USGS 0-4127-96. The lab also reports MTBE without certification. Please check ELAP Item 180.2 for offerings.

Corrective Action: A review of ELAP Item 180.2 will be reviewed and Form DOH-109 (07/11) will be submitted for approval.

Due date: 11/4/11

Completed: 10/24/11, a copy of the e-mail and the form are attached.

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QUALITY SYSTEM: The quality manual title page does not list the following:

Deficiency: 554B Laboratory's full name and address. (See 5.5.2.3 NELAC 2003)

Assessor: Zgodnik, Tom

Corrective Action: USGS NWQL will add the full name, address and phone number to the title page

Due date: Completed 8/10/11, a copy of the revised title page with address and phone number is attached.

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RECORDS

****REPEAT DEFICIENCY****

Deficiency: 5127 All information relating to the laboratory facilities, equipment, analytical methods, and related laboratory activities, such as sample receipt, sample preparation, or data verification are not documented. (Sec. 5.4.12.1.5.a NELAC 2003)

Assessor: Zgrodnik, Tom

Comments: The Hg records in LIMS show a default digestion time of 12:00:00 AM, which is false. There is a 12 hour digestion time required, and the current digestion records do not support compliance with that requirement.

Corrective Action: The Hg digestion date field already exists in LIMS. The NWQL will modify LIMS to provide a field for the corresponding digestion time. The procedure will also be modified to ensure that the analyst documents the digestion time to verify analysis is performed after the 12 hour requirement.

Due date: 11/4/11

Completed: 10/24/11, two (2) examples provided to show the date and time of the HgBr addition. Additionally, respective SOP pages included to demonstrate procedure change for the annotation of the date and time of the HgBr addition.

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RECORDS: Strip charts, Tabular printouts, computer data files, analytical notebooks, and/or run logs do not include

****REPEAT DEFICIENCY****

Deficiency: 512231 (A) standard & reagent origin, receipt, preparation, and use. (Sec. 5.4.12.2.5.3.i NELAC 2003)

Assessor: Zgrodnik, Tom

Comments: Many analytical records showed no direct linkage between a chosen analysis and the standards used. A prep date alone is insufficient for this purpose. For example, to establish a direct link, note the run # on the standards & reagents information sheet.

Corrective Action: The analyst will start writing the run name on the standards & reagent information sheet that is included in each data packet. The SOP will be amended to note this change.

Due date: 11/4/11

Completed: 10/4/11, Respective SOP pages included to demonstrate procedure change for the writing of the run name on the standards and reagent log. Additionally, an example of the run name being written on the reagent log in the data packet.

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RECORDS: Strip charts, Tabular printouts, computer data files, analytical notebooks, and/or run logs do not include

Deficiency: 512231 (B) standard & reagent origin, receipt, preparation, and use. (Sec. 5.4.12.2.5.3.i NELAC 2003)

Assessor: Denicola, Kathie

Comments: This refers to the need to identify acids and bases used for organics analysis batches. (The records show more than one that are not expired.)

Corrective Action: Solutions made after 10/1/11 will have an ending date added to the logbooks. This date will reflect the reagent depletion or disposed of date.

Due date: 11/4/11

Completed: 10/18/11, copies of reagent logs showing disposal of the reagents.

Deficiency: 512231 (C) standard & reagent origin, receipt, preparation, and use. (Sec. 5.4.12.2.5.3.i NELAC 2003)

Assessor: Denicola, Kathie

Comments: This refers to the need to record the preparation of Ammonia and N02/N03 calibration standard dilutions. (NH3 is not done according to the SOP.)

Corrective Action: The SOP will be revised to reflect the flexibility of being able to prepare larger volumes of standard solutions. Additionally the Standard Verification Form that is included in each data packet will document the final volume used for the standard solution.

Due date: 11/4/11

Completed: 10/13/11, Respective SOP pages included to demonstrate procedure change for the Kjeldahl analytical line. Examples of all standard verification forms with a new volume prepared section also provided..

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SAMPLE HANDLING

Deficiency: 51117 The laboratory does not implement procedures for checking chemical preservation using readily available techniques, such as pH, free chlorine or temperature, prior to or during sample preparation or analysis. (Sec. 5.5.8.3.1.a.2 NELAC 2003)

Assessor: Denicola, Kathie

Comments: This refers to the need to check dechlorinated samples (yellow sticker) for chlorine residual prior to or at the time of the organic analysis.

Corrective Action: Chlorine test strips will be used to check for the presence of free chlorine on samples marked as having dechlorination reagent added (yellow sticker on the bottle) prior to sample preparation. The SOP will be revised and personnel will be trained to accomplish the task.

Due date: 11/4/11

Completed: 10-18-11, Respective SOP pages included to demonstrate procedure change for checking for the presence of free chlorine on samples marked as having dechlorination reagent added.

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APPENDIX D.1 CHEMICAL TESTING AND AIR TESTING DETAILED METHOD REVIEW

Deficiency: 000D16 The method blank is not processed along with and under the same conditions as the associated samples including all steps of the analytical procedure. (Chapter 5 App. D.1.1.1.a NELAC 2003)

Method: USGS 1-1750-85

Assessor: Denicola, Kathie

Comments: This refers to the need to use field filters for the Total Dissolved Solids' method batch blank.

Corrective Action: A method batch blank will be filtered using a 0.45 micron filter once per quarter. QAS will submit these samples through the NFSS program. SOP's will be revised to reflect this change as appropriate.

Due date: 11/4/11

Completed: 10-19-11, Respective SOP pages included to demonstrate procedure change for the testing of a method blank that will be filtered using a 0.45 micron filter once per quarter. Additionally, documentation of the 2011 4th quarter evaluation is attached.

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APPENDIX D.1 CHEMICAL TESTING AND AIR TESTING DETAILED METHOD REVIEW

Deficiency: 00D133 All initial calibrations are not verified with a standard obtained from a second source manufacturer or lot if the lot can be demonstrated from the manufacturer as prepared independently from other lots. (Sec. 5.5.5.2.2.1.d NELAC 2003)

Assessor: Zgrodnik, Tom

Comments: A randomly chosen analysis for Hg was reviewed in detail (Ref: Run #119079). The 2nd source standard was traced back to the same parent Lot # as the calibration standard (Hi Purity Lot #0725307).

Corrective Action: This problem was isolated and all TPCs since have been correctly made with the NIST traceable standards. The naming in the standards logbook will be revised to avoid accidentally selecting the wrong solutions. The SOP already states that the TPC will be made from the NIST traceable solutions.

Due date: 11/4/11

Completed: 10/20/11, Copies of third party working and intermediate solutions logbook pages to show the old and the new naming conventions.

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APPENDIX D.1 CHEMICAL TESTING AND AIR TESTING DETAILED METHOD REVIEW

Deficiency: OD122B The LOQ is not verified annually for each quality matrix, method and analyte according to the procedure specified in C.3. (Chapter 5 App. D.1.2.2.b NELAC 2003.)

Method: USGS 1-1250-85

Assessor: Denicola, Kathie

Comments: This refers to the need to verify the 1 color unit (CU) reporting limit. The lowest non-zero standard is 2.5 CU.

Corrective Action: The NWQL will prepare a platinum-cobalt 1 color unit solution and verify that we can differentiate color between 0 and 2.5 Pt-Co units annually.

Due date: 11/4/11

Completed: 10/19/11, Attached is a copy of the purchase order for the Platinum-Cobalt Colour 500 stock to make the standard. Delivery is scheduled for approximate delivery 11/29/11. Additionally, respective SOP pages included to demonstrate procedure change for the running of the standard as the first sample of each analytical run.

I understand that under Section 55-2.6 of 10 NYCRR, a Certificate of Approval may be revoked, suspended or denied if any material fact pertinent to obtaining or retaining such certificate is misrepresented. Such misrepresentation may also violate NYS Penal law Article 175 and subject parties who file a false instrument to criminal prosecution. I attest that this plan of correction has been/or will be implemented by the date(s) indicated.

Lab Director: _____ Date: _____