NC DEQ/DWR WASTEWATER/GROUNDWATER LABORATORY CERTIFICATION BRANCH

LABORATORY NAME:		CERT #:	
PRIMARY CONTACT:		DATE:	
NAME OF AUDITOR COMPLETING CHECKLIST (PRINT):			
SIGNATURE OF AUDITOR COMPLETING CHECKLIST:			

Field Lab Walkthrough Checklist

Inspection Type: Date of Last Inspection: _____

	Initial		Maintenance		Follow-up		Abbreviated		Requested

Laboratory Classification:

	Field Municipal		Field Industrial		Field Commercial		Field		Field Other

Compliance Programs: check all that apply and list permit numbers (use comment section if needed)

	NPDES			UST	
	Groundwater			Pretreatment	
	Non-Discharge			Stormwater	

Entrance Remarks:

	CPL Verified		Lab and Contact information Verified		Contract Lab used? **List:**

Parameters: check all that apply Method(s): write in

	Chlorine, Free Available	SM 4500 Cl G-2011; SM 4500 Cl D-2011; SM 4500 Cl F-2011
	Chlorine, Total Residual	SM 4500 Cl G-2011; HACH 10014 ULR; HACH 10070 HR; HACH 8167; HACH 10025 ULR; SM 4500 Cl B-2011; SM 4500 Cl C-2011; SM 4500 Cl D-2011; SM 4500 Cl E-2011; SM 4500 Cl F-2011; Orion Electrode, 1977
	Conductivity	EPA 120.1, Rev. 1982; SM 2510 B-2011; SW-846 9050 A
	Dissolved Oxygen	SM 4500 O G-2016; SM 4500 O H-2016; ASTM D888-12 (B); ASTM D8888-12 ©; Hach 10360, Rev. 1.2, 2011; SM 4500 O C-2016; In-Situ 1002-8-2009
	pH	SM 4500 H^+ B-2011; SW-846 9040 C; SW-846 9045 D; EPA 150.2 (1982)
	Residue, Settleable	SM 2540 F-2015
	Salinity	SM 2520 B-2011
	Sulfite	SM 4500 SO_3^{2-} B-2011
	Temperature	SM 2550 B-2010; USGS Method 1975
	Turbidity	SM 2130 B-2011; EPA 180.1, Rev. 2.0, 1993; Mitchell Method M5271, Rev 1.0 (2008); Mitchell Method M5271, Rev 1.0 (2008) (**inline**); Mitchell Method M5331, Rev 1.0 (2008); Orion Method AQ4500, Revision 5 (2009)
	VAR	Option 5; Option 6; Option 12

PLEASE COMPLETE CHECKLIST IN INDELIBLE INK

Please mark Y, N or NA in the column labeled LAB to indicate the common lab practice and in the column labeled SOP to indicate whether it is addressed in the SOP.

	DOCUMENTATION	LAB	SOP	EXPLANATION
1	Are all manual data or log entries written in indelible ink? [15A NCAC 02H .0805 (g) (1)]			All manual data and log entries shall be written in indelible ink.
2	Are error corrections made properly? [15A NCAC 02H .0805 (g) (1)]			All documentation errors shall be corrected by drawing a single line through the error so that the original entry remains legible. Entries shall not be obliterated by erasure or markings. Wite-Out, correction tape, or similar products designed to obliterate documentation are not to be used; instead the correction shall be written adjacent to the error. The correction shall be initialed by the responsible individual and the date of change documented.
3	Has the laboratory developed and implemented a documented training program with all required elements? [15A NCAC 02H .0805 (g) (5)]			Each laboratory shall develop and implement a documented training program that includes the following: (A) That staff have the education, training, experience, or demonstrated skills needed to generate quality control results within method-specified limits and that meet the requirements of these Rules; (B) That staff have read the laboratory quality assurance manual or applicable Standard Operating Procedures; (C) That staff have obtained acceptable results on Proficiency Testing samples pursuant to Rule .0803(1) of this Section or other demonstrations of proficiency (e.g., side-by-side comparison with a trained analyst, acceptable results on a single-blind performance evaluation sample, an initial demonstration of capability study prescribed by the reference method).
4	Does the laboratory have a documented system of traceability for all chemicals, reagents, standards and consumables? [15A NCAC 02H .0805 (g) (7)]			The laboratory shall have a documented system of traceability for all chemicals, reagents, standards, and consumables.
5	Is all required documentation included in the system of traceability? [NC WW/GW LCB Traceability Documentation Requirements for Chemicals, Reagents, Standards and Consumables Policy] <u>Purchased Consumables</u> ☐ Date received ☐ Date opened (in use) ☐ Vendor ☐ Lot number ☐ Expiration date <u>Prepared Reagents</u> ☐ Analyst's initials ☐ Date prepared ☐ Volume/mass of standard used ☐ Solvent ☐ Final volume of solution ☐ Traceable identifier			That system must include documentation of the following information: Date received, Date Opened (in use), Vendor, Lot Number, and Expiration Date (where specified). A system (e.g., traceable identifiers) must be in place that links standard/reagent preparation information to analytical batches in which the solutions are used. Documentation of solution preparation must include the analyst's initials, date of preparation, the volume or weight of standard(s) used, the solvent and final volume of the solution. This information as well as the vendor and/or manufacturer, lot number, and expiration date must be retained for primary standards, chemicals, reagents, and materials used for a period of five years. Consumable materials such as pH buffers, lots of pre-made standards and/or media, solids and bacteria filters, etc. are included in this requirement.
6	Are chemical containers dated when received and when opened? [15A NCAC 02H .0805 (g) (7)]			Chemical containers shall be dated when received and when opened.
7	Are reagent containers dated, identified and initialed when prepared? [15A NCAC 02H .0805 (g) (7)]			Reagent containers shall be dated, identified, and initialed when prepared.

	QUALITY ASSURANCE	LAB	SOP	EXPLANATION
8	Are samples collected for analysis by a contract lab stored on ice or thermally preserved within 15 minutes to <6°C until relinquished? [40 CFR 136.3 Table II, footnote 18]			40 CFR footnote 2 allows 15 minutes for sample preservation, including thermal. This means that if a sample is received in the lab within 15 minutes, it is not required to be on ice. Document temperature downward trend for short transport samples.
9	If samples are stored in a refrigerator, is the temperature checked each day samples are held? [15A NCAC 02H .0805 (g) (1)] [NC WW/GW LCB Required Documentation for Sample Collection and Receipt Policy]			All analytical data and records pertinent to each certified analysis shall be available for inspection upon request.
10	Is this documented? [15A NCAC 02H .0805 (g) (1)] [NC WW/GW LCB Required Documentation for Sample Collection and Receipt Policy]			
11	Is the thermometer verified at the appropriate frequency or replaced? [15A NCAC 02H .0805 (g) (9) (B) and (C)] [NC WW/GW LCB Temperature-Measuring Devices used for Laboratory Operations Policy]			(B) Excluding digital, incubator, and infrared temperature-measuring devices, all non-Reference Temperature-Measuring Devices shall be verified every twelve months against a Reference Temperature-Measuring Device and their accuracy shall be corrected. © Digital temperature-measuring devices and temperature-measuring devices used in incubators shall be verified at every three months against a Reference Temperature-Measuring Device and their accuracy shall be corrected.
12	Are automatic pipettors that are used for critical measurements calibrated every 12 months? [15A NCAC 02H .0805 (g) (10)]			Mechanical volumetric liquid-dispensing devices (e.g., fixed and adjustable auto-pipettors and bottle-top dispensers) shall be calibrated at least once every twelve months. “Critical measurements” includes standard and PT sample preparation.
13	Is all required documentation included in the pipettor calibration? [NC WW/GW LCB Mechanical Volumetric Liquid-Dispensing Devices Calibration Policy] ☐ Date performed ☐ Analyst performing the test ☐ Unique identifier (e.g., serial number, etc.) ☐ Manufacturer’s specification of accuracy ☐ Balance test-weight reading ☐ Volumes tested ☐ Volume weights observed ☐ Reagent water used is at ambient temperature ☐ All calculations used to assess accuracy			Required documentation shall include: • Date performed • Analyst performing the test • Unique identifier (e.g., serial number, etc.) • Manufacturer’s specification of accuracy • Balance test-weight reading • Volumes tested • Volume weights observed • Reagent water used is at ambient temperature • All calculations used to assess accuracy
14	Are chemical and reagent manufacturer expiration dates observed? [15A NCAC 02H .0805 (g) (7)]			Chemicals and reagents exceeding the expiration date shall not be used.
15	If no expiration date is given by the manufacturer, is one assigned by the lab (not to exceed one year after receipt)? [15A NCAC 02H .0805 (g) (7)]			Chemicals and reagents shall be assigned expiration dates by the laboratory if not given by the manufacturer. If the laboratory is unable to determine an expiration date for a chemical or reagent, a one-year time period from the date of receipt shall be the expiration date unless degradation is observed prior to this date.
16	Is a best effort made to perform analyses in a manner and location where sources of contamination or error will not be introduced? [15A NCAC 02H .0805 (g) (6)]			Samples shall be analyzed in such a manner that contamination or error will not be introduced.
17	Do any Findings require a Notice of Finding for Immediate Response (NOFIR)?			

Additional Comments:

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