

# QA/QC Systems Checklist

Laboratory: \_\_\_\_\_ Inspection Date: \_\_\_\_\_

Lab Cert. #: \_\_\_\_\_ Q.A. Contact: \_\_\_\_\_

Inspector: \_\_\_\_\_ Inspector: \_\_\_\_\_

## SOP and QC Documents <sup>(\*1)</sup>

		Revision Date	Review Date
LQAP:	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____	_____
SOP:	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____	_____
Combination:	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____	_____
Manual Integration (where required):	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____	_____

Copy of reference method readily available?  Yes  No  
Required MDL Studies on file?  Yes  No  
Required DOC Studies on file?  Yes  No  
Studies updated as required?  Yes  No

## Laboratory Equipment Checks

### Thermometers <sup>(\*5 \*1)</sup>

NIST Thermometer I.D.: \_\_\_\_\_

Re-cert. 5 Years?  Yes  No Date Certified: \_\_\_\_\_

Laboratory Thermometers Checked against an NIST at least every 12 months?  Yes  No

Laboratory Thermometer Checks documented?  Yes  No

Corrections Posted (Even if 0 °C correction)?  Yes  No

Outside NIST thermometer used for verification?  Yes  No

### Weights <sup>(\*6 \*1)</sup>

Class S equiv. weights?  Yes  No Condition: \_\_\_\_\_

Re-cert. every 5 Years?  Yes  No Date Verified: \_\_\_\_\_

Balance log(s)?  Yes  No

Balance Checks?  Yes  No (a minimum of 3 weight each quarter and 1 each day of use)

Balance Level?  Yes  No

Shock Proof (Table or Platform)?  Yes  No

Balance Service Date(s): \_\_\_\_\_

## Laboratory Equipment Checks

### Desiccators (\*12)

Adequate seal  Yes  No  
Active desiccant  Yes  No

### Pipettes (\*10\*1)

Pipette Devices (Micro-pipettes, etc.) calibrated at least twice per year?  
(approximately six months apart)  Yes  No

### Refrigerators/Freezers/Ovens (\*4\*1)

Refrigerator Logs  Yes  No  
Freezer Logs  Yes  No  
Oven Logs  Yes  No

### General Information (\*11)

Equipment/Instrument Maintenance Logs (recommended)?  Yes  No  
Copy of Equipment Manuals on site?  Yes  No

### Sample Preservation QC (\*2\*1)

Proper Sample containers on-site for specified analytical methods?  Yes  No  
 Containers Purchased (certified)  Containers Lab Prepped  Containers re-used  
Containers lot or batch tested?  Yes  No  
Are Acids, Bases and other preservative of the proper purity?  Yes  No  
Preservatives are within stated expiration dates?  Yes  No  
Storage/Transportation kits contain detailed instructions?  Yes  No  
Preservative kits are lot or batch tested for contamination (recommended)?  Yes  No

### Standard and Reagent Documentation of Traceability (\*1\*7)

Chemical/Reagent Receipt Log?  Yes  No  
 Date Received  Date Opened  Date In service  Vendor  Lot #  Expiration Date  
Standard/Reagent Prep. Log?  Yes  No  
 Standard/reagent prep date  Procedure (calculations)  Analysts Initials  
Consumable Materials Log?  Yes  No  
  
Microbiological Materials Test Log Where required?  Yes  No

## Traceability to Source Materials (\*1\*7)

Check system in at least one category (where applicable) *To be completed by inspector.*

Metals     Organics     Inorganic     Biological

## Analytical Quality Control Overview (\*1\*9\*3)

PTs analyzed/documented as samples     Yes     No

Duplicates Analyzed     Yes     No

Duplicates Evaluated     Yes     No

LCS Analyzed     Yes     No

LCS Evaluated     Yes     No

Spikes Analyzed When Required     Yes     No

Spikes Evaluated     Yes     No

Data Qualified     Yes     No

Final Report Qualified     Yes     No

Client Notified (When Applicable)     Yes     No

DMR Qualified (When Applicable)     Yes     No

Corrective Actions Taken For Q.C. Failure?    Comment: \_\_\_\_\_

## Data Management (\*8)

Data review by peer and/or supervisor (recommended)?     Yes     No

Data complete (e.g., units, initials, dates, sample I.D.)?     Yes     No

Copies/original of subcontracted results to client?     Yes     No

Non-certified data identified on benchsheets and reports?     Yes     No (\*13)

- |                     |   |
|---------------------|---|
| <b>Footnote 1:</b>  | Requirements specific to quality control plans, documentation of proper analytical practices, supporting documentation, and document retention are found in 15A NCAC 2H .0805 (a) (7), (A) and (E) and (G).               |
| <b>Footnote 2:</b>  | Requirements specific to sample containers, pre-treatment, preservation, shipping and storage are found in 40 CFR Part 136 Table II and 15A NCAC .0805 (a) (7) (M).   |
| <b>Footnote 3:</b>  | Requirements specific to documentation and notification for sample anomalies and quality control failures are found in 15A NCAC 2H .0805 (a) (7) (N).   |
| <b>Footnote 4:</b>  | Requirements related to documentation of laboratory equipment temperatures (i.e., refrigerators, ovens, etc.) are found in 15A NCAC 2H .0805 (a) (7) (J).   |
| <b>Footnote 5:</b>  | Requirements related to verification/calibration of thermometers and temperature sensors are found in 15A NCAC .0805 (a) (7) (O) and North Carolina Wastewater/Groundwater Laboratory Certification (NC WW/GW LC) Policy. |
| <b>Footnote 6:</b>  | Requirements related to verification/calibration of balances and Class "S" or equivalent weights are found in 15A NCAC .0805 (a) (7) (D) and (K) and NC WW/GW LC Policy.  |
| <b>Footnote 7:</b>  | Requirements related to receipt of chemicals, standards, reagents, and laboratory consumables are found in 15A NCAC .0805 (a) (7) (L) and NC WW/GW Certification Policy.  |
| <b>Footnote 8:</b>  | Requirements related to data reporting units, signatures, client notification regarding subcontracted analysis and the reporting of uncertified data are found in 15A NCAC 2H .0805 (a) (7) (H), (e) (1), (2) and (3).    |
| <b>Footnote 9:</b>  | Requirements related to analysis of duplicates, laboratory/matrix spikes, and laboratory control standards and corrective action for Q.C failures are found in 15A NCAC 2H .0805 (a) (7) (C) and (D) and (F).             |
| <b>Footnote 10:</b> | Where methods and/or regulations are not specific or require clarification, a North Carolina Wastewater/Groundwater Laboratory Certification Policy statement is cited.   |
| <b>Footnote 11:</b> | Requirements related to on-site copies of procedures and methods are found in 15A NCAC 2H .0805 (a) (6) (F).  |
| <b>Footnote 12:</b> | Requirements related necessary equipment, reagents and chemicals are found in 15A NCAC 2H .0805 (a) (6) (H).  |
| <b>Footnote 13:</b> | Definition of uncertified data is found in 15A NCAC 2H .0803.   |

Additional Comments: \_\_\_\_\_  
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Lab Contact/Q.A: \_\_\_\_\_  
(Print Name Please)

Lab Contact/Q.A: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)

Inspector: \_\_\_\_\_ Date: \_\_\_\_\_