**TIAER QAM Appendix 24.7 Standard Operating Procedures**

Standard Operating Procedures/QAM Addenda

Table of Contents

(Table updated as procedures are revised)

**Updated 9/30/21**

Q = Quality Control S = Safety W = Waste *ob*=obsolete d=draft

A = Administrative C = Chemistry I = Instrument R=Radiochemistry

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| Procedure # | Rev | Procedure Title |
| QAM-Q-100 | 13 | [**Quality Assurance Manual**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-100rev13tiaerqam.pdf) **(copyright by TNI)** |
| QAM-Q-101 | 14 | [**Laboratory Quality Control**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-101rev14labqc.pdf) |
| QAM-Q-102 | 15 | [**Laboratory Material Acceptance Criteria**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-102rev15materialacceptance.pdf) |
| QAM-Q-103 | 17 | [**Laboratory Equipment Maintenance**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-103rev17equipmaint.pdf) |
| QAM-Q-104 | 13 | [**Data Entry and Review**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-104dataentryrev13.pdf) |
| QAM-Q-105 | 15 | [**Corrective Actions**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-105rev15correctiveactionlab.pdf) |
| *SOP-Q-106* | *ob* | *Preparation of Labware* |
| QAM-Q-107 | 17 | [**Laboratory Personnel Training**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-107rev16training.pdf) |
| *SOP-Q-108* | *ob* | *Pipette Calibration Verification* |
| *SOP-Q-109* | *ob* | *Thermometer Calibration Verification* |
| QAM-Q-110 | 16 | [**Sample Receipt and Login**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-110rev16samplerec-login.pdf) |
| QAM-Q-111 | 15 | [**Aliquot Preparation and Sample Preservation**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-111rev15aliquotprep.pdf) |
| QAM-Q-112QAM-Q-113 | 168 | [**Sample Compositing**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-112compositinglabrev16.pdf)[**Responsibilities of the Laboratory Quality Assurance Officer**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-q-113lqaorev81.pdf) |
| QAM-S-101 | 13 | [**Laboratory Safety**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-s-101rev13safety.pdf) |
| *SOP-A-101* | *ob* | *Preparation and Control of Procedures (not laboratory)* |
| QAM-A-102 | 14 | [**Laboratory Document and Data Control**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-a-102rev14labdocdatacontrol.pdf) |
| QAM-A-103 | 10 | [**Data Reporting by the Laboratory Manager**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-a-103rev10labdatareporting1.pdf) |
| QAM-A-104 | 7 | [**Preparation and Control of Laboratory Procedures**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-a-104rev7prepcontlabproc.pdf) |
| QAM-W-101 | 12 | [**Disposal of Laboratory Waste**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-w-101rev12waste.pdf) |
| QAM-I-101 | 11 | [**Operation and Calibration of the Analytical Balance**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-101rev11analytbalance1.pdf) |
| QAM-I-102 | 15 | [**Operation and Calibration of the Autoanalyzers**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-102rev15opcalautoanal.pdf) |
| QAM-I-103 | 12 | [**Operation and Calibration of the UV-Vis Spectrophotometer**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-103rev12uvvis.pdf) |
| QAM-I-104 | 10 | [**Operation and Calibration of the Hach Portable Spectrophotometer**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-104rev10hachspec.pdf) |
| QAM-I-105 | 10 | [**Operation and Calibration of the pH Meter**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-105rev10phmeter.pdf) |
| *SOP-I-106* | *ob* | *Operation and Calibration of the Gas Chromatograph* |
| QAM-I-107 | 11 | [**Operation and Calibration of the Block Digester**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-107rev11blockdigestor.pdf) |
| SOP-I-108 | ob | Operation and Calibration of the Ion Chromatograph |
| QAM-I-110 | 10 | [**Operation and Calibration of the Autoclave**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-110rev10autoclave.pdf) |
| QAM-I-111 | 12 | [**Operation and Calibration of the Conductivity Meter**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-111rev12condmeter.pdf) |
| *SOP-I-112* | *ob* | *Operation and Calibration of the AA* |
| QAM-I-113 | 7 | [**Operation and Calibration of the D.O. Meter**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-113rev7dometer.pdf) |
| *SOP-I-114* | *ob* | *Operation and Calibration of the Spectro Cirros Inductively Coupled Plasma Spectrophotometer* |
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| QAM-I-116 |  13 | [**Preparation of Labware**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-116rev13labwareprep.pdf) |
| QAM-I-117 |  14 | [**Volumetric Equipment Calibration Verification**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-117rev14volequipcal.pdf) |
| QAM-I-118QAM-I-119 |  14 1 | **[Thermometer Calibration Verification](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-118thermcalrev141.pdf)** [**Operation and Calibration of the Fluorometer**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-119rev1fluorometer.pdf) |
| QAM-I-120 |  0 | [**Operation and Calibration of the SEAL AQ300 Autoanalyzer**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-i-120rev0sealaq300.pdf) |
| Procedure # | Rev | Procedure Title |
| SOP-C-101 | 15 | [**Determination of Biochemical Oxygen Demand**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-101rev15bod.pdf) |
| SOP-C-102 | 8 | [**Determination of Chemical Oxygen Demand**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-102rev8cod.pdf) |
| SOP-C-103 | 15 | [**Determination of Total Kjeldahl Nitrogen and Phosphorus**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-103rev15tptkn.pdf) |
| SOP-C-104 | 12 | [**Determination of Ammonia as Nitrogen**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-104rev12nh3n.pdf) |
| SOP-C-105 | 15 | [**Determination of Nitrate/Nitrite as Nitrogen**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-105rev15no23n.pdf) |
| SOP-C-106 | 14 | [**Determination of Orthophosphate as Phosphorus**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-106rev14opo4p.pdf) |
| SOP-C-107 | 16 | [**Determination of Total Suspended Solids**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-107rev16tss.pdf) |
| SOP-C-108 | 12 | [**Determination of Nonfilterable Volatile and Fixed Solids**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-108rev12vssnvss.pdf) |
| SOP-C-109 | 12 | [**Determination of Total Dissolved Solids**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-109rev12tds.pdf) |
| *SOP-C-110* | *ob* | *Determination of Turbidity* |
| *SOP-C-111* | *ob*  | *Determination of Total Organic Carbon* |
| SOP-C-112 | 14 | [**Determination of Chlorophyll-a and Pheophytin-a**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-112rev14chlapheo1.pdf) |
| SOP-C-113 | 11 | [**Determination of Specific Conductance**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-113rev11speccond.pdf) |
| SOP-C-114 | 14 | [**Determination of Fecal Coliform and E. coli by Membrane Filtration**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-114rev14bacteria.pdf) |
| *SOP-C-115* | *ob* | *Determination of Alkalinity* |
| *SOP-C-116* | *ob* | *Determination of Anions by Ion Chromatograph* |
| *SOP-C-117* | *ob* | *Determination of Organohalide Pesticides* |
| *SOP-C-118* | *ob* | *Determination of Organophosphorus Pesticides* |
| *SOP-C-119* | *ob* | *Determination of Triazine Pesticides* |
| SOP-C-120 | 10 | [**Determination of pH in the Laboratory**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-120rev10ph.pdf) |
| SOP-C-121 | 9 | [**Determination of Residual Chlorine**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-121rev9chlorine.pdf) |
| *SOP-C-122* | *ob* | *Determination of Oil & Grease* |
| *SOP-C-123* | *ob* | *Determination of MBAS Surfactants* |
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| SOP-C-130 | 12 | [**Determination of Total and Percent Solids**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-130rev12tsandsolids.pdf) |
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| SOP-C-132 | 0 | [**Preparation of Soil Samples for Analysis on SEAL AQ300**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-132rev0prepsoilsamplesseal.pdf) |
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| *SOP-C-150* | *ob* | *Determination of Soil Extractable Phosphorus* |
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| *SOP-C-151* | *ob* | *Determination of Soil Estimated Organic Carbon* |
| *SOP-C-152* | *ob* | *Determination of Soil Nitrate/Nitrite as Nitrogen* |
| *SOP-C-153* | *ob* | *Determination of Acid Hydrolyzable Phosphorus* |
| *SOP-C-154* | *ob* | *Determination of Dissolved Silica (High Range)* |
| *SOP-C-155* | *ob* | *Determination of Soil Calcium Carbonate* |
| *SOP-C-156* | *ob* | *Determination of Sulfate* |
| *SOP-C-157* | *ob* | *Determination of Bioavailable Phosphorus* |
| *SOP-C-158* | *ob* | *Determination of Chloride* |
| *SOP-C-160* | *ob* | *Determination of Particle Size in Soils and Sediments* |
| *SOP-C-161* | *ob* | *Determination of Phosphorus Sorption/Desorption* |
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| SOP-C-163 | 0 | [**Determination of Ammonia Nitrogen in Soil**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/sop-c-163rev0soilammonia.pdf) |
| *SOP-C-170* | *ob* | *Determination of Metals by Inductively Coupled Plasma Spectroscopy* |
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| Procedure # | Rev | Procedure Title |
| QAM-R-100 | 4 | [**TIAER Lab Radiochemistry Program**](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-r-100rev4tiaerradchemprogram.pdf) |
| QAM-RI-101 | 1 | **[Operation and Calibration of the Ludlum Model 3](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-101rev1opcalmodel3.pdf)** **[Survey Meter](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-101rev1opcalmodel3.pdf)** |
| QAM-RI-102 | 2 | **[Operation and Calibration of the Ludlum Model 2350-1](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-102rev2opcalludlum2350.pdf)** **[Data Logger](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-102rev2opcalludlum2350.pdf)** |
| QAM-RI-103 | 1 | **[Operation and Calibration of the Ludlum Model 43-10](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-103rev1opcalludlum43-10.pdf)** **[Alpha-Beta Sample Counter](https://web.tarleton.edu/tiaer/wp-content/uploads/sites/59/2022/01/qam-ri-103rev1opcalludlum43-10.pdf)** |
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