# QAM-Q-110

# Sample Receipt and Login

**Revision 10** 

Approval:

Concurrence

Laboratory Manager/LQAO/RSO

Date

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Date

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Texas Institute for Applied Environmental Research

#### 1.0 Applicability

This procedure applies to all samples received at the Texas Institute for Applied Environmental Research (TIAER) Laboratory, Tarleton State University, Stephenville, Texas and the TIAER mobile laboratory.

#### 2.0 Purpose

The purpose of this procedure is to provide a method for the legal and proper transfer of samples from the client to the TIAER laboratory staff. The procedure specifies the required documentation and the appropriate condition for samples at receipt. Login procedures associated with sample receipt are also described. <u>These methods have been modified to include</u> <u>samples for radiochemistry under supervision of the Radiation</u> <u>Safety Officer (RSO).</u>

#### 3.0 Definitions

Chain of Custody/Sample Information Form (COC) - a form 3.1 that accompanies a sample or set of samples from the time samples leave custody of those who collected them through the login procedure (Attachment 1, Q-110-1). Sample identification information is recorded on the COC. The COC may be attached to shipping documents, client-related paperwork, field data sheets, Flowlink printouts, and/or flowweighting printouts for the sample(s), as appropriate. The data on the COC and attached sheets represent the sample(s) in the database entry process, data review and validation, client instructions or requests, and data storage. Refer to QAM-Q-104, "Data Entry and Review" for further data entry information. Each TIAER COC has space for data on multiple samples. COCs may also be provided from other organizations, provided all necessary information is contained on them. COCs may be completed electronically but are printed for signed custody transfer, routing and storage.

- 3.2 Corrective action report (CAR) a form used to document situations in which the approved and documented procedures are not followed (Attachment 1, QAM -Q-105).
- 3.3 ESDMS Environmental Sample Data Management System. A Microsoft® Access database interface created by TIAER and used to enter laboratory and field data into the database.
- 3.4 Flow-weighting program a computer program developed by TIAER for use in compositing automated samples according to the amount of flow associated with time of sample collection. The program output specifies the number of mL from each bottle to use in creating the composited sample. QAM -Q-112, "Sample Compositing" describes the compositing procedures.
- 3.5 Sample Logbook an electronic logbook that includes a sequential, preprinted list of sample numbers used to assign a unique identification number to each sample (Attachment 2, QAM -Q-110). Pertinent information from the COC for each sample is included in the Sample Logbook.
- 3.6 Flowlink printouts a printout from the flowmeter associated with the automated sampler that gives the bottle numbers of collected samples and collection times and dates. A Flowlink printout is typically printed for each site at which automated storm samples are collected.
- 3.7 Time the time, either in Central Standard Time (CST) or daylight savings time (DST). Sample holding times are documented and checked by both the client and laboratory staff.
- 3.8 Test Group Code (TGC) a code that indicates the suite of analyses to be measured for a sample. See Attachment 3 for examples of TGCs.
- 3.9 <u>Radioactive- Refer to QAM-S-100 for definitions relating to</u> <u>radioactivity and contamination. Generally, any reading that</u> <u>is twice background is considered radioactive and is treated</u> <u>as such.</u>

## 4.0 Equipment, Reagents and Standards

- 4.1 Ethanol
- 4.2 Waterproof marker
- 4.3 Paper towels
- 4.4 Laboratory cart
- 4.5 Plastic tubs
- 4.6 Ice chests
- 4.7 pH indicator paper, range 1 12 or equivalent
- 4.8 Infrared thermometer, checked for accuracy by comparison to a certified thermometer, in accordance with QAM -I-115, "Operation and Calibration of the IR Thermometer"
- 4.9 <u>Survey meter with appropriate detector (QAM-RI-101)</u>
- 4.10 Filters/petri dishes for swipe testing (SOP-RC-111)

### 5.0 Procedure

- 5.1 All samples submitted to the laboratory for analysis are accompanied by an appropriately completed COC. Samples without a TIAER COC or an equivalent COC from another organization <u>are</u> not accepted by the laboratory.
- 5.2 All coolers, shipping and sample containers are surveyed for radioactivity using a pancake probe or Nal detector on a Ludlum Model 3 survey meter or equivalent in accordance with QAM-RI-101 or RI-102. Swipes of outsides of containers may be taken for removable surface contamination (SOP-RC-111) as required by the Laboratory Manager (LM) or RSO. No radioactive material or container that exceeds a 250 mR/hr screening level is allowed into the laboratory.
- 5.3 Radioactive samples are stored behind lead shielding until a survey is complete and passed. The LM or RSO will notify the client to take any containers that exceed the screening level.
- 5.4 <u>Radiation levels are recorded on the COC, whether</u> <u>detectable or not, including instrumentation with calibration</u> <u>information or method used to assess</u>.

- 5.5 Where applicable, laboratory login personnel initially log into the annex computer under the same account with username "field" and the password. Personal login information is required for ESDMS access.
- 5.6 COCs and attached data sheets are normally placed in the In box in the Login room and samples left secure in ice chests. The Login room is locked if it is being left vacant.
- 5.7 Laboratory/login personnel are informed that samples are being left in the secured Login room by TIAER field personnel or other clients are waiting to leave samples with staff. On weekends and after hours, laboratory staff members are contacted and available to come in and receive the samples.
- 5.8 Short holding times remaining and <u>radiation readings that</u> <u>are 2x background or higher are communicated immediately</u> <u>to the analyst, LM and/or RSO</u>.
- 5.9 To allow questions and problems to be resolved quickly, the laboratory sample receipt person <u>will receive, inspect and</u> login the samples as soon as possible. Clients remain accessible by telephone for a reasonable amount of time after submitting samples to assist with any login problems.
- 5.10 If samples are received in normal working hours, but are not logged in on the day they are placed in the login room, TIAER laboratory staff members are responsible for adding ice to coolers holding samples, if room allows, before leaving for the day. <u>Radioactive samples are placed behind a lead metal shielding area.</u>
- 5.11 Preservation of samples brought in after normal hours are the responsibility of the TIAER field staff or client, as appropriate.
- 5.12 For those problems that cannot readily be resolved, initiate a CAR and contact the appropriate supervisor or designee.
- 5.13 Login personnel responsibilities. Inspection of samples and documentation is performed by TIAER laboratory/login personnel to ensure that samples match the descriptions on the COC and that proper preservation and holding times are

met in accordance with QAM-Q-101, "Laboratory Quality Control".

- 5.14 The following information is written on each COC at the time of submission by the submitting personnel:
  - 5.14.1 Project code, project manager, sample collector.
  - 5.14.2 Test group code, or indication of required analyses and the number and types of sample containers.
  - 5.14.3 Time (CST or DST) and date for all sample types except TIAER storm composites.
    - 5.14.3.1 End date and time for TIAER storm composites are written in the Comments section.
    - 5.14.3.2 Date/time of last bottle collected for composited samples.
    - 5.14.3.3 Start time for TIAER storm composites will be determined later. In circumstances in which the normal start time <u>is</u> not used, the appropriate start date/time is also be included on the COC.
  - 5.14.4 Site identification.
  - 5.14.5 Sample type.
  - 5.14.6 Preservation.
  - 5.14.7 Container type, and number of each type of container.
  - 5.14.8 Signature of person relinquishing the sample(s), with time (CST or DST) and date of sample submission.
  - 5.14.9 Appropriate comments, including bottle numbers submitted.
  - 5.14.10 Patience and assistance <u>are</u> extended to those submitting samples, especially new clients. The login person may need to assist clients in completing COCs, comply with sample receipt and preservation requirements, and correct errors.

- 5.14.11 If aliquots of the sample are sent to another laboratory, note the analyte(s) and laboratory in the Comments field of the COC.
- 5.14.12 Non-TIAER clients complete the Name, Phone, Client Sample or Site ID, Date and Time of sampling. The COC will not be accepted if the samples are not signed as relinquished. Other client specific information may be written on or attached to the COC. By signing the COC, the client agrees to the Sample Acceptance Policy described at the bottom of the COC.
- 5.15 The sample containers must always
  - 5.15.1 Match the type(s) and number specified on the COC.
  - 5.15.2 Be labeled with a unique identifier, typically the station/site identification, date and time of collection (or bottle number for automated samples).
  - 5.15.3 Be in good condition, not leaking and not broken.
  - 5.15.4 Be received on ice, if it is a non-potable water sample.
  - 5.15.5 Be preserved as required by the contracted project.
  - 5.15.6 <u>Be below 250 mR/hr on the survey.</u>
- 5.16 <u>Subcontract laboratories</u>- Sample coolers and containers are hand-delivered or shipped by courier from the TIAER Laboratory to another laboratory <u>for certain tests</u>. In any case, sample integrity and custody traceability of the sample and container are maintained and documented during sample receipt and inspection.
  - 5.16.1 To properly pack the sampler for transport to another laboratory, place a layer of ice in the bottom of a cooler deep enough to hold the containers in place. Press sample containers uniformly into the ice with at least 1 inch of space between containers (all sides), or place into a plastic bag and set on top of the ice layer. Pour additional ice over the samples to completely cover the containers completely. For bacteria samples, coolers hold no

more than one bacteria sample per gallon of cooler; with sample containers evenly spaced and completely covered with ice.

- 5.16.2 The contract laboratory informs TIAER as soon as feasible concerning any deviations from protocol.
- 5.16.3 During hot weather months or if it is questionable that samples will arrive on time with sufficient preservation, coolers <u>are</u> driven from the TIAER Laboratory to the contract laboratory by TIAER staff, when possible.
- 5.17 If any of the conditions are not met, the login person contacts the person who delivered the samples to ascertain the required information. A corrective action report is generated if the problem is not readily resolved or data integrity is compromised.
- 5.18 Assignment of sample numbers by Login person
  - 5.18.1 The Sample Logbook includes a sequential, preprinted list of sample numbers that is used to assign a unique identification number to each sample. All pertinent information from the COC for each sample is copied to one row in the Sample Logbook (Attachment 2, Q-110-2). The sample number printed on that row is thereby assigned to the sample.
  - 5.18.2 Copy the sample number from the Logbook to the appropriate sample row on the COC.
  - 5.18.3 If sample numbers have been omitted or canceled from the process, note as "not used" in the Sample Logbook, with a short explanation of the reason. An example of a canceled sample is a reserved sample that was not used.
  - 5.18.4 If a discrepancy occurs or writing cannot be deciphered, check with the person who filled out the COC or delivered the sample to resolve the problem. If that person cannot be readily located, check with the Project Manager.

- 5.18.5 If a problem that will affect the production of data cannot be readily resolved, complete a CAR in accordance with QAM-Q-105.
- 5.19 Inspection of submitted samples
  - 5.19.1 <u>Water</u> samples brought in by TIAER field personnel are normally preserved with ice, labeled and checked for other preservations as appropriate and documented on the COC. Refer to QAM-Q-101 or analyte specific SOPs for appropriate preservation requirements, as related to specific analytes.
  - 5.19.2 Remove each bottle from the ice and promptly confirm that the temperature is <u>>0°C and ≤6°C</u>, with no noticeable icing in the sample, using the infrared (IR) thermometer, as per QAM-I-115, "Operation and Calibration of the IR Thermometer". If the temperature is within the specified range, indicate passage on the COC with a checkmark, "P", or "Y".
  - 5.19.3 <u>Survey each container with a pancake probe and</u> note any readings on the COC (even nondetectable). Notify the LM/RSO of any reading that exceeds 2x background. Place radioactive samples behind a lead barrier shield until transfer to the radlab area. The RSO may require further testing, such as swipe collection for removable contamination.
  - 5.19.4 For temperature, if the sample does not fall into the required range, note the deviation on the COC and initiate a CAR. This includes samples that are frozen.
  - 5.19.5 If the sample was collected and preserved on ice on the same date as submission, it is not required to be >0°C and ≤6°C. A CAR is not required if there is evidence that chilling has begun, such as arrival on ice. For bacteria samples, strict adherence to the sample collection protocol of immediate icing of the sample is required.
  - 5.19.6 If the temperature does not meet criteria, indicate on the COC which bottle(s) did not comply. If the

sample is a grab, indicate the bottle type; if the sample is a composite, indicate the bottle number.

- 5.19.7 Some projects or sample types may have different temperature requirements. Check with the LM or designee when in doubt.
- 5.19.8 After the temperature check is completed, line up liquid samples on the bench in order according to the COC.
- 5.19.9 Do not check the pH of bottles containing aliquots for oil and grease analysis, <u>radiochemistry</u>, solid matrices or bacteria samples. This check will be done later in the laboratory.
- 5.19.10 For preservative/container codes listed as acid preserved, remove about a drop by tilting the sample into the container lid. Other readily available methods of retrieving a drop without contaminating the sample may be used. Do not put anything into the sample container or lid.
- 5.19.11 Let the drop fall from the lid (or other container) onto a piece of pH indicator paper. Replace the lid.
- 5.19.12 If the paper indicates that pH is less than 2, proceed to the next acid-preserved sample. Indicate that it passed on the COC with a checkmark, "P", or "Y".
- 5.19.13 If the pH indicated is greater than 2, verify that the COC states that the sample container is acid preserved, note the deviation on the COC. Include the approximate pH indicated by the paper to help the PM determine the effect on the data quality. Initiate a CAR as soon as possible.
- 5.19.14 If the pH does not meet criteria, indicate on the COC which bottle(s) did not comply. If the sample is a grab, indicate the bottle type; if the sample is a composite, indicate the bottle number.
- 5.19.15 Inform laboratory personnel that more acid needs to be added to preserve the sample.

- 5.19.16 Refer to QAM-Q-101, "Laboratory Quality Control" or the analyte SOP for the correct acid to be used for specified analytes.
- 5.19.17 Some projects or sample types may have different pH requirements or none at all. Check with the Project Manager, LM, or designee if in doubt.
- 5.19.18 If samples are not going to be processed immediately by the laboratory, return to ice or designated refrigerator. <u>Place radioactive samples</u> in the radchem section of the lab after screening.
- 5.19.19 For <u>stable chemistry</u> samples on ice, remove bottles from the ice chest one at a time for processing.
  Wipe shoulder of bottle (or side if container does not have a shoulder) on which sample number will be placed to provide a dry surface.
- 5.19.20 The site name, preservative/container code, date and time of collection <u>are</u> written in waterproof marker on containers or labels for all types of samples except automated samples which have site, preservative/container code, date and bottle number. Compare sample identification data to the sample information on the COC or logbook to confirm the corresponding sample number.
- 5.19.21 For samples that will not be composited, write the sample number on each container with a waterproof marker. If it is not a coded number, the site name (but not the collection time) may be removed from the sample container, using ethanol and a paper towel.
- 5.19.22 For samples or aliquots that need to be filtered or preserved, write the TGC on the lid of the sample/aliquot container.
- 5.19.23 For non-potable water quality samples that will be composited, write the sample number on the first and last bottles of the set.
- 5.19.24 For radioactive samples, include with the sample number a designated cyan and magenta "Caution-

Radioactive Materials" sticker or tape. If the isotope is known, write it also on the sample container. Place radioactive samples in the Radchem section of the lab after screening.

- 5.19.25 If a partial sample or any aliquot of a sample is received separately from the remainder of the sample or aliquot, document this on both the COC and in the Sample Preservation Logbook.
- 5.19.26 If all the above information is correct and complete, the laboratory personnel signs the COC as "Received by" and record the time and date.
- 5.19.27 If any discrepancy exists with the sample condition, preservation, bottle numbers, <u>radiation screening</u> <u>level</u> or documentation that cannot be readily resolved, the <u>LM, RSO</u> or designee is notified and a Corrective Action Report is initiated. Attempts to correct the problem are made, if appropriate, upon approval by the LM. Refer to QAM-Q-105 for guidance with nonconformance situations. When corrective actions have been initiated, the laboratory personnel signs the COC to acknowledge receipt of the samples, but adds a notation that a CAR has been written.
- 5.19.28 If the samples can be analyzed, even though information is missing, processing of samples occurs so that all possible analyses can be completed within holding times, unless the missing information does adversely affect analysis. A CAR is written to document the situation.
- 5.19.29 In some cases, no physical samples are associated with the COC. This situation occurs primarily when physicochemical data measured in the field by multisonde equipment and descriptive field information are the only types of data needed for a sampling event. Assignment of sample numbers and entry of sample information into the database necessitate completion of a COC.

- 5.19.30 If descriptive identification only is recorded on the COC and sonde data will be electronically input into the database at a later time, the lab or login personnel sign the COC to indicate receipt of descriptive data to be input into the database.
- 5.20 Computer login of samples
  - 5.20.1 Click the ESDMS Sample Login icon on the Annex login computer. Enter user name and password.
  - 5.20.2 From the Sample Login main menu, click Login New Samples.
  - 5.20.3 In the Sample Login screen, the next sample number to be logged appears. Confirm that it matches the next sample number on the COC, which was copied from the Sample Logbook.
  - 5.20.4 From the New Sample screen, select the Test Group Code (TGC) from the drop-down list that matches the TGC on the COC for that sample.
  - 5.20.5 The required number and type of containers for the TGC appear. Confirm that those match what was received and check the Required Containers Delivered box.
  - 5.20.6 If there is a discrepancy, contact the TIAER field staff member or client who delivered the samples or the LM to try to resolve the issue, such as correcting a miscopied TGC or revising an incorrect site name on a container.
  - **5.20.7** If the bottles delivered do not match the required bottles for the test group code and the problem is not readily resolved, leave the Required Containers Delivered box unchecked and complete all other information, then click the Login Sample button. Enter the actual bottles delivered on the Container Information form that appears. Initiate a corrective action report (CAR) and contact LM or designee for guidance.

- 5.20.8 Check the boxes for Temp and pH on the form. If a nonconformance was noted on the COC for specific containers, click on "Fail". If determination of temperature or pH is not applicable, click on NA.
- 5.20.9 Type the client sample site ID associated with the sample number on the COC or select it from the Site List. If it is a new site, a prompt will ask if it needs to be added. Check with the LM or designee to determine whether this is a recognized new site rather than a mistake in documentation, unless the sample is for a project that frequently has new site names. The system will prompt for a reason to add a new site.
- 5.20.10 Enter either the date/time (for individual samples) or the date/time of the last bottle collected (for composited samples).
- 5.20.11 Review entries to ensure accuracy, then click Login Samples. The new sample appears in the Sample List. If an error was made, it can be corrected on the Login screen. The login person can correct any mistakes before uploading the samples. If a CAR was written for samples before login and a login error is noticed and corrected, also correct the information on the CAR since the CAR will not automatically update to corrections in ESDMS.
- 5.20.12 Continue logging in samples from COCs, using the New Sample Login screen.
- 5.20.13 After all samples on the COC have been logged in and reviewed, click "Upload Samples to Server". Click OK when the prompt states Samples Successfully Uploaded. Login report prints automatically.
- 5.20.14 Place the report in the Sample Login Report Binder.
- 5.20.15 When complete, click Return to Main Menu.
- 5.20.16 When login is complete, click Exit Sample Login.

- 5.20.17 Reserving sample numbers. In some instances, a group of sample numbers needs to be reserved prior to sample collection.
- 5.20.18 The person requesting reserved samples provides the number of samples, project code, and requestor's name.
- 5.20.19 Click Reserve Sample Numbers from the Sample Login menu.
- 5.20.20 Enter the number of sample numbers to be reserved and the person requesting the reservations. Choose Project from the drop down list and click Okay.
- 5.20.21 The prompt will list the reserved sample numbers.
- 5.20.22 Locate the reserved sample numbers in the Sample Logbook. Write the project code beside each reserved sample number and indicate that the sample numbers have been reserved.
- 5.20.23 COCs submitted with samples having reserved sample numbers include the sample numbers.
- 5.20.24 Copy pertinent data from the COC to the matching row in the Sample Logbook.
- 5.20.25 From the Sample Login menu, click Login Reserved Samples and input information in the same manner as inputting information into the New Sample screen.
- 5.20.26 After information for all reserved samples has been input, a prompt will indicate that all reserved samples have been used. Click OK. Review the sample logbook and contact the Laboratory Manager or person who submitted the samples, for problems with number of reserved samples.
- 5.20.27 If all reserved sample numbers are not used, void the unused sample numbers. <u>Only reserved</u> <u>sample numbers can be voided, not those that have</u> <u>been used to designate received samples</u>.

- 5.20.28 Review the Reserved Sample Login screen for accuracy, make any necessary revisions, and click Upload Samples to Server.
- 5.20.29 A login report prints out. Respond when the prompt asks if the report printed correctly. If the report did not print, check the printer for problems and connections. Click Print Login Report from the Reserved Sample Login screen. If it does not print again, notify the Laboratory Manager or designee, and it may be printed later. Place report in folder or binder for review.
- 5.21 Composited sample documentation for TIAER flowweighted samples.
  - 5.21.1 For samples to be flow composited, run the sample compositing program described in QAM-Q-112, "Sample Compositing."
  - 5.21.2 Write the sample number on the printout from the sample compositing program.
  - 5.21.3 In some instances, so little flow is associated with a bottle that the compositing program will indicate that no liquid from that bottle <u>is</u> used in the composited sample. If a bottle is not used, change the bottle numbers and number of bottles on the COC. If the last bottle is not used, also change Last Bottle Date/Time on the COC to the collection time indicated on Flowlink sheet for the last bottle actually used in the composite.
  - 5.21.4 Circle the times of first and last stage readings shown on the printout for bottles that are actually used in the composited sample.
  - 5.21.5 The first and last stage readings that are circled are the initial and final dates and times of flow represented by the composited sample. Copy them onto the COC under Sample Date(s) and Sample Time(s). (Note: There will be two times and perhaps two dates in the date and time cells on the COC.)

- 5.21.6 Attach the printout to the COC in order by sample number.
- 5.21.7 Place the completed COC in the Login box for computer login of COC data to be performed later.
- 5.22 Submission of samples to laboratory
  - 5.22.1 Radioactive samples passing screening are labeled and immediately transferred to shielded storage in the radchem section of the laboratory and never brought into the stable chemistry lab.
  - 5.22.2 <u>For stable chemistry</u>, place samples in numerical order by sample number on cart. The samples will not be on ice during transfer, so the time before transfer to the refrigerator or processing station is as short as reasonably possible.
  - 5.22.3 Roll cart or otherwise deliver container with samples into the laboratory.
  - 5.22.4 Include the TIAER flow-weighted composite program printout with samples that will be composited. Verbally inform laboratory staff that samples need to be composited. Refer to QAM-Q-112, "Sample Compositing."
  - 5.22.5 Verbally notify laboratory staff which analyses need to be performed on which sets of samples so that they <u>are</u> handled in accordance with QAM-Q-111 "Aliquot Preparation and Sample Preservation." If not previously done, the analyst writes the test group code on the cap of the unfiltered or unpreserved bottle with indelible ink to facilitate this.
  - 5.22.6 Analysts also check the login data on the computer to verify which samples were assigned to each test and their associated holding times. Remaining holding time will be displayed, with any necessary corrections for daylight savings time, if initial computer login is complete.

- 5.22.7 Site identification, project name(s), time(s), date(s), test group code, sample type, and comments listed on the COC are entered into the ESDMS database for each sample beside the pertinent sample number. Refer to QAM -Q-104, "Data Entry and Review" for specific instructions on data entry for logged-in samples.
- 5.22.8 Physicochemical measurements recorded on field data sheets will be electronically uploaded into TIAER's SAS database, unless special instructions indicate that manual entry is required.
- 5.22.9 File COCs in folders according to received date. The LM periodically collects the COCs for data verification.
- 5.23 Cleanup
  - 5.23.1 Empty ice from ice chests and place them in the cleaning and storage area.
  - 5.23.2 Wipe up any water from ice and clean the area.
  - 5.23.3 <u>Areas where radioactive samples have been</u> <u>handled, unpacked or transferred are swiped for</u> <u>removable surface contamination under direction of</u> <u>the RSO per SOP-RC-111.</u>
  - 5.23.4 <u>All cleanup materials are disposed of properly</u>.

## 6.0 Quality Control and Safety Aspects

- 6.1 All aspects of this procedure comply with QAM -Q-101, "Laboratory Quality Control", QAM -S-101, "Laboratory Safety" and QAM-W-101, "Disposal of Laboratory Waste".
- 6.2 Proper personal protective equipment (PPE) is worn for handling acids and radioactive materials.
- 6.3 Broken bottles, improper preservation, documentation discrepancies and other nonconformances require initiation of corrective action in accordance with QAM -Q-105.
- 6.4 Sample times remain on the bottles or other containers until aliquots are prepared and labeled with the sample number to ensure against any mix-ups in samples.
- 6.5 Doors to the login area are kept locked when unoccupied.

- 6.6 Samples received in the TIAER mobile laboratory may be logged into the computer system at a later date to allow offsite receipt. Sample numbers are not duplicated (i.e., each is unique, as are all TIAER sample numbers). All sample receipt and COC protocols apply. Sample numbers may be reserved for offsite use.
- 6.7 For submission of PT samples, TIAER's Laboratory Quality Assurance Officer with assistance from TIAER's Laboratory Manager will ensure that the PT standards are prepared, then preserved by directions and submitted in the same manner as routine environmental field samples. This includes preservation, bottle type and COC submission.

#### 7.0 References

- 7.1 Environmental Sample Data Management System Sample Login Program User's Manual, (most recent version), Texas Institute for Applied Environmental Research.
- 7.2 2009 TNIC Standard, The NELAC Institute (TNI).

#### 8.0 Attachments

- 8.1 Example of Chain of Custody/Sample Information form, Q-110-1
- 8.2 Example of Sample Log, Q-110-2
- 8.3 Examples of <u>TIAER</u> Test Group Codes

TIAER			Chain	of Cus	stody /	Sa	m	ple	Infor	rmation F	orn	า	Page of Field data or	attachments? (Y/N)		
Client or Proje	ct Manager:					Client phone:			:	Sampler(s) and Delivery information					>0-⊴6C temp. Therm. used:	
															Т-	
		TIAER		Sample		ЭС		e	e Jer ber			Comme	nts (if applicable)		check	eck ed
<b>TIAER</b> Project Code	<b>TIAER</b> Lab Sample Number	Test Group Code	Sample Date(s) (mm/dd/yy)	Time(s) (hh:mm) CST for TIAER	<b>Client</b> Sample or Site ID	Sample Typ	Matrix	Preservative	Preservative and Container types/ number	Flow Weighted data start/end date/time:	bottle numbers:	Radiation Screening (list method)	Other notes (special turnaround times requested may incur premium charges):	Composite only- last bottle collection date/time:	pH <2 cl	temp check Disposed
									ろ							
Relinquished by:				Date/Time:			Re	eceive	d by:					Date/Time: CST		
Relinquished by:				Date/Time:				eceive	,	IN et alian		(		Date/Time: CST		
Sample Types: G=0													ered plastic, <b>F</b> =filter, <b>G</b> =glass	Form review init Data entry:	ials/	date
	•		· · /	· · · ·	•	· · · ·			•	· · · · · · · · · · · · · · · · · · ·	· · ·		, , <b>,</b>	Field review:		
Each preservative/co	ua/uf, H=dark glass uf, J=glass acidified uf, O=other (describe), S=sterile plastic ua/uf, V=VOA vial uf, W= plastic bag ua/uf. I=Ice, HS=Sulfuric acid, HN=Nitric acid       Field review:         Each preservative/container code represents one container ID. If more than one       Texas Institute for Applied Environmental Research       Lab review:															
container is submitte	d for a code, enter th	e number (	of each beside the	e code.	B	ox T-0	0410,	Steph	enville, TX	76402, Tarleton Sta	ate Unive	ersity 254-9	68-9570, 968-9556	Q-110-1, rev. 10 m	nm 9/	23/15
requirements. Samp Standard, or other re submitted may be ac Samples submitted of	Sample Acceptance Policy: TIAER retains the right to refuse acceptance of any sample and return any and all portions of samples to the client. Samples submitted with little holding time remaining may not be analyzed in time to meet project requirements. Samples should have at least 50% of holding time remaining when submitted. Unless otherwise agreed upon in writing, Client should submit samples collected and preserved in accordance with 40 CFR 136, the 2009 NELAC Standard, or other regulatory requirement stated by the Client's project. TIAER Lab shall not be responsible for data accuracy on samples improperly collected, preserved or submitted. Samples not appropriately collected, preserved or submitted. Unless of the Client. Unless previously arranged, normal sample acceptance hours without premium fees are Monday-Friday, 0800-1600, exclusive of official Tarleton holdays . Samples submitted outside of the normal hours may be processed at a premium sucharge. By signing to relinquish the sample(s) above, the Client's representative hereby agrees to this policy & conforms to Cooperative Agreement between Client and TIAER. TIAER Lab will not accept radioactive samples that exceed 250 µR/hr on a survey meter, human tissue or fluids, known biohazards, dioxin or furans without previous written authorization.															

## Attachment 2 Example of Sample Log

Q-110-2r10.	Sample Log LOGIN/Sample receipt											
Sample #	Login Date	Sample date(s)	Sample time(s)	Site ID	Project	Sample t <mark>yp</mark> e	TG Code	# Bottles/type submitted	submitter from COC	receiver initials from COC	login/ data entry initials	
94802	8/17/2015	8/12/2015	0000	RAW	weatherford 2	G	TAN	А	JM/AL	тс	тс	
94803	8/17/2015	8/12/2015	0000	FINISHED	weatherford 2	G	TAN	А	JM/AL	тс	тс	
94804	8/17/2015	8/13/2015	0000	RAW	weatherford 2	G	TAN	А	JM/AL	тс	тс	
94805	8/17/2015	8/13/2015	0000	FINISHED	weatherford 2	G	TAN	А	JM/AL	тс	тс	
94806	9/1/2015	9/1/2015	0924	BO040	NBR2	G	M2	3ABCDES	JS,JM,AM,DB	VH	тс	
94807	9/1/2015	9/1/2015	0805	BO020	NBR2	G	D	NA	JS,JM,AM,DB	VH	тс	
94808	9/1/2015	9/1/2015	0830	GC100	NBR2	G	D	NA	JS,JM,AM,DB	VH	тс	
94809	9/1/2015	9/1/2015	0844	BO070	NBR2	G	M2	2ABCDES	JS,JM,AM,DB	VH	тс	
94810	9/1/2015	9/1/2015	0840	BO090	NBR2	G	M2	2ABCDES	JS,JM,AM,DB	VH	тс	
94811	9/1/2015	9/1/2015	0840	BO090	NBR2	G	M2	2ABCDE	JS,JM,AM,DB	VH	тс	
94812	9/1/2015	9/1/2015	0939	BO095	NBR2	G	M2	2ABCDES	JS,JM,AM,DB	VH	тс	
94813	9/1/2015	9/1/2015	0918	NC060	NBR2	G	M2	2ABCDES	JS,JM,AM,DB	VH	тс	
94814	9/1/2015	9/1/2015	1027	BO083	NBR2	G	M2	2ABCDES	JS,JM,AM,DB	VH	тс	
94815	9/10/2015	9/9/2015	1232	BO040	NBR2	F	Р	4A	AM,DB	VH	VH	

# Attachment 3 Examples of TIAER Test Group Codes

#### Test Group Codes in ESDMS

TG code	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8
Ρ	NH3N	NO23N	ТР	TKN	OPO4P	TSS		
B20	CHLA	ftkn	fTP	OPO4P	TSS	TNH3	TNO3	
ENV1	BOD	MPNecoli	TDS	TNH3	TNO3	Tot.Coli	TP	TSS
LOW2	LowOPO4P	LowTP	lowno23n	TKN	TNH3			
N9A	NO23N	OPO4P	TKN	TP	TSS			
RC1	238U	gA-B	AScan	226Ra				