QAM-Q-110

Sample Receipt and Login

Revision 18

Approval:

Laboratory Manager

Laboratory Iviariager

Concurrence

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Date

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Renewal Date: _____ Initials:_____

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 or TIAER field staff 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.

3.0 Definitions

Chain of Custody/Sample Information Form (COC or 3.1 COC/SIF) - a form that accompanies a sample or set of samples from the time samples leave custody of those who collected them through the login procedure (Attached Forms Q-110- 1a. 1b. 1c). 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 flow-weighting 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. Some COCs may also serve as the reporting form, if requested by the client (example: drinking water bacteria, Form Q-110-1c).

- 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 <u>CRSD (Collected and Received the Same Day) samples</u>
 that are greater than 6°C at time of receipt are considered to
 pass temperature requirement if they are received on ice on
 the day they were collected
- 3.4 ESDMS Environmental Sample Data Management System. A database interface created by TIAER and used to enter laboratory and field data into the database.
- 3.5 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.
- 3.6 Sample Logbook (Sample eLog) an electronic logbook (eLog) 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 eLog.
- 3.7 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.
- 3.8 Time the time, either in Central Standard Time (CST) or Central Daylight Time (CDT). Sample holding times are documented and checked by both the client and laboratory staff.
- 3.9 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.

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 with at least a 1 decimal point reading, a tolerance of ±1°C (corrected), and calibrated for accuracy to about -5°C up to about 40°C by comparison to a certified thermometer, in accordance with QAM-I-115, "Operation and Calibration of the IR Thermometer"
- 4.9 Computer with ESDMS program

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 are not accepted by the laboratory. Samples collected by TIAER field staff use the COC, Form Q-110-1a, other clients use Q-110-1b for nonpotable water and samples of other matrices, drinking water for Presence/Absence is submitted on Q-110-1c (Attachment 1).
- TIAER Lab Sample Acceptance Policy is as follows:
 TIAER retains the right to refuse acceptance of <u>any</u> 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 <u>2016</u> 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

may be accepted and analyzed by the TIAER Lab at the request of the Client. Unless previously arranged, normal sample acceptance hours without premium fees are Monday-Friday, 0800-1600, exclusive of official Tarleton holidays. Samples submitted outside of the normal hours may be processed at a premium surcharge. By signing to relinquish the sample(s) above, the Client or Client's representative hereby agrees to this policy & conforms to Contract or Cooperative Agreement between Client and TIAER. TIAER Lab will not accept radioactive samples that exceed 250 $\mu\text{R/hr}$ on a survey meter, human tissue or fluids, known biohazards, dioxin or furans without previous written authorization.

- 5.3 Where applicable, laboratory login personnel initially log into the login computer with your university provided user ID and password. Personal login information is required for ESDMS access.
- 5.4 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 TIAER personnel are not present.
- 5.5 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.
- 5.6 Short holding times remaining are communicated immediately to the analyst and/or LM.
- 5.7 To allow questions and problems to be resolved quickly, the laboratory sample receipt person will receive, inspect and 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.
- 5.8 If samples are delivered during 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

- refrigerating or adding ice to coolers holding samples, if room allows, before leaving for the day.
- 5.9 Preservation of samples brought in after normal hours are the responsibility of the TIAER field staff or client, as appropriate. TIAER Lab may help provide preservatives.
- 5.10 For those problems that cannot readily be resolved, initiate a CAR and contact the appropriate supervisor or designee.
- 5.11 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".
- 5.12 The following information, as needed, is written on each COC at the time of submission by the submitting personnel:
 - 5.12.1 Project code, project manager, sample collector.
 - 5.12.2 Test group code, or indication of required analyses and the number and types of sample containers.
 - 5.12.3 Time (CST or CDT) and date for all sample types except TIAER storm composites.
 - 5.12.3.1 End date and time for TIAER storm composites are written in the Comments section.
 - 5.12.3.2 Date/time of last bottle collected for composited samples.
 - 5.12.3.3 Start time for TIAER storm composites will be determined later. In circumstances in which the normal start time is not used, the appropriate start date/time is also included on the COC.
 - 5.12.4 Site identification.
 - 5.12.5 Sample type.
 - 5.12.6 Preservation.
 - 5.12.7 Container type, and number of each type of container.

- 5.12.8 Signature of person relinquishing the sample(s), with time (CST or CDT) and date of sample submission. The person signing must be indicated as a sampler.
- 5.12.9 Appropriate comments, including bottle numbers submitted.
- 5.12.10 Patience and assistance are 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.
- 5.12.11 If aliquots of the sample are sent to another laboratory, note the analyte(s) and laboratory in the Comments field of the COC. Copies of other lab COC or paperwork are attached to the TIAER COC.
- 5.12.12 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, or posted in the login area and laboratory.
- 5.13 The sample containers must always
 - 5.13.1 Match the type(s) and number specified on the COC.
 - 5.13.2 Be labeled with a unique identifier, typically the station/site identification, date and time of collection (or bottle number for automated samples).
 - 5.13.3 Be in good condition, not leaking and not broken.
 - 5.13.4 Be received on ice, if it is a non-potable water sample.
 - 5.13.5 Be preserved as required by the contracted project.
- 5.14 Subcontract laboratories- Sample coolers and containers are hand-delivered or shipped by courier from the TIAER Laboratory to another laboratory for certain tests. In any

case, sample integrity and custody traceability of the sample and container are maintained and documented during sample receipt and inspection.

- 5.14.1 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. Ice packs may also be used. 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.
- 5.14.2 The contract laboratory informs TIAER as soon as feasible concerning any deviations from protocol.
- 5.14.3 During hot weather months or if it is questionable that samples will arrive on time with sufficient preservation, coolers are driven from the TIAER Laboratory to the contract laboratory by TIAER staff, when possible.
- 5.15 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.
- 5.16 Assignment of sample numbers by Login person
 - 5.16.1 The Sample eLog includes a sequential 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 eLog (Attachment 2, Q-110-2). The sample number printed on that row is thereby assigned to the sample.
 - 5.16.2 Verify that the next unused sample number in the Sample eLog and in ESDMS Sample Login are the same.

- 5.16.3 If so, Copy the sample number from the Sample eLog to the appropriate sample row on the COC.
- 5.16.4 If sample numbers have been omitted or canceled from the process, note as "not used" in the Sample eLog, with a short explanation of the reason. An example of a canceled sample is a reserved sample that was not used.
- 5.16.5 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.
- 5.16.6 If a problem that will affect the production of data cannot be readily resolved, complete a CAR in accordance with QAM-Q-105.
- 5.17 Inspection of submitted samples
 - 5.17.1 Water 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. Other clients should submit only properly preserved samples. Deviations are noted on the COC and the client is notified verbally and in writing (usually on report) of any nonconformances.
 - 5.17.2 Remove each bottle from the ice and promptly confirm that the temperature is >0.0°C and ≤6.0°C, 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".
 - 5.17.3 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.

- 5.17.4 If the sample was collected and preserved on ice on the same date as submission, it is not required to be >0.0°C and ≤6.0°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.
- 5.17.5 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.
- 5.17.6 Some projects or sample types may have different temperature requirements. Check with the LM or designee when in doubt.
- 5.17.7 After the temperature check is completed, document observed and corrected temperature on the COC, then line up liquid samples on the bench in order according to the COC.
- 5.17.8 Do not check the pH of bottles containing aliquots for oil and grease analysis, solid matrices or bacteria samples. This check will be done later in the laboratory.
- 5.17.9 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.
- 5.17.10 Let the drop fall from the lid (or other container) onto a piece of pH indicator paper. Replace the lid.
- 5.17.11 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".
- 5.17.12 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.
- 5.17.13 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.
- 5.17.14 Inform laboratory personnel that more acid needs to be added to preserve the sample.
- 5.17.15 Refer to QAM-Q-101, "Laboratory Quality Control" or the analyte SOP for the correct acid to be used for specified analytes.
- 5.17.16 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.
- 5.17.17 If samples are not going to be processed immediately by the laboratory, return to ice or designated refrigerator.
- 5.17.18 For stable chemistry 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.
- 5.17.19 The site name, preservative/container code, date and time of collection are 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 on the bottle to the sample information on the COC.
- 5.17.20 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.

- 5.17.21 For non-potable water quality samples that will be composited, write the sample number on the first and last bottles of the set.
- 5.17.22 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 eLog.
- 5.17.23 If all the above information is correct and complete, the laboratory personnel signs the COC as "Received by" and record the time and date.
- 5.17.24 If any discrepancy exists with the sample condition, preservation, bottle numbers, or documentation that cannot be readily resolved, the LM 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, "Corrective Actions" 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.
- 5.17.25 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.
- 5.17.26 In some cases, no physical samples are associated with the COC (TIAER Field data). 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.
- 5.17.27 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.

- 5.17.28 Document the lot of sterile bottles and preservatives on the COC.
- 5.18 Computer login of samples
 - 5.18.1 Click the ESDMS icon on the login computer.
 - 5.18.2 From the main menu, click "Sample Login" and then "Login New Samples."
 - 5.18.3 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 eLog.
 - 5.18.4 Select the Test Group Code (TGC) from the drop-down list that matches the TGC on the COC for that sample.
 - 5.18.5 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.
 - 5.18.6 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.
 - 5.18.7 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.
 - 5.18.8 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.
- 5.18.9 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.
- 5.18.10 Enter either the date/time (for individual samples) or the date/time of the last bottle collected (for composited samples).
- 5.18.11 Review entries to ensure accuracy, then click "Login." 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.
- 5.18.12 Continue logging in samples from COCs, using the New Sample Login screen.
- 5.18.13 After all samples on the COC have been logged in and reviewed, click "Update". Click "OK" when the prompt states "Update Samples in Database?"
- 5.18.14 Click "Close" to return to Main Menu.
- 5.18.15 Reserving sample numbers.
 - 5.18.15.1 In some instances, a group of sample numbers needs to be reserved prior to sample collection.
 - 5.18.15.2 The person requesting reserved samples provides the number of samples <u>needed.</u>
 - 5.18.15.3 Click "Reserve Sample Numbers" from the Sample Login menu.

- 5.18.15.4 Enter the number of samples to be reserved.
- 5.18.15.5 The prompt will list the reserved sample numbers. <u>Click "Yes" to accept.</u>
- 5.18.15.6 Locate the reserved sample numbers in the Sample eLog. Record the project code for that sample number to indicate that the numbers have been reserved.
- 5.18.15.7 COCs submitted with samples having reserved sample numbers will include the sample numbers.
- 5.18.15.8 Copy the pertinent data from the COC to the matching row in the Sample eLog.
- 5.18.15.9 From the Sample Login menu, click "Login Reserved Samples" and input information in the same manner as inputting information into the "New Sample" screen.
- 5.18.15.10 After information for all reserved samples has been input, a prompt will indicate that all reserved samples have been used. Continue as described in section 5.20.
- 5.18.15.11 If all reserved sample numbers are not used, void the unused numbers. Only reserved numbers can be voided.
- 5.19 Composited sample documentation for TIAER flow-weighted samples.
 - 5.19.1 For samples to be flow composited, run the sample compositing program described in QAM-Q-112, "Sample Compositing."
 - 5.19.2 Write the sample number on the printout from the sample compositing program.
 - 5.19.3 In some instances, so little flow is associated with a bottle that the compositing program will indicate that no liquid from that bottle is 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.
- 5.19.4 Circle the times of first and last stage readings shown on the printout for bottles that are actually used in the composited sample.
- 5.19.5 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.)
- 5.19.6 Attach the printout to the COC in order by sample number.
- 5.19.7 Place the completed COC in the Login box for computer login of COC data to be performed later.
- 5.20 Submission of samples to laboratory
 - 5.20.1 For stable chemistry, 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.
 - 5.20.2 Roll cart or otherwise deliver container with samples into the laboratory.
 - 5.20.3 Samples are stored separately from all standards, reagents, and media.
 - 5.20.4 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."
 - 5.20.5 Verbally notify laboratory staff which analyses need to be performed on which sets of samples so that they are 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.
- 5.20.6 Analysts also check the Sample Backlog 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.
- 5.20.7 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 through "COC Data Entry" for each sample. Refer to QAM -Q-104, "Data Entry and Review" for specific instructions on data entry for logged-in samples.
- 5.20.8 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.
- 5.20.9 File COCs in folders according to received date. The LM periodically collects the COCs for data verification.

5.21 Cleanup

- 5.21.1 Empty ice from ice chests and place them in the cleaning and storage area.
- 5.21.2 Wipe up any water from ice and clean the area.
- 5.21.3 All cleanup materials are disposed of properly.

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.
- 6.3 Broken bottles, improper preservation, documentation discrepancies and other nonconformances require initiation

- of corrective action in accordance with QAM-Q-105, "Corrective Actions."
- 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 lab 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 2016 TNI Standard, The NELAC Institute (TNI).

8.0 Attachments

- 8.1 Example of Chain of Custody/Sample Information Form, Q-110-1a, 1b, 1c
- 8.2 Example of Sample Log, Q-110-2
- 8.3 Examples of TIAER Test Group Codes <u>and Container</u> Codes

Attachment 1 Example COC/COCSIF

TIAER	Internal		Chain	of Cus	stody /	Sa	mį	ole	Info	rmation F	orm	Page _1_ of _1_ Fie	eld data or attachments? (Y/I	4)	
TIAER Projec	t Manager:					Oth	er:			Sampler(s) and	d Deliv	ery information	and accuration	>0.± The	SC temp. rm. used:
		TIAER		Sample					and pes/			Comments (if app <mark>lic</mark> able)	LABORATORY	check	eck
TIAER Project Code	TIAER Lab Sample Number	Test Group Code	Sample Date(s) (mm/dd/yy)	Time(s) (hh:mm) CST for TIAER	Client Sample or Site ID	Sample Type	Matrix	Preservative	Preservative al Container type number	Flow Weighted data start/end date/time:	bottle numbers:	Other notes:	Composite only- last bottle collection date/time:	pH <2 cl	temp checl
												76		Ц	
)		Ц	
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Relinquished by:			13		CST CDT				ed by:				Date/Time: CST	5,0020	2 10
Relinquished by:	Crack SO-Stanta C	b 6-6-	antial Ta Time 1		CST CDT	- BG -	-		ed by:	Diacolor	=11=.547	O-Calidan daniel	Date/Time: CST		5 40
Sample Types: G=0	- 1	× .		18.10				- 33				nonpotable water), S =Solid or chemical .ic, E= acidified filtered plastic, F =filt	Form review initi ter. Data entry:	als/	uate
												.ic, E= acidilled lillered plastic, F=ilit e, HS=Sulfuric acid, HN=Nitric acid	Field review:		
J.222 2231, 11		3.2.2.2.010			stitute for Ap							, doid	Lab review:		
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Client or f	Project Manage	er:	TNI	TIAER Lab	Certification #	Cli€	ent pl	hone	e:	Sampler(s) and Deliv	ery inforr	nation			s&C temp. rm. used:	1
			PROPATOR	T10470	14249-23-23									T-		1
		TIAER		Sample		Φ			e and pes/		Comme	ents (if a <mark>pp</mark> licable)		heck	Deck ad	
TIAER Project Code	TIAER Lab Sample Number	Lab Test Group Code	Sample Date(s) (mm/dd/yy)	Time(s) (hh:mm) CST for TIAER	TIAER Site ID	Sample Type	Matrix	Preservative	Preservative and Container types/ number	Requested Test(s)	Other Screening (list method)	Other notes (special turnaround times requested may incur premium charges):	Other Comments	pH <2 check	temp check	
						L'	Ш	\bigsqcup'						Ц		
						L	\bigsqcup	\bigsqcup'								
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		_	uential, T=Time base	1	•							ater), S =Solid or chemical	Form review initia	als/	date	
			The second second							stic, D=acidified uf plastic,		The state of the s	Data entry: Lab review:			
					5=sterile plastic	ua/ui	1, v=v			plastic bag ua/uf. I=lce, F te for Applied Environme			Lab review.			
			ontainer ID. If more the of each beside the co		Вох	T-041	10, St			76402, Tarleton State Unive			Q-110-1b, rev. 17			١
requirements. Samp Standard, or other re- may be accepted and submitted outside of	oles should have at le egulatory requirement d analyzed by the TIA the normal hours ma	east 50% of t stated by AER Lab at ay be proce	of holding time remain the Client's project. T it the request of the Cl essed at a premium s	ning when subn TIAER Lab sha Client. Unless p surcharge. By s	mitted. Unless other nall not be responsib previously arranged signing to relinquish	erwise ble for d, norn h the s	e agree r data a mal sar sample	ed upor accurac imple a e(s) abo	on in writing, (acy on sample acceptance h love, the Clie	Client should submit samples c es improperly collected, presen nours without premium fees are ent or Client's representative he	ollected and posted or submited Monday-Fridates to the contraction of	ding time remaining may not be ana preserved in accordance with 40 CF ted. Samples not appropriately coll ay, 0800-1600, exclusive of official o this policy & conforms to Contract furans without previous written a	FR 136, the 2009 NEL lected, preserved or su Tarleton holidays . Sa t or Cooperative Agree	AC ubmit ample	ted s	

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(Public Wate Must be 7 digits;	; include all zeros)	TX																	Form Q	-110c, r	ev 18					1704249
	Public Water	System Name:																				Laborator	y Analysis				
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To:	Name:															Yes	No		tual mp:			rrected Temp:					
Report Results To:	Address:									10									Incuba	ation Date	and Time			Lab R	Rejected Co	ie (LR) - D	ocument Reason:
Dort R	City:						State	2:			Zip Co	de:				Start Dat	te and T	ime:				Analyst:					
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		* SAMPLES MARKE	ED AS SPEC	IAL OR	CON	ISTRU	ICTIO	N CA	NNOT BE USE	D AS ROUTINE	OR REPE	AT SAMPL	ES.			Laborator	y Appro	oval:						Date:		Time	e:
	Sample	e Identification/Loca	tion	S	ample	е Туре	e (√ o	ne)	Co	llected	Chlorine	Residua	1	Original		Reported	to PWS	В Ву:						Date:		Time	9:
		location/address idea		ion)										Original S Info: Sam	ple ID						Lab	oratory A	nalysis Res	sults			
	system's	RTCR Sample Siting	Plan	stribut				* "	Date	Time Military Time	Free	Total	t t	and Dat Collect		Rejection		Test Me	thod: S	M 9223	B / Coli	lert		Analysis R	esults meet	all accredit	ation requirements
	Daw Walley Llas	Well Source ID (Ex: 0	040045074)	ne (D	, t	Well	* /6	ructio	(MM/DD/YY)	(HHMM)	mg/L	mg/L	ceme	(Repeat, TS	SM Raw	(if applic Plea		Chlorin	e Check	Total	Coliform	E.	coli		unless st	ated other	vise.
	Raw Wells: Use	well Source ID (Ex: 0	31234307A)	Routine (Distribution)	Repeat	Raw Well	Special *	Construction					Replacement	Well, Replace	cement)	Recol		Absent	Presen	t Absent	Present	Absent	Present	ı	aboratory	Sample ID	Number
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Sar	npler Name (Pri							2		Sampler Signatu										pler Phone							
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1	Relinquished By Sampler:	у								Date and Time:						ceived By								Date and	I Time:		
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Attachment 2 Example of Sample Log

-110-2, r18			THE	LOGIN/Sa	imple rece	ipt		a Gan				Preservati	on and sto		ral, Weptastic bag, Ovo	other (describe in come		idfied plastic, Emeridfied littered plastic, Fettler, Ongless unacidified, Implace acidified, Smiente plastic, VMC no. XM TM TAX diputale, Zwinkrophyd edfact, describe others		
Sample #	Login Date	Sample date(s)	Sample time(s)	Site ID	Project	Sample type	TG Code	e Bottlesdype submitted	submitter from COC	inttials	legin/dar entry initiate	Date received in	Field Preserved! Filtered (YN)	Lab componing	Preservation complete initialidate time done			Comments (including preservation traceability)	Review	date
112474	10/11/2023	18/11/2023	9:00	1061PR820/CR114	CASH	G	DWPA	5	CS	fb.	15	10/11/2023	Y	-		8		T-175_20.1C+CF0.7C=20.8C, MT023V; col./rec. same day	VI ST	
112475	10/12/2023	10/12/2023	10:30	238OAKST	GASH	G	DWPA	5	50	IS	IS	10/12/2023	Y			8		T-180, 13.9C+CF2.2C=16.1C, VT001V, col.rec. same day		
112476	10/13/2023	10/9/2023	10:10	2293125	TRA	G	TKN	0.	JW	IS	ts	10/13/2023	Y	-		0		T-180, 3.2C+CF2.7=5.9C, pH paper 3583		
112477	10/13/2023	10/9/2023	11:30	2293126	TRA	G	TKN	0	JN:	18	18	10/13/2023	Y			0		T-180, 3.2C+CF2.7=5.9C, pH paper 3583	1000	
112478	10/13/2023	10/9/2023	12.02	2293127	TRA	0	TKN	D	300	16	19	10/13/2023	Y			b		T-180_3.2C+CF2.7=5.9C, pH paper 3583		
112479	10/13/2023	10/10/2023	10:52	2293804	TRA	0	TRO	D	IN	IS	IS	10/13/2023	Y	-		0		T-180, 3,2C+CF2,7=5,9C; pH paper 3583		
112480	10/13/2023	10/10/2023	11:57	2293805	TRA	0	TKN	D	JW.	16	15	10/13/2023	Y			0		T-180, 3.2C+CF2.7=5.9C, pH paper 3583		
112481	10/13/2023	10/10/2023	13:30	2293806	TRA	6	TKN	D	JW:	IS	15	10/13/2023	Y	~ /		0	1	T-180, 3.2C+CF2.7=5.9C, pH paper 3583	10000	
112482	10/13/2023	10/11/2023	11:16	2294283	TRA	G	TKN	0	JW.	IS	19	10/13/2023	Y	24		0		T-180_3.2C+CF2.7=5.9C_pH paper 3583		
112483															THE REAL PROPERTY.		in the second		1000	
112484		Many Barrier		The same of the sa					-		-				A CONTRACTOR		2	THE RESERVE OF THE PROPERTY OF THE PARTY OF	S demonstration	
112485															-	April 1	-		1	

Attachment 3 Examples of TIAER Test Group Codes <u>and Container Codes</u>

Test Group Code	Description	Note	IsActive	Analytes	Containers
AC		Used for TRWD samples	\checkmark	AFDM,chla	1-B
B8		NBR without bacteria	\checkmark	chla,fnh3,fno23,fopo4,ftkn,ftp,tss	1-B,1-E,1-C,1-D,2-A
B8A		B8 with high NO23	\checkmark	tss, chla, fopo4, ftkn, ftp, fnh3, dfno23	2-A,1-B,1-C,1-D,1-E
С				chla, pheo	1-B
C4			\square	chlafl_sp	1-B
C4F		Field Filtered C4		chlafl_sp	1-B
C5			Ø	chlafl_con,pheo_fl	1-B
C5F		Field Filtered C5		chlafl_con,pheo_fl	1-B
CF		Field Filtered C		chla, pheo	1-B
COMIC	Combined Micro			ecoliMPN,entero,tcoliMPN	1-S
Cond				condLAB	1-A
СҮР				tds,tss,vss,chla,pheo,lowopo4,lowtp,ftkn,tnh3,lno23	1-A,1-B,1-C,1-D
D	Data only	Data only, no samples submitted	~		

Containerld	ContainerName	Description
А		Plastic Bottle
В		Dark Plastic Bottle
С		Plastic Bottle Filtered
D		Acidified Plastic
E		Acidified Plastic Filtered
F		Filter w/ Residue
G		Glass
Н		Dark Glass
J		Acidified Glass
K		Digestate
0		Other
S	Sterile	Sterile
V	VOA	Volatile Organic Analysis Container
W	7	Plastic Bag
X		No Container