

Standard Operating Procedure

Sample Control and Management

Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division of Water

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DOCUMENT REVISION HISTORY

This table tracks revisions and changes made over time to this document.

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Version 5.0 03/18/13	Header Box	Document Control Number changed to reflect Division-wide numbering system. DOWALL03001 replaces DOWSOP03001.	Lisa Hicks
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1.0 SCOPE & APPLICABILITY

This document describes the methods and procedures established by the Kentucky Division of Water (DOW) to ensure the collection and handling of environmental samples is conducted in a standardized manner. Environmental samples may include drinking water, most groundwater and ambient surface water, soil, sediment, treated municipal and industrial wastewater effluent, biological specimens, or any samples **not** expected to be contaminated with high levels of hazardous materials.

This standard operating procedure (SOP) may be referenced in quality assurance project plans (QAPPs) as well as any other document that discusses the collection or management of environmental samples.

Following this SOP and its narrative explanation on chain of custody (COC) procedures may aid in maintaining an evidentiary process for legal proceedings.

Use of this SOP is by all field personnel that collect samples for DOW; if persons outside the Division use this manual, additional review measures may be required that would be covered under a QAPP. Adherence to this SOP is one of the foundational principles in the field activities of the DOW Quality Assurance Program.

2.0 SUMMARY OF METHOD

This procedure describes the method of handling and managing environmental samples, specifically sample handling after collection and during transport to the laboratory. The chain of custody process is defined and examples of documentation for custody tracking are appended to this document.

This SOP does not discuss collection or disposition of samples; each project conducted under a QAPP must reference or develop an SOP for sample collection, and a procedure or policy for sample disposition after sample analysis. Individual laboratories may have a separate process for sample disposition, which should also be considered in the QAPP preparation.

3.0 DEFINITIONS & ACRONYMS

CFR – Code of Federal Regulations

COC – Chain of custody

CPR – Cardio-pulmonary resuscitation

DOW – Kentucky Division of Water

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DEPS – Division of Environmental Program Support
EPA – United States Environmental Protection Agency
KAR – Kentucky Administrative Regulation
KDEP – Kentucky Department for Environmental Protection
LOQAM – DEPS Laboratory Operations and Quality Assurance Manual
QA – Quality assurance
QAPP – Quality Assurance Project Plan
QC – Quality control
SOP – Standard Operating Procedures
USC – United States Code

‘General Environmental Samples’ (U.S. Environmental Protection Agency (EPA), 2020) - can be considered drinking water, most groundwater and ambient surface water, soil, sediment, treated municipal and industrial wastewater effluent, biological specimens, or any samples not expected to be contaminated with high levels of hazardous materials.

Hazardous Material – A substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been designated as hazardous under the Transportation of Hazardous Materials section of the section 5103 of Federal hazardous materials transportation law United States Code (USC) (49 U.S.C §. 5103(a)). Further explanation from 49 U.S.C. § 5103(a) states “The Secretary shall designate material (including an explosive, radioactive material, infectious substance, flammable or combustible liquid, solid, or gas, toxic, oxidizing, or corrosive material, and compressed gas) or a group or class of material as hazardous when the Secretary determines that transporting the material in commerce in a particular amount and form may pose an unreasonable risk to health and safety or property.

4.0 HEALTH & SAFETY

All samples handled under this SOP must be non-hazardous and fall under the category of general environmental samples (as defined in section 3.0). If a material is suspected of being (highly) contaminated, it may be necessary to treat it as ‘hazardous material’ as defined in 49 Code of Federal Regulations (CFR) § 105.5, and discussed in 49 CFR § 171.1, and specific handling procedures will apply. Any shipping of hazardous materials must be coordinated through the division and/or department safety officer, who should have specific methods of handling hazardous materials.

All sample bottles, especially glass containers should be handled with extreme care; drying hands and bottles before handling can mitigate the risk of accidental slippage and breakage.

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Samples preserved with acids, strong bases, or other preservatives must be handled with care to prevent leakage or spillage. Nitrile gloves must be worn while handling acid vials or ampoules, and when preserving any samples. Care must be taken when pouring or transferring preservative to sample jars or bottles to prevent splashing or dripping onto clothes or skin.

Field staff working in and around potentially contaminated surface waters should receive immunization for Hepatitis A in accordance with Kentucky Department for Environmental Protection (KDEP) Departmental Policy Memorandum SSE-708 (revision, 2007). In addition, staff should receive immunization for Hepatitis B and tetanus to aid in the prevention of contracting those pathogens. All field staff must also be trained in CPR, First Aid, and Blood Borne Pathogens in accordance with KDEP Departmental Policy Memorandum SSE-711 (2001). Field personnel may also be required to receive a baseline and annual physical examination and medical surveillance under 29 CFR § 1910.120 (q) (9).

5.0 CAUTIONS & INTERFERENCES

Sample handling can be a source of contamination within a sampling program if sample containers are handled improperly through field personnel practices, environmental situations, or transport conditions. All sample containers should be handled the minimum amount of time it takes to collect a representative sample of the appropriate media, i.e. water, biology, sediment. If contamination is a cause for concern, according to project objectives written into the QAPP or a specific method SOP, take appropriate precautions as defined in the specific method. Examples of practices to minimize contamination can include:

- Don and doff gloves when handling sample equipment and containers.
- Decontaminate equipment between sites according to prescribed schedule.
- Use individual bagging of sample bottles per site.
- Use labels for container labeling, versus writing sample information directly on containers.
- A 'Clean Hands Dirty Hands' method can be used (EPA, 1996).

The following are general practice when handling sample containers:

- All sampling containers must be free of dust and dirt, and capped whenever not in use.
- All caps and lids must be firmly applied to containers.
- All transport containers (e.g. coolers) should be clean, sturdy, and free of defect or obvious degradation.

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6.0 PERSONNEL QUALIFICATIONS

All field personnel must be trained in sample collection methodology and sample handling procedures, using this SOP. All new samplers will be accompanied by experienced field staff, and checks and audits performed, until competency is achieved by all new project samplers. Specific sample collection criteria for experience, training, audits, and personnel competency should be outlined in project planning and procedure documents (i.e. QAPPs and/or SOPs). Official training records of project staff should be maintained by the Division training coordinator.

7.0 EQUIPMENT & SUPPLIES

All specific equipment and supplies required for individual projects will be outlined and described in the project QAPP or in additional method specific SOPs.

Sampling handling equipment includes sample documentation items and transportation vessels. A list of items commonly used to handle and document environmental samples can be found in Table 1.

Table 1. Sample Handling Equipment

Item – Sample Transport
Coolers or shipping vessels
Ice/Ice Packs/Dry Ice
Plastic Bags – different sizes to accommodate different containers
Bubble wrap® or equivalent packing material
Item – Sample Documentation
Sample Labels (e.g. Avery 5520 or 5523 Waterproof Labels)
Permanent blue or black pens or markers, pencils
COCs (printed on waterproof paper)
COC seals
Clear Tape
Camera/Video Recorder

8.0 STEP-BY-STEP PROCEDURE

Most samples collected by DOW are submitted to the Division of Environmental Program Support (DEPS) laboratory for analysis. DEPS requires all staff submitting samples to read, agree, and sign their Sample Acceptance Policy (DEPS Laboratory Operations and Quality Assurance Manual (LOQAM), Appendix N, 2022a (or latest revision)). If samples are delivered to a non-DEPS laboratory, staff must be cognizant of the acceptance policies and sample control requirements of the laboratory at which they are submitting samples.

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8.1 Sample Labeling

To prevent information omission, bottle labels should be pre-printed whenever possible. When it is not possible to create labels or label containers ahead of time, sample containers may be labeled in the field. Ink used on labels must be resistant to water and/or preservatives (e.g. ethanol). All containers must have the following information, either written directly on the sample container or on a sample tag or label affixed to the container:

- Unique Sample Identification Number
- Date of Collection (formatted mm/dd/yy)
- Time of Collection (formatted in 24 hour)
- Sample Collectors (initials, full names maintained in QAPP)
- Preservative used, if applicable

Depending on the laboratory requirements, additional information may be necessary such as, but not limited to:

- Site Description
- Location Information
- Project Number
- Funding Codes
- Type of Sample – soil, water, sediment, biological
- Method of Collection – grab, composite, other

Each project QAPP or sample collection SOP will outline specific requirements for labeling sample containers.

8.2 Sample Documentation

After collection, sample information must be recorded in bound log books or tracked field sheets and on COCs. Sample information may include *in situ* field measurements, visual observations, grab or composite sample details, narrative site information, and photo or video documentation. Chain of custody documents will have specific data requirements, outlined in section 8.4 in this document. Additional measures may be required for more stringent documentation during environmental spills and recovery processes and should be outlined in the monitoring plan or QAPP for those activities.

Written information on sample containers and in field logs should be recorded in indelible black or blue ink. If wet weather conditions make it not feasible to record using ink, or if a sample media requires the use of something other than ink, a non-smearing lead pencil will be used.

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Corrections made to written information must not be erased or obliterated. Use a single line to cross out erroneous information and initial and date as the individual that makes the correction. If transcription to a secondary record is necessary due to illegibility of the original (due to unforeseen circumstances such as weather conditions), the original record must be retained and attached to the legible copy.

Sample documentation can include photographs. Photo identification details can be recorded in a photo log, logbook, or on the project field sheets. This information would then be transcribed during database uploads or into reports, as necessary. If the camera or video recorder includes the option to record specific information in the downloaded file, ensure it is clear where and when the images were obtained.

Downloaded photos should then be stored in project-specific electronic files, on a secure server. The site name or number and date must be recorded on all electronic copies of photos or video.

Project documentation (i.e. QAPPs) must detail electronic document and photo naming protocols and file storage locations.

8.3 Sample Handling

Once the sample has been correctly collected and preservatives added (if applicable), field personnel should place the sample container in a cooler surrounded by the appropriate packing/preserving materials (e.g. wet ice) or stored in other sturdy container for transport to the laboratory.

8.3.1 Sample Shipment

If samples are to be shipped rather than transported directly, field personnel must inform the laboratory when samples are shipped and follow all laboratory as well as carrier requirements for the shipping of samples.

Shipment of the following preserved and unpreserved samples is not regulated (provided the preservation follows the requirements of 40 CFR § 136.3 Table II) (EPA, 2020).

- Drinking water
- Ambient water (surface and groundwater)
- Treated effluent
- Bacteriological samples
- Sediment
- Water treatment plant sludge
- Wastewater treatment plant sludge
- Publicly owned treatment works (POTW) sludge

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Shipping biological specimens preserved in ethanol or formaldehyde does have additional considerations and requirements. For information about what other materials may require additional shipping precautions, see 49 CFR § 173.150 and 49 CFR § 172.101. Be sure to follow all carrier requirements for shipping.

If general environmental samples (i.e. non-hazardous samples) are to be shipped via ground on wet ice, the procedure outlined below should be used as a guide, with additional information from the selected shipping carrier:

Checking and Preparing the Sample Bottles

- Ensure all caps are secured on sample bottles.
- Check that all containers are labeled correctly, and the label is affixed securely. If writing directly on bottle, clear tape may be used to cover writing.
- To prevent cross-contamination between samples and the cooler environment, samples may be stored individually in plastic bags before being placed on ice. This is especially important for easily contaminated samples (e.g. DOC and low level mercury).
- Glass containers should be individually wrapped in a thin layer of waterproof packing materials (bubble wrap). Only a minimum amount of packing material should be used as these materials may prevent samples from being properly chilled.

Preparing and Loading the Cooler

1. Before shipping, drain all water out of coolers and ensure drain plugs are securely closed.
2. If shipping glass bottles, cooler may be lined (bottom and/or sides) with packing material (e.g. bubble wrap).
3. Inside of cooler(s) should be lined with a thick, large plastic garbage bag. All ice and samples should be placed within this bag in the order below.
4. Fill bottom of bag with a layer of ice.
5. Place sample bottles on the bottom layer of ice. Cover the bottles with fresh ice (consider weight limits). Ice must be equally dispersed throughout the cooler (including between and around bottles).

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Sufficient ice must be placed with the samples in the cooler to ensure that ice is still present when the samples arrive at the laboratory. A sample temperature of ≤ 6 °C must be maintained for most analytes. EPA protocols do not allow the use of icepacks or ice substitutes (blue ice) because they are unable to maintain a cold enough temperature. Projects may require a quality control (QC) temperature blank to be shipped with the samples; this should be outlined in project planning documents.

Documentation

6. The last person to handle the samples must sign their name as 'relinquished by' and record the date and time on the COC, using permanent ink. Make a copy or take a photo of each COC (front and back) prior to shipment.
7. Each cooler must have a COC in a clear plastic bag taped to the underside of the lid. If shipping in multiple coolers, each cooler can contain the full list of bottles for the shipment on each COC, or each cooler's COC can be specific to the bottles within that cooler. Copies of COCs may be made for this purpose, but the original COC must always be included in the shipment.
8. Using sealing tape, or a heavy grade mailer tape (such as Scotch® Brand "898" 3M), tape around the entire cooler, over and around the cooler hinges, and covering the cooler opening. The tape should begin and end on the top or bottom of the cooler, not at the opening itself.
9. Sign, not print, your name in permanent marker *across the cooler opening*, on the tape, or use custody seals.
10. Affix shipping label according to shipping company requirements. Depending on sample holding time, expedited shipping may be required.
11. It is recommended to ship all coolers in such a way as to be able to track any delays (this varies by shipping company) to ensure samples are received within required holding times.
12. If requested, notify the lab by email, telephone, etc. when to expect the shipment and that the COCs are inside of the taped coolers; if coolers are not shipped certified, request notification from the lab when samples are received.
13. Obtain a copy of completed and signed COCs, and file in project file.

8.4 Chain of Custody Procedures

Chain of custody forms are used to maintain a documented history of all sample activity and possession by individuals. An accurate custody record must be developed and

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followed for each sample or set of samples to assure samples are traceable from the beginning of sampling to the completion of analysis. Each sample will be itemized on a separate line of a COC or a separate sheet of a COC.

8.4.1 Custody Procedure

A COC is used for every environmental sample collected by DOW personnel. If samples are retained by the collector throughout analysis (e.g. biological samples), a COC may not be necessary but sample tracking must be documented in a sample log.

Samples or other sample elements are ‘in custody’ by the following definitions (EPA, 2016):

- If sample is in actual physical possession of an individual.
- If samples are in view of individuals after being in possession.
- Samples were in possession of an individual, and then samples were secured to prevent tampering.
- Samples are placed in a secure area.

Any time samples change custody, the COC must be signed by both parties. This includes when personnel who were not part of the sample collection team are asked to turn samples in to the lab.

Once samples are delivered to the lab, the field personnel sign the COC as relinquished and the lab sample custodian signs the COC as received. Laboratory receipt and custody procedures are outlined in the *Standard Operating Procedure for Sample Receiving and Custody* (DEPS, 2022b – or latest revision) when using the DEPS Laboratory. When using other contract laboratories for analysis work, their SOPs for sample receiving and custody must be followed.

Once analysis is completed by the lab, final lab reports should dictate final disposition of the sample and should be according to any project specific goals or objectives.

8.4.2 Chain of Custody Documentation

COCs will be filled out at the time of collection and must be accurate, complete, and legible. Examples of KDEP COCs can be found in Appendices A-D.

Information required on COCs includes (DEPS, 2022b):

- Sample matrix (e.g. water or sediment)
- Location of sample collection:
 - Name of county
 - Unique site identification number (if applicable)
 - Brief description of waterbody/location (e.g. name of stream or lake)
 - GPS coordinates (if sample site is not previously established)

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- Date of collection (formatted dd/mm/yy)
- Time of collection (formatted in 24 hour)
- Sample collectors (per event, not per bottle; see below for details)
- Variable group of sample collected (e.g. Bulk, Nutrients, Metals, etc.)
- Sample collection method (e.g. grab or composite)
- Type and number of containers
- Preservative used, if applicable
- Analysis requested (including analytical method number)
- Program code (for DEPS)
- Space for signatures of transference with date and time (include both sample deliverer and receiver)

Sample collectors: “The COC must have the legibly printed name of the person collecting the sample as well as the person bringing the samples into the lab in order for the COC to meet proper laboratory protocol. The signatures and printed names for each person on the COC must match that used to complete this form, with consistent use of first and last names. Please avoid switching between given names and nicknames as the COC is a legal document and can end up in a court of law.” (DEPS LOQAM, Appendix N, 2022a)

COCs will be signed at the moment of possession change, with the date and time of transfer. Signatures must be legible, with printed names and contact information supplied with or on the COC.

Copies of COCs must be obtained from the laboratory to ensure a proven route of exchange occurred.

A separate COC will be utilized for every laboratory involved in a project.

For samples delivered to the DEPS laboratory, the following procedure should be followed.

- Original copies are maintained by the laboratory.
- Copies of COCs must be e-mailed to project personnel upon full receipt of the samples by the laboratory.
- COC copies will be maintained in individual project files and stored according to the agency document retention policy.

9.0 TROUBLESHOOTING

Following this SOP and any additional SOPs required will ensure proper sample handling and COC for project samples. If deviation is necessary or unavoidable due to a personnel situation or environmental conditions, details of the deviation will be specifically outlined

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and the project manager or legal representative of the Division or Department will determine if custody has been compromised to the detriment of the project.

If sample custody is lost, documentation will be included on COC forms explaining the exact circumstances. Samples will not be considered in compliance with this SOP if custody procedures are broken. Management or legal representative of the Division will determine the outcome of samples under a broken chain of custody.

10.0 DATA & RECORDS MANAGEMENT

All original copies of COCs turned in to DEPS will be maintained according to the *Standard Operating Procedure for Sample Receiving and Custody* (DEPS, 2022b – or latest revision). Electronic copies of COCs for each project will be maintained in individual project files until files are destroyed, or indefinitely retained, as stated in the appropriate agency document retention policy (725 Kentucky Administrative Record (KAR) 1:061). See project documents (e.g. QAPPs) for details about specific project document naming and filing procedures.

11.0 QUALITY CONTROL & QUALITY ASSURANCE

Final results for samples that do not receive proper preservation must receive a laboratory qualifier flag. Laboratory data should be reviewed regularly and, if qualifier flags related to sample preservation issues exist, sample collectors should review the appropriate SOP(s) and be re-trained in the methods outlined in the appropriate SOP(s). Trip blanks may be collected in order to measure any contamination resulting from improper sample handling.

Sample collector(s) should review the COC upon conclusion of the sampling activities to ensure that it is filled out completely and is legible. The COC should also be reviewed upon delivery to the lab to ensure that the number of bottles that are being relinquished match the number of bottles indicated on the COC.

Project quality assurance (QA) and quality control (QC) documentation (e.g. QAPP, PMP, and/or PSP) should outline project-specific QA/QC procedures related to sample control and management.

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12.0 REFERENCES

- 29 CFR § 1910.120 (q) (9). Hazardous Waste Operations and Emergency Response.
- 40 CFR § 136.3 Identification of test procedures, Table II – Required Containers, Preservation Techniques, and Holding Times.
- 49 CFR § 105.5. Hazardous Materials Program Definitions and General Procedures.
- 49 CFR § 171.1. Applicability of Hazardous Materials Regulations to persons and functions.
- 49 CFR § 172.101. Purpose and use of hazardous materials table.
- 49 CFR § 173.150. Exceptions for Class 3 (flammable and combustible liquids).
- 49 USC § 5103(a). Transportation, general regulatory authority.
- 725 KAR 1:061. Records retention schedules; authorized schedules.
- Kentucky Division of Environmental Program Support (DEPS). 2022a. *Laboratory Operations and Quality Assurance Manual and Appendices DES 9000, Revision 18*. Kentucky Department for Environmental Protection. Frankfort, Kentucky.
- Kentucky Division of Environmental Program Support (DEPS). 2022b. *Standard Operating Procedure for Sample Receiving and Custody, DES 9015, Revision 26*. Kentucky Department for Environmental Protection. Frankfort, Kentucky.
- U.S. Environmental Protection Agency (EPA). 1996. *Method 1669 Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*. Office of Water. Engineering and Analysis Division. Washington, D.C.
- U.S. Environmental Protection Agency (EPA). 2016. *Operating Procedure - Sample and Evidence Management, SESDPROC-005-R3*. Science and Ecosystem Support Division. Athens, Georgia.
- U.S. Environmental Protection Agency (EPA). 2020. *Packing, Marking, Labeling and Shipping of Environmental and Waste Samples, LSASDPROC-209-R4*. Laboratory Services and Applied Science Division. Athens, Georgia.

13.0 APPENDICES

13.1 Appendix A. General COC for DEPS Laboratory.

DEP Lab COC General v2021-11

CHAIN OF CUSTODY / DEP LAB WORK ORDER

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Program: A02 106G B02 RCRA B03 SolidWaste B24 UST B25 Superfund B51 PGDP E01 ERT P02 KSU P04 AML P05 Military Other _____ = For Lab Use Only

Project Name / Site Location: _____ County: _____ Shipment T: C

Facility/Site# _____ AI# _____ Incident #: _____ Sample Collector(s): _____
(Print First & Last Name) IR-

Sample Type	Field ID	Date/Time	Description of Site	Matrix	Method	Analysis Requested										
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH				
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk <input type="checkbox"/> Acid	<input type="checkbox"/> Herb <input type="checkbox"/> Caff	<input type="checkbox"/> ALL <input type="checkbox"/> BTEX	<input type="checkbox"/> Diesel				
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	Unpreserved pH		vials	pH				
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	<input type="checkbox"/> CN <input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> ALL <input type="checkbox"/> PAH	<input type="checkbox"/> HAB				
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> Acid	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/> pH	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols									
DEP LAB ID:			Total Number of Containers:			Unpres. pH:	sulfuric pH:	Nitric pH:	pH	Acid	pH	pH				
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH				
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk <input type="checkbox"/> Acid	<input type="checkbox"/> Herb <input type="checkbox"/> Caff	<input type="checkbox"/> ALL <input type="checkbox"/> BTEX	<input type="checkbox"/> Diesel				
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	Unpreserved pH		vials	pH				
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	<input type="checkbox"/> CN <input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> ALL <input type="checkbox"/> PAH	<input type="checkbox"/> HAB				
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> Acid	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/> pH	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols									
DEP LAB ID:			Total Number of Containers:			Unpres. pH	sulfuric pH	Nitric pH	pH	Acid	pH	pH				
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH				
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk <input type="checkbox"/> Acid	<input type="checkbox"/> Herb <input type="checkbox"/> Caff	<input type="checkbox"/> ALL <input type="checkbox"/> BTEX	<input type="checkbox"/> Diesel				
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	Unpreserved pH		vials	pH				
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	<input type="checkbox"/> CN <input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> ALL <input type="checkbox"/> PAH	<input type="checkbox"/> HAB				
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> Acid	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/> pH	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols									
DEP LAB ID:			Total Number of Containers:			Unpres. pH	sulfuric pH	Nitric pH	pH	Acid	pH	pH				
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH				
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk <input type="checkbox"/> Acid	<input type="checkbox"/> Herb <input type="checkbox"/> Caff	<input type="checkbox"/> ALL <input type="checkbox"/> BTEX	<input type="checkbox"/> Diesel				
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	Unpreserved pH		vials	pH				
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	<input type="checkbox"/> CN <input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> ALL <input type="checkbox"/> PAH	<input type="checkbox"/> HAB				
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> Acid	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/> pH	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/> Other				
<input type="checkbox"/> Rinse Blank						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols									
DEP LAB ID:			Total Number of Containers:			Unpres. pH	sulfuric pH	Nitric pH	pH	Acid	pH	pH				

Additional Requested Analyses:

Relinquished by (Print Name):	Date	Received by (Print Name):	Courier: <input type="checkbox"/> FedEx <input type="checkbox"/> UPS
Signature / Agency	Time (24hr)	Signature / Agency	<input type="checkbox"/> Other _____
Relinquished by (Print Name):	Date	Received by (Print Name):	Lab Notes:
Signature / Agency	Time (24hr)	Signature / Agency	

DEP LAB WORK ORDER CONTINUATION PAGE

Project / Location: _____

Collector: _____

(Print First & Last Name)

Sample Type	Field ID	Date/Time	Description of Site	Matrix	Method	Analysis Requested							
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH	
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk	<input type="checkbox"/> Herb	<input type="checkbox"/> ALL	<input type="checkbox"/> Diesel	
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	<input type="checkbox"/> Acid	<input type="checkbox"/> Caff	<input type="checkbox"/> BTEX	<input type="checkbox"/>	
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	Unpreserved pH		vials <input type="checkbox"/>	pH	
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> CN	<input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> SVOC	<input type="checkbox"/> HAB
						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pest	<input type="checkbox"/> ALL	<input type="checkbox"/> Other
						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/>
DEP LAB ID:			Total Number of Containers:			Unpres. pH:	Sulfuric pH:	Nitric pH:	pH	Acid	pH	pH	
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH	
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk	<input type="checkbox"/> Herb	<input type="checkbox"/> ALL	<input type="checkbox"/> Diesel	
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	<input type="checkbox"/> Acid	<input type="checkbox"/> Caff	<input type="checkbox"/> BTEX	<input type="checkbox"/>	
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	Unpreserved pH		vials <input type="checkbox"/>	pH	
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> CN	<input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> SVOC	<input type="checkbox"/> HAB
						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pest	<input type="checkbox"/> ALL	<input type="checkbox"/> Other
						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/>
DEP LAB ID:			Total Number of Containers:			Unpres. pH	Sulfuric pH	Nitric pH	pH	Acid	pH	pH	
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH	
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk	<input type="checkbox"/> Herb	<input type="checkbox"/> ALL	<input type="checkbox"/> Diesel	
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	<input type="checkbox"/> Acid	<input type="checkbox"/> Caff	<input type="checkbox"/> BTEX	<input type="checkbox"/>	
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	Unpreserved pH		vials <input type="checkbox"/>	pH	
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> CN	<input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> SVOC	<input type="checkbox"/> HAB
						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pest	<input type="checkbox"/> ALL	<input type="checkbox"/> Other
						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/>
DEP LAB ID:			Total Number of Containers:			Unpres. pH	Sulfuric pH	Nitric pH	pH	Acid	pH	pH	
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH	
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk	<input type="checkbox"/> Herb	<input type="checkbox"/> ALL	<input type="checkbox"/> Diesel	
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	<input type="checkbox"/> Acid	<input type="checkbox"/> Caff	<input type="checkbox"/> BTEX	<input type="checkbox"/>	
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	Unpreserved pH		vials <input type="checkbox"/>	pH	
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> CN	<input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> SVOC	<input type="checkbox"/> HAB
						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pest	<input type="checkbox"/> ALL	<input type="checkbox"/> Other
						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/>
DEP LAB ID:			Total Number of Containers:			Unpres. pH	Sulfuric pH	Nitric pH	pH	Acid	pH	pH	
<input type="checkbox"/> Field Sample		Date (m/d/yy)		<input type="checkbox"/> Tap Water	<input type="checkbox"/> Grab	Bulk	Nutrients	Metals	Alk/Acid	Herb/Caff	VOC	TPH	
<input type="checkbox"/> Field Dup		___/___/___		<input type="checkbox"/> Water	<input type="checkbox"/> Comp	<input type="checkbox"/> CBOD <input type="checkbox"/> Turbidity	<input type="checkbox"/> TOC	<input type="checkbox"/> Metals	<input type="checkbox"/> Alk	<input type="checkbox"/> Herb	<input type="checkbox"/> ALL	<input type="checkbox"/> Diesel	
<input type="checkbox"/> Trip Blank		Time (hh:mm)		<input type="checkbox"/> Solid		<input type="checkbox"/> TSS <input type="checkbox"/> Sulfate	<input type="checkbox"/> Phosphorous	<input type="checkbox"/> Mercury	<input type="checkbox"/> Acid	<input type="checkbox"/> Caff	<input type="checkbox"/> BTEX	<input type="checkbox"/>	
<input type="checkbox"/> Field Blank		____:____ (24 hr)		<input type="checkbox"/> Chemical		<input type="checkbox"/> TDS <input type="checkbox"/> Chloride	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Hardness	Unpreserved pH		vials <input type="checkbox"/>	pH	
<input type="checkbox"/> Rinse Blank			AKGWA #: _____			<input type="checkbox"/> Cond <input type="checkbox"/> Fluoride	<input type="checkbox"/> Nitrate/Nitrite	<input type="checkbox"/> Boron	<input type="checkbox"/> CN	<input type="checkbox"/> O&G	<input type="checkbox"/> Pest/PCB	<input type="checkbox"/> SVOC	<input type="checkbox"/> HAB
						<input type="checkbox"/> Color <input type="checkbox"/> IC scan	<input type="checkbox"/> TKN	<input type="checkbox"/> TCLP <input type="checkbox"/> HexCr	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pest	<input type="checkbox"/> ALL	<input type="checkbox"/> Other
						<input type="checkbox"/> pH	<input type="checkbox"/> Phenols	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> PCB	<input type="checkbox"/> PAH	<input type="checkbox"/>
DEP LAB ID:			Total Number of Containers:			Unpres. pH	Sulfuric pH	Nitric pH	pH	Acid	pH	pH	

Additional Requested Analyses:

Lab Notes:

13.2 Appendix B. Standardized Water Quality Branch Monitoring COC for samples to be analyzed at the DEPS Laboratory.

Project:					Prog. Code:												
					Ship Temp:												
Sample Type	Method & Matrix & Depth	Station ID, Waterbody	Location Description Or GPS Coordinates If No Location Description	Date/Time (24 hr)	Analyte Groups Requested (Yes / No or Checkmark)												
					1 Metals	2 Nut.	3 Alk.	4 Bulk	5 Low Lev Hg	6 Herb	7 Pest PCBs	8 Diss. P	9 DOC	10 Algal Toxins	11 Tissue		
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
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					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
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					# Containers:	ESB Lab ID:											
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					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
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					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
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					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
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					# Containers:	ESB Lab ID:											
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					# Containers:	ESB Lab ID:											
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					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											
					pH:	pH:			pH:				pH:	pH:	1	2	3
					# Containers:	ESB Lab ID:											

Project					Prog. Code:																																																																																																																																																						
Sample Type	Matrix & Collect Method	Station ID, Water Body, County	Location Description Or GPS Coordinates If No Location Description	Date/Time (24 hr)	Parameter Types Collected (Yes or No)																																																																																																																																																						
					1 Metals	2 Nut.	3 Alk.	4 Bulk	5 Low Lev Hg	6 Herb	7 Pest	8 Diss. P	9 DOC	10 Algal Toxins	11 Tissue																																																																																																																																												
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					pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																																pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																																pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																										
					Total Bottles:		ESB Lab ID:																																																																																																																																																				
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					pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																																pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																																																																														
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					pH:	pH:			pH:				pH:	pH:	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>						Total Bottles:		ESB Lab ID:																																																																																																																																		
					Total Bottles:		ESB Lab ID:																																																																																																																																																				

Water Matrix Analyses			
Analyte Group	Parameter	Preservation	Analyses
1	Metals	HNO3 & Cool to 4C	Hardness (1200/1220), Total Recoverable Metals (3120 and 3130)
2	Nutrients	H2SO4 & Cool to 4C	Ammonia (2000), Nitrate/Nitrite-Nitrogen (2120), TKN (2280), TOC (2260) & Total P (2200)
3	Alkalinity	Cool to 4C	Acidity (1000), Total Alkalinity (1020/1030/1040)
4	Bulk	Cool to 4C	Cl- (1100), F- (1160), SO42- (1425), Turbidity (1460), TSS (1320) TDS (1340D), Sp. Cond. (1145), For Prog. Code A16 (Lakes): Color (1120)
5	Low-Level Mercury	HCl & Cool to 4C	Low-Level Mercury (3320)
6	Herbicides	Cool to 4C	Herbicides Group 1 (6231), Herbicides Group 2 (6300)
7	Pesticides / PCBs	Cool to 4C	Pesticides Group 1 (6260), Pesticides Group 2 (6441)
8	Diss. Phosphorus	H2SO4 & Cool to 4C	Total Dissolved Phosphorus (2180D), Orthophosphate (2160)
9	Diss. Organic Carbon	H2SO4 & Cool to 4C	Dissolved Organic Carbon (2260D)
10	Algal Toxins	Cool to 4C	Analyses: (1) Total microcystins, (2) Cylindrospermopsin (3) Anatoxin-a

Tissue Matrix Analyses			
Analyte Group	Parameter	Preservation	Analyses
1	Metals	Frozen	Total Recoverable Metals (\$3130T CALC); Methylmercury (3350T CALCD)
6	Herbicides	Frozen	Herbicides Group 2 (\$6260T CALC)
7	Pesticides / PCBs	Frozen	Pesticides Group 1 (\$6300T CALC)
11	Tissue	Frozen	% Lipids (5460T)

Sediment Matrix Analyses			
Analyte Group	Parameter	Preservation	Analyses
1	Metals	Cool to 4C	Total Recoverable Metals (3130)

13.3 Appendix C. Fish Tissue COC for samples to be analyzed at the DEPS Laboratory.

CHAIN OF CUSTODY
Program/Code: Fish Tissue – A20

Sample Type	County	Sample ID	Sample Description	% Moisture Removed	Sample: Matrix	Collection Method	Collection Date/Time	Container		
								1	2	3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Type: FS=Field Sample, FD= Field Duplicate, LSP=Lab Split

Continued on Page 2 YES

Shipment Temp: _____

Analysis Requested:

Sample Type: Dry Weight Wet Weight

Container 1: Metals(\$3130T CALC)/Hg(3340T CALCD)/MeHG(3350T CALCD)/Pesticides(\$6260T CALC)/PCB(\$6300T CALC)/%Lipids(5460T)/%Moisture(9540)

Container 2:

Container 3:

Samples Collected By: _____

Relinquished by: _____ Date: _____ Received by: _____ Date: _____

Representing: KY Div of Water Time: _____ Representing: _____ Time: _____

CHAIN OF CUSTODY
Program/Code: Fish Tissue – A20

Sample Type	County	Sample ID	Sample Description	% Moisture Removed	Sample: Matrix	Collection Method	Collection Date/Time	Container		
								1	2	3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3
					<input type="checkbox"/> Fillet <input type="checkbox"/> Whole Body <input type="checkbox"/> Egg/Ovary	<input type="checkbox"/> Composite <input type="checkbox"/> Grab		<input type="checkbox"/> 1 LAB Report #	<input type="checkbox"/> 2	<input type="checkbox"/> 3

13.4 Appendix D. Example pathogen COC for samples to be analyzed in a DOW Microbiology Laboratory.

Program: _____

CHAIN OF CUSTODY (version 2021)

K-WADE PROJECT:

K-WADE TRIP:

Sample Type	County	Station ID	Site Description (include lat/long if not on the field datasheet)	Date\Time	Lab Dilution Factor	RESULTS: <i>E.coli</i> MPN/100mL	Container/Preservation 1 <i>Escherichia coli</i> Cool to 10° C
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #
							<input type="checkbox"/>
							Lab Sample #

Sample Type: FS=Field Sample, FD= Field Duplicate, FSP=Field Split, FB=Field Blank, SWB=Sterile Water Blank, RB=Rinsate Blank, LSS=Lab Sample Split

Program: _____

CHAIN OF CUSTODY (version 2021)

K-WADE PROJECT: _____

K-WADE TRIP: _____

Collection Method: Grab Composite

Sample Matrix: Water Sediment

Shipment Temperature: _____ °C

Sample Collectors (Print Name): _____

Program Supervisor: _____ Project Coordinator: _____

Relinquished by: _____	Date: _____	Received by: _____	Date: _____
Representing: _____	Time: _____	Representing: _____	Time: _____
Relinquished by: _____	Date: _____	Received by: _____	Date: _____
Representing: _____	Time: _____	Representing: _____	Time: _____

Water Matrix Analyses					
Analyte Group	Parameter	Preservation Method	Analyses Requested	Minimum Volume Container Type	Holding Time*
1	Bacteria	Cool to 10°C	<i>Escherichia coli</i> enumeration (SM9223B)	100mL sterile – direct sample	8 hours

* SAMPLES MUST BE RECEIVED IN LAB NO LATER THAN 7 HOURS (PREFERABLY 6 HOURS) AFTER EARLIEST SAMPLE WAS COLLECTED; THEY MUST BE PROCESSED NO LATER THAN 8 HOURS AFTER EARLIEST SAMPLE WAS COLLECTED!