

# EH Lab Submission Manual



## Sample Submission Manual

Alaska State Environmental Health Laboratory

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Anchorage AK, 99507

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# EH Lab Submission Manual

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## **Introduction**

### **Food Safety and Animal Health for the 21st Century**

On September 2, 2005 the State of Alaska Department of Environmental Conservation officially dedicated the Alaska State Environmental Health Laboratory (EHL), a state-of-the-art 20,000 square foot facility dedicated exclusively to food safety and animal health.

After successfully serving the public for over 30 years in Palmer, the State Legislature determined in 2002 that the public would be best served by upgrading to a modern 21st century facility. New technologies and new threats to public health drove the decision to move. A site directly adjacent to the State's new Public Health Laboratory was chosen to maximize efficiency and allow for collaboration between scientists in both organizations.

Ground breaking for the new facility took place in the spring of 2004. After nearly 18 months of construction the new facility was ready and the first group of scientists began the process of relocating from Palmer to their new home in Anchorage.

In addition to housing the laboratory staff, the new facility is the new home of the Office of the State Veterinarian. The new laboratory incorporates an advanced necropsy facility that enables the State Veterinarian to perform detailed examinations of animals in a controlled environment. With immediate access to advanced testing equipment and laboratory scientists, the State Veterinarian is able to provide a higher than ever level of customer service.

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## Accreditations

The EHL is the principle State agency responsible for regulatory analyses of ready to eat foods, shellfish, finfish, dairy, environmental samples, marine toxins, and marine waters. The EHL is accredited by and subject to regular audits by agencies such as the U.S. Food and Drug Administration, U.S. Environmental Protection Agency, and U.S. Department of Agriculture. Routinely demonstrating proficiency is a critical aspect of the EHL's rigorous QA program. EHL scientists routinely analyze performance evaluation samples submitted by various federal agencies to maintain certifications and ensure test results meet the highest standards of accuracy and precision.

## Capabilities

### Molecular Biology

The advent of real time Reverse Transcriptase Polymerase Chain Reaction (rt-RTPCR) technology has revolutionized the laboratory industry by enabling rapid analysis of samples for a wide variety of organisms. The EHL is also developing rapid analysis technology to detect food pathogens such as *E. coli*, *Listeria*, and *Salmonella*, as well as *Vibrio*. We have invested in automated sample preparation and PCR.

### Microbiology

Classical microbiological techniques remain the "Gold Standard" for determination of many pathogens that impact food safety and public health. The EHL employs a team of microbiologists and technicians with extensive experience in the isolation of dangerous organisms from food and water. Examples of organisms isolated by EHL microbiologists include fecal coliforms, *E. coli*, *Listeria* spp., *Vibrio parahaemolyticus*, *Salmonella* spp., *Staphylococcus aureus*, and other pathogenic organisms.

### Marine Toxins

The Alaskan Shellfish industry is a major supplier of fresh shellfish to markets around the world. The EHL supports this industry by providing rapid turnaround time analyses for known marine toxins such as Paralytic Shellfish Toxin (also known as TPST), Domoic Acid (amnesic shellfish toxin), and *Vibrio parahaemolyticus*. The EHL is working with national workgroups to support full implementation of a new instrumental chemistry method for PST.

### Dairy

Helping ensure the wholesomeness of our state's dairy industry is a big part of the EHL's mission. The EHL is certified by the FDA and undergoes a rigorous certification program to make sure our testing program meets the highest standards of accuracy. Our dairy testing program includes analysis of various dairy products for a variety of bacterial and chemical contaminants. These testing services are provided to the Office of the State Veterinarian for regulatory and investigative purposes.

### Analytical Chemistry

Measurement of trace levels of heavy metals, and methylmercury in seafood is a routine activity for the EHL. Technologies such as Inductively Coupled Plasma (ICP), Mass Spectrometry (MS), and High Performance Liquid Chromatography (HPLC) are used at the EHL to ensure that the foods we eat are safe and wholesome.

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The EHL has implemented novel “hyphenated” techniques to create highly specific, analytical capabilities. Liquid Chromatography coupled with ICP and Mass Spectrometry (LC-ICP-MS) measures even ultra low levels of toxic materials such as methylmercury in fish tissue. Speciation of mercury in foods and the environment allow food safety experts to monitor the health of our seafood industry. Liquid Chromatography coupled with tandem Mass Spectrometry (LC-MS-MS) has allowed us to measure low levels of organic contaminants such as melamine.

## Animal Health

The EHL supports animal health programs by performing critical tests for Equine Infectious Anemia (EIA), Brucellosis, and Johnes disease. We also facilitate testing for Chronic Wasting Disease (CWD).

The EHL facilities also include a sophisticated necropsy laboratory that enables the State Veterinarian to perform detailed examinations to reveal disease mechanisms and cause of death. These capabilities help the State protect the health of our wild and domestic animal population.

## Drinking Water

Safe drinking water is fundamental to public health. The EHL offers EPA certified drinking water testing for microbiological parameters to State agencies as well as certifies commercial labs, both intra and interstate, to support testing needs to water systems providing drinking water across the state. Typical parameters include Total Coliforms, Fecal Coliforms, *E. Coli*, and Heterotrophic Plate Count. These services are provided as a courtesy to government agencies to assist in investigations or provide capacity in the event that private sector capacity is not available. All EHL drinking water methods comply with the EPA’s rigorous guidelines for drinking water laboratories.

## Terms and Conditions

### Alaska State Environmental Health Lab Terms and Conditions for Providing Lab Services

The EHL is a publicly-funded laboratory that serves state government and members of the public. Those Customers seeking to use EHL services must agree to these standard Terms and Conditions, comply with the EHL Sample Submission Manual, and submit the appropriate EHL submission form that defines the specific services requested and that is signed and dated by the Customer.

#### 1. The Agreement

These Terms and Conditions, the applicable signed and dated EHL submission form, and the current EHL Sample Submission Manual embody the whole agreement between the EHL and the Customer (“Agreement”), unless subsequently or concurrently modified by written agreement between the Customer and the EHL and notwithstanding the requirement in paragraph 9 for Alaska Native Tribes. This Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The EHL specifically rejects all additional, inconsistent or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Customer to the EHL.

The invalidity or unenforceability, in whole or in part, any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by the EHL of any provision, term or condition hereof or of any breach by or obligation of the Customer hereunder shall constitute a waiver of such provision, term or condition on any other occasion or a waiver of any other breach by or obligation of the Customer. This Agreement shall be administered and

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interpreted under the laws of the State of Alaska. This Agreement is not intended to create rights in any third party.

## 2. Warranty

The EHL warrants only that it will perform testing services and prepare reports and obtain findings, results and data in accordance with generally accepted analytical EHL principles and practices at the time of performance of services. The EHL makes no other warranty, express or implied.

At the EHL's sole discretion, preliminary results may be given in advance of an EHL report. Such preliminary results are tentative, subject to confirmation and final review by the EHL. The Customer's use of preliminary results in any manner shall be at the Customer's sole risk.

## 3. Scope and Compensation

After receipt of sample, evaluation of sample integrity, and verification of capacity to perform, the EHL agrees to perform the services described in the applicable EHL submission form submitted by the Customer. Unless the parties agree in writing to the contrary, the duties of the EHL shall not be construed to exceed the services specifically described in the EHL submission form. Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of three-quarters of a percent (3/4%) monthly or a portion thereof. The Customer shall also be responsible for the costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sales, use, or other taxes. The EHL reserves the right to require payment prior to performing services or release of results. Until such time as the Customer invoices are paid in full, the EHL has no obligation to the Customer and will not reproduce, return, or supplement services or results.

## 4. Prices

Compensation for services performed will be based on the current EHL Sample Submission Manual Fees and Payment Information schedule, or as agreed to in writing by the parties. Analytical turnaround times are not guaranteed.

A minimum charge of \$15.00 per sample may be assessed for samples sent to the EHL but not analyzed. For samples that are extracted but not analyzed, the charge may be 40% to 60% of the standard analysis price. If the Customer requests extraction or analysis in an expedited manner or one that would require the lab to operate outside normal business hours or a rush (e.g. analysis, preliminary result, or final report earlier than published turnaround time) is necessary to process a sample previously put on hold, additional charges may be assessed without prior written Agreement between the Customer and the EHL.

## 5. Limitations of Liability and Indemnification

In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of the EHL shall be to re-perform the deficient work at its own expense, and the EHL shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by the EHL within ninety (90) days following completion of services. All results should be considered in their entirety and the EHL is not responsible for the separation, detachment, or other use of any portion of the results.

The EHL shall have no liability, obligation or responsibility to the Customer or to any third parties for any kind of losses, costs, expenses or other damages (including but not limited to any special, indirect, incidental or consequential damages) in any manner related to the EHL's services or results. This limitation of liability includes such causes and circumstances as natural disaster, acts of the Customer or third parties, acts of governmental authority, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies, or any other cause or circumstance beyond the EHL's reasonable control.

The Customer agrees to indemnify, hold harmless, and defend the State of Alaska and its agents and employees from any and all claims or actions for injuries or damages whatsoever sustained by any person or party that arise from or relate to, directly or indirectly, the Customer's or the EHL's performance

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of this Agreement; however, this provision has no effect if, but only if, the sole proximate cause of the injury or damage is the EHL's negligence.

## 6. Hazard Disclosure

The Customer represents and warrants that any sample delivered to the EHL will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by the Customer. The Customer further warrants that any sample containing any hazardous substance, which is to be delivered to the EHL, will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws and in conformance with the current EHL Sample Submission Manual, as required in Paragraph 7.

## 7. Sample Submission and Handling

The Customer must obtain samples in conformance with and submit such samples with the appropriate EHL submission form from the current EHL Sample Submission Manual, regulatory body, and any applicable laws. The Customer is responsible for the cost of shipping samples to the EHL. Samples may be returned to the Customer for an additional charge for any shipping and handling costs. The EHL does not retain samples once the testing is complete, unless arrangements in writing have been made for such retention and additional charges have been paid by the Customer for handling, tracking, and other related storage expenses.

The EHL reserves the absolute right, exercisable at any time, to refuse to receive delivery, refuse to accept, or revoke acceptance of any sample in the sole judgment of the EHL for any reason. Reasons may include that the sample (a) is of unsuitable volume, (b) may be or become unsuitable for, or may pose a risk in handling, transport or processing for any health, safety, environmental or other reason, whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to the EHL by the Customer or (c) has been delivered to the EHL and one half or more of the recommended holding time for the analysis has lapsed.

## 8. Alaska Public Records Act

The EHL is subject to the Alaska Public Records Act (AS 40.25.100 - AS 40.25.350) which may require the EHL to release records upon request. In the event of such a request for information, the Customer has the burden of claiming privilege from disclosure and is responsible for procuring counsel and for any related court actions, fees and costs.

## 9. Alaska Native Tribe

If the Customer is a federally recognized Alaska Native Tribe, this Agreement is not valid and the EHL will not provide any services until the Customer executes a waiver of sovereign immunity and authorizing resolution that waives the Tribe's sovereign immunity with respect to this Agreement and that is approved as to form by the State of Alaska.

## Shipping and Courier Services

### Shipping Information

All samples submitted to the EHL are received by microbiologists and laboratory technicians within the EHL Shipping & Receiving department. Our technicians require the following information as soon as your samples are shipped so they may arrange for courier or staff to pick-up and deliver to the lab:

- Date shipped
- Your name and contact telephone number
- Number of pieces (coolers, boxes, etc.)
- Content of shipment

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- Test(s) requested
- Freight carrier
  - Name of carrier
  - The waybill number (or other carrier tracking number)
  - Flight number, if available
- Date and time delivery is expected for delivery in Anchorage
- 

Please notify EHL Shipping & Receiving by phone, (907) 375-8231, or email the above information to: [DEC.EH-Lab-ShippingReceiving@alaska.gov](mailto:DEC.EH-Lab-ShippingReceiving@alaska.gov).

**\*NOTE\*** this phone is not staffed 24 hours a day; please leave a detailed message.

Address all sample shipping labels as follows:

**ADEC – EH Laboratory**  
**5251 Dr Martin Luther King Jr Ave**  
**(or 5251 Dr MLK Jr Ave)**  
**Anchorage, AK 99507-1293**  
**NOA 375-8231**

The following links are for your convenience and do not constitute an endorsement of the business listed:

[Alaska Airlines Cargo Services](#)

[FedEx](#)

[UPS](#)

## **Fees and Payment Information**

### **Fee Schedule (1)**

### **Price per Sample (USD)**

#### **Marine Toxins**

Paralytic Shellfish Poisoning (includes all species)	\$125
Domoic Acid	\$100
Other Marine Toxins	\$54/hour

#### **Microbiology**

Aerobic/Heterotrophic Plate Count	\$30
Coliform, Presumptive (MPN)	\$17
Coliform, Confirmed (MPN)	\$17
<i>E.coli</i> (non- <i>O157:H7</i> )	\$17
<i>E.coli</i> <i>O157:H7</i> , Rapid Method	\$25
PetriFilm T Plate Count	\$10

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PetriFilm T <i>E.coli</i>	\$10
<i>Staphylococcus aureus</i>	\$50
<i>Salmonella spp.</i> (4 sample minimum)	\$70
<i>Salmonella spp.</i> (no minimum)	\$80
<i>Listeria spp.</i> (negative or presumptive positive)	\$35
<i>Listeria spp.</i> (confirmed with identification) additional	\$35
<i>Vibrio spp.</i> (negative or presumptive positive)	\$75
<i>Vibrio spp.</i> (confirmed with identification) additional	\$75

## Chemistry

Water Activity	\$10
Water Phase Salt	\$30
Salt	\$20
Moisture	\$10
Nitrate (2)	\$120
Nitrite (2)	\$30
Sulfite (2)	\$120
Total Metals by ICP/MS	\$50 plus each element add \$10
Mercury (total)	\$75
Methylmercury	\$Call
Organochlorine Pesticides	\$Call
Arsenic Speciation (2)	\$Call
Histamine (2)	\$100
Indole (2)	\$75
Ethanol (2)	\$75
pH	\$20
Organoleptic	\$50/hour
Adulteration	\$50/hour

## Fee Schedule (1)

## Price per Sample (USD)

### Animal Health

Avian Influenza Virus Screen	\$45
Equine Infectious Anemia	\$10
Brucellosis	\$Call
Johnes Disease	\$Call
Culture and Sensitivity	\$100/hour (3)
<i>E.coli</i> Sponge Test	\$10
Chronic Wasting Disease	\$Call

### Dairy (4)

\$Call

### Drinking Water (4)

Total Coliform Analysis	
Colilert ® Enzyme Substrate	\$Call
Membrane Filtration	\$Call
Fermentation Tube MPN	\$Call
Presence-Absence Fermentation	\$Call
Fecal Coliform or <i>E.coli</i> Analysis	\$Call
Membrane Filtration	\$Call
Heterotrophic Plate Count	\$Call
Speciation	\$50

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- (1) Fees schedules are based on statutory authority.
- (2) Call for availability.
- (3) 1 hour minimum
- (4) Testing available only to government agencies

## Payment

The EHL gladly accepts MasterCard® and Visa for payment of laboratory fees. Contact our Administrative Assistants at (907) 375-8200 to process your transaction.

The EHL also accepts cash, check, or money order.

## Driving Directions

From Anchorage International Airport, take International Airport Road to Old Seward Highway, turn left onto Old Seward, travel 2 blocks and turn right on East Tudor Road. Travel approximately 3 miles, turn right onto Dr. Martin Luther King Jr. Avenue. Follow the avenue around the curve past the Public Health Laboratory (1 block) and turn right into the EHL.

If you need directions from a different location, or have any questions, please feel free to contact us at [DEC.EH-Lab-ShippingReceiving@alaska.gov](mailto:DEC.EH-Lab-ShippingReceiving@alaska.gov) or call us at (907) 375-8231.

We are located at 5251 Dr. Martin Luther King Jr. Avenue. Our hours of operation are from 8 AM to 4:30 PM, Monday through Friday, excluding State and Federal Holidays.

For general information please enter through the front doors. For sample drop off, deliveries, or contractor access, please enter through the rear entrance using the driveway to the right of our laboratory.

## General Guidelines

**Prior arrangement must be made before shipping samples**, due to the sensitive nature of samples, hold times, and shipping regulations. Customers should contact EHL Shipping & Receiving at (907) 375-8231 to make arrangements for your testing needs.

The old adage “garbage in, garbage out” rings especially true when dealing with the effect of sample collection and preservation on the quality of analytical results. A properly packaged and preserved sample saves time, money and provides you, our customer, with the quality of results you need and expect to ensure compliance with regulations.

### ***How do I, as a customer, decide how to pack and ship my samples?***

To help guide you through the maze of regulations, the EHL staff have created guidelines for properly preserving, packaging, and shipping the various categories of samples that the EHL handles. Typical categories of samples include blood serum, shellfish and fresh seafood, ready to eat foods, dairy samples, and environmental samples. Need a submission form or a Chain-of-Custody? The EHL staff is available to provide you with information on how to safely package and ship your samples.

Not surprisingly all of these sample categories have their own distinct sample preservation, packaging, temperature, shipping, and documentation requirements. On the following pages you will find guidelines for properly handling all of these sample categories.

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Of course if you have questions, our laboratory staff is available to answer any questions you may have. To contact our Shipping & Receiving department call (907) 375-8231 or send an email question to [DEC.EH-Lab-ShippingReceiving@alaska.gov](mailto:DEC.EH-Lab-ShippingReceiving@alaska.gov). Our staff will be happy to guide you through the process.

## Marine Toxins

### Clams, Oysters, Mussels, Scallops, Snails, Geoducks, and Crabs

#### SAMPLE REQUIREMENTS

For PSP analysis each sample must contain a minimum of 125g-150g and a minimum of 12 animals. The PSP test procedure requires a minimum 100 grams of shellfish for an official analysis. A less than 100g sample may not be used for regulatory purposes. If domoic acid analysis is also required an additional 75-80 grams is needed.

A full 6-ounce cup (10oz if domoic acid analysis is needed) of drained meat gives sufficient sample to retrieve 100g after processing and, in most instances, covers for any loss of liquid through leakage during transportation to the laboratory.

#### Preparation - Clams, Oysters, Mussels

1. Thoroughly clean the outside of the shellfish with fresh water.
2. Open the shell by cutting the adductor muscles. (Caution: DO NOT use heat or anesthetics before opening shell--product must be raw for testing.) Rinse the inside with fresh water to remove sand or other foreign material.
3. Shuck the meat from the shell, being careful not to cut or damage the body of the mollusk.
4. Without layering collect approximately 150 grams (about 6oz.) meat on a No. 10 sieve.
5. Let it drain for 5 minutes. Discard pieces of shell, and discard the drained liquids.

#### Packaging and Shipping

1. Place each drained sample into a heavy duty (freezer) Ziploc® type bag.
2. Double bag the sample using another Ziploc® bag.
3. Label each bag with Farm number, permit number, species, and lot number. Improperly marked or unmarked samples may be rejected for analysis.
4. Complete the sample submission form for each sample type ([Marine Toxin Submission Form](#))
5. Place the submission form in a separate Ziploc® bag.
6. Freeze the sample prior to packaging.
7. Wrap the samples in newspaper or other absorbent material.
8. Place the samples and submission form in a sturdy, leak-proof box. A small Coleman cooler (or equivalent) works well for this purpose. Packaging the samples in envelopes or other non-sturdy, non-leak-proof containers is not acceptable (or legal!) and may result in the samples being rejected by the laboratory.
9. Add sufficient frozen gel packs or gel ice to keep the samples cool during transport. Samples received at or above 10°C and/or decomposed may be rejected at the EHL's discretion. Decomposed samples interfere with the integrity of the analysis.
10. Ship the samples for next day delivery.

#### Shipping Notification

Ship samples via overnight service per above shipping instructions.

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## **Marine Growing Water**

### **SHELLFISH GROWING WATER**

This protocol is for commercial shellfish operators who have been authorized by the Alaska Department of Conservation to collect shellfish growing water samples. The frequency and sampling schedule is determined by the DEC Shellfish Specialist in your approved sampling plan.

We can only accept water samples Monday through Wednesday between 8:00 a.m. and 4:30 p.m., except holidays or posted/notified closures. Samples must be analyzed within 30 hours of collection. We cannot accept or analyze samples outside of normal hours. (Please make sure your shipment arrives when we can accept it.)

### **SAMPLE KIT**

The EHL will provide a sampling kit to include:

- Sample containers, one per sampling station, one temperature blank, and several extra containers.
- Cooler, packing material, gel packs.
- Water Shellfish Survey Form;
- Ziploc® bag for survey form;

### **Obtaining a kit and making arrangements for sampling**

- Collect the samples only per the approved schedule or upon receiving a request from the DEC.
- The laboratory will prepare and ship a sampling kit to you.
- Check the sampling kit to ensure sufficient containers have been provided and include a Shellfish Water Survey Form.
- Make sure that all containers remain in the cooler during storage and store the kit in a clean, dry location away from any possible sources of contamination.
- Coordinate with EHL personnel by telephone as soon as possible if sampling needs to be postponed due to weather or other hazardous conditions.

### **Sampling Procedure**

STEP 1: Open the container.

- Hold the cap in one hand so inside surfaces of the cap and bottle are not touched or contaminated.
- Avoid any sampling areas with visible debris or floating material.

STEP 2: Collect

- Dip the bottle mouth down.
- Slowly sweep the bottle under surface of water.
- Turn the right side up to fill
- Take the sample 6"-12" under surface. No deeper than 12".

STEP 3: Bring To Surface

- Tip out some water to produce a small air space.
- Make sure the bottle is filled to the rounded shoulder above the top mark on the bottle.

STEP 4: Cap and Label

- Carefully replace the cap, without contaminating the sample and screw the cap on tightly.

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- If the sample bottle or cap comes in contact with any surfaces or materials, discard the bottle and resample.

## STEP 5: Document

- Record the date and time of sample collection on the Shellfish Growing Water Survey Form.
- Record other relevant information including weather conditions, rainfall, wildlife present, and tidal information.

## STEP 6: Package

- Assemble the frozen gel-packs along the bottom and against the sides of the cooler/ insulated shipping container.
- Line the packing materials between the bottles and the gel-pack lined walls of the container. Add sufficient packing materials to prevent shifting of the samples during shipping.
- Place a thin layer of packing material on top of the sample bottles.
- Place the bottles inside the container with gel-packs wrapped in paper between them.
- Assemble the frozen gel packs on top of the packing materials. Do not allow the gel packs to directly contact the samples. Frozen samples are invalid.
- Place additional packing material on top of the gel packs to prevent shifting during shipment.
- Make sure that all airspace is filled to prevent heating inside the container. Samples must be between 0°C and 10°C upon receipt to be valid for testing.
- Insert the Survey form into a Ziploc® bag, place on top of the packing materials, and then seal the cooler.

## STEP 7: Shipping and Notification

- Ship samples via overnight service per above shipping instructions.

## Ready To Eat, Native Style Smoked Fish, and Shelf Stable Testing

### Test Method

#### Ready- to-Eat Microbiology

Includes *Listeria monocytogenes*, *Salmonella* spp., and fecal coliform/*E. coli*.

### Minimum Sample Size

8 ounces  
0.5 pounds  
227 grams

#### Native Style Smoked Fish

Includes *Staphylococcus Aureus*, fecal coliform/*E. coli*, *Listeria monocytogenes*, and *Salmonella* spp.

8 ounces  
0.5 pounds  
227 grams

Decomposition analysis (requires separate sample)

#### Shelf Stable Testing Program

Includes Water Activity and Water Phase Salt

8 ounces  
0.5 pounds

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227 grams

## Sample Packaging & Preservation Guidelines

Several inexpensive options exist for packing your laboratory samples in a manner that guarantees your samples will arrive in optimal condition for testing. The EHL receives many samples that are needlessly destroyed or made unsuitable for testing because of poor packaging or improper preservation.

## Good Example Of The Proper Way To Prepare A Shipment

1. Obtain an insulated container, with sufficient room to accommodate your samples and enough gel ice to maintain temperature during shipment.
2. Package the sample(s) in the container. Add packing material to minimize shifting of the samples and gel ice during shipment.
3. Close the inner container and place the completed Food Sample Collection Report on top in a sealed Ziploc® bag.
4. Seal the container, label, and ship via overnight mail, courier, or Goldstreak.

## Documentation

- Proper documentation is necessary to ensure prompt processing of your samples.
- Clearly print or type the sample submission form information so that it is fully legible to our staff.
- Each sample must be clearly labeled, and have a unique sample number.
- Check that the lot # of the sample packaging matches your submission paperwork.
- Indicate the process, product form, and packaging type for your sample in your submission paperwork.
- Samples received without proper documentation may be rejected.

## Shipping and Notification

Ship samples via overnight service per above shipping instructions.

# Equine Infectious Anemia and Brucellosis

## General Information

Biological specimens must be packaged and shipped in accordance with US Department of Transportation and International Air Transport Association regulations. Specimens include any animal material, including blood and its components, excreta, secreta, tissue, and tissue fluids.

- Sample(s) may not be analyzed or results will not be given until payment is received. Please send payment with the samples.
- The federal EIA and Brucellosis forms are available from the State Veterinarian reachable at (907) 375-8215. Please fill in the appropriate fields on the form. A signature is required.
- An Equine Infectious Anemia (EIA) testing agreement must accompany the federal form. Multiple horses owned by one person may be included on this form.
- The U.S. Department of Agriculture form and the EIA testing agreement must be completed or results will not be given out.
- **Note: Samples received after Wednesday will be tested the following week.**

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## How do I ship my diagnostic specimens to the lab?

Proper packaging of diagnostic specimens includes four basic requirements:

- Watertight primary receptacle
- Watertight secondary receptacle
- Absorbent material
- Sturdy outer packaging with proper labeling.

Liquid specimens must be leak-proof. To prevent contact between multiple fragile primary containers individually wrap or separate each and place inside a leak-proof secondary receptacle. Place absorbent material between the primary and secondary receptacle, making sure that multiple primary receptacles are individually wrapped to prevent contact. Use enough absorbent material to absorb the entire contents of all primary receptacles. Clearly label the outside of the box with the lettering "**UN3373 Biological Substances, Category B**".

**Improper shipment of specimens can result in shipping delays and possible damage or loss of your valuable specimens**

## Submission Paperwork

The EHL requires that all specimens include a properly completed EHL submission form. This ensures that your specimens are accurately accessioned, analyzed and reported. For your convenience the EHL's submission form is available online.

## Where Do I Ship My Samples?

Ship samples via overnight service per above shipping instructions.

## Avian Influenza

### General Information

Biological specimens must be packaged and shipped in accordance with US Department of Transportation and International Air Transport Association regulations. Specimens include any animal material, including blood and its components, excreta, secretions, tissue, and tissue fluids.

### Avian Influenza Samples:

- Samples must be submitted in numerical order according to submission paperwork. Out-of-order samples will be rejected.
- Please do not tape over sample labels.
- Samples must arrive in biohazard shipping bags, such as those manufactured by Saf-T-Pak.
- Use the Avian Influenza submission form.

## How do I ship my diagnostic specimens to the lab?

Proper packaging of diagnostic specimens includes four basic requirements:

- Watertight primary receptacle
- Watertight secondary receptacle
- Absorbent material

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- Sturdy outer packaging with proper labeling.

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## Submission Paperwork

The EHL requires that all specimens include a properly completed EHL submission form. This ensures that your specimens are accurately accessioned, analyzed and reported. For your convenience EHL's submission form is available online.

## Where Do I Ship My Samples?

Ship samples via overnight service per above shipping instructions.

## Environmental Samples

### Container and Preservative

Parameter	Food or Solid	Aqueous
Total Mercury	4oz CWM/Cool 4°C	250ml HDPE/pH<2 HNO <sub>3</sub> /Cool 4°C
Methylmercury	4oz CWM/Cool 4°C	250ml HDPE/Cool 4°C
ICP/MS Metals Scan	4oz CWM/Cool 4°C	500ml HDPE/pH<2 HNO <sub>3</sub> /Cool 4°C
Organochlorine Pesticides	8oz CWM/Cool 4°C	1L Amb B.R./0.008% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /Cool 4°C
Polyaromatic Hydrocarbons	8oz CWM/Cool 4°C	1L Amb B.R./0.008% Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> /Cool 4°C
pH	4oz CWM/Cool 4°C	1L HDPE/Cool 4°C
Moisture Determination	4oz CWM/Cool 4°C	NA
Water Activity (a w)	4oz CWM/Cool 4°C	NA

NOTE:

Amb Amber  
B.R. Boston Round  
CWM Clear Wide Mouth  
HDPE High Density Polyethylene  
NA Not Applicable

## Documentation

- Proper documentation is necessary to ensure prompt processing of your samples.
- Each sample must be clearly labeled, and have a unique sample number.
- Samples received without proper documentation may be rejected.

# EH Lab Submission Manual

## Shipping & Notification

Ship samples via overnight service per above shipping instructions.

## Drinking Water

### Guidelines for Submitting Drinking Water Samples

All sample submissions must be pre-authorized by the EHL prior to sample collection.

For drinking water, processing water, wastewater, or recreational water bacteriological analysis, each sample must be properly collected in a sterile 150mL bottle as noted in the Sample Collection Procedure. Minimum sample volume is 100 mL; do not fill bottle above the neck.

Complete the *Drinking Water or Dairy Water Analysis Work order*, for each sample submitted. To better serve your needs, it is critical that you submit all applicable information about your water sample. This ensures that the EHL Micro Lab analyzes your sample appropriately, and processes the final report as required. The person collecting the sample, or client representative, must sign the Work order.

Safely pack the bottle in bubble wrap and include a temperature blank in the cooler. Carefully pack your sample to safeguard from damage during shipping. Protect the work order by placing it in a Ziploc® bag and pack it with the sample.

*Most samples must be analyzed within 30 hours from collection and must be received during normal business hours. Water samples are accepted Monday through Thursday except holidays or other posted/notified closures.*

Ship samples via overnight service per above shipping instructions.

### Taking A Total Coliform Bacteria Sample Properly

Sometimes water samples fail a total coliform bacteria test because of sampling error, not because the water system is actually contaminated. To ensure that this does not happen to you follow these steps when taking a coliform sample from your water system:

1. DO NOT RINSE OUT THE BOTTLE. The powder in the bottle is meant to be there and will not contaminate your sample.
2. WASH YOUR HANDS. Prior to taking the sample. Then remove the sterile strip from the bottle.
3. REMOVE FAUCET SCREEN. Or other hoses or aerators from the end of the faucet. If possible avoid using a faucet that swivels.
4. DISINFECT THE FAUCET. By dipping the end in a cap full of bleach before running the water. This is optional but is a good idea.
5. RUN COLD WATER FOR AT LEAST 2 MINUTES. To ensure that the water you are sampling has not been sitting in the pipes or tanks for a long time.
6. TURN THE WATER DOWN. So it does not splash. Fill the bottle to at least the fill line (100 ml). Do not fill it all the way up to the top, allow 1" head space.
7. SCREW CAP ON TIGHTLY. Take special care not to touch the inside of the cap or bottle. If you do, start with a new bottle.
8. FILL OUT PAPERWORK AND MAIL IT IN. Keep a copy for your files. Pack the sample in a Styrofoam container or bubble wrap when mailing so the bottle doesn't break.

# EH Lab Submission Manual

If you're in a remote area, make sure you know the scheduled flights, and verify if the flight will be in. Take the sample as close to departure as possible.

Important! The lab must receive the sample when they are open and within 30 hours of collection.

Keep the sample cool, but DO NOT Freeze!

## Food Outbreak/Poisoning

### Outbreak Investigation Guidelines

**Step 1:** Receive notification by ADEC Food Safety and Sanitation of a food borne outbreak.

**Step 2:** Notify the EHL of any planned or pending sample shipments. Call our Sample & Receiving department at (907) 375-8231, or email us [DEC.EH-Lab-ShippingReceiving@alaska.gov](mailto:DEC.EH-Lab-ShippingReceiving@alaska.gov).

**Step 3:** Collect and preserve samples according to EHL guidelines and document using the [Food Sample Collection Report Form](#).

**Step 4:** DHSS Epidemiologists and/or ADEC Environmental Health Officers will request specific tests to be performed on specific food products, based on patient symptoms and illnesses as well as testing results from patient specimens. Ship the samples to the EHL via overnight service per above shipping instructions.

**Step 5:** The EHL will perform specific screening procedures to confirm patient test results and determine which food product was the cause of the outbreak. For example, DHSS Public Health Laboratory detects *Salmonella* in the stool of a patient with food poisoning symptoms. The EHL will then perform testing on each of the food products collected and submitted for testing. The EHL will not perform “shot-gun” testing and test all food products for all tests or a panel of multiple tests. It is critical for efficient time and reagent usage to limit the amount of testing to those contaminants found to be present in patient samples.

**Step 6:** It is the responsibility of the ADEC to determine the source of contamination and remove or limit its spread; it should not be the role of the ADEC to diagnose the cause of an illness.

### List of Available Screening Tests for Food Borne Outbreaks

The EHL has validated the following screening tests for food borne outbreaks:

- *E. Coli*
- *E. Coli (O:157)*
- *Salmonella spp.*
- *Vibrio*
- *Listeria spp.*
- *Staphylococcus*

Forms needed for sample shipment to the EHL are found on our website. For more information or questions, call our Sample & Receiving department at (907) 375-8231, or email us at [DEC.EH-Lab-ShippingReceiving@alaska.gov](mailto:DEC.EH-Lab-ShippingReceiving@alaska.gov).