Public Health Command Europe

Laboratory Sciences

Customer Guide for Biological and Chemical Analysis

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1. INTRODUCTION

1.1 LABORATORY SCIENCES

The Public Health Command Europe (PHCE) Laboratory Sciences (LS) Directorate encompasses five divisions: the Laboratory Operations Division (LOD), Biological Analysis Division (BAD), Inorganic Chemistry Division (ICD), Organic Chemistry Division (OCD), and the Quality Assurance Office (QAO).

PHCE LS maintains ISO/IEC 17025:2017 accreditation and provides accredited public health laboratory services supporting the Public Health Programs of our National Military Strategy within the U.S. European Command **(**EUCOM), U.S. Central Command (CENTCOM), and U.S. Africa Command (AFRICOM**)** areas of responsibility (AOR).

Mission Statement: Provide comprehensive accredited analytical laboratory testing to safeguard and improve the health and readiness of supported military populations, and promote human, animal, and environmental public health across EUCOM, AFRICOM, and CENTCOM.

ISO/IEC 17025:2017 Accredited Testing Laboratory

Registrar: American Association for Laboratory Accreditation (A2LA)
Cooperation: ILAC Mutual Recognition Arrangement (ILAC MRA)
Certificate Numbers: 2138.01 (Biological), 2138.02 (Chemical)

Scopes of Accreditation: Please visit **https://customer.a2la.org/index.cfm?event=directory.index** then search "US Army Public Health Command Europe, Laboratory Sciences."

1.2 CUSTOMER BASE

The primary mission of LS is to support Army public health programs coordinated through PHCE. LS may provide contracted laboratory testing to external customers within EUCOM, AFRICOM, and CENTCOM as resources allow. Laboratory testing for external customers may require reimbursement for services, depending on the terms of the support agreement.

1.3 MATRICES ANALYZED

An extensive list of matrices accepted by LS can be found on the PHCE webpage (**https://mrc-europe.army.mil/Public-Health-Command-Europe/-Programs-Services/-Laboratory-Sciences/**). Matrices routinely analyzed by LS and, our U.S. and German Contract Laboratories are:

Chemical Analyses

Potable water (PW; includes BW)	Non-Potable Water (NPW)	Soil (SL)	Bulk Solids (BS)

Microbiological Analyses

Bottled Water (BW)	Ice (I)	Fish/Seafood (FS)
Meats (M)	Cheeses (C)	Cultured Diary (CD)
Dairy (D)	Ice Cream (IC)	Bottled (B)
Fruits & Vegetables (FV)	Surface Swabs	PW & NPW

1.4 ANALYSES AVAILABLE

LS Table 1 shows a comprehensive breakdown of analyses offered by LS in-house as listed on its Scopes of Accreditation. Please refer to the LS Price List or contact LOD for more information regarding outsourced analyses**.** See Section 2 below for LS contact information.

1.5 SAMPLE ANALYSIS PRIORITY AND TURNAROUND TIME (TAT) GOALS

While LS provides in-house and contract (German and U.S.) laboratory analytical services, only in-house services are provided at three levels of sample priority:

- Routine (30-day TAT): Standard laboratory priority. Most requests should be submitted at this level.
- Immediate (14-day TAT): Elevated laboratory priority based upon potential health risk, environmental damage risk, or high cost for delay. A brief written justification is required.
- Emergent (7-day TAT): Highest laboratory priority based upon potential acute health risk, environmental damage risk, or excessive cost for delay. A written justification is required.

To avoid delays in processing, ensure that the required paperwork is accurate, complete, and submitted by email when requesting analyses. Additionally, include hard copies of all paperwork with submitted samples (See Section 4: Sample Submission). Incorrect or incomplete paperwork with sample discrepancies will result in sample processing delays. The TAT countdown will not begin until the laboratory receives ALL required paperwork, accurately completed, and the LOD Form 1 (RLS, see Section 4) has been fully approved by the Division Chiefs.

Emergent Priority TAT is method dependent. It is important to note that some analyses are time intensive and require a minimum of four days to obtain results. TAT for testing of select target analytes (e.g., Gross Alpha/Beta, Radium-226/228) may exceed Routine TAT goals.

TATs are goals and are not guaranteed as sample workload and laboratory staffing may impact the ability of the laboratory to meet the TAT agreed upon during contract review. If TAT cannot be met, the Analytical Division Chief in charge will contact the customer. TAT is expressed in calendar days and is defined as the time from receipt of samples at the laboratory performing the analysis (PHCE LS, German Contractor, or U.S. contract laboratory) AND the complete internal approval of the RLS, to the dispatch of analytical data to the customer.

Shipping to most contract labs (CL) generally requires 1 business day to German based CLs and 2 business days to US based CLs. Shipment times are not included in the laboratory's published TAT goals. Samples requiring CL analyses generally fall under Routine Priority but may exceed TAT goals.

1.6 SAMPLE COLLECTION KITS

Sample collection kits for water and soil analytes that contain bottles, preservatives, ice packs, media, and coolers are available directly from LS for a fee. The request for sample collection kits should be made on the RLS**.** Sample collection kits with preservatives are viable for one year post preparation. Do not use an expired sampling kit. Contact LOD to obtain procedures for returning a kit for proper disposal or to obtain a new, in-date kit. If self-procured materials are preferred, please contact LOD prior to sampling and indicate this when requesting laboratory services using the RLS.

2. HOW TO CONTACT LS

2.1 LABORATORY OPERATIONS DIVISION (LOD)

Duty hours: Monday to Friday from 0730 to 1630

Please direct all communication to the LS Hotline below.

usarmy.landstuhl.medcom-ph-e.mbx.ls-hotline@health.mil

Telephone

DSN: 314-590-9710
Civilian: 06371-9464-9710 (In Germany, DE)
Civilian Outside DE: (+49) 6371-9464-9710
Civilian from the US: 011-49-6371-9464-9710

Military Postal Shipping Address

Public Health Command Europe
Laboratory Sciences (LS)
ATTN: Laboratory Operations Division
CMR 402, Unit 33105
APO AE 09180

German Postal Shipping Address

U.S. ARMY
Public Health Command - Europe
Laboratory Sciences (LS)
ATTN: Laboratory Operations Division
Gebäude 3809, Raum N202, Kirchberg Kaserne
D-66849 Landstuhl, Germany

Please visit the LS webpage at **https://mrc-europe.army.mil/Public-Health-Command-Europe/-Programs-Services/-Laboratory-Sciences/** for the latest forms and updates to the Customer Guide.

2.2 FINANCE

For reimbursable work, please submit either a Military Interdepartmental Purchase Request (MIPR, DD Form 448) or a Direct Charge Form (DRCH) to Medical Readiness Command Europe G8 (MRC, Eur G8) at **usarmy.sembach.medcom-mrc-eur.list.g8-financial-operations-owner@health.mil**. The G8 office will monitor your financial status and reimburse any unused balances based on customer invoicing. In certain cases, support agreements with PHCE LS must be made before a MIPR can be accepted. Please contact the G8 office and/or LOD if you have related questions.

To generate personalized quotes, please refer to the LS Price List on the LS webpage. Customers can be provided periodic statements that include status of their billing or shipping charges, upon request.

3. CUSTOMER SATISFACTION

3.1 LS values you as a customer. Customers will receive a link to the LS customer satisfaction survey with their sample results. You may also provide comments or complaints directly to the LS Hotline by email or phone, during face-to-face conversations or meetings with LS staff, or by attaching a note to your request form.

3.2 All LS customers can establish a Memorandum of Understanding (MOU) with LS upon request to supplement any existing support agreements and/or this Customer Guide. Contact LS for further details.

4. SAMPLE SUBMISSION

4.1 OVERVIEW

The first step in sample submission is to submit an LOD Form 1, "Request for Laboratory Services" (RLS) to LOD via email. Each request will be reviewed by LOD and assigned a Service Request Number (SRN). LOD staff will review the request and contact the submitter if there are any questions or necessary modifications.

Once the RLS form has been approved, LOD personnel will notify the customer via email by providing a signed copy of the RLS which serves as a binding contract between LS and the customer. Afterwards, submission of samples to LS on the agreed upon date may then occur. **The TAT begins when the laboratory receives the samples, ALL accurately completed paperwork needed to process the samples, and the RLS has been approved**. To avoid delays in processing, ensure that the required paperwork is accurate, complete, and submitted with samples.

Sampling events should be scheduled to prevent the delivery of samples to LS after 1200 hours on Fridays, Holidays, and weekends to ensure samples can be analyzed within hold times and without additional cost for weekend processing. Sample delivery after duty hours on weekdays, weekends or during a holiday, **MUST** be coordinated with LOD to ensure receipt. Samples will be accepted outside of duty hours only under special circumstances. Please note: If samples arrive after the scheduled date, LS reserves the right to reject the samples. Any overtime request must be pre-approved by PHCE Command.

Please contact LOD to update and reroute the RLS for approval if you need to change the scheduled work (i.e., number of samples submitted, analyses requested, and/or the agreed sample delivery date).

4.2 INSTRUCTIONS FOR LS SAMPLE SUBMISSION FORMS

LOD FORM 1 – REQUEST FOR LABORATORY SERVICES (RLS)

A RLS form with all information fields filled out completely **MUST** be sent to LS for all samples. Forms should be submitted by email as far in advance as possible but no later than two weeks prior to the sampling event (three weeks if requesting a sampling kit). A hard copy form **must also be submitted with** the sample(s).

See "Guidelines for Completing LOD Form 1 and DA 7539" on the LS webpage for help on how to fill out the RLS form. This help guide is provided **For Training Only**. If additional space is needed on the RLS, complete the "LOD Form 1 Supplement" and submit along with the RLS.

The RLS should be sent electronically whenever to the LS Hotline: **usarmy.landstuhl.medcom-ph-e.mbx.ls-hotline@health.mil** whenever possible. For quarterly, semi-annual, and annual monitoring events, requests can be submitted up to two months before the scheduled sampling date.

When requesting changes or inquiring about the status of your analyses, please use the SRN provided in the LOD e-mail notification of RLS acceptance/approval for your project. If you request changes to your RLS, the review process described earlier must be amended to ensure LS can meet your needs.
The request will be evaluated against analysis availability and workload at the predicted date of sample submission. If LOD anticipates workload or lack of required resources will prevent analysis at the requested time and/or with requested priority, LOD staff will contact you to identify alternatives such as a different submission date, lower priority, sub-contracting options, or to inform you that LS cannot accommodate the request.

Once completed and accepted, the RLS serves as the formal customer **contract** for analytical services between LS and the customer. The RLS communicates the specific customer requirements and expectations to LS. LS either accepts, modifies, or rejects the RLS to document its ability to satisfy the stipulated requirements and returns a PDF copy of the RLS. Upon return, Project Officers (POCs) must review the RLS for any changes or comments provided by Analytical Division Chiefs on the second page. If sample analysis is to be performed by a CL, it will be annotated and signed in the "Contract Laboratory" section with notes about which samples are to be outsourced (see an image of the RLS comment section below). After the contract (RLS) is approved and accepted by both LS and the customer, any subsequent changes to the accepted RLS **must** be coordinated and agreed to by **both** parties.

NOTE: LS only communicates with designated project officers as shown on LOD Form 1 or designated alternate POCs regarding specific projects.

Lab Use Only: Chemical Analysis Division	*Lab Use Only: Biological Analysis Division*	*Lab Use Only: Contract Laboratory*
Accept ☐ Reject ☐	Accept ☐ Reject ☐	Accept ☐ Reject ☐
Pertinent info regarding Chemical analyses from Chief CAD Notes	Pertinent info regarding Biological analyses from Chief BAD Notes	Pertinent info regarding Outsourced analyses from Chief BAD/CAD Notes

Lab Use Only: Laboratory Operations Division
Notes Pertinent info regarding changes to Original Submission made by LOD
Modifications to request have occurred: ☐ Yes ☐ No

Overdue RLS forms will be reviewed by LOD staff. If samples are not received within 30 days of the scheduled delivery date entered on the RLS form, the original request will be considered invalid, and the assigned SRN deleted. Customers with deleted SRNs must submit new **RLS** forms to LOD.

DA FORM 7539 – REQUEST FOR VETERINARY LABORATORY TESTING & FOOD SAMPLE RECORD

Use the DA Form 7539 for the submission of all food and bottled water samples. For different manufacturers, complete separate forms. The completed form, along with the RLS, must be submitted in hard copies along with the sample(s) when submitted to the lab.
Complete all available information for the sample submission. The information will be entered into the lab's Laboratory Information Management System (LIMS) and may be required for higher level reporting. See "Guidelines for Completing LOD Form 1 and DA 7539" on the LS webpage for help on how to fill out the DA 7539 form.

LOD FORM 3 – REQUEST FOR LABORATORY DETERMINATION FOR RABIES

Use this form for the submission of animals and animal tissue for identification of the presence of rabies.

Use one form per animal. Refer to Section 7 of this Guide for procedures on how to submit rabies samples as well as safety and shipping requirements. Provide all available information on the document.

Complete Part D if the animal is associated with human exposure and describe the circumstances of the event. Do not detail patient information to avoid disclosing protected health information (PHI) or personally identifiable information (PII).

LS QA FORM 1 – LS DECISION RULE IMPLEMENTATION

Upon request, LS will discuss and establish a "decision rule" with customers regarding what will be agreeable to both parties regarding conformity assessment, i.e., consideration of method uncertainty, with respect to Maximum Contamination Limits (MCL) or other applicable specification or regulatory limit. This requires an agreement on if and how method uncertainty will be included on the LS Final Report. LS will also ensure that the test procedure employed can meet the regulatory or specification limit required. Changes or modifications to laboratory test procedures (e.g., by lowering the method detection limit) may also be discussed to address the decision rule.

When established, LS will discuss with its customers and/or regulators before and during the negotiation of a contract for analytical services when the reported measurement is found to be outside the regulatory or specification limit stipulated. This agreement between LS and its customers will be discussed and formalized using LS QA Form 1 LS Decision Rule Implementation Form. Any changes to the decision rule established must be requested on the RLS, or other applicable sample submission form, during contract review.

4.3 SAMPLE HANDLING & COLLECTION

GENERAL NOTES

Ensure you clearly mark all samples and annotate the paperwork when known contaminants such as Hydrogen Sulfide are present in the samples or if you suspect or have noticed unusual odor or physical characteristic of the samples. These observations are important in protecting the health of all individuals who handle the samples.

When requesting water analysis, please ensure that the selected matrix matches the actual sample matrix. Selecting the correct matrix and communicating the type/source of water helps to prevent delays in

performing sample analysis, the generation of invalid analytical data, and damage or even destruction of trace level analytical instrumentation.

Samples suspected to be contaminated with or collected from areas suspected to have been previously contaminated with Chemical Warfare (CW) / Biological Warfare (BW) agents or exposed to Toxic Industrial Chemicals (TIC) / Toxic Industrial Materials (TIM) must be SCREENED and found to be NEGATIVE prior to shipment to LS. The screen findings must be marked as such on the sample container and on the accompanying paperwork. **Do not send samples suspected to be contaminated with CW/BW agents or BSL 3 or BSL 4 infectious material. LS is a BSL 2 laboratory.**

Avoid transporting samples (water, soil, or air sampling media) for the analysis of volatile organic compounds in an enclosed vehicle trunk. Contamination of samples by fuel fumes and exhaust gases is likely to occur..

PROPER SAMPLE LABELING

Use **indelible ink** on labels and use a clearly defined sample identification numbering scheme known to the project officer.

Include the following:

- Sample ID or customer Field ID and Project Number should be limited to 20 characters including spaces and dashes, as this is the character limit of the LS LIMS for Field ID and Project Number Fields. If your Field ID or Project Number exceeds 20 characters LS will truncate it at the 20th character.
- Sample location.
- Date (see Sampling Date Protocol below for LS' preferred date protocol).
- Time collected as Coordinated Universal Time (UTC) formerly known as Greenwich Mean Time (GMT) or state **XX.XX Hrs Local Time** to allow LOD to convert to our time zone.
- Additional information such as GPS data, DOEHRS ID or ARLOC or WIC codes for Army and Air Force, respectively should be included when available.
- Accurately reference each sample on the forms submitted to LS.

SAMPLING DATE PROTOCOL

LS recommends customers use the following protocol for recording all dates: DD MMM YYYY

Recommended date format example: 01 Jan 2020

4.4 SHIPPING AND PROPER SAMPLE PACKAGING

SAMPLE SHIPMENT AND DELIVERY

LOD can assist customers in arranging sample shipment with a commercial carrier. Sample shipments billed to our commercial shipping account number will be invoiced to your account. Please complete LOD Form 2 – Shipping request and contact LOD for current contract information.

Sample delivery after duty hours on weekdays, weekends or during holidays **must** be coordinated with LOD well in advance of the requested delivery date and time. Sampling and shipment of samples with holding times less than 7 calendar days and/or samples that must be kept at 1 – 6° C require planning and

coordination with LOD and the carrier to ensure sample delivery is not delayed over a weekend or by US or host nation holidays.

Hand-carried samples with short holding times **must** be delivered to LOD prior to 1400 hours Monday through Friday to ensure samples are processed into the LIMS and released to the analytical division prior to the close of business on the day of sample receipt. **After hours, weekend or holiday delivery is only available in special circumstances when the customer has coordinated with LOD well in advance of the requested non-duty delivery date or time.**

RECOMMENDED SAMPLE SHIPMENT METHODS	
• With long holding times • Not requiring refrigeration	• For immediate or emergent analysis • With short holding times • That must be refrigerated
— Can be sent by —	**— Should be sent by —**

• Commercial Carrier
  ○ Within Germany: United Parcel Service (UPS)
  ○ Outside Germany: Federal Express (FedEx)
• Hand Carry
• Air Mobility Command (AMC)
• Military Postal Service
• U.S. Postal System
	• Overnight service via Commercial Carrier
	  ○ Within Germany: United Parcel Service (UPS)
	  ○ Outside Germany: Federal Express (FedEx)
	• Hand Carry

Check with the carrier to ensure delivery date!	

PROPER SAMPLE PACKAGING

Check that all sample bottle lids are on tight and not leaking.

Line the appropriate size cooler generously with packing material.

Wrap glass containers individually with sufficient packing material to prevent container breakage.

Include frozen ice packs for samples that require cooling. Ice packs should be frozen for at least 24 hours prior to use.

- Large Ice Chest (~70 quarts) use approximately 24 large cooler packs (weight of large pack ~0.65 Kg each)
- Medium Ice Chest (~48-52 quarts) use approximately 18 large cooler packs (weight of large pack ~0.65 Kg each)
- Small Ice Chest (~20 quarts) use approximately 6 large cooler packs (weight of large pack ~0.65 Kg each)

Do not use ice unless cooler packs are unavailable. If you do use ice, double bag it so the bottle labels do not get wet.

Please refer to the sample bottles for temperature requirements to ensure that samples reach PHCE, LS within required temperature range. If you are collecting samples and the ambient outside temperature is above 15°C (> 59°F), it is recommended that you “pre-cool” your samples (if possible). The samples

should be placed in a refrigerator designated for environmental samples (i.e., no food or drink) and cooled to between 1 - 6 °C before packing.

Place completed forms inside a sealed plastic bag within the cooler.

SHIPPING FROZEN ITEMS

It is important to use a serviceable, insulated container. An inexpensive Styrofoam cooler from the grocery store is not ideal. Styrofoam coolers break easily and are usually not the right size for shipping. A thick polystyrene box or cooler will reduce the amount of dry ice needed and allow extended shipping times.

It is highly recommended to use dry ice for shipping **FROZEN** goods.

QUANTITY OF DRY ICE REQUIRED FOR SHIPPING FROZEN				
Sample Quantity	**Time in Transit**			
	4 Hours	**12 Hours**	**24 Hours**	**48 Hours**
2 lb	*2 lb Dry Ice*	*3 lb Dry Ice*	*5 lb Dry Ice*	*10 lb Dry Ice*
5 lb	*3 lb Dry Ice*	*4 lb Dry Ice*	*8 lb Dry Ice*	*15 lb Dry Ice*
10 lb	*4 lb Dry Ice*	*5 lb Dry Ice*	*10 lb Dry Ice*	*20 lb Dry Ice*
20 lb	*5 lb Dry Ice*	*8 lb Dry Ice*	*15 lb Dry Ice*	*25 lb Dry Ice*
50 lb	*10 lb Dry Ice*	*15 lb Dry Ice*	*20 lb Dry Ice*	*30 lb Dry Ice*
For each additional day add 8 to 16 pounds (lb) more Dry Ice				

"Dead-air space" will cause dry ice to sublime faster. Consequently, when packing items in the container, place dry ice and the products as close together as possible and layer with more dry ice on top. Fill any empty space with wadded newspaper or bubble packs.

Secure your samples such that movement will be restricted even when the dry ice sublimes. This can be accomplished by wedging samples in place with cardboard or Styrofoam. Fragile containers such as glass tubes or vials should be wrapped with cushioning material. If shipping by air, be sure to check with the airlines ahead of time to confirm their procedures and regulations regarding dry ice.

Dry ice shipments can be made with FedEx and DHL. UPS and the U.S. Postal Service have extremely restrictive policies concerning shipments of hazardous materials. Do not ship dry ice with UPS or the U.S. Postal Service. Note: Dry ice requires a UN1845 label on the outside of the box.

Information and Regulations:

- USPS Packaging Instruction 9A **https://pe.usps.com/text/pub52/pub52apxc_029.htm**
- FedEx (USA shipping) **https://www.fedex.com/content/dam/fedex/us-united-states/services/Dry_Ice_Job_Aid.pdf**

- FedEx **https://www.fedex.com/en-us/shipping/how-to-ship-perishables.html**
- UPS **https://www.ups.com/us/en/support/shipping-support/shipping-special-care-regulated-items/hazardous-materials-guide/how-to-ship-dry-ice.page**

4.5 SAMPLE RECEIPT AND PROCESSING

A copy of the approved RLS and/or DA Form 7539 **MUST** accompany samples when submitted to the lab. Upon receipt by LOD, the samples and associated paperwork will be checked against the original RLS. After verification of sample integrity, the samples will be processed into LIMS and will be assigned unique LS sample numbers, if needed.

LOD personnel will inform the customer of any deviation from requirements according to method (holding time exceeded, temperature or pH requirements not met, presence of free Chlorine, air bubbles in VOC, or EDB/DBCP samples, or missing blanks) that may compromise the analytical results.

If the condition of a submitted sample does not allow the generation of valid analytical data (for example the use of incorrect sampling container/ sampling media or insufficient sample amount) or the samples were damaged, LOD will inform the customer that the sample was rejected.

4.6 SAMPLE RETENTION AND DISPOSAL

Samples and sample extracts will remain under refrigeration or other appropriate storage in LS for at least 14 calendar days.

4.7 RESULTS

Sample results (data) will be released ONLY to the project officer or a designated representative (**must be authorized, in writing, by the project officer and provided to LOD**). If requested, preliminary results will be reported as an Electronic Data Deliverable (EDD) or preliminary report as individual sets of analyses are completed. The official LS Final Report will be delivered via electronic mail to ONLY project officer(s) as indicated on an approved RLS.

As a laboratory accredited solely for chemical and biological analytical testing, LS provides ONLY analytical results as requested by the customer. LS neither provides sample collection guidelines nor an interpretation of analytical results. Project Officers should be familiar with sample collection procedures and testing parameter thresholds per their governing regulations.

5. MICROBIOLOGICAL ANALYSIS

5.1 GENERAL INFORMATION ABOUT FOOD COLLECTION & SUBMISSION

Customers must pre-coordinate sample submissions using the RLS at least 2 weeks prior to sampling. Pre-coordination avoids delays in analysis and potential loss of samples. Please see LS Table 1 for a comprehensive list of LS in-house capabilities and see the "Guidelines for Completing LOD Form 1 and DA 7539" for groups/panels of commonly requested tests.

Samples for routine analysis should be received by noon of the Wednesday of the testing week. **If samples arrive after the scheduled date, the laboratory reserves the right to reject the samples or qualify the results.**

Products must arrive at the laboratory prior to their expiration/use-by/sell-by/best-by dates. If products are received after that date, they will be tested only with written authorization of the customer and results will have to be qualified. Please specify on the RLS if you would like LS to proceed with analyses if samples arrive outside of recommended hold time/tolerance.

Guidance on current U.S. Army action limits can be found in MEDCOM Circular 40- 1, Appendix O. Further guidance can be obtained from the Veterinary Services Portfolio, or supervisory Food Safety Warrant Officers.

The condition of food received for examination at the lab is of primary importance. All samples should be collected aseptically and with sterile implements. The use of sterile gloves and sterile sample containers is highly recommended. If the samples are not properly collected, are mishandled during transport to the lab, or are not representative of the sampled lot, then there is an increased likelihood that laboratory results will be inaccurate.

With customer complaint samples, when possible, submit an acceptable duplicate sample along with the sample in question.

Samples received without a necessary temperature pilot or received outside of proper temperature parameters ***may*** be discarded upon coordination with submitter to maintain laboratory safety and due to questionable data quality.

For samples that require analysis at CLs, please provide sufficient amount and number of sub-samples to the lab as LS will not perform sample splitting on food samples. Individual packages must be provided for EACH CL analysis.

LS and its CLs may be able to test other food categories or perform additional tests if needed. Please contact LOD to request more information.

5.2 OTHER MICROBIOLOGICAL AND FOOD SAFETY TESTING

PHCE LS offers in-house testing of surface swabs. Please use 10 mL Hi-Cap swabs containing a neutralizing broth for *Listeria spp.* and/or *Salmonella spp.* testing. Swabs containing only a neutralizing buffer instead of broth cannot be tested for *Listeria spp.* or *Salmonella spp.*

The Sponge-Stick method has replaced the swabbing method for environmental sampling. VHS SFP TC-310 provides detailed information for conducting Sponge-Stick procedures. TC-310 can be found at

https://www.milsuite.mil/book/docs/DOC-363477

LS does not provide supplies. Please contact your Regional Warrant Officer for more assistance, if necessary.

For surface swab testing, LS can perform a variety of qualitative microbiological and chemical tests for the identification of foreign particles and material of unknown composition and origin per LS Table 1 as published. See the "Guidelines for Completing LOD Form 1 and DA 7539" for commonly requested tests. Please coordinate the submission of such materials with LOD.

5.3 BOTTLED WATER AND ICE

PHCE, LS provides microbiological and chemical testing of bottled water and ice to meet requirements of Appendix O. Please see LS Table 1 for all microbiological and chemical testing for bottled water and ice. Please see the "Guidelines for Completing LOD Form 1 and DA 7539" for groups/panels of commonly requested tests.

All bottled water and ice submissions must be coordinated with LOD. The RLS should be submitted as far in advance as possible but no later than two weeks prior to the sampling event. A completed DA Form 7539 must be shipped with each bottled water and ice submission.

Analysis will not be performed on sparkling water.

A minimum of 16 liters (500 mL bottles preferred) is required for complete chemical and microbiological testing as listed in the CFR.

When shipping ice, ensure that sealed, watertight containers are used and the minimal volume of liquid, as required, is accounted for.

6. VECTORS

LS accepts only arthropods for testing. Blood, tissues, etc., will NOT be accepted for vector-borne disease testing. Please see LS Table 1 for available analytes.

Arthropod vectors are required to arrive at the laboratory dead and in an alcohol preservative, ideally 70% ethanol. Sufficient volume of alcohol preservative must be used to cover the arthropod. **Live arthropods or arthropods not submitted immersed in an alcohol preservative may be rejected by LS to maintain laboratory safety.**

7. RABIES

7.1 SPECIMEN PREPARATION GUIDELINES

Immediately upon death of the animal, remove its head unless it is a small animal. Use an absorbent material to remove any excess blood. Place the head in a heavy duty, plastic, leak-proof bag and then place the bag into a second leak-proof bag for additional protection against leakage. Do NOT remove the brain to prevent exposure to you, your staff, and shipping personnel to the rabies virus, if the sample is positive.

After double bagging the head, cool the specimen immediately. If the specimen can be delivered to LS within two calendar days, keep it at 0 to 4 °C by transporting it with multiple freezer packs in a Styrofoam™ insulated box. Do not freeze the specimen unless it will not be delivered to LS within two calendar days.

Dry ice may be used to maintain sample integrity during shipping (see Section 4.4).

For small animals (such as bats or rodents), ship the entire carcass.

Dogs or cats that bit a human *should* be quarantined, if practical, for ten calendar days. If signs suggestive of rabies develop, the quarantined animal should be euthanized, and the head removed and submitted for rabies testing.

7.2 RABIES SPECIMEN SHIPMENT GUIDELINES

It is essential that customers **call** LS BAD at +49(0)1622519643 or +49 06371-9464-9716 and/or LOD when it has been determined that a specimen will be sent to LS for rabies diagnosis.

Prior notification will enable LS to trace shipments that are overdue and ensures that cases involving human exposure are given the highest priority.

Please provide the following information when contacting the laboratory:

- Mode of shipment
- Date and time of shipment
- Location and estimated time of arrival
- Tracking number if shipped through a commercial carrier, Transportation Control Number (TCN) if shipped through AMC, or mission number for CCAT flights.

Provide a telephone number and email that is staffed 24 hours every day for notification of laboratory results. If no such number is available, you must provide an after-duty hours telephone number, such as the local emergency room handling the bite report or the home residence of the veterinary officer.

Rabies Specimens shipped via AMC

Specimens shipped to LS on AMC flights should be coded: **"999 Signature Service" "Life or Death Impact".** Packages that are so marked with these designations will not be bumped off at stopovers in route. "Signature Service" provides personalized handling of the package with documented receipts at both ends of the shipment.

AMC flights to Ramstein Air Base are preferred as LS is located about 11 km from Ramstein AB.

To avoid possible rejection of the sample for shipment, refer to it as a "Class 6.2 Biological Substance, Category B" when arranging for AMC shipment. **Do NOT put "Rabies" on the box.**

If more expedited methods for shipping a rabies specimen are unavailable, use of the Military Postal Service Agency (MPSA) is authorized. Contact your Installation's official mail manager to arrange express shipment if this method is available. However, because this shipping method is discouraged, contact BAD or LOD if this method is the only one available, for LS' situational awareness.

8. CHEMICAL ANALYSES

8.1 COLLECTION OF LIQUID SAMPLES

Pre-preserved Containers: Some sampling containers supplied by LS will contain required preservatives. **Do not rinse** the containers prior to filling, and do not allow overflowing.

Preserving Samples During or After Collection: Some samples require preservatives to be added ***during*** or ***after*** the sample collection. Ensure the correct sequence of sampling and preservation is followed.

Duplicates: For certain tests such as polycyclic aromatic hydrocarbons (PAH), total dissolved solids (TDS), and total suspended solids (TSS), the OCD and ICD recommend duplicate samples for optimal laboratory analysis.

Analytical Blanks: Blanks are often required to check for cross-contamination from sampling and/or transit to and from the sampling site. All blanks should meet the same preservation and storage requirements as the corresponding samples.

Trip Banks: Provided by LOD with sampling kits. They must never be opened and should always be kept with the samples unless otherwise noted. Ensures no contamination during transit.

Field Blanks: Collected at the time of sampling with certified target analyte-free water. Ensures no contamination during sample collection.

Equipment Blanks: Collected to ensure equipment has not caused contamination or interference with the sample.

VOLATILE ORGANIC COMPOUNDS (VOC), TTHM AND EDB/DBCP SAMPLES

- Minimize the turbidity and the generation of air bubbles during sample collection.
- To prevent loss of target analytes, ensure there is no headspace once the vial is sealed.
- Collect samples in triplicate.

Immediately following collection, samples should be cooled to the appropriate temperature when necessary. If samples are to be frozen, leave sufficient space for water expansion.

8.2 COLLECTION OF SOIL, SLUDGE, AND BULK SOLID SAMPLES

Instructions are provided by LOD with soil sampling kits and should be followed carefully to ensure preservation and integrity requirements are maintained.

8.3 COLLECTION OF MULTI-PHASIC SAMPLES

Samples received with multiple phases (oil/water mixtures, water with sediment, etc.) will be assessed by LS and analyzed as appropriate, with customer guidance when necessary. Samples that do not meet in-house testing requirements will be sent to a CL for analysis.

8.4 ANALYTES

Please see LS Table 1 for a comprehensive list of LS in-house capabilities and see the "Guidelines for Completing LOD Form 1 and DA 7539" for groups/panels of commonly requested tests. Availability of in-house testing may vary due to equipment functionality, sample workload, and laboratory staffing. LS will do its best to accommodate testing through an ISO 17025 accredited CL, if testing cannot be conducted in-house. Please see the published LS Price List and/or contact LOD (see section 2) for more information regarding contract analysis or off-scope analysis.

9. AMC SHIPPING

9.1 AIR MOBILITY COMMAND (AMC)

Samples can be sent to U.S. Army, Public Health Command Europe LS via Air Mobility Command (AMC) flights. However, this should be a last resort as many times these flights are delayed, diverted, or canceled. Deployed locations electing to use AMC flights to deliver samples need to check with AMC to ensure this option is available.

LS prefers to send sample collection kits via commercial carriers because they can be easily tracked, however, sample collection kits can also be sent to customers via AMC flights. To ship sampling kits via AMC, LS will need the customer's Department of Defense Activity Address Code (DODAAC), Unit address with APO, DSN phone number, and the POE (three letter destination code).

9.2 TRANSPORTATION CONTROL AND MOVEMENT DOCUMENT (TCMD)

The DD Form 1384 (TCMD) **esd.whs.mil/Portals/54/Documents/DD/forms/dd/dd1384.pdf** is used to request a shipment via AMC. Contact your local Air Mobility Command Flight for procedures and applicable codes. Use the following table to complete the TCMD.

Transportation Control Document - DD Form 1384		
Block	Block ID	Enter This Information
1	Document ID	TX1
2	TRLR Cont	0000
3	Consignor	Your DODAAC, Your Unit, Your APO
4	Comm: Spec. Handling	MZ
5	Air Dim	A
6	POE	Enter three letter destination code from Table 8.2
7	POD	RMS (Ramstein)
8	Mode	F
9	Pack	BX
10	Transportation Control Number (TCN)	DODDAC, Julian date, shipment number e.g., WK4UPX8234-0001-XXX
11	Consignee	WK4UPX, USAPHC, PHC-Europe, CMR 402, APO AE 09180
12	Priority	1
13	RDD	If shipment requires re-icing – 999 If no special handling is required – leave blank
15	Date Shipped	Julian date of shipment
17	Tr. Account	A2DR
18	Carrier	AMC
21	Remarks	Contents of parcel
22	Pieces	Total number of pieces in shipment
23	Weight	Combined weight in shipment
24	Cube	Combined cubic measurement of shipment
31	Remarks	Public Health Command Europe

Transportation Control Document - DD Form 1384		
Block	Block ID	Enter This Information
		Laboratory Sciences Division
		CMR 402, Unit 33105 APO, AE 09180
		(DSN 314-590-9716)

Table 8.2 — Point of Embarkment / Destination Codes	
POE/ POD Code	Location
ADA	Incirlik and Izmir, Turkey
AVB	Aviano, Italy
CHQ	Souda Bay, Greece
NAP	Naples, Italy
RMS	Ramstein, Germany
SIZ	Sigonella, Italy (also used for Vicenza, Italy)

9.3 MILITARY SHIPMENT LABEL

Each piece of the shipment must have a Military Shipment Label (**DD Form 1387, "MILITARY SHIPMENT LABEL" (whs.mil)**), contact your local TMO for help) attached to the side of the parcel. Use the following table to complete the shipment label.

Table 8.3 — Military Shipment Label - DD Form 1387		
Block	Block ID	Enter This Information
1	TCN	The TCN used on the TCMD
2	Postage Data	Leave Blank
3	From	Your DODAAC, Your Unit, Your APO
4	Type Service	Leave Blank
5	Ship To (POE)	Three letter code from Table B.2
6	Transportation Priority	1
7	POD	RMS
8	Project	Leave Blank
9	Ultimate Consignee	Public Health Command Europe
		Laboratory Sciences Division
		CMR 402, Unit 33105, APO, AE 09180
		(DSN 314-590-9853)
10	Weight	Weight of this piece
11	RDD	If shipment requires re-icing – 999 If no special handling is required – leave blank
12	Cube	Cubic measurement of this piece
13	Charges	Leave Blank
14	Date Shipped	Julian date of the shipment
15	FMS Case Number	Leave Blank
16	Piece Number	Number of this piece
17	Total Pieces	Total number of pieces in this shipment

9.4 DECLARING DANGEROUS GOODS

Class 8 Dangerous Goods in Excepted Quantities must be declared. All liquid preservatives used are Class 8 Dangerous Goods. The requirements for Excepted Quantities are defined as: No more than 30 mL of preservative for primary container (sample container) and no more than 1 L total preservative for secondary container (ice chest). LS sampling kits conform to these requirements.

The following statement must be added to the TCMD and the Shipment Label:

“Hazardous materials in excepted and limited quantities in accordance with Air Force Interservice Manual 24-204, TM 38-250, NAVSUP PUB 505, MCO P4030.19I, DLAI 4145.3, DCMAD1, CH3.4 (HM24) 12 October 2004”