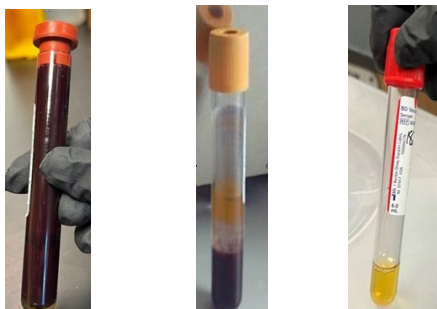


Acceptable Serology Sample Collection Tubes



Red top tubes (glass or plastic) or serum separator tubes (gold or red/gray marble top) are acceptable. Never use tubes with additives for serology samples.

- Avoid overfilling blood tubes.
- Fill blood tubes **HALFWAY** to **THREE QUARTERS FULL**.

Serology Sample Preparation

- Sample tubes must be labeled in a clear manner (1, 2, 3...).
- **Ensure the order of the sample tubes in the storage box matches the sample order on the submission form.**
- When collecting animal identification, ensure **ALL animal identification** recorded on the submission form.
- Slaughter establishments collecting ear tags with blood samples should place all eartags into a **ZIPLOC BAG**. When no identification is present, please provide a description of the animal including sex and color ("brockle face cow" or "red bull").



Sample Handling

Samples that are not appropriately handled degrade and become unsuitable for testing. Unsuitable samples will be rejected at the laboratory.

- After sample collection, store samples at refrigeration temperature until shipment.
- **DO NOT FREEZE OR STORE AT ROOM TEMPERATURE.** If you are unable to refrigerate samples immediately, store samples in a cooler with frozen ice packs.
- When possible, it is recommended to remove the serum from the clot to minimize hemolysis and improve sample **quality**.

Submission Form

- Always fill out federal submission forms completely. This includes owner information, animal identification, and veterinarian information (if applicable).
- Submitting **YAK** or **BISON** samples? *It is important to clearly identify species on the submission form.*
- Once completed, place paperwork in a **ZIPLOC BAG** to avoid contact with icepack condensation.
- Need submission forms? Just call the WSVL, and ask for the regulatory serology department at 307- 766-9925! We can provide VS 4-33 and VS 4-54 forms.



VS 4-33 for private owners



**VS 4-54 for livestock markets
and slaughter
establishments**

Preparing Samples for Shipment

- Ship sample tubes in storage boxes, **never ship loose tubes**. **Ensure the order of the sample tubes in the storage box matches the sample order on the submission form**. Place the storage box in a plastic bag for shipment, and close with a twist-tie.
- Ship samples in Styrofoam insulated shipping containers to maintain appropriate temperature during shipment. These shipping containers are provided to DSA veterinarians, livestock markets, and slaughter establishments. *Note: these boxes are refilled and mailed back out, so please maintain cleanliness of these supplies!*
 - During summer months: Use **frozen ice packs** in shipping container
 - During winter months: Use **room temperature ice packs** in shipping container to prevent samples from freezing



Sample Transport

- Ship samples to the lab within 24 - 48 hours post-collection. Slaughter establishments need to ship samples to the lab at **minimum once weekly**.
- Slaughter establishments and livestock auctions: use the provided pre-paid shipping labels. Contact the WSVL if you need additional labels.
- Ship samples **early in the week** to avoid shipping delays over the weekend. Do not ship samples before a holiday or if a big winter storm is forecasted.



Sample Quality

Sample quality is imperative for reliable results. Samples will be rejected at WSVL if paperwork and/or samples do not meet quality standards.

- All sample tubes **must be labeled with an ID** that allows for unique identification of each tube. This is especially important when submitting samples from multiple owners on multiple submission forms.
- The **minimum sample volume** accepted is 1 mL serum, or 2mL whole blood.
- Leaky samples and broken tubes will be rejected.
- Samples without a **completed** submission form, and samples that do not pass visual inspection will be discarded. Please see examples below.

Characteristics of Excellent Sample Quality

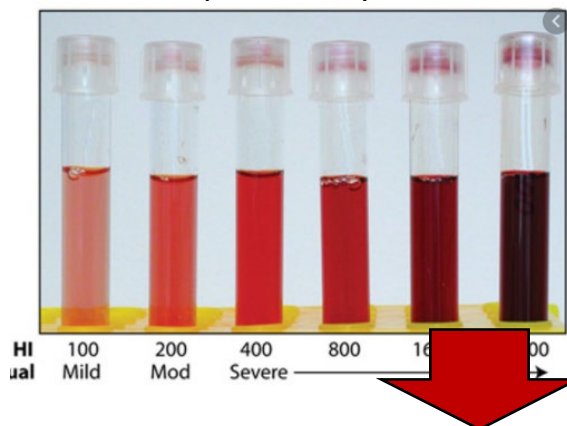
- Sufficient sample volume
- Straw color with no hemolysis



Characteristics of Poor Sample Quality Unsuitable for Testing

- Severe hemolysis
- Gross contamination
- Antimicrobial growth: identified by cloudy, creamy serum
- Gellatinous serum: sample has gelled and there is no testable serum
- Insufficient sample volume submitted

Sample Hemolysis Levels



Samples that look like these two end samples are not suitable for testing and will be rejected at the lab

Sample testing at WSVL

- Turnaround time for serology results is typically 48 hours after sample receipt, so plan your sample submissions accordingly.

Wyoming State Veterinary Laboratory (WSVL), 1174 Snowy Range Rd, Laramie, WY 82070

Phone: (307) 766-9925 / Email: vetrec@uwyo.edu

WSVL contact for questions: Tucker Bean, Regulatory Serology tbean1@uwyo.edu