National Veterinary Services Laboratories
Vesicular Stomatitis – Complement Fixation (VS-CF)
Proficiency Test Summary

1. Composition of proficiency test panel: The panel consists of nine 250 µl samples of sera. The panel contains blind duplicates, positive, and negative sera. The samples are labeled with numbers 1-9.

2. Cost of proficiency test: $361.00 plus shipping ($10-US, $50 Canada, $150 other).

3. Storage conditions: Short term (up to 7 days) store at 4° ± 2° C. Long term (over 7 days) store at <-20° C in a non-frost free freezer.

4. Sample preparation/selection criteria: Samples with positive and negative results are chosen for incorporation into the panel. Antibody levels arise from naturally and experimentally acquired infections. Each panel member is tested at least ten (10) times by a minimum of two technicians in Diagnostic Virology Laboratory (DVL), at NVSL.

5. Panel quality control: Samples are monitored for stability and reproducibility. Sera are filtered prior to bottling.

6. Timing of the proficiency test distribution and data collection: The VS-CF panel is administered to the participating NAHLN laboratories once a year, generally in February. The panel is available upon request to other laboratories.

7. Test method: Performance and interpretation of the Vesicular Stomatitis – Complement Fixation should be conducted as outlined in NVSL BPSOP0300 for BP personnel and NAHLN laboratory personnel.

8. Submitting test results: Participants are required to have data submitted for scoring no more than four (4) weeks after panel distribution. Results are reported to the Head of the Bovine and Porcine Section (BP), in the DVL, at NVSL, or designee, by fax, e-mail, or mail. Results for all NAHLN laboratories are sent to the NAHLN Coordinator office and a copy is kept in the BP Section.

9. Scoring of individual panel samples: Scoring is based on two criteria: proper identification of positive and negative samples and accuracy of reported titers. The New Jersey and Indiana-1 results are combined to determine the identification score and the accuracy score. Identity scores are determined by assigning one point per sample correctly identified as negative (less then 1:5) or positive (any titer).

Accuracy scoring is determined by assigning one point per sample for the expected titer. Reported titers within one two-fold dilution of the expected titer are also assigned one point. For a four-fold difference in titer from the expected result, 0.33 point is subtracted;

for an eight-fold difference, 0.67 point is subtracted. Reported titers that differ more than eight-fold from the expected titer received zero points for accuracy.

10. Laboratory pass/fail criteria: For NAHLN laboratories, identification scores and accuracy scores must be at least 14/18 to pass. Laboratories that are not part of the NAHLN system for VS CF testing do not have established pass/fail criteria and individual laboratories determine if they need to change their test procedures based on their score.

11. Reporting laboratory test scores: Results for each laboratory are reported to the individual laboratory director and the AVIC. Pass letters are sent to laboratory directors within 60-90 days of the deadline for receipt of participants results.

12. Remedial actions required for failing laboratories: NAHLN laboratory personnel are given a second chance to pass a proficiency panel. If they fail a second time, the individual is no longer allowed to test, the person must travel to NVSL for training, and the individual must pass a panel before they can begin testing again.

13. Special requirements: NAHLN laboratories must follow all requirements that have been established for being part of the NAHLN.