

Approved by Director: Dr. Guy Vallaro

Title: QC and calibration procedure for a SEM/EDS

A. Purpose: To ensure that the generated data are reproducible and accountable.

B. Responsibility: GSR analyst or designee

C. Procedure:

1. Set up the same parameter as analyzing a questioned sample in the SEM and run a copper check sample. **The resulting data from the copper check sample will be compared to previous data to ensure confidence in the validity of the check sample.** If an abnormal response on the copper was observed, a copper re-calibration needs to be conducted.
2. A blank disc will be run with a batch of case discs(QC SOPIN05).
3. A quality control disc (PLANO) will be run monthly(QC SOPIN05). **The resulting data from the PLANO control disc will be compared to previous data (e.g., the previous month) to ensure confidence in the validity of the disc.**
4. An annual system preventive maintenance by the vendors will be performed to clean and calibration the instrument mechanically and electronically.

D. References

Hitachi S-3700N user's manual

EDAX Genesis user's manual