

# SOP Template: Test Method Step-by-Step Workflow

This SOP details the **test method step-by-step workflow**, including preparation of test materials, setup of equipment, execution of test procedures, data collection and recording, analysis of results, quality control checks, troubleshooting common issues, and documentation of findings. The goal is to ensure consistent, accurate, and reproducible test outcomes by following standardized processes and protocols throughout each testing phase.

## 1. Preparation of Test Materials

1. Review test method documentation and requirements.
2. Obtain and verify all necessary test materials and reagents.
3. Inspect materials for integrity, expiry, and storage conditions.
4. Label and organize materials for easy access during testing.

## 2. Setup of Equipment

1. Calibrate equipment according to manufacturer's instructions.
2. Perform equipment safety checks.
3. Arrange equipment in designated testing area, ensuring cleanliness.
4. Record calibration and equipment setup details in the logbook.

## 3. Execution of Test Procedures

1. Follow step-by-step instructions as per the test method SOP.
2. Ensure environmental conditions meet specified parameters.
3. Handle samples and reagents according to safety and quality standards.
4. Document deviations or anomalies encountered during execution.

## 4. Data Collection and Recording

1. Record all data and observations promptly on the approved data sheet or electronic system.
2. Double-check entries for completeness and accuracy.
3. Use proper units and nomenclature; note any unusual occurrences.

## 5. Analysis of Results

1. Review collected data for inconsistencies or outliers.
2. Analyze results using prescribed calculations and/or software tools.
3. Interpret findings in line with acceptance criteria outlined in the test method.

## 6. Quality Control Checks

1. Perform routine quality control (QC) checks using control samples or standards.
2. Document QC results and compare with established criteria.
3. Investigate any QC failures and document corrective actions taken.

## 7. Troubleshooting Common Issues

1. Refer to troubleshooting section of test procedure for likely issues and solutions.
2. Escalate unresolved issues to supervisors or technical support.
3. Document troubleshooting steps and outcomes for future reference.

## 8. Documentation of Findings

1. Summarize test outcomes and any deviations from the protocol.
2. Prepare a standardized test report, including data, analysis, QC checks, and observations.
3. Obtain review and sign-off from designated personnel.
4. Archive records according to organizational requirements.

## Roles and Responsibilities

Role	Responsibility
Test Operator	Conduct test following SOP, record data, perform QC checks, initiate troubleshooting.
Supervisor	Review results, authorize deviations, oversee corrective actions, approve final documentation.
Quality Assurance	Periodically audit process and records for compliance and continuous improvement.

## References

- Applicable test method SOPs and organizational protocols
- Manufacturer's equipment manuals
- Quality management system documentation