

ISO 12404:2021 (E)

Soil and waste — Guidance on the selection and application of screening methods

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Principles
5	Typical areas for application of screening methods
5.1	General
5.2	Support of sampling/sample preparation processes
5.3	On-site verification
5.4	Monitoring of processes
5.5	Identification of homogeneity/heterogeneity of bulk material
5.6	Survey of contaminated sites (hot-spot identification)
5.7	Identification of sources of contamination
5.8	Monitoring of large areas
5.9	Safety issues
6	Selection of a screening method
6.1	General objectives
6.2	Data quality objectives (DQOs)
6.3	Selection criteria
6.3.1	General
6.3.2	Sampling/sample pre-treatment/preparation
6.4	Checks for the selection of candidate methods
6.4.1	General
6.4.2	Parameter definition
6.4.3	Field of application
6.4.4	Method characteristics
6.4.5	Boundary conditions
6.5	Fit-for-purpose test
6.6	Quality targets
7	Applicability conditions for screening methods
7.1	General
7.2	Performance requirements
7.3	Screening method applicability
7.3.1	General
7.3.2	Measurement conditions
7.3.3	Principle of the measurement
7.3.4	Instruction for method setup
7.3.5	Sampling and samples
7.3.6	Measurement steps
7.3.7	Statement of results
7.3.8	Sample and reagent disposal
7.3.9	Characteristic data of the method
8	Fit-for-purpose evaluation

- 8.1 General
- 8.2 Accuracy testing
- 8.3 Exclusion of false negative results
- 8.4 Testing of individual comparability
- 9 Analytical acceptance criteria
 - 9.1 General
 - 9.2 Starting criteria
 - 9.3 Continuous criteria
- 10 Quality assurance
- 11 Documentation
- Annex A (informative) Example for the selection and application process of screening methods to soil contamination
- Annex B (informative) Typical results on finding hot spots by screening methods
- Annex C (informative) Decision making process
- Annex D (informative) Example of documentation aid/check list
- Annex E (informative) Statistical tool for individual comparability — Equality of results from reference method and screening method: Mean value t -test for real samples
 - E.1 General
 - E.2 Test on outliers
 - E.3 Homogeneity of variances
 - E.4 Mean value t -test

Page count: 23