

ISO 8616:2026-04 (E)

Specification of monitoring technology for karst critical zones

Contents

Page

| | |
|---|----------|
| Foreword..... | v |
| Introduction..... | vi |
| 1 Scope..... | 1 |
| 2 Normative references..... | 1 |
| 3 Terms and definitions..... | 1 |
| 4 General rules..... | 2 |
| 4.1 Purpose and task..... | 2 |
| 4.2 General requirement..... | 2 |
| 4.2.1 Principles of monitoring station layout..... | 2 |
| 4.2.2 Monitoring work principle..... | 2 |
| 5 Construction of monitoring station in karst critical zones..... | 2 |
| 5.1 Classification of types of karst critical zones..... | 2 |
| 5.2 Monitoring station construction requirements..... | 3 |
| 5.3 Layout of monitoring stations..... | 3 |
| 5.4 Maintenance and management of monitoring stations..... | 4 |
| 5.5 Other conditions for monitoring station construction..... | 4 |
| 6 Monitoring of karst critical zones..... | 4 |
| 6.1 General regulations..... | 4 |
| 6.2 Environmental investigation in the monitoring area..... | 5 |
| 6.2.1 Survey of soil factors..... | 5 |
| 6.2.2 Survey of plants..... | 5 |
| 6.2.3 Survey of rock..... | 5 |
| 6.3 Monitoring of meteorological elements..... | 5 |
| 6.4 Monitoring of hydrological elements..... | 5 |
| 6.5 Monitoring of soil elements..... | 5 |
| 7 Monitoring of specific processes in karst critical zones..... | 6 |
| 7.1 Basic principles..... | 6 |
| 7.2 Monitoring of loss and leak of water and soil..... | 6 |
| 7.3 Monitoring of carbon-water-calcium cycling in basins..... | 6 |
| 7.4 Monitoring of carbon sink flux in karst areas..... | 6 |
| 7.5 Monitoring of the water environment..... | 6 |
| 8 Monitoring-data collection and processing of karst critical zones..... | 7 |
| 8.1 Database construction and operation..... | 7 |
| 8.1.1 Monitoring-database construction..... | 7 |
| 8.1.2 Database operation and maintenance..... | 7 |
| 8.2 Data collection..... | 7 |
| 8.2.1 Data transmission..... | 7 |
| 8.2.2 Data storage..... | 7 |
| 8.2.3 Data storage and management strategies..... | 7 |
| 8.3 Monitoring data product processing..... | 8 |
| 8.3.1 Monitoring data product classification..... | 8 |
| 8.3.2 Monitoring data product processing flow..... | 8 |
| 8.3.3 Data quality assurance..... | 8 |
| 9 Monitoring information sharing and service..... | 8 |
| 9.1 Classification of user right..... | 8 |

| | | |
|--|--------------------------|-----------|
| 9.2 | Service methods..... | 8 |
| 9.2.1 | Content services..... | 8 |
| 9.2.2 | Functional services..... | 8 |
| 9.3 | System security..... | 9 |
| Annex A (informative) Classification of karst critical zones..... | | 10 |
| Annex B (informative) Classification of survey and monitoring index of karst critical zone..... | | 12 |
| Bibliography..... | | 14 |