



Mine Pit Slope Stability Monitoring Checklist 2026

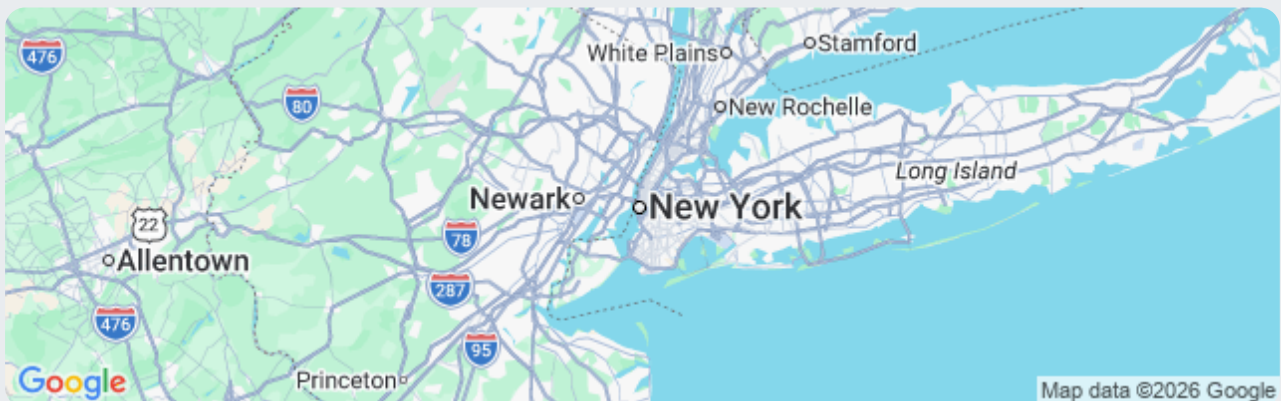
Pre-Inspection Preparation

Verification of necessary monitoring equipment, -topographic data, weather forecasts, and -safety permits required before site entry.

Inspection Date

Pit Sector/Bench ID

 [Set My Current Location](#)



Weather Conditions

- ☐ Clear/Dry
- ☐ Rainy/Wet
- ☐ Windy
- ☐ Extreme Heat

Geotechnical Survey Map/Plan

 **Upload File**

Pre-Inspection Equipment Checklist

- ☐ Total Station/Prisms
- ☐ Piezometers
- ☐ Handheld GPS
- ☐ Drone/UAV
- ☐ Safety PPE

Inspector Verification

Visual Surface Inspection

Assessment of visible indicators such as tension cracks, rockfalls, bulges, or evidence of recent movement on the pit benches and crests.

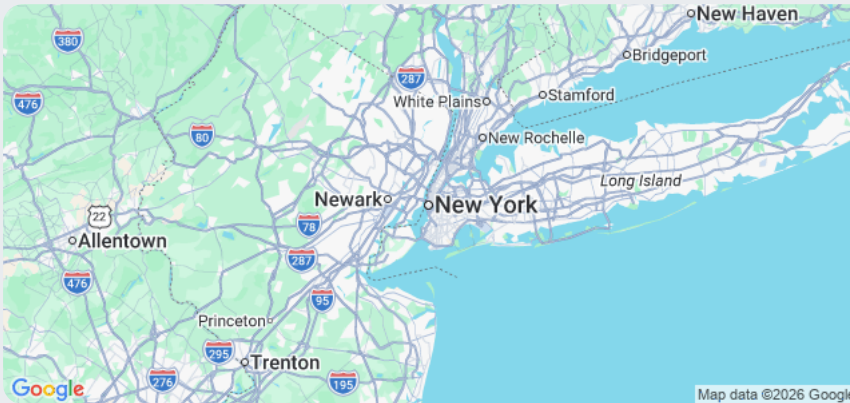
Inspection Date

Enter date...

Pit Sector/Bench ID



Set My Current Location



Observed Surface Indicators

- ☐ Tension Cracks
- ☐ Rockfalls/Debris
- ☐ Surface Bulging
- ☐ New Seepage/Water Spouts
- ☐ Erosion/Gullying
- ☐ None Observed

Detailed Description of Observed Anomalies

Write something...

Photo Evidence of Surface Conditions

 Upload File

Inspected By (Geotechnical Engineer)

Geotechnical Instrumentation Review

Review of readings from prisms, piezometers, inclinometers, and robotic total stations to identify any anomalous displacement trends.

Date of Instrument Reading

Enter date...

Instrument Type

- ☐ Prism/Total Station
- ☐ Piezometer
- ☐ Inclinometer
- ☐ Extensometer
- ☐ Radar/SSR

Measured Displacement (mm)

Enter a number...

Movement Trend

- ☐ Stable
- ☐ Accelerating
- ☐ Decelerating
- ☐ No Change

Anomaly Observations

Write something...

Instrument Calibration Report/Screenshot

 Upload File

Geotechnical Engineer Verification

Hydrological & Pore Pressure Assessment

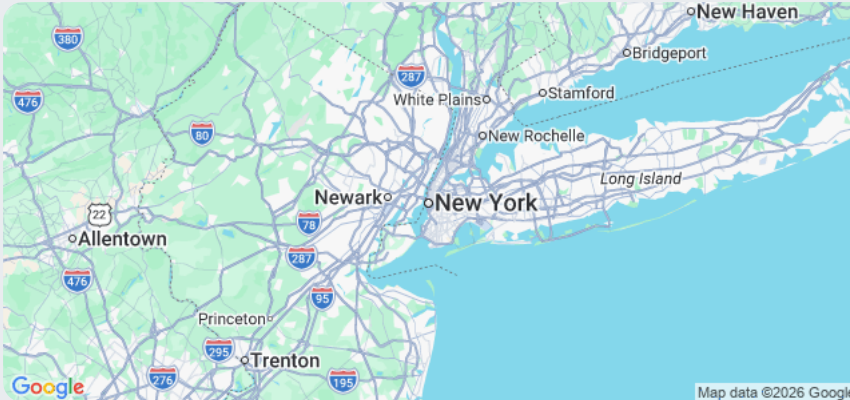
Evaluation of groundwater levels, seepage patterns, and the effectiveness of depressurization boreholes or drainage systems.

Inspection Date

Enter date...

Monitoring Station/Pit Sector

 [Set My Current Location](#)



Current Piezometer Water Level (m)

Enter a number...

Observed Seepage Intensity

- ☐ None
- ☐ Low (Damp surface)
- ☐ Moderate (Continuous dripping)
- ☐ High (Active flowing stream)

Active Drainage Features Observed

- ☐ Horizontal Drain Holes
- ☐ Perimeter Diversion Ditches
- ☐ In-pit Sumps
- ☐ Surface Berms

Detailed Observations of Water Seepage or Saturation

Write something...

Photographic Evidence of Wet Areas/Seepage

 Upload File

Geotechnical Engineer Verification

Structural Integrity & Bench Geometry

Verification of bench height, width, and face angle compliance against the approved mine design and stability models.

Bench Face Angle Compliance

- ☐ Compliant
- ☐ Non-Compliant
- ☐ Requires Immediate Review

Measured Bench Height (meters)

Enter a number...

Measured Bench Width (meters)

Enter a number...

Observed Geometric Irregularities

- ☐ Over-steepened face
- ☐ Undercutting at toe
- ☐ Excessive debris/talus accumulation
- ☐ Bench crest degradation

Detailed Observations of Bench Condition

Write something...

Photographic Evidence of Bench Geometry

 Upload File

Geotechnical Engineer Verification

Blast Impact & Vibration Analysis

Assessment of recent blasting-induced vibrations and their potential impact on the structural integrity of highwalls.

Date of Last Blast Event

Enter date...

Peak Particle Velocity (PPV) Recorded

Enter a number...

Blast Area/Pattern ID

- ☐ North Pit Section
- ☐ South Pit Section
- ☐ East Bench Complex
- ☐ West Pit Rim

Observed Vibration Effects

- ☐ New tension cracks observed
- ☐ Small rockfall/spalling
- ☐ No visible impact
- ☐ Dust/Fines displacement

Detailed Impact Observations

Write something...

Seismograph/Vibration Report Upload

 Upload File

Geotechnical Engineer Verification

Erosion & Surface Water Management

Inspection of drainage berms, catch drains, and surface runoff patterns to prevent water-driven slope degradation.

Drainage Berm Condition

- ☐ Intact
- ☐ Eroded
- ☐ Blocked/Obstructed
- ☐ Non-existent

Measured Rainfall Depth (mm)

Observed Seepage Locations

Identified Erosion Types

- ☐ Rill Erosion
- ☐ Gully Erosion
- ☐ Sheet Erosion
- ☐ Surface Undercutting

Photo Evidence of Erosion/Seepage

 Upload File

Required Remedial Actions

Write something...

Data Integration & Reporting

Verification that all collected field data has been synchronized with the geotechnical database and updated in the stability models.

Data Sync Date

Enter date...

Data Integrity Status

- ☐ Verified
- ☐ Discrepancy Found
- ☐ Pending Verification

Number of Geotechnical Sensors Updated

Enter a number...

Reports Updated

- ☐ Daily Pit Stability Report
- ☐ Weekly Geotechnical Summary
- ☐ Monthly Compliance Log
- ☐ Incident/Trigger Action Report

Updated Stability Model/Map

 Upload File

Data Discrepancy Notes

Write something...

Geotechnical Engineer Approval

Corrective Actions & Risk Mitigation

Documentation of required remedial works, such as scaling, buttressing, or deployment of additional monitoring sensors.

Urgency Level

- ☐ Low - Routine Maintenance
- ☐ Medium - Monitor Closely
- ☐ High - Immediate Intervention Required
- ☐ Critical - Evacuation/Exclusion Zone Triggered

Required Mitigation Measures

- ☐ Scaling of loose rock
- ☐ Installation of additional monitoring sensors
- ☐ Implementation of berm reinforcement
- ☐ Improvement of drainage/pumping
- ☐ Expansion of exclusion zone
- ☐ Blasting restrictions/modification

Detailed Action Plan

Write something...

Target Completion Date

Enter date...

Supporting Evidence/Photos

 Upload File

Geotechnical Engineer Approval

Incident Escalation & Emergency Protocol

Confirmation of communication channels and trigger action response plans (TARPs) in the event of critical movement detection.

Current Alarm Level

- ☐ Green (Normal Operations)
- ☐ Yellow (Alert - Increased Monitoring Required)
- ☐ Orange (Warning - Restricted Access)
- ☐ Red (Emergency - Immediate Evacuation)

Immediate Action Taken

Write something...

Notifications Completed

- ☐ Mine Manager
- ☐ Geotechnical Engineer
- ☐ Safety Department
- ☐ Site Operations Team
- ☐ Emergency Response Team

Description of Incident or Movement Detected

Write something...

Incident Detection Date

Enter date...

Safety Officer Authorization

< Previous

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🏁 Finish

🔧 Generate Sample Report