



Mining Blast Plan Review Checklist

Blast Plan Overview & Objectives

Review the overall blast plan goals, objectives, and scope of work.

Project Name

Write something...

Blast Plan Purpose & Scope

Write something...

Block Number/Sequence

Enter a number...

Date of Plan Creation

Enter date...

Plan Type (Production/Development/Rescue)

- ☐ Production
- ☐ Development
- ☐ Rescue

Brief Summary of Blast Objectives

Write something...

Geotechnical Data & Site Conditions

Verify accuracy and completeness of geotechnical data, including rock type, fault locations, and groundwater conditions.

Summary of Geological Report

Write something...

Rock Unit Dip Angle (degrees)

Enter a number...

Joint Spacing (meters)

Enter a number...

Dominant Rock Type

- ☐ Granite
- ☐ Sandstone
- ☐ Limestone
- ☐ Shale
- ☐ Basalt
- ☐ Other

Geotechnical Survey Maps

 Upload File

Date of Last Geotechnical Survey

Enter date...

Description of Observed Faults/Fractures

Write something...

Blast Design Parameters

Assess the appropriateness of burden, spacing, and delay sequences based on site conditions and rock mechanics.

Burden (meters)

Enter a number...

Spacing (meters)

Enter a number...

Maximum Hole Depth (meters)

Enter a number...

Hole Angle (degrees)

☐ -30

☐ -20

☐ -15

☐ -10

☐ 0

Delay Sequence (milliseconds)

Enter a number...

Firing Pattern

☐ Staggered

☐ Square

☐ Linear

Stemming Thickness (meters)

Enter a number...

Drilling & Fragmentation

Evaluate the drilling plan, hole depth, angle, and diameter, ensuring adequate fragmentation is achievable.

Hole Depth (meters)

Enter a number...

Hole Diameter (mm)

Enter a number...

Hole Angle (degrees)

Enter a number...

Drilling Pattern Type

- ☐ Straight
- ☐ Staggered
- ☐ Fan

Drilling Method Description

Write something...

Drill Pattern Diagram

 Upload File

Expected Fragmentation Size (mm)

Enter a number...

Fragmentation Control Measures

- ☐ Optimized Burden
- ☐ Explosive Type Selection
- ☐ Delay Sequencing
- ☐ Pre-splitting

Explosives Selection & Calculation

Confirm appropriate explosive type, density, and total explosive charge calculations.

Total Explosive Mass (kg)

Enter a number...

Explosive Density (kg/m³)

Enter a number...

Type of Explosive Used

- ☐ Ammonium Nitrate Fuel Oil (ANFO)
- ☐ Emulsion
- ☐ Gelatin
- ☐ Other (Specify)

Justification for Explosive Selection

Write something...

Average Hole Diameter (mm)

Enter a number...

Average Burden (m)

Enter a number...

Explosives Cost per kg (AUD)

Enter a number...

Sequence and Timing

Review the blasting sequence and timing for minimizing vibration and backbreak.

Delay Time (Seconds) - First Hole

Enter a number...

Delay Time (Seconds) - Subsequent Holes

Enter a number...

Total Delay Sequence Length (Seconds)

Enter a number...

Delay Type

- ☐ Electronic Detonation
- ☐ Fuse Detonation
- ☐ Other (Specify)

Justification for Delay Sequence

Write something...

Burden and Spacing Methodology

- ☐ Standard Practice
- ☐ Geotechnical Analysis
- ☐ Previous Blast Data

Date of Sequence Calculation Review

Enter date...

Ground Control and Stability

Assess potential impacts on ground stability and control measures required.

Rock Mass Rating (RMR) Value

Enter a number...

Geological Strength Index (GSI) Value

Enter a number...

Existing Ground Support System

- ☐ None
- ☐ Rock Bolts
- ☐ Shotcrete
- ☐ Cable Bolts
- ☐ Mesh
- ☐ Steel Sets

Description of Existing Ground Conditions

Write something...

Potential Instability Features Observed

- ☐ Jointing
- ☐ Faulting
- ☐ Shearing
- ☐ Swelling
- ☐ Water Inflow
- ☐ Blocky Failure
- ☐ Toppling

Proposed Ground Support Modifications (if any)

Write something...

Ground Stability Risk Level

- ☐ Low
- ☐ Moderate
- ☐ High

Vibration & Airblast Mitigation

Evaluate strategies to minimize vibration and airblast impacts on surrounding areas.

Peak Particle Velocity (PPV) Limit (m/s)

Enter a number...

Airblast Overpressure Limit (dB)

Enter a number...

Blast Pattern Design to Minimize Vibration?

- ☐ Yes
- ☐ No
- ☐ N/A

Mitigation Techniques Implemented (select all that apply)

- ☐ Reduced Charge
- ☐ Delay Sequencing
- ☐ Burden Adjustment
- ☐ Smooth Boreholes
- ☐ Pre-splitting
- ☐ Other

Description of 'Other' Mitigation Techniques (if selected)

Write something...

Date of Vibration/Airblast Monitoring Plan Review

Enter date...

Upload Vibration Monitoring Plan

 Upload File

Environmental Considerations

Verify adherence to environmental regulations and mitigation plans regarding dust, noise, and water quality.

Predicted Dust Emission (mg/m³)

Enter a number...

Predicted Noise Level (dB)

Enter a number...

Proximity to Water Sources?

- ☐ Yes
- ☐ No
- ☐ Adjacent

Description of Water Management Plan

Write something...

Applicable Environmental Regulations

- ☐ Clean Air Act
- ☐ Clean Water Act
- ☐ Endangered Species Act
- ☐ Local Noise Ordinances

Date of Last Environmental Impact Assessment

Enter date...

Environmental Monitoring Plan Document

 Upload File

Regulatory Compliance & Approvals

Confirm all necessary permits, licenses, and regulatory approvals are secured.

Permit Number

Write something...

Permit Description

Write something...

Permit Issue Date

Enter date...

Permit Expiration Date

Enter date...

Regulatory Body

- ☐ Mines and Resources Department
- ☐ Environmental Protection Agency
- ☐ Local Government Authority

Copy of Permit Document

 Upload File

Permit Status

- ☐ Active
- ☐ Pending
- ☐ Expired

Risk Assessment & Mitigation

Identify potential hazards and review mitigation measures outlined in the plan.

Describe potential blast-related hazards identified.

Write something...

Detail existing mitigation measures for each hazard.

Write something...

Estimated Vibration Intensity (Peak Particle Velocity)

Enter a number...

Estimated Airblast Overpressure

Enter a number...


Severity of Potential Impact (if Hazard Occurs)

- ☐ Negligible
- ☐ Minor
- ☐ Moderate
- ☐ Major
- ☐ Catastrophic

Likelihood of Occurrence

- ☐ Rare
- ☐ Unlikely
- ☐ Possible
- ☐ Likely
- ☐ Almost Certain

Supporting Documentation (e.g., Vibration Monitoring Plan)

 Upload File

Competency & Training

Verify the competency and training of personnel involved in the blasting operation.

Blaster Certification Status

- ☐ Certified
- ☐ Provisional
- ☐ Uncertified

Blaster Certification Expiration Date

Enter date...

Years of Blasting Experience

Enter a number...

Completion of Blast Plan Review Training?

☐ Yes

☐ No

Date of Last Refresher Training

Enter date...

Details of any relevant experience or specialized training

Write something...