

## Open-Cut Mining Risk Assessment

|                   |        |        |  |
|-------------------|--------|--------|--|
| Business Name:    |        | ABN:   |  |
| Business Address: |        |        |  |
| Contact Person:   | Phone: | Email: |  |

### THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.

|            |        |       |
|------------|--------|-------|
| Full Name: |        |       |
| Signature: | Title: | Date: |

### CLIENT OR PRINCIPAL CONTRACTOR DETAILS

|   |                |
|---|----------------|
| Client:   | SCOPE OF WORKS |
| Project Name:                                     |                |
| Project Address:                                  |                |
| Project Manager:                                  |                |
| Contact Phone:                                    |                |
| Date Risk Assessment supplied to Project Manager: |                |

| RISK MATRIX  |   |               |                    |            |  |                |                                   |  |  |
|--|---|---------------|--------------------|------------|--|----------------|-----------------------------------|--|--|
| LIKELIHOOD   | INSIGNIFICANT                               | MINOR         | MODERATE           | MAJOR      | CATASTROPHIC   | SCORE          | ACTION                            | HIERARCHY OF CONTROLS  |  |
| ALMOST CERTAIN   | 3<br>HIGH                                   | 3<br>HIGH     | 4<br>ACUTE         | 4<br>ACUTE | 4<br>ACUTE   |                |                                   | <b>Elimination</b><br>Remove the hazard.   |  |
| LIKELY   | 2<br>MODERATE                               | 3<br>HIGH     | 3<br>HIGH          | 4<br>ACUTE | 4<br>ACUTE   | 4A<br>ACUTE    | DO NOT PROCEED                    | <b>Substitution</b><br>Replace the hazard.   |  |
| POSSIBLE   | 1<br>LOW                                    | 2<br>MODERATE | 3<br>HIGH          | 4<br>ACUTE | 4<br>ACUTE   | 3H<br>HIGH     | Review before work starts.        | Isolation<br>Isolate People from the hazard  |  |
| UNLIKELY   | 1<br>LOW                                    | 1<br>LOW      | 2<br>MODERATE      | 3<br>HIGH  | 4<br>ACUTE   | 2M<br>MODERATE | Ensure control measures in place. | <b>Engineering</b><br>Isolate the hazard   |  |
| RARE   | 1<br>LOW                                    | 1<br>LOW      | 2<br>MODERATE      | 3<br>HIGH  | 3<br>HIGH  | 1L<br>LOW      | Monitor and keep records.         | <b>Administrative</b><br>Change  |  |
|  |   |               |                    |            |  |                |                                   | <b>PPE</b>   |  |
| <b>Risk Rating &amp; Required Action:</b>  |   |               |                    |            |  |                |                                   | <b>Notes on Hierarchy of Controls:</b>   |  |
| 4A Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required. |   |               |                    |            |  |                |                                   | Remember to apply controls in the preferred order shown by the coloured pyramid:   |  |
| 3H Review and approve additional controls before task starts. Senior supervisor sign-off needed.   |   |               |                    |            |  |                |                                   | 1. <b>Eliminate</b>  |  |
| 2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.   |   |               |                    |            |  |                |                                   | 2. Substitute  |  |
| 1L Proceed, following standard operating procedures. Monitor and keep records.   |   |               |                    |            |  |                |                                   | 3. Isolate   |  |
|  |   |               |                    |            |  |                |                                   | 4. Engineering   |  |
|  |   |               |                    |            |  |                |                                   | 5. Administrative  |  |
|  |   |               |                    |            |  |                |                                   | 6. PPE   |  |
| <b>Consequence Scale:</b>  |   |               |                    |            |  |                |                                   | Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable. |  |
| Consequence  | People (injury/illness)                     |               | Project / Assets   |            | Compliance / Reputation                                  |                |                                   |  |  |
| Catastrophic   | Fatality or permanent total disability      |               | project shutdown   |            | Significant regulator intervention; criminal prosecution |                |                                   |  |  |
| Major  | Serious injury/illness (hospital > 5 days)  |               | critical delay     |            | Improvement notice; major media coverage                 |                |                                   |  |  |
| Moderate   | Medical-treatment injury; lost-time > 1 day |               | moderate delay     |            | Minor breach; adverse client comment                     |                |                                   |  |  |
| Minor  | First-aid only, no lost time                |               | negligible delay   |            | Isolated non-conformance                                 |                |                                   |  |  |
| Insignificant  | No injury                                   |               | no schedule impact |            | Deviation caught and corrected on site                   |                |                                   |  |  |
|  |   |               |                    |            |  |                |                                   | <i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>      |  |

| JOB STEP               | POTENTIAL HAZARDS                       | IR           | CONTROL MEASURES   | RR            |
|------------------------|---|--------------|--|---------------|
| SPECIFIC WORK STEPS    | HAZARDS THAT MAY ARISE                  | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS   | RESIDUAL RISK |
| 1. Site Inspection     | Uneven terrain, Falling debris          | 3H           | <ul style="list-style-type: none"> <li>Conduct pre-start inspections</li> <li>Implement clear signage</li> <li>Ensure personnel wear PPE</li> <li>Restrict access to high-risk areas</li> <li>Regular maintenance of equipment</li> <li>Identify hazards during daily briefings</li> <li>Use barriers for unstable areas</li> <li>Implement a buddy system</li> <li>Provide fall protection training</li> <li>Limit work during adverse weather</li> </ul>                   | 2M            |
| 2. Equipment Setup     | Equipment malfunction, Electrical shock | 4H           | <ul style="list-style-type: none"> <li>Regular equipment inspections</li> <li>Use equipment as per manufacturer's guidelines</li> <li>Provide operator training and certification</li> <li>Implement lockout/tagout procedures</li> <li>Ensure proper grounding for equipment</li> <li>Use non-conductive tools</li> <li>Maintain equipment logs</li> <li>Install warning signs</li> <li>Conduct electrical inspections</li> <li>Implement a maintenance schedule</li> </ul> | 3H            |
| 3. Drilling Operations | Noise pollution, Vibrations             | 3H           | <ul style="list-style-type: none"> <li>Provide hearing protection for workers</li> <li>Limit exposure time to noisy environments</li> <li>Implement vibration-dampening technology</li> <li>Conduct regular noise assessments</li> <li>Ensure equipment is well-maintained</li> <li>Enforce distance from drilling operations</li> <li>Regular health checks for workers</li> <li>Utilise noise barriers</li> </ul>  | 2M            |

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|---------------------|------------------------------|--------------|--|---------------|
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|                     |                              |              | Provide training on noise impacts<br>Use vibration reduction gloves  |               |
| 4. Blasting         | Flyrock, Airblast            | 4A           | [REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED] | 3H            |
| 5. Material Loading | Spillage, Overloading        | 3H           | [REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]               | 2M            |
| 6. Haulage          | Vehicle collision, Rollovers | 4A           | [REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]<br>[REDACTED]   | 3H            |

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|                        |                                      |              |  |               |
| 7. Crushing Operations | Inhalation of dust, Moving machinery | 4A           |  | 2M            |
| 8. Stockpiling         | Collapsing stockpile, Emission       | 3H           |  | 2M            |
| 9. Water Management    | Flooding, Water contamination        | 3H           |  | 1L            |

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|                        |   |              | <div></div> <div></div> <div></div> <div></div>   |               |
| 10. Fuel Storage       | Spills, Fire                            | 4A           | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 2M            |
| 11. Maintenance        | Mechanical failures, Slips and trips    | 3H           | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> | 2M            |
| 12. Emergency Response | Delayed response, Communication failure | 4A           | <div></div> <div></div> <div></div> <div></div> <div></div>   | 3H            |

| JOB STEP               | POTENTIAL HAZARDS                        | IR           | CONTROL MEASURES   | RR            |
|------------------------|--|--------------|--|---------------|
| SPECIFIC WORK STEPS    | HAZARDS THAT MAY ARISE                   | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
|                        |  |              |  |               |
| 13. Traffic Management | Pedestrian collision, Traffic congestion | 3H           |  | 2M            |
| 14. Site Security      | Unauthorised access, Theft               | 2M           |  | 1L            |
| 15. Demobilisation     | Hazardous waste, Equipment damage        | 3H           |  | 2M            |

| JOB STEP            | POTENTIAL HAZARDS      | IR           | CONTROL MEASURES  | RR            |
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| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS  | RESIDUAL RISK |
|                     |                        |              | <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> |               |
|                     |                        |              |   |               |

SAMPLE



## EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

## LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

### Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

### Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

### New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

### Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

### Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

### Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

### Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

### South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

### Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.