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| C:\Users\22387\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\RP0KGXYV\OTML_LogoRGB-Tagline.png | **JOB SAFETY ANALYSIS - (JSA Form)****ALL PERSONS PERFORMING WORK UNDER THIS JSA MUST COMPLETE THE SIGN-ON SECTION PRIOR TO COMMENCING WORK****Zero Harm - Nobody Gets Hurt** |

|  |  |  |  |  |  |  |  |
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| [ ]  **OTML** [ ]  **Contractor:** |       | **Department:** |       | **Site Name:** |       | **Location:** |       |
| **Description of** **the Job:** |       | **Effective Date:****Is there a SWP for this task?** |      [ ]  **Yes** [ ]  **No** | **JSA No.:****Version No.:** | Eg MW06-ref-???           |
|  |
| **Team members that developed the JSA** | **Equipment Name:** |       | **Equipment No.:** |       |
| **Name & ID** | **Skill** | **Signature** | **Highest ranked risk with controls:** |       | **Work Order No.:** |       |
|       |       |  | **Equipment/Tools Name:** | **Equipment/Tools No.:** |
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| **Isolation Required?** | [ ]  **Yes (Group or DWA)** | [ ]  **No** | [ ]  **Nil Isolation** |       |       |
| **Permit / Certificate Required?** |       |       |
| [ ]  **None** | [ ]  **ATW Permit** | [ ]  **Dual Worker Authority** | **Control Equipment Required:** \*(Fire Extinguisher, Rescue Plan/Equip, Barricading, etc.) |       |
| [ ]  **Hot Work\*** | [ ]  **Radiation** | [ ]  **High Voltage Vicinity** |
| [ ]  **Work at Height\*** | [ ]  **Excavation /** | [ ]  **High Voltage Access** | **Hazardous Materials or** |       |
| [ ]  **Confined Space\*** | **Trenching / Unearthing\*** | [ ]  **High Voltage Test** | **Special PPE / Tools Required:** |
| **JSA Reviewed By** **(Team Leader) name/sign:** |  | **JSA Reviewed By** **(ATW Issuer) name/sign:** |  |

| **POTENTIAL HAZARD/ RISKS WHICH MAY BE COMMONLY PRESENT** |
| --- |
| **People*** Awkward working posture
* Manual handling (Lifting lowering, pushing pulling)
* Electrical Circuit energised
* Can machine be accidentally started
* Can the machine roll
* Can I hurt someone?
 | **Equipment*** Tapping into cooling systems
* Breaking hydraulics lines or components
* Set of fire suppression systems
* Using lifting slings or cranes
* Jacking machine up
* Stored energy sources (air, hydraulic, etc)
 | **Environment*** Hazardous Chemical
* Rotating components nearby
* Operator assistance required
* Noise, Compressed air
* Tasks performed alone in remote are (in the field)
* Follow MSDS
* Chance of spills or pollution?
 | **Process and procedures*** Using electrical equipment
* People working below
* Falling objects
* Exposure to exhaust fumes/gases
* Working at height
* Working near hot surfaces (eg. Turbo or exhaust
* Isolation)
 | **Permits*** Hot Work (welding, grinding, oxy, cutting, brazing etc.)
* Confined Space Entry
* Work at Height
* Excavation
* Live work task
* Man-lift box
 |
| **JSA has been developed from supporting details in the below referenced Key Control Data Sheet documents.** |
| **Major Hazard Scenario** | **Key Control Data Sheet (KCDS) No.:** | **Major Hazard Scenario** | **Key Control Data Sheet (KCDS) No.:** |
|       |       |       |       |
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| **Task Step Description / Identified Hazards and Risk Rating (List the steps required to perform the task in the sequence they are to be carried out)** |
| --- |
| Step # | Job Step / Task Description | Hazards | Controls | Risk Rating(with controls) | Responsibility Operator / Worker | Responsibility Supervisor | In Place (Y/N) | ReviewerChecked | ReviewerRemarks |
|       |       |       |       |       |  |  |  |  |  |
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| **Approval based on Risk Rating** |
| **Highest Risk Rating Score (with controls included):** |       | **Approval Level required:** |       |
| **Approval based on Risk Rating Matrix. I have performed all notifications and received approvals relevant to the Task Hazard Ranking.** |
| Supervisor name: |  | Supervisor signature: |  | Date: |  |
| **Approval is within the Approval Ranking matrix. I have been informed of the risks and controls in place and approve the work to be completed under this JSA.** |
| Approver name: |  | Approver Position: |  | Approver signature:  |  | Date: |  |

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|  | **JSA USERS SIGN-ON SHEET** (Note: User to sign prior job execution) |  |
| **No.** | **Position** | **Name** | **Signature** | **Date** | **No.** | **Position** | **Name** | **Signature** | **Date** |
| **1.** |  |  |  |  | **17.** |  |  |  |  |
| **2.** |  |  |  |  | **18.** |  |  |  |  |
| **3.** |  |  |  |  | **19.** |  |  |  |  |
| **4.** |  |  |  |  | **20.** |  |  |  |  |
| **5.** |  |  |  |  | **21.** |  |  |  |  |
| **6.** |  |  |  |  | **22.** |  |  |  |  |
| **7.** |  |  |  |  | **23.** |  |  |  |  |
| **8.** |  |  |  |  | **24.** |  |  |  |  |
| **9.** |  |  |  |  | **25.** |  |  |  |  |
| **10.** |  |  |  |  | **26.** |  |  |  |  |
| **11.** |  |  |  |  | **27.** |  |  |  |  |
| **12.** |  |  |  |  | **28.** |  |  |  |  |
| **14.** |  |  |  |  | **30.** |  |  |  |  |
| **15.** |  |  |  |  | **Supervisor** (Note: Supervisor to sign after job execution)**Supervisor’s name: Signature: Date:** |
| **16.** |  |  |  |  |  |

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| **JSA REVIEW FOR COMPLIANCE** |
| **Comments:**  |
| **JSA REVISION HISTORY (Where applicable, convert to a SWP)** |
| **Version:** | **Date:** | **Description:** | **Reviewed By:** | **Approved By:** |
|       |       |       |       |       |
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| **Likelihood Table** |
| **Level** | **Description** | **Probability (for defined time activities)** | **Criteria (read as either/or)** |
| **A** | ***Almost Certain*** | 99% chance | The consequence will occur.The consequence is expected to occur many times per annum or happens often. |
| **B** | ***Likely*** | 50% chance | The consequence will occur under some circumstances.The consequence is expected to occur once or twice per annum. |
| **C** | ***Possible*** | 10% chance | The consequence has happened elsewhereThe consequence typically occurs once in every 5 years |
| **D** | ***Unlikely*** | 1% chance | The consequence has happened elsewhere.The consequence is expected to occur once in 15 years |
| **E** | ***Rare*** | 0.1% chance | The consequence may occur in exceptional circumstances.The consequence has rarely occurred in the industry and is not expected in the life of the mine. |
| **Risk Rating Matrix** |  | **Approval Ranking Matrix** |
| **Likelihood** | **Consequence** |  | **HRI** | **Risk Level** | **Notification / Approval Level** |
| **1** | **2** | **3** | **4** | **5** |  |
| **A****Almost Certain** | **Moderate****(11)** | **Significant****(16)** | **Significant****(20)** | **High****(23)** | **High****(25)** |  | **21 – 25** | **High** | **GM Approval Required (refer to Major Hazard Scenario bowties for risk and control data)** |
| **B****Likely** | **Moderate****(7)** | **Moderate****(12)** | **Significant****(17)** | **High****(21)** | **High****(24)** |  | **14 – 20** | **Significant** | **Area Manager Approval Required** |
| **C****Possible** | **Low****(4)** | **Moderate****(8)** | **Moderate****(13)** | **Significant****(18)** | **High****(22)** |  | **7 – 13** | **Moderate** | **Line Manager / Superintendent Supervisor Notification Required** |
| **D****Unlikely** | **Low****(2)** | **Low****(5)** | **Moderate****(9)** | **Significant****(14)** | **Significant****(19)** |  | **1 – 6** | **Low** | **Front-line Supervisor Approval Required** |
| **E****Rare** | **Low****(1)** | **Low****(3)** | **Low****(6)** | **Moderate****(10)** | **Significant****(15)** |  |  |  |  |
|  |  | **↓ Significant Risks ↓** |  |  |
| **1 – 6 Low** | **7 – 13 Moderate** | **14 – 20 Significant** | **21 – 25 High** |  |  |
| **Consequence Table** |
| **Level** | **Safety** | **Health** | **Environmental** | **Community** | **Reputation** | **Production Loss** | **Financial** | **Life of Mine Impact** | **Compliance** |
| **1** | First Aid Treatment | Reversible health effects of little concern, no known or suspected adverse health effects. | < 1 day | Individual Community Complaint. | Local short-term media attention and negative public reaction. | < 1 shift | No effect on Work Schedule, Product and Quality – less than $50,000 loss. | Resource loss would have minor impact on life of mine < 1 year. | Minor technical / legal compliance issue that is dealt with on site.Incident requires reporting in routine internal incident report system.Minor breach of internal standards. |
| **2** | Medical Treatment.  | Health impact requiring medical treatment/intervention, not permanent. | 1 day to 1 week | Multiple Community Complaint. | Local prolonged media attention and negative public reaction. | <1 days | Minimal effect on Work Schedule, Product and Quality - $50,000 - $500,000 loss. | Resource loss would have consequences on life of mine > 1 but < 5 years. | Technical / legal compliance issue which may attract a low-level administrative response from regulator. Continuing occurrences of minor breaches. Incident requires reporting in routine reports (e.g., monthly) and to OTML corporate.Moderate breach of internal standards. |
| **3** | Hospitalisation. | Health impact requiring hospitalisation, not permanent. | 1 week to 1 month | Community stops job or task. | Negative reaction by public, or interest groups and short-term national media attention. | 1 - 7 days | Serious effect on Work Schedule, Product and Quality - production halted for 1 day to 1 week - $500,000 - $5,000,000 loss. | Resource loss would have substantial consequences life of mine > 5 but < 10 years. | Serious breach of regulation.Incident requires immediate (within 48 hours) notification to Government and OTML Corporate).Major breach of internal standards. |
| **4** | Single fatality. | Chronic health effects causing illness or partial impact on body function. | > 1 month | Community shuts site. | Widespread public discontent Prolonged adverse national media attention or coronial inquest. | > 7 days | Major effect on Work Schedule, Product and Quality - 1 week to 1 month production suspended - $5,000,000 to $20,000,000 loss. | Resource loss would have severe consequences on life of mine > 10 years. | Major breach of regulation resulting in investigation by regulator. Prosecution, penalties, or other action likely. |
| **5** | Multiple fatalities. | Life threatening or permanent disability or long-term chronic health effects or illness, major impact on body function. | Permanent environmental impact. | Community outrage resulting in violence, significant damage to company property, attacks on staff. | Widespread public condemnation Long-term media condemnation or formal Government inquiry. | > 1 month | Project suspended for more than 1 month – more than $20,000,000 lost revenue. | Resource loss would have permanent consequences on life of mine. | Operation suspended; licenses revoked. |

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