



Private & Confidential

DWARSRIVIER CHROME MINE

**PRESENTATION IN RESPECT OF INSTRUCTION TO PROTECT
HEALTH AND SAFETY OF PERSONS PERFORMING WORK
DURING PLANNED MAINTENANCE SHUT DOWN**

20 September 2019

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INTRODUCTION

- Dwarsrivier Chrome Mine annual planned shutdown will be conducted from 25 Sept 2019 until 03 Oct 2019. Below is an overview of the shutdown.

AREA AFFECTED	DATE AND TIME START	DATE AND TIME STOP
North Shaft	25 September 2019 @ 06H00	30 September 2019 @18H00
South Shaft	25 September 2019 @ 06H00	29 September 2019 @18H00
ROM and DMS	27 September 2019 @06H00	02 October 2019 @18H00
Mill and Spirals	28 September 2019 @06H00	03 October 2019 @18H00

PRINCIPAL INSPECTOR OF MINE INSTRUCTION



mineral resources

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DMR 10

ALL MINE MANAGERS AND GENERAL MANAGERS LIMPOPO REGION

Dear Sir/ Madam

INSTRUCTION TO PROTECT HEALTH OR SAFETY OF PERSONS PERFORMING WORK DURING PLANNED MAINTENANCE SHUT DOWN.

It has been noted with concern that there is a high number of serious injuries or fatalities occurring during planned maintenance shut down as result of poor risk assessments and working substandard.

INSTRUCTIONS

- 1) Employers are hereby instructed to inform the Office of the Principal Inspector of Mines of any planned shutdown at least two weeks in advance.
- 2) Employers are further instructed to make a presentation to the Office of the Principal Inspector of Mines prior to commencement of such activities, addressing the following:
 - 2.1) A list of all activities planned or scheduled to be performed;
 - 2.2) Risk assessments conducted and procedures to be put in place.

Take note: Any shutdown planned for two or more days, including shutdowns planned over weekends must be presented to the Office of the Principal Inspector of Mines.

Kindly acknowledge receipt of this letter.

Assuring you of our best intentions at all times.

Yours in Health and Safety

PRINCIPAL INSPECTOR OF MINE INSTRUCTION

No	Item	Status
1	Employers are hereby instructed to inform the office of the Principle Inspector of Mines of any planned shutdown at least two weeks in advance.	Telephonically notified the DMR
2	Employers are further instructed to make a presentation to the office of the Principle Inspector of Mines prior to commencement of such activities, addressing the following: 2.1 A list of all activities planned or scheduled to be performed. 2.2 Risk assessments conducted and procedures to be put in place.	20 Sept 2019
3	Any shutdown planned for two or more days, including shutdowns planned over weekends must be presented to the office of the Principle Inspector of Mines.	Noted

MEMBERS PARTICIPATED IN THE PRESENTATIONS

Name and Surname	Occupation
Kethusitswe Mokgatlha	Production Manager
Matiki Setagane	Engineering Manager
Eric Ndukula	Health and Safety Manager
Jaco Beyneveldt	Plant Engineer
Collen Raedani	Plant Manager
Ngwato Thobejane	Health and Safety Secretary (NUM)
Selatole Ntsodi	FTHSR



CRITICAL TASKS - PLANT

CRITICAL TASKS - OVERLAND

CRITICAL TASKS	DURATI ON	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APLLICABLE CONTRACTOR
Stockpile feeder maintenance	4 days	2, 6, 7, 8, 10, 30, 31	Heavy equipment – rigging. – 15Tons Working at heights	Nico Seekoei	Gauteng Rigging
Replace FCV I 10 conveyer drive	3 days	2, 6, 7, 8, 30, 31	High rigging required. Working at heights.	Roelf Veldman	Gauteng Rigging BMG

CRITICAL TASKS - ROM

CRITICAL TASKS	DURATION	RISK NO. APPLICABLE	AS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Crusher replacement	3 days	2, 6, 7, 8, 30, 31	Heavy equipment – rigging. – 15Tons Working at heights	Nico Seekoei	Gauteng Rigging
Replace screens	4 days	2, 6, 7, 8, 28, 30, 31	Complicated rigging required. Working at heights	Paul Botha	Gauteng Rigging Vibramech
Maintenance on transformers	2 days	6, 8, 11, 30	Electrocution	Jaco Horn	Tomco

CRITICAL TASKS - DMS

CRITICAL TASKS	DURATION	RISK NO. APPLICABLE	AS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
DMS Drum internal Maintenance	3 days	1, 2, 3, 4, 6, 7, 8, 30, 31	Confined space Working at heights	Lawrence Mathabatha	Gauteng Rigging Malvern Eng
Replace screens	4 days	2, 6, 7, 8, 28, 30, 31	Complicated rigging required. Working at heights	Paul Botha	Gauteng Rigging Vibramech
Pipeline replacement	3 days	2, 4, 6, 7, 8, 30, 31	Lifting and rigging, Working at heights	Jaco Horn	Tomco

CRITICAL TASKS – MILL AND SPIRALS

CRITICAL TASKS	DURATION	RISK NO. APPLICABLE	AS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Mill maintenance	3 days	1, 2, 3, 4, 6, 7, 8, 17, 30, 31	Confined space Relining	David Bande	Multotec
Movement of skid MCC	4 days	2, 6, 7, 8, 29, 30, 31	Rigging required. Working at heights. Electrical commissioning	Elvis Tau	Gauteng Rigging Supplytech
Pipeline replacement	3 days	2, 4, 6, 7, 8, 30, 31	Lifting and rigging, Working at heights	Philemon Mmola	
Maintenance on transformers	2 days	6, 8, 11, 30	Electrocution	Jaco Horn	Tomco
Rubber lining	4 days	3, 6, 8, 14, 30	Confined spaces	Lawrence Mathabatha	Striving Minds

CRITICAL TASKS – PUMP STATIONS

CRITICAL TASKS	DURATION	RISK NO. APPLICABLE	AS MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Pipeline replacement	3 days	2, 4, 6, 7, 8, 30, 31	Lifting and rigging, Working at heights	Philemon Mmola	Manniken
Rubber lining	4 days	3, 6, 8, 14, 30	Confined spaces	Lawrence Mathabatha	Striving Minds



CRITICAL TASKS - UG

CRITICAL TASKS – SOUTH SHAFT DECLINE I

CRITICAL TASKS	DURATI ON	RISK AS NO.APPL	MAIN RISKS IDENTIFIED	RESPONSIB LE PERSON	APPLICABLE CONTRACT OR
Drive Replacement	4 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Heavy equipment – rigging.	Neels Jv Rensburg	SEW
Winch Replacement	3 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Neels Jv Rensburg	SEW

CRITICAL TASKS – SOUTH SHAFT DECLINE 2

CRITICAL TASKS	DURATI ON	RISK AS NO.APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APLLICABLE CONTRACT OR
Drive Replacement	4 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Heavy equipment – rigging.	Neels jv Rensburg	SEW
Drive Pulley Replacement	3 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Neels jv Rensburg	Mash

CRITICAL TASKS – SOUTH SHAFT DECLINE 3

CRITICAL TASKS	DURATION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Skirting Replacement	4 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Davies Marebane	Mash Serso
Transfer maintenance	3 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Neels jv Rensburg	Mash Serso

CRITICAL TASKS – SOUTH SHAFT ELECTRICAL

CRITICAL TASKS	DURATION	RISK AS NO.APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACT OR
MCCI Maintenance	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services
Decline MCC Maintenance	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services
MCC2 Maintenance	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services

CRITICAL TASKS – SOUTH SHAFT ELECTRICAL

CRITICAL TASKS	DURATION	RISK AS NO.APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACT OR
MCC3 Maintenance	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services
Skid MCC Strike 17 & 19	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services
Skid MCC Strike 22	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services

CRITICAL TASKS – SOUTH SHAFT ELECTRICAL

CRITICAL TASKS	DURATION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Decline 3 Maintenance	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Janna Dumond	Mandatory Mining Services

CRITICAL TASKS – NORTH SHAFT ELECTRICAL

CRITICAL TASKS	DURATION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Strike 6 Manual to PLC/Scada System change over	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Taengwa Makawa	Mandatory Mining Services
Strike 9 Manual to PLC/Scada System change over	1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Taengwa Makawa	Mandatory Mining Services

CRITICAL TASKS – NORTH SHAFT ELECTRICAL

CRITICAL TASKS	DURAT ION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APLLICABLE CONTRACTO R
Strike workshop Mini sub oil refilling	5 1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Taengwa Makawa	Mandatory Mining Services
MCC maintenance	1 1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Taengwa Makawa	Mandatory Mining Services
MCC maintenance	2 1 day	1; 2; 10; 12, 13; 16	Lock Out and Isolation	Taengwa Makawa	Mandatory Mining Services

CRITICAL TASKS – NORTH SHAFT MECHANICAL

CRITICAL TASKS	DURAT ION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Decline Plant Section 1	4 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso
Decline Underground Section 1	3 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso

CRITICAL TASKS – NORTH SHAFT MECHANICAL

CRITICAL TASKS	DURATION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Decline 1/2 Transfer Section	2 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso
Decline 2	3 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso
Decline 1/2 Transfer Section	2 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso

CRITICAL TASKS – NORTH SHAFT MECHANICAL

CRITICAL TASKS	DURATION	RISK AS NO. APPL	MAIN RISKS IDENTIFIED	RESPONSIBLE PERSON	APPLICABLE CONTRACTOR
Decline 2 Maintenance	1 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso
Strike 6 Maintenance	1 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso
Strike 9 Maintenance	1 days	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15	Lock Out and Isolation	Lenet Mogoale	Serso

OVERVIEW OF LABOUR STATISTICS (PLANT)

COMPANY	NO OF EMPLOYEES	NO OF SUPERVISORS	NO OF SAFETY OFFICERS
DCM - PROCESS	40	4	1
DCM - ENGINEERING	35	7	1
CONTRACTORS: DCM - ENGINEERING	160	4	4
CONTRACTORS: DCM PROCESS	38	2	1

OVERVIEW OF LABOUR STATISTICS (UG)

COMPANY	NO OF EMPLOYEES	NO OF SUPERVISORS	NO OF SAFETY OFFICERS
DCM - ENGINEERING	37	4	1
CONTRACTORS: DCM - ENGINEERING	32	5	5

OVERVIEW – PLANT CONTRACTOR COMPANIES

- Precision Engineering
- Striving Minds
- Tomco electrical
- Iritron
- Malvern Engineering
- Amtech
- Slurry Pump Services
- Vibramec
- BMG
- JONGEA
- Lowveld conveyor splicers
- Ritchie Cranes
- Johnsons Crane Hire
- Manniken
- Multotec
- SKF
- Dabmar
- PCM
- Brelco
- Vhahashu
- GMHM
- Process Automation
- Simotech
- RWW
- I-CAT

OVERVIEW – UG CONTRACTOR COMPANIES

- Serso
- Mash
- Mandatory Mining Services
- TychoSet
- SEW

CONTROLS IN PLACE

- DCM Contractor Management Procedure
- DCM Access Control System Process (FireFly)
 - 100% Alcohol Testing at Turnstiles
- DCM Engineering Supervisor – Jimmy Matome (Night Shift)
- Tasks not allowed to be done on night shift
 - Liner replacement
 - Lifting and rigging
- Fatigue Management
 - 10 Hour shifts (day/night)
 - 60 minute - Lunch breaks
 - Nutritional supplements available
- All management personnel on standby
- Handover book in place

ENFORCEMENT OF COMPLIANCE (PLANT)

- Morning toolbox talks – DCM representative to be present
- 12:00 – 15 Minutes safety talk
- 15:00 – Safety discussion and progress update
- Visits and inspections
 - Chief Safety Officer
 - Safety Officers
 - Full Time Health And Safety Representatives
 - VFL – Senior Management
- Commissioning team – Test all safety interlocks prior to start-up
 - Fire suppression
 - Pull key systems

ENFORCEMENT OF COMPLIANCE (PLANT)

- Daily progress meeting @15:00 with all relevant departments
- Discussion items
 - Safety
 - HR – working hours and fatigue management
 - General progress
- Update on work will be circulated

ENFORCEMENT OF COMPLIANCE (UG)

- Morning Toolbox talks – DCM representative to be present
- Visits and inspections
 - Chief safety officer
 - Safety Officers
 - Full time health and Safety representatives
 - VFL – Management
- Commissioning team – test all safety interlocks prior to start-up
 - Fire suppression
 - Pull key systems

EMERGENCY PREPAREDNESS AND RESPONSE

- All Incidents and emergency to be reported through control rooms
 - Plant – 5332
 - South and North Shafts – 5396
 - Clinic - 5364
- 24 Hour Medical response – Life clinic informed of planned shutdown – Contact Number 072 502 4893 or 072539 6343; 013 230 5364 speed dial *#12567
 - First aiders on shift
 - Each team issued with first aid kit
- Fire team
 - James Mahlangu – 0761038063 , speed dial *#12303
- Proto team
 - Roswell Mondzinger – speed dial *#12545
 - working at heights rescue and Underground emergencies
- Security
 - Control room – 5342
 - Snakes

CLOSURE



We as Dwarsrivier Chrome Mine always value input from all stakeholders in supporting our continuous improvement drive towards the Health and Safety in our operation.

“Khumbulani”