

RUGRON EXPLORATION CO (PTY) LTD PROSPECTING RIGHT

REASSESSMENT OF THE FINANCIAL PROVISION FOR MINING OF SAND, AGGREGATE AND ALLUVIAL DIAMONDS ON PORTION 4 OF THE FARM WOODLANDS 407, NGWATHE LOCAL MUNICIPALITY, FREE STATE PROVINCE



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EXECUTIVE SUMMARY

According to Section 41(3) of the Mineral and Petroleum Resources Development Act (MPRDA), (Act No. 28 of 2002) a holder of a mining right must annually assess his or her environmental liability and increase his or her financial provision to the satisfaction of the Minister.

The following rehabilitation activities have been stipulated in the Environmental Management Plan (EMP) in order to successfully rehabilitate the prospecting area on.

The primary objective is to obtain a closure certificate at the end of the life of the mine at minimum cost and in as short a time period as possible whilst still complying with the requirements of the Minerals and Petroleum Resources Development Act. To realise this, the following objectives must be achieved:

- Remove all temporary infrastructure and waste from the site as per the requirements of this EMPR and of the Provincial Department of Mineral Regulation.
- Demolish / rehabilitate all roads with no post - mining use potential.
- Ensure that no threat to surface and underground water quality remains.
- Ensure that all permanent changes in topography are sustainable and do not cause erosion or the damming up of runoff.
- Shape and contour all disturbed areas in compliance with the EMPR.
- The stockpiled topsoil will be spread over the disturbed area to a depth of at least 500 mm.
- Make safe any dangerous excavations or subsidence on the surface.
- Rehabilitate all disturbed areas in compliance with the EMPR and of the Provincial Department of Mineral Regulation.
- Ensure that all rehabilitated areas are safe, stable and self-sustaining in terms of vegetation.
- Control of weeds and alien invasive plant species is an important aspect after topsoil replacement and seeding has been done in an area.
- Site management will implement an alien invasive plant management plan during the 12 months' aftercare period to address germination of problem plants in the area.
- The applicant will comply with the minimum closure objectives as prescribed by DMR.

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ABBREVIATIONS

CPI	Consumer Price Index
DMR	Department of Minerals and Resources
DWS	Department of Water Affairs and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Program Report
MPRDA	Mineral and Petroleum Resources Development Act, Act No 28 Of 2002 [as amended]
NEMA	National Environmental Management Act, Act 107 of 1998 [as amended]
NWA	National Water Act, Act 36 of 1998 [as amended]

1. INTRODUCTION

This document provides an assessment and review of the quantum of financial provision submitted as being sufficient to cover the environmental liability at the time and for closure of the mine at that time, and was compiled in accordance with the Guideline Document for the Evaluation of the Quantum of Closure-related Financial Provision by a Mine as published by the Department of Mineral Resources.

2. QUANTUM CALCULATION (TERMS OF REFERENCE)

The Mineral and Petroleum Resources Development Act (MPRDA), (Act No. 28 of 2002) and its Regulations was promulgated on 1 May 2004. Financial provision for environmental rehabilitation and closure requirements of mining operations forms an integral part of the MPRDA. Section 41 of the MPRDA and Regulations 53 and 54 promulgated in terms of the MPRDA deal with financial provision for mine rehabilitation and closure.

The holder of a prospecting right must provide the DMR with sufficient financial provision. Officials in the DMR Regional Offices are required to assess, review and approve the quantum of financial provision submitted (that is, the monetary value of the financial provision that has been computed by the holder of a mining right during the annual review) as being sufficient to cover the environmental liability at that time and for closure of the mine at that time.

Following, a calculation of the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the guideline document prescribed in terms of Regulation 54 (1), is presented.

The calculation of the quantum for financial provision was according to Section B of the working manual for the determination of the quantum.

1.1 Mine type and saleable mineral by-product

According to Tables B.12, B.13 and B.14

Mine type	Iron Ore
Saleable mineral by-product	None

1.2 Primary Risk Class

According to Tables B.12 or B.13

Primary risk ranking	Class C
Revised risk ranking	N/A

1.3 Environmental sensitivity of the mine area

According to Table B.4

Environmental sensitivity of the mine	Low
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1.4 Level of information

According to Step 4.1

Level of information available	Limited
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1.5 Identification of closure components

According to Table B.5 and site-specific conditions

Component No.	Main description	Applicability of closure components (Circle Yes or No)	
		Prospecting	
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)	-	NO
2(A)	Demolition of steel buildings and structures	-	NO
2(B)	Demolition of reinforced concrete buildings and structures	-	NO
3	Rehabilitation of access roads Comment: Only the access road from the existing road to the mine area.		NO
4(A)	Demolition and rehabilitation of electrified railway lines	-	NO
4(B)	Demolition and rehabilitation of non-electrified railway lines	-	NO
5	Demolition of housing and facilities	-	NO

Component No.	Main description	Applicability of closure components (Circle Yes or No)	
		Prospecting	
6	Opencast rehabilitation including final voids and ramps	-	NO
7	Sealing of shafts, adits and inclines	YES	-
8(A)	Rehabilitation of overburden and spoils	-	NO
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing)	-	NO
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich)	-	NO
9	Rehabilitation of subsided areas	-	NO
10	General surface rehabilitation, including grassing of all denuded areas	YES	-
11	River diversions	-	NO
12	Fencing	-	NO
13	Water management (Separating clean and dirty water, managing polluted water and managing the impact on groundwater)	-	NO
14	2 to 3 years of maintenance and aftercare	-	NO

1.6 Unit rates for closure components

According to Table B.6 master rates and multiplication factors for applicable closure components.

The master rate from the DMR Master Rates table for financial provision of 2017 has been used.

Component No.	Main description	Master rate	Multiplication factor
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)	-	-
2(A)	Demolition of steel buildings and structures	-	-
2(B)	Demolition of reinforced concrete buildings and structures	-	-
3	Rehabilitation of access roads	-	-
4(A)	Demolition and rehabilitation of electrified railway lines	-	-
4(B)	Demolition and rehabilitation of non-electrified railway lines	-	-
5	Demolition of housing and facilities	-	-
6	Opencast rehabilitation including final voids and ramps	-	-
7	Sealing of shafts, adits and inclines	R 115	-
8(A)	Rehabilitation of overburden and spoils	-	-

Component No.	Main description	Master rate	Multiplication factor
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing)	-	-
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich)	-	-
9	Rehabilitation of subsided areas	-	-
10	General surface rehabilitation , including grassing of all denuded areas	R 118 924	-
11	River diversions	-	-
12	Fencing	-	-
13	Water management (Separating clean and dirty water, managing polluted water and managing the impact on groundwater)	-	-
14	2 to 3 years of maintenance and aftercare	-	-

1.7 Determine weighting factors

According to Tables B.7 and B.8

Weighting factor 1: Nature of terrain/accessibility	1.00 (Undulating)
Weighting factor 2: Proximity to urban area where goods and services are to be supplied	1.00 (Urban)

1.8 Calculation of Closure Costs

The amount that will be necessary for the rehabilitation of damages caused by the operation, both sudden closures during the normal operation of the project and at final, planned closure gives a sum total of **R 6 499.19**. Prospecting will be conducted one drill site at a time. Not more than 1 site will be drilled at a time.

