

COAL MINING PERMIT APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF STEVE TSHWETE IN MPUMALANGA PROVINCE.

DMRE REF: MP 30/ 5/ 1/ 1/ 3/ 13941 MP

PREPARED FOR:



Physical Address: 5 Neven Street, Pentagon House, Model Park, eMalahleni, Mpumalanga. 1035

Contact person: Mr. Bongani Given Simelane

Tel No.: +27 13 5912120

Email.: admin@jaments.co.za

COMPETENT AUTHORITY



mineral resources
& energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

Physical Address: Department of Mineral Resources & Energy, Saveways Crescent Centre, First Floor, Mandela Drive, eMalahleni, 1035

PREPARED BY



Physical Address: Office No. 870, 5 Balalaika Street, Tasbet Park Ext 2, eMalahleni (Witbank), 1040

Tel.: +27 13 692 0041

Fax: +27 86 514 4103

2023

DMRE REF: MP 30/ 5/ 1/ 1/ 3/ 13941 MP



mineral resources & energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

NAME OF APPLICANT : Jaments (Pty) Ltd

Contact Person : Mr. Bongani Given Simelane

Tel. : +27 13 5912120

Email : admin@jaments.co.za

Physical Address : 5 Neven Street, Pentagon House, Model Park,
. Steve Tshwete, Mpumalanga. 1035

FILE REFERENCE NUMBER SAMRAD: MP 30/ 5/ 1/ 1/ 3/ 13941 MP

DOCUMENT CONTROL

Project Title:	Mining Permit application on portion of the portion of the remaining extent of the farm Roodepoort 151 IS.
Mineral (s):	Coal
Compiled on behalf of:	Jaments (Pty) Ltd
Public Participation Officer	Ms Innocent Monama
Compiled By:	Mr Abel Mojapelo
EAP:	Mrs Rudzani Radebe
EAP Principal:	Dr Kenneth Singo
Version 1:	DBAR & EMPr for Public Review
Version 2 :	Final BAR & EMPr
Submission for:	Department of Mineral Resources and Energy
Date:	2023

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a Mining Permit or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation, or damage to the environment.

In terms of section 16(3)(b) of the Basic Assessment Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has considered any minimum requirements applicable, or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or a permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore, please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un- interpreted information and that it unambiguously represents the interpretation of the applicant.

OBJECTIVE OF THE BASIC ASSESSMENT PROCESS

The objective of the basic assessment process is to, through a consultative process—

- a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context.
- b) identify the alternatives considered, including the activity, location, and technology alternatives;
- c) describe the need and desirability of the proposed alternatives,
- d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:
 - i. the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
 - ii. the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be managed, avoided or mitigated.
- e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to:
 - i. identify and motivate a preferred site, activity and technology alternative;
 - ii. identify suitable measures to manage, avoid or mitigate identified impacts; and
 - iii. identify residual risks that need to be managed and monitored.

DISCLAIMER

The opinion expressed in this, and associated reports are based on the information provided by Jaments (Pty) Ltd to Singo Consulting (Pty) Ltd ("Singo Consulting") and is specific to the scope of work agreed with Jaments (Pty) Ltd.

Singo Consulting acts as an advisor to Jaments (Pty) Ltd and exercises all reasonable skill and care in the provision of its professional services in a manner consistent with the level of care and expertise exercised by members of the environmental profession.

Where site inspections, testing or fieldwork have taken place, the report is based on the information made available by Singo Consulting during the visit, visual observations and any subsequent discussions with regulatory authorities. The information used in this report were obtained from relevant stakeholders through sharing BIDs as a way of notifying the stakeholders about the proposed project.

Singo Consulting (Pty) Ltd ("Singo Consulting") takes reasonable care and diligence when providing services and preparing documents, but it has been assumed that the information provided to Singo Consulting (Pty) Ltd ("Singo Consulting") is accurate.

These views do not generally refer to circumstances and features that may occur after the date of this study, which were not previously known to Singo Consulting (Pty) Ltd or had the opportunity to assess.

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EXECUTIVE SUMMARY

This document's objective is to give environmental information regarding the proposed Mining Permit Application for coal on portion of the Portion of the remaining extent of the Farm Roodepoort 151 IS, located in ward 5 of Steve Tshwete Local Municipality, Mpumalanga Province with DMRE Ref: MP 30/5/1/1/3/ 13941 MP. The Mining Permit application area is situated within Steve Tshwete, approximately 5.28 km Southwest of Pullens Hope (Add more Infor based on measurements on map).

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by Jaments (Pty) Ltd to conduct Environmental Impact Assessment (EIA), Compile an Environmental Management Programme report (EMPr) and undertake Public Participation Process (PPP). This is done for processes of acquiring Environmental Authorization for the proposed Mining Permit. Mining Permit Application has been submitted for the exploitation of Coal resources on the property mentioned above and the application was accepted on the 7th of August 2023.

Mining activities will be undertaken over a period of two (2) years. The mineral resource of interest is at shallow depth hence surface mining method, particularly open cast mining method of excavation will be utilised in this proposed project. The mine design will be developed according to the dimension of the applied mineral deposit within the project area, but overall mining activities will be limited to an area of 5 Ha as per mining permit requirements. The topsoil will be stockpiled elsewhere on site preferably next to the farm boundary and will be used during rehabilitation period. Once a box cut has been made, the overburden and mineral resources where necessary will be loosened by blasting with non-conventional explosives such as Non-Ex Rock Breaking Cartridges also used by Samancor Chrome in Gauteng and Waterkloof mine in Rustenburg.

Non-Ex Rock Breaking Cartridges are a pyrotechnic composition (low explosives) that break rocks by generating tensile force through rapid gas expansion in a sealed (stemmed) drill hole and have no adverse environmental effects. The loosened material will then be loaded onto trucks by excavators. A haul road will be situated at the side of the open cast, forming a ramp up which trucks can drive, carrying coal and waste rock. Waste rock will be piled up at the surface, near the edge of the open cast (waste dump). The waste dump will be tiered and stepped, to minimize degradation. All the activities will be guided by the project's EMPr such

that the project does not impact the environment negatively.

This Mining Permit application requires authorization in terms of the following interlinked pieces of legislation: the Mineral and Petroleum Resources Development Act, 2002 (MPRDA, Act 28 of 2002), as amended and the National Environmental Management Act, 1998 (NEMA, Act 107 of 1998), as amended. These pieces of core legislation stipulate the required studies, reports, and legal processes to be conducted and the results thereof are to be submitted to the relevant authorities for approval prior to commencement.

The project was announced through publication of Middelburg Observer newspaper and plugging of site notices around the proposed project area, at nearest Libraries and at the Local Municipality. Stakeholders and landowners were consulted through emails. A draft BAR & EMPR was shared for 30 days review period excluding public holidays from the 6th of September 2023 until the 7th of October 2023. Copies of the DBA Report were placed at the at Gerard Sekoto Librabry (Middelburg, 1055, South Africa), and Steve Tshwete Local Municipality (Middelburg, 1055, South Africa), for access to all the communities in proximity to the proposed project area. Copies were also shared with identified stakeholders either via emails, post or physical delivery. After the public review period, comments received from stakeholders and I&AP's incorporated into the final report that will be submitted to the DMRE. Additionally, emails notifying of closure were sent to all stakeholders who did not provide comments on the DBAR & EMPr on the 5th of October 2023.

According to windeed search, SANCOR (Pty) Ltd. Is the landowner of portion of the portion of the remaining extent of the Farm Roodepoort 151 IS. During a site evaluation, we got contact information of the landowner who lives in Namibia from the caretaker of the farm. During site assessment, We found Roodepoort, the caretaker, who enabled us to complete the site inspection and gave us the email address of the landowner. As a result, a landowner invitation letter for comments was submitted to them; On September 6, 2023, an objection letter was received from SANCOR (Pty) Ltd. stating that they were in opposition to the mining permit application (refer to Appendix 9). That SANCOR is actively using the area as a game camp, which is fenced in, and as such, the water resources are of economic value to the owner where the area is a farming unit. The objection is thus also supported on the basis that your mining permit area is located within the brown area (actual low-laying pan outline as per MTPA, i.e., wetland area).

The proposed mine permit area can be accessed via an unnamed tar road that connects to R35 from Middleburg (Steve Tshwete) which is directly opposite the access route that will connect to the unnamed road mentioned above to the project area.

According to the Biodiversity terrestrial Map generated by our in-house GIS technician supported by the MBSP Terrestrial CBA Map sourced from MTPA, permit area its natural areas which are not identified as CBAs or ESAs but provide a range of ecosystem services from their ecological infrastructure.

There are critical species will be affected by the proposed project as there are critical animals that depend or live within and around the proposed mining permit. Therefore, critical species will be harmed unless they are moved to a new place or Eco will have to be onsite every day to monitor the operation so that the animals don't get harmed. Although the area is characterised by Moist sandy Highveld Grassland according to the GIS specialist, the area is under other natural areas by other activities which leads to vanished of these Moist Sandy Highveld grassland mentioned on the vegetation type section.

During site assessment the area was found to be covered by natural vegetation and eucalyptus trees which are alien species, with grasses being the dominant vegetation. According to the freshwater Biodiversity Map produced inhouse supported by the environmental screening tool and MBSP freshwater assessment map from the MTPA, the proposed project area has a Wetland within. During ground truthing the wetland didn't have water (was dried up).

In and around the planned project area, there are wildlife animals (such as zebras, buffalos, Impala, Ostrich, and gemsbok) and a wetland . Agricultural farms with cultivations were noticed near to the proposed mining permit area. Because the animals will have to be relocated to a new setting, the location will endanger their adaptation lives. Otherwise, their environment will suffer.

PART A SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Contact person and correspondence address

Table 1: Details of the Public Participation Process (PPP) Officer:

Name of practitioner	Ms Innocent Monama
Designation	Public Participation Process Officer
Cell No	+27 67 826 4182
Email	innocent@singoconsulting.co.za

Table 2: Details of the Public Participation Process (PPP) Officer:

Name of practitioner	Ms Innocent Monama
Designation	Public Participation Process Officer
Cell No	+27 67 826 4182
Email	innocent@singoconsulting.co.za

Table 3: Details of the EAP that prepared the report:

Name of the Practitioner	Mr Abel Mojapelo
Designation	EAP
Tel No	013 692 0041
Cell No	071 362 7894
Fax No	086 514 4103
Email	abel@singoconsulting.co.za

Table 4: Details of the EAPS who reviewed the report:

Name of practitioner	Mrs Rudzani Radebe
Designation	Project Manager (EAP)
Tel No	(013) 692 0041)
Cell No	+27 78 548 1244
Fax No	086 514 4103
Email	rudzani@singoconsulting.co.za
Name of practitioner	Dr K N Singo
Designation	Principal EAP
Tel No	+27 78 2727 839
Cell No	+27 72 081 6682
Fax No	086 514 4103
Email	kenneth@singoconsulting.co.za

2. Expertise of the EAP

a) The qualifications of the EAP

Please refer to Appendix 1 for the EAP's qualifications and Curriculum Vitae.

b) Summary of the EAP's experience.

Singo Consulting (Pty) Ltd was established in 2008 as an independent consulting company focused on creating opportunities in the mining and environmental industry. Over time, Singo Consulting diversified its services, providing high-value geological, hydrological, environmental, cleaning and rehabilitation services to clients across a range of industries focused primarily on natural resources.

EAP's experience in carrying out Environmental Impact Assessments Dr. Ndinanyi Kenneth Singo holds a PhD in Environmental Geology, an MSc in Environmental Management, and a BSc (Hons) Mining and Environmental Geology. Dr Singo is a registered competent person with the South African Council of Natural Science Professions (SACNASP: Earth Science Reg. No: 400069/16), Geological Society of South Africa (GSSA), the Land Rehabilitation Society of Southern Africa (LaRSSA) and South African Affiliates of the International Association for Impact Assessment.

Dr Singo has knowledge of mine water and mine environmental management (acid mine drainage, heavy metal assessments and tailings management) in various commodities including coal, gold, magnesite, and base metals (Cu, Pb, Zn). He has extensive knowledge of defunct mining waste and wastewater impact assessments in communities in the vicinity of mines. Dr Singo has sound knowledge of risk assessment in terms of human and environmental health. He is experienced in the appraisal of potential constraints, and devising mitigation measures through remedial strategy development, feasibility, and validation.

During his PhD studies, Dr Singo learned how to operate in contaminated lands. His PhD largely focused on disused mines (gold, copper, and magnesite) ranging from Phase I and Phase II investigations to development of remedial strategies (i.e., Phase III). His PhD equipped him to understand waste classification, profiling and understanding of the implications associated with the management of waste, landfill disposal profiling and development of beneficiation strategy.

3. Location of the overall Activity

Table 5: Location of project area

Farm Name	Portion of the portion of the remaining extent of the Farm Roodepoort 151 IS
Application area (Ha)	5 Hectares
Magisterial district	Magisterial District of Steve Tshwete, Mpumalanga Province
Distance and direction from nearest town	Approximately 5.28 km Southwest of Pullens Hope
21 digit Surveyor General Code for each farm portion	TOIS00000000015100000

c) **Locality map**

(Show nearest town, scale not smaller than 1:250,000)

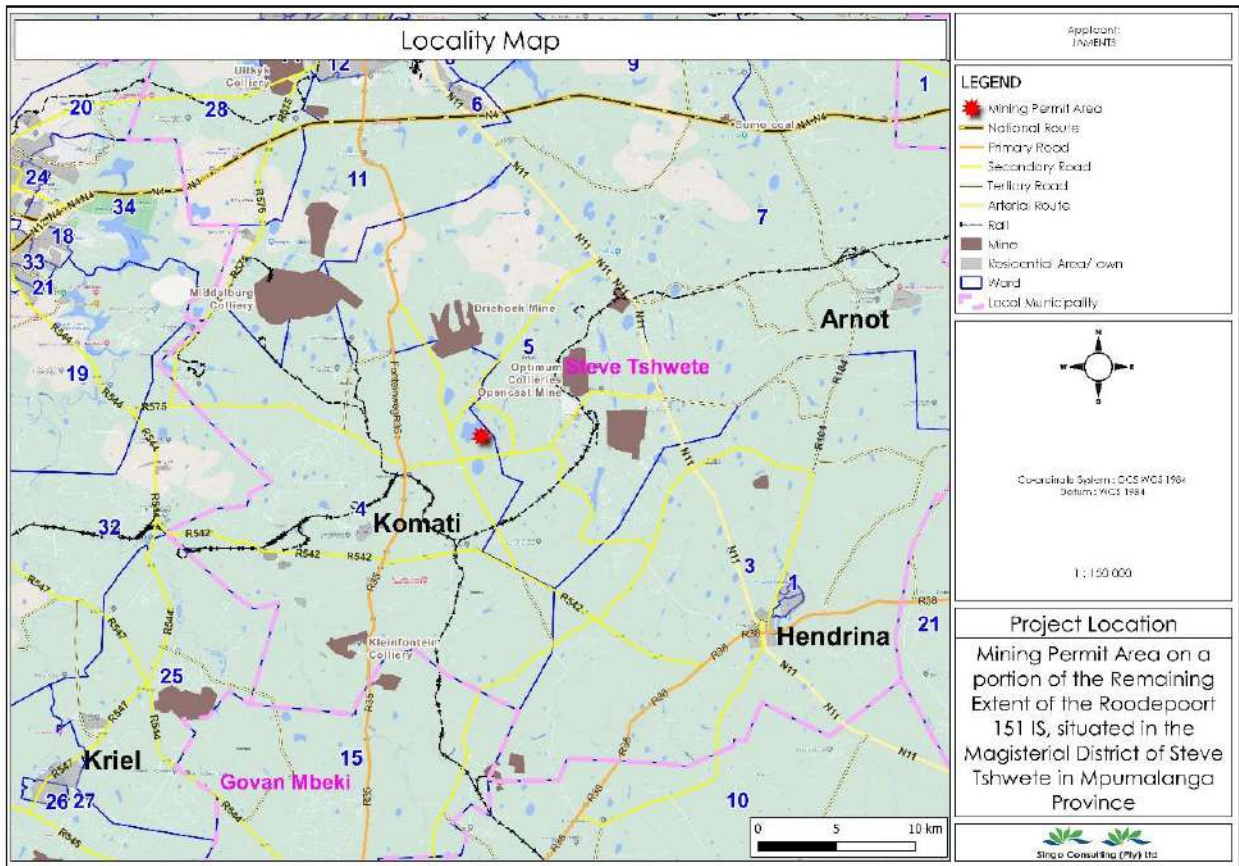


Figure 1: Locality map (Singo Consulting (Pty) Ltd)

d) **details of the proposed project**

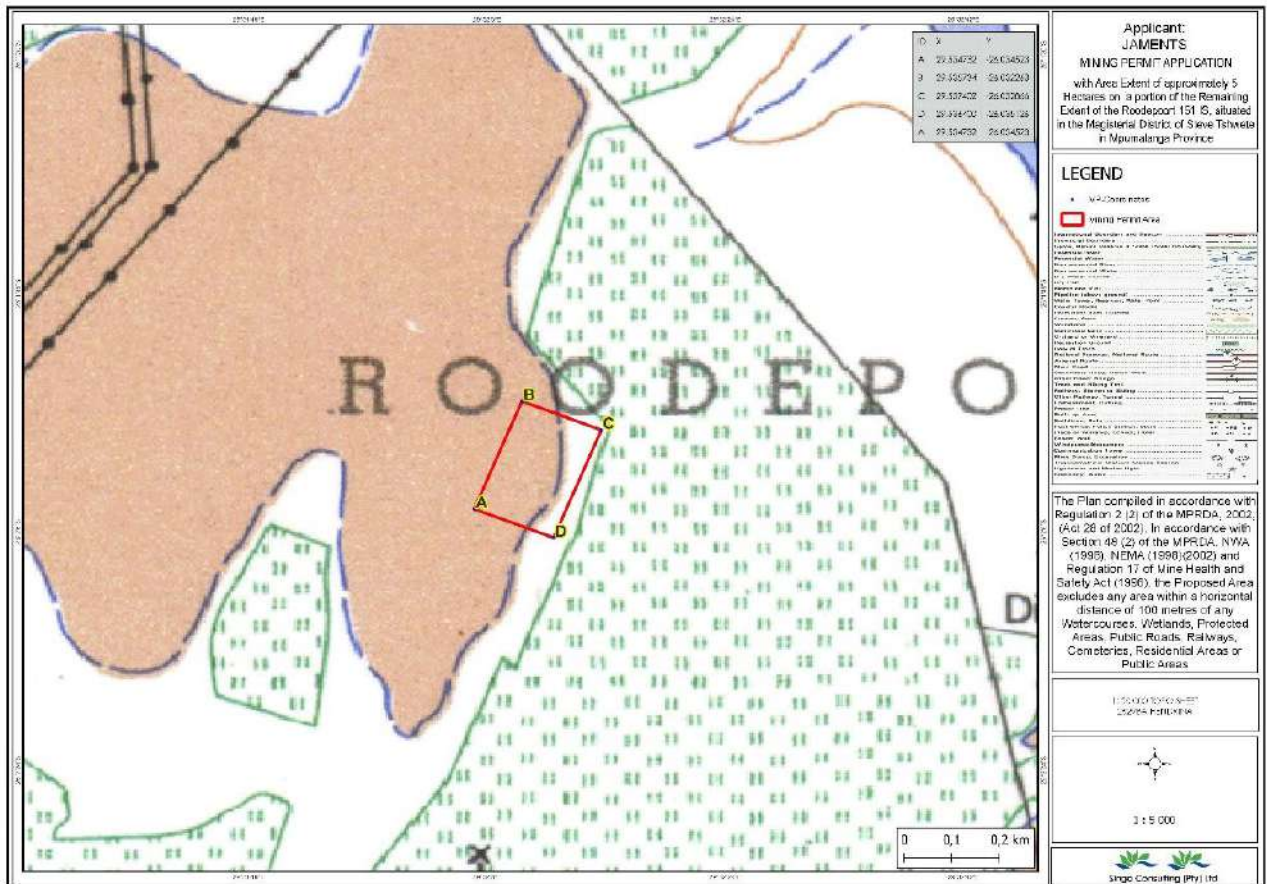


Figure 2: Regulation 2.2 (Singo Consulting (Pty) Ltd, 2023)

Table 6: Details of landowners

PORTION	OWNER	TITLE DEEDS
Portion of the remaining extent	SANCOR (PTY) LTD	T135575/1997

e) Proposed mine site.

The proposed site is located within the Arnot settlement, approximately 5.28 km Southwest of Pullens Hope, approximately 12,8 km Northwest of Braybank town, and approximately 59,6 North Southeast of Middleburg. It is situated in ward 5 of Steve Tshwete Local Municipality, under Steve Tshwete District Municipality, Mpumalanga Province. The site can be accessed via R35 from Middleburg which connects to unnamed gravel road that leads to the proposed project site.

4. Description of the scope of the proposed overall activity

Provide a plan drawn to a scale acceptable to the competent authority, but not less than 1:10 000 that shows the location, and area (hectares (ha)) of all aforesaid main and listed activities, and infrastructure to be placed on site.

The information below offers direction or insight into how mining operations will be carried out on the aforementioned property. Additionally, this document guarantees that the applicant will carry out the operation in accordance with the provisions of the Mineral and Petroleum Resources Development Act, act 28 of 2002, to the mine health and Safety inspectorate.

The mining method proposed involves open cast extraction of coal. The method that will be employed is a very basic form of open cast mining, and a 5-ha area will be demarcated for mining activities. Blasting (with non-conventional explosives) and subsequent mining of coal utilizing a truck and shovel operation will be conducted. The mined coal will be crushed and screened utilizing a mobile crushing and screening plant that will be established within the boundaries of the mining area. A front-end loader will be utilized to load the material into haulage trucks. The mine will operate for a two (2) year permit period with an option to renew for three (3) each periods of which may not exceed one year. The mineral will be stockpiled and transported to clients via trucks. All activities will be contained within the boundaries of the mining site.

The project infrastructure and activities will include the following:

- Site establishment, including the establishment of an access route, mobilization of equipment and preparation of area for mining.
- Site clearance.
- Removal of topsoil and overburden and stockpiling.
- Excavation of pit.
- Blasting.
- Loading zone.
- Dust control.

- Hauling and transporting of coal.
- Crushing and screening.
- Ablution facilities and waste storage area.
- Rehabilitation of site and Monitoring.

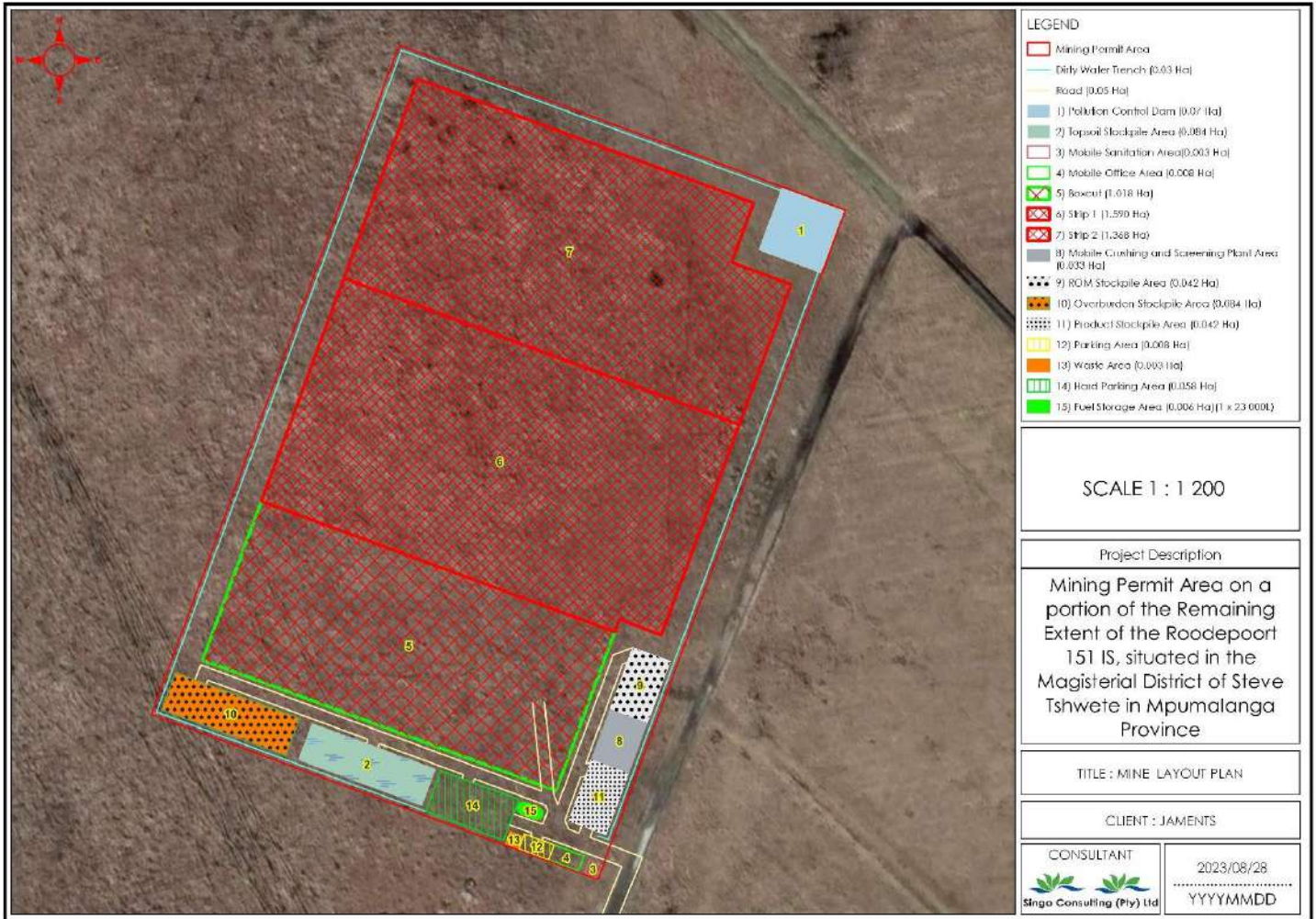


Figure 3: Mine layout plan (Singo Consulting (Pty) Ltd, 2023)

f) Listed and specified activities

NAME OF ACTIVITY E.g., for prospecting: drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route; and for mining: excavations, blasting, stockpiles, discard dumps/ dams, loading, hauling, transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines and conveyors.	Aerial extent of the activity Ha or m ²	Listed activity Mark with X where applicable	Applicable listing notice (GN 517/2021)
Open cast mining and crushing to produce coal specs required by clients	5 Ha	X	GN 517/2021, Listing notice 1 activity 21: Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required to exercise the mining permit.

A closure certificate in terms of section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)	5 Ha		Not listed
Vegetation Clearance	4,438 Ha	X	GN 517/2021, Listing Notice 1 activity 27: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for - (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.
Overburden stockpile	0.84Ha		Not listed
Topsoil stockpile	0.084Ha		Not listed
ROM stockpile area	0042Ha		Not listed
Mobile offices	0.008Ha		Not listed
Toilets and sanitation	0.003Ha		Not listed
Pollution Control Dam (PCD) construction	0.07Ha		Not listed
Box cut construction	1.018Ha		Not listed
Coal extraction (Strips)	2,958		Not listed
Rehabilitation	5 ha		Not listed

5. Description of the activities to be undertaken

Describe methodology/technology to be employed, including type of commodity to be prospected/mined, a linear activity and a description of the route of the activity.

The mining method proposed involves open cast extraction of coal from a proposed mine area. The mining methods will include blasting with non-conventional explosives to loosen the hard rock (overburden) when necessary. The material will be loaded with excavators and hauled to the mobile crushing and screening plants that will be established within the project area. The coal will be stockpiled and transported to clients via trucks. All activities will be contained within the boundaries of the mining site.

The trucks transporting coal from the Jaments (Pty) Ltd proposed Mining Permit area to dedicated clients, will travel through an existing gravel road that joins an unnamed tar road connecting to the R35 regional road. All mining vehicles using public roads will be in a roadworthy condition and their loads will be secured. They will adhere to the speed limits (40 km/h) and all local, provincial and national regulations with regards to road safety and transport.

Once drilling commences, core logging will be conducted, and based on the available coal resources, the quantity of coal within the mining permit area will be estimated. Coal samples will be taken to the lab to determine the value of the coal to be mined by Jaments (Pty) Ltd.



Figure 4: Opencast mining (Singo Consulting (Pty) Ltd, 2023)

This project will be carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014 (as amended) read together with regulation 40-43 of the Act. The triggered activities as reflected on GN 517/2021; LN 1 Activity 21 & 27:

- ❖ LN 1 Activity 27: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous

vegetation is required for –

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

For the proposed mining permit application, only 41.6 % of the area will be cleared as the remaining percent of the area is covered by a wetland.

- ❖ Activity 21: Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required to exercise the mining permit.

LN 1 Activity 27 is about clearing of vegetation and this application seek to be authorized for this activity. Deforestation process is required before commencement of any mining activity if the area is vegetated, this process allows the mining company to gain access to the mining area and locating other required infrastructures. Therefore, land clearance will be the first stage as part of development.

Phase	Activity no	Activity
Construction	1	Site clearing: Removal of topsoil and vegetation
	2	Construction of any surface infrastructure, e.g., Haul roads, pipes, storm water diversion berms (incl. transportation of materials and stockpiling)
	3	Free digging and development of initial box cut for mining
	4	Temporary storage of hazardous products (fuel, explosives) and waste
Operation	5	Removal of overburden and backfilling when possible (incl. drilling/free digging of hard overburden and stockpiling)
	6	Use and maintenance of haul roads.
	7	Extraction of Coal (mining process) and run of mine (RoM) coal stockpile
	8	Water use and storage on site
	9	Storage, handling and treatment of hazardous products (fuel, explosives, oil) and waste activities (waste, discard)
	10	Concurrent replacement of overburden, topsoil and re-vegetation

Decommissioning	11	Removal of all infrastructure (incl. transportation off site)
	12	Rehabilitation (spreading of soil, re-vegetation and profiling)
	13	Installation of post-closure water infrastructure
	14	Environmental monitoring of decommissioning activities
	15	Storage, handling and treatment of hazardous products (fuel, explosives, oil) and waste activities (waste discard)
Post-closure	16	Rehabilitation and post-closure monitoring

6. Site establishment/construction phase

During site establishment, the applicant must demarcate the site boundaries and clear the topsoil and overburden from the extension area to open it for free digging. Upon stripping, the topsoil and overburden will be stockpiled along the boundaries of the proposed mine for use during the rehabilitation phase. Topsoil stripping will be restricted to the areas to be mined. The complete A-horizon (topsoil – the top 100-200 mm of soil, which is generally darker in colour due to high organic matter content) will be removed. If it is unclear where the topsoil layer ends, the top 300 mm of soil must be stripped.

The topsoil will be stockpiled in the form of a berm alongside the boundary of the mine proposed mine where it will not be driven over, contaminated, flooded, or moved during the operational phase. The topsoil berm will measure a maximum of 1.5 m high and indigenous grass species must be planted on it, if vegetation does not naturally establish within 6 months of stockpiling, to prevent soil erosion and discourage weed growth. The roots of the grass will improve soil viability for rehabilitation purposes. The stripped overburden will be stockpiled on a designated area after the topsoil has been removed.

Overburden is waste rock consisting of consolidated and unconsolidated material that must be removed to expose the underlying mineral. It is desirable to remove as little overburden as possible in order to access the mineral of interest, but a larger volume of waste rock is excavated when the mineral deposit is deep. The removal techniques that will be employed are cyclical with interruption in the extraction (drilling, blasting and loading) and removal (haulage) phases. This is particularly true for hard rock overburden which must be drilled and blasted first. An exception to this cyclical effect are, dredges used in hydraulic surface mining and some types of loose material mining with bucket wheel excavators. The fraction of waste rock to mineral excavated is defined as the

stripping ratio. Stripping ratios of 2:1 up to 4:1 is not uncommon in large mining operations. Ratios above 6:1 tend to be less economically viable, depending on the commodity. Once removed, overburden can be used for road and tailings construction or may have non-mining commercial value as fill dirt.

Surface mining is a mine in which the mineral lies near the surface and can be extracted by removing the covering layers of rock and soil. Almost all surface mining operations are exposed to the elements and require no roof support. Open cast mining method employ a conventional mining cycle of operations to extract minerals: rock breakage is usually accomplished by drilling and blasting for consolidated materials and by ripping or direct removal by excavators for unconsolidated soil and/or decomposed rock, followed by materials handling and transportation. Open cast mining method was considered based on the geological data, extrapolation of resource from nearby mines, life span of a permit and the closure advantage of open cast mining.

During the development and exploitation stages of mining when natural materials are extracted from the earth, remarkably similar unit operations are normally employed. The unit operations of mining are the basic steps used to produce mineral from the deposit, and the auxiliary operations that are used to support them. The steps contributing directly to mineral extraction are production operations, which constitute the production cycle of operations. The ancillary steps that support the production cycle are termed auxiliary operations. The production cycle employs unit operations that are normally grouped into rock breakage and materials handling. This cyclic operation will be employed to recover Coal resources.

Breakage generally consists of drilling and blasting, and materials handling encompasses loading or excavation and haulage (horizontal transport) and sometimes hoisting (vertical or inclined transport). Thus, the basic production cycle consists of these unit operations:

Production cycle=Drill+ Blast + Load+ Haul

Although production operations tend to be separate and cyclic in nature, the trend in modern mining and tunnelling is to eliminate or combine functions and to increase continuity of extraction. For example, in PGMs, Chrome ore, Copper, Nickel ore,

Vanadium ore and Iron ore and other soft rock mines, continuous miners break and load the mineral to eliminate drilling and blasting. The cycle of operations in surface and underground mining differs primarily by the scale of the equipment. Specialized machines have evolved to meet the unique needs of the two regimes.

The applicant will introduce the mining equipment to the area during the site establishment phase. The equipment to be used on site will include but not limited to:

- Mobile site offices, security offices and ablution facilities
- Drilling equipment
- Excavating equipment
- Earth moving equipment.
- Mobile screening/ crusher plant
- Weigh bridge
- Operational phase

The mining activities will consist of the following:

- Ripping method, Drilling and Blasting
- Excavating
- Crushing
- Stockpiling and Transporting
- Site access road
- Mobile chemical toilets and Sanitation

7. Ripping VS Drilling and Blasting (Preferred alternative)

Ripping Method

Ripping is a method of loosening rocks using steel tynes attached to the rear of bulldozers, these tynes are lowered into the ground which displaces the soil or blocks of rocks as the whole unit moves forward. There is lot of factors on which the degree of rippability depends on came such as the nature of formation of the rock: Igneous & metamorphic

rocks are difficult to rip in absence of substantial fractures or weak

planes while sedimentary rocks are more amenable to ripping due to presence of clear planes of stratification. As much as ripping is usually economic than drilling and blasting, when it becomes harder drilling and blasting becomes cheaper.

The mined coal will be crushed and screened utilizing a mobile crushing and screening plant. A front-end loader will be utilized to load the material into haulage trucks. The coal will be processed off-site. Should the proposed mining activities change, this will be indicated in the form of a Section 102 Amendment Application of the MPRDA.



Figure 5: Typical example of Mining Engineering Ripping

Should it be that the overburden is too hard to rip, drilling and blasting will be implemented. The type of explosive that will be used for blasting is Nonex™ and not conventional explosives as the impacts of Nonex™ are relatively low compared to those of conventional explosives. Environmental impacts of Nonex™ are listed below:

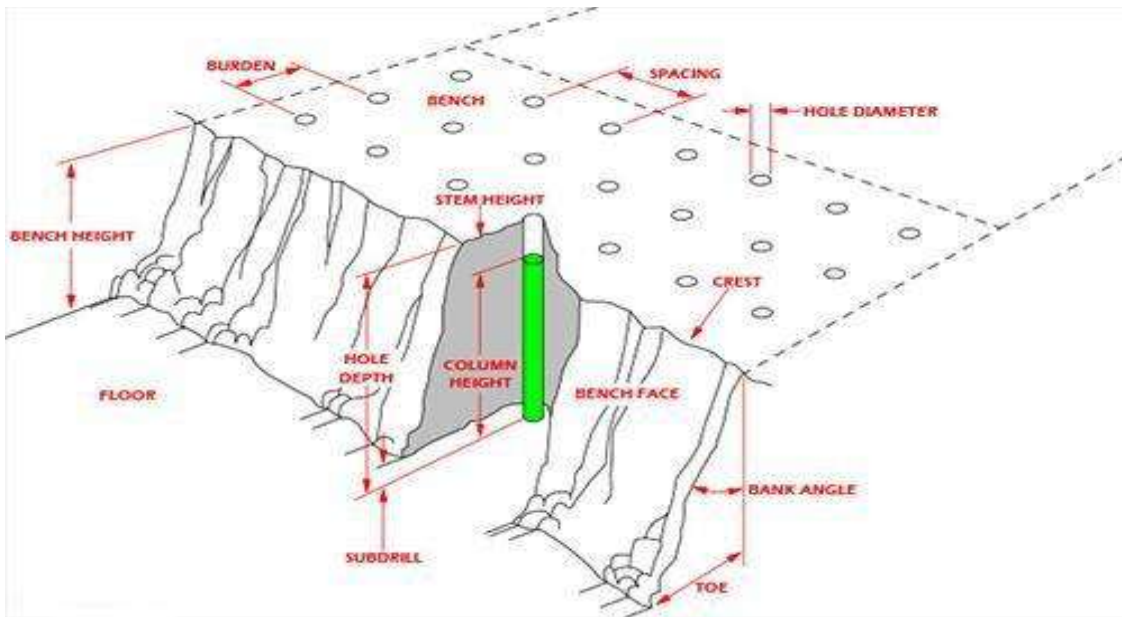


Figure 6: Blasting Design and Planning for Blasting

Drilling and blasting

Drilling and blasting can be defined as the controlled use of explosives and other methods such as gas pressure blasting pyrotechnics, to break rock for excavation. It is practiced most often in mining, quarrying and civil engineering such as dam, tunnel, or road construction. The result of rock blasting is often known as a rock cut.

Drilling and blasting currently utilizes many different varieties of explosives with different compositions and performance properties. Higher velocity explosives are used for relatively hard rock in order to shatter and break the rock, while low velocity explosives are used in soft rocks to generate more gas pressure and a greater heaving effect. For instance, an early 20th-century blasting manual compared the effects of black powder to that of a wedge, and dynamite to that of a hammer. The most commonly used explosives in mining today are ANFO based blends shown in figure 8 due to lower cost than dynamite.



Figure 7: Accessories, Blasting Design and pattern (<https://www.alamy.com>)

Airblast overpressure

Airblast overpressure is the pressure produced by blasting over and above that of atmospheric pressure produced by explosives. The three main concerns associated with airblast overpressure are human discomfort, structural damage and window damage.

The Nonex™ method of breaking ensures that expansion gases are contained in the drill hole by effective stemming, which results in very low overpressure levels. Overpressure levels produced by Nonex™ are extremely low when compared to conventional explosives and are of a shorter duration and less damaging frequency. This gives Nonex™ a major advantage over explosives in environmentally sensitive

areas.

Noise

Noise is the part of the airblast overpressure wave which falls within the audible frequency region of the human ear. The high frequency portion of the air pressure wave is audible and is responsible for the noise that accompanies a blast. The lower frequency portion is not audible but can excite structures, such as windows, which in turn respond and produce secondary noise such as rattles. Noise levels produced by Nonex™ depend largely on the type and nature of the rock being broken charge weight, burden, depth of the hole and the effectiveness of the stemming used. A well-stemmed Nonex™ cartridge in granite will generally produce a noise level in the range 80 to 85 dBL at 50 meters from the hole. Noise levels can be attenuated by the use of conveyor belting, or other matting, to cover the holes being fired.

Ground Vibration

Ground borne vibrations from blasting can cause damage to buildings and infrastructure which are in the vicinity of the blast. The degree of vibration-induced damage caused by blasting is dependent on the magnitude, frequency and duration of the vibration. Generally, low frequency, long duration vibrations are more damaging than higher frequency, short duration vibration. The vibration waves produced by Nonex™ are mostly of a higher frequency, with a mean of 450 Hz, and of short duration and are therefore the least harmful to sensitive structures. In addition, the magnitude of the vibration levels produced by Nonex™ is particularly low when compared to explosives over the same distance from the shot hole. When the propellant mixture in a Nonex™ cartridge deflagrates, the almost instantaneous change from solid to gaseous matter is accompanied by a very sharp increase in the blasthole pressure and temperature. This is accompanied by a pressure wave that radiates from the drillhole, its amplitude decreasing as the distance from the drillhole increases. The primary factors known to influence the level of ground vibration from the Nonex™ cartridges include:

- The weight of propellant per cartridge.
- The distance between the drillholes and the point of measurement.

- The local geological conditions, and the influence of geology and topography on vibration attenuation.

Vibration Limits for Structures

The degree of vibration-induced damage caused by blasting is dependent on the magnitude, frequency and duration of the vibration. Generally, low frequency, long duration vibrations are more damaging than higher frequency, short duration vibrations.

This general rule is contained in recommendations by both the US Bureau of Mines ("USBM") and the British Standard ("BS"), both of which are widely used in vibration specifications for rock breaking near sensitive structures. The USBM criteria are as follows:

Frequencies above 40 Hz

- PPV < 50 mm/s - safe zone
- PPV > 50 mm/s - damage zone

Frequencies below 40 Hz

- PPV < 13 mm/s - safe zone (old wooden house)
- PPV > 19.5 mm/s - safe zone (modern house)

As a result of the reduced charge weights used for Nonex™ rock breaking and its favourable vibration signature, the vibrations generated by Nonex™ are well within most imposed restrictions for rock breaking close to sensitive structures.

Safety Distance.

One of the significant advantages of Nonex RBCs is that the safety distances are approximately 50 metres from blasting over-sized rock in the open, without any covering. This means that personnel and equipment only require local clearance instead of complete site evacuation. This benefit is that rocks and boulders can be broken in shifts and close to working operations.

The safety distance to infrastructure and sensitive equipment is further reduced by covering the blast with mats and soft soil.

Noxious Fumes

The Nonex™ cartridge is oxygen balanced so that sufficient oxygen is available for the chemical reaction to achieve optimal oxidation to produce gases consisting of carbon dioxide, nitrogen and steam and thus avoiding the production of noxious gases such as carbon monoxide and nitrous fumes. The reduced quantities of propellant required to break the rock compared to explosives means that considerably less fumes are emitted by the rock breaking event. As a result of the degree of oxidation achieved in the deflagration process, through the incorporation of an effective oxidizing agent and the relatively small amount of propellant used in each hole, the Nonex™ cartridge produces a negligible level of noxious gases which are cleared in minutes when an adequate standard of airflow (nominally a velocity of 0.25 meters per second) is available.

Flyrock

Normally, blasting using conventional explosives requires the rock breaking area to be evacuated for a distance of 500m which means disruption of the production operations and delays to operating equipment. The generation of unpredictable flyrock rules out the use of lay-on charges in any situation where flyrock is restricted.

In contrast, a Nonex™ cartridge produces an optimal pressurization of the hole for a given burden and type of rock. By controlling the characteristics of the pressure pulse, the velocity and distance travelled by the dislodged rock can be limited.

Controlled gas release from the Nonex™ cartridge, at a relatively low pressure, results in a minimal quantity of low velocity flyrock, which is generally contained within 10 meters of the rock breaking event.

Table 7: Advantages of Nonex™

Nonex™ RBC's Compared to Conventional Explosives

Particulars	Conventional Explosives	Nonex Cartridge
Environmental effect	Adverse Effects – Landslides, crevasses in earth strata, tunnel collapse etc.	No adverse effect.
Fly Rock	High velocity, uncontrolled, fly rocks up to 500metres	Controllable low velocity fly rocks up to 50m
Shockwave	Supersonic shock wave with significant damage	No shock wave
Dust levels	High level of dust produced by crushing effect.	Minimal dust due to better fragmentation.
Vibrations	High level vibrations – unfit for use in built up areas	Low vibrations – ideal for built up areas/sensitive projects
UN Hazard Division	1.1	1.3C
Functions on	Detonation	Deflagrating
Reaction speed	3,000 -10,000 m/sec.	300 – 1000 m/sec.
Pressure	1200 GPa	450 MPa
Working principle	Produces SHOCK WAVE, resulting in Blast and Shattering effect	NO SHOCK WAVE- Produces gases only which split the rock.
Safety Distance	Minimum 500m	Average 100m
Noxious fumes	Underground mines – 3 hour re-entry time	30 minutes re-entry time

8. Decommissioning phase

The closure objectives include making the coal proposed mine safe and ensuring that the remainder of the site is fit for current landuse again. The coal proposed mine will be incorporated into the closure objectives of the proposed extension area. Control of weeds and alien invasive plant species is an important aspect after topsoil replacement

and seeding (if applicable) has been done in an area. Site management will implement an alien invasive plant management plan during the aftercare period to address germination of problem plants in the area.

The decommissioning activities will include:

- Replacing of topsoil
- Sloping and landscaping during rehabilitation
- Implementation of an alien invader plant management plan

(i) Mine Planning and scheduling

Mine design plans include structures that will be temporarily erected such as offices that are required for the mining operations including the location of residue deposits. A specific area will be used for setting all equipment and resources necessary for the operation. The site will be fenced, and notices will be plugged to alert trespassers about the danger on the site.

(ii) Mining timeframe

Mining activities will be undertaken over a period of two (2) years and may be renewed for three periods each of which may not exceed one year. The mining area including all stockpile areas, offices, parking area etc. will ultimately measure 5 ha in total, although mining will be carried out in three box cuts, the boundary of mining within 5-ha will still be maintained.

(iii) Legal appointment

Details of the list of all the job categories that will be employed on the mine, from the mine manager to the unskilled labours, including those of subcontractors and service providers will be provided in the technical ability report document which will also be submitted to the competent authority. In this section, we highlight that the following essential and legally required skills will be employed on all phases of the mine.

Engineering personnel: An engineer with at least 5 years of experience must be responsible to ensure that mining and rehabilitation program is implemented as outlined. The engineer must also enforce the following.

- confirming that workers are trained and competent for the task undertaken.
- providing clear work instructions
- inspecting and monitoring workplace conditions
- continuously evaluating worker performance and correcting unsafe acts
- reporting and rectifying hazards
- assuring implementation of the company's safety systems
- demanding compliance with safety rules and procedures
- conducting meaningful observations, consultation and interventions

Environmental, Health and safety personnel: with at least 5 years' experience in relevant fields of environmental assessment, monitoring and rehabilitation.

- Monitor and report the potential environmental, health and safety risk
- Identify priorities for replacing or modifying the rehabilitation plan.
- Develop an action plan with due dates and responsibilities for the rehabilitation process
- Conduct an audit of rehabilitation to ensure that all practical measures have been taken to control risk associated
- Produce an environmental, health and safety report monthly and quarterly

Geologist with at least 5 years' experience on exploration of coal or relevant work.

- Will be responsible for identifying and assessing the location, quantity and quality of mineral deposits.
- Planning programmes for Mining and taking samples
- Collecting and recording samples and data from test sites
- Analysing geological data using specialist computer applications

- Produce a report on quantity, quality and depth of coal reserves.

Ecologist with at least 5 years minimum experience.

- Responsible for assessing the site-specific ecological risk by inspect the areato be mined and ensure that plants and animals are not harmed or affected bythe activities.
- Ensure enough time is given for animal species to move away from the areato be mined.
- Keep a register of identified species.
- Recommend alternatives and mitigation measures.



Figure 8: Example of VIP and Mobile toilets (<https://www.bing.com/images/search>, 2023).

❖ **Accommodation:**

No accommodation for staff and workers will be provided on-site and all people will be accommodated in nearby towns. Workers will be transported to and from the mining permit site daily. Night security staff will be employed once equipment has been

established on site.

❖ **Waste Management:**

General Waste: General waste generated from the proposed project area will be collected in drums (see figure 9) and disposed of at a registered domestic waste disposal site refer to for typical example of general waste management.



Figure 9: Typical example of general waste management (Source: Google).

❖ **Hazardous Waste:**

Hazardous waste generated will be collected in a hazardous waste bin (See figure 10). The bin will be clearly marked as such. The removal of the hazardous waste will be undertaken by a registered waste disposal company, for disposal at a registered licensed waste disposal site. The drums will be placed on protected ground and covered.



Figure 10: Typical example of hazardous waste management (Source: Google).

Stockpiling

The stockpiling process includes mechanical loading and transportation of the sought coal. As mentioned previously the coal will be loaded with a front-end loader onto trucks upon which it will be weighed and transported to the client.

The product stockpiling activities will consist of the following:

- Loading of coal.
- Weighing of coal; and
- Transportation of coal.



*Figure 11: Typical Example of Stockpiling Process(
(<https://www.bing.com/images/search>, 2023)*

Working hours:

All proceedings will be undertaken during the 8-hour day shift, to meet schedule demands. One Shift will be worked from 8:00 a.m. to 16:00 p.m.

5.2 Road and transport

The site is accessible through Unmanned gravel road from Pullens Hope that joins R35 regional road from Middleburg. A new road must be built, they will be chosen as carefully as possible to avoid watercourses and steep gradients. Where necessary, adequate drainage and erosion protection in the form of cut-off berms or trenches will be provided. Any new roads to be established to the site will be below the threshold of the EIA regulations of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended June 2014. The existing farm road will be used as access road to the site. Should a portion of the access road need to be newly constructed in future the following will be adhered to:

- The route will be selected that a minimum number of vegetation is cleared, and existing fence lines will be followed as far as possible.
- Adequate drainage and erosion protection in the form of cut-off berms or trenches will be provided where necessary.



Figure 12: Access Road to the project site

9. Policy and legislative context

This Mining Permit application requires authorization in terms of the following interlinked

pieces of legislation:

- ❖ The Mineral and Petroleum Resources Development Act, 2002 (MPRDA, Act 28 of 2002), as amended.
- ❖ The National Environmental Management Act, 1998 (NEMA, Act 107 of 1998), as amended.

These pieces of core legislation stipulate the required studies, reports, and legal processes to be conducted and the results thereof are to be submitted to the relevant authorities for approval prior to commencement. In addition to the above, there are various pieces of legislation which govern certain aspects of the mining operations, and these are summarized in Table 3, together with the main legislative requirements mentioned above.

Table 8: Policy and Legislative context

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
A description of the policy and legislative context within which the development is proposed, including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.		E.g., In terms of the National Water Act (NWA) a Water Use License has/has not been applied for.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
Minerals and Petroleum Development Resources Act, Act 28 of 2002 (MPRDA) and the MPRDA Amendment Act, Act 49 of 2008	Application for a mining permit DMRE reference: MP 30/5/1/1/3/ 13941 MP	GN 517/2021, Activity 21: Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Resources Development Act, as well as any other applicable activity as contained in this Listing Notice or in Listing Notice 3 of 2014, required to exercise the mining permit.
Constitution of South Africa, specifically everyone has the right to: an environment that is not harmful to their health or wellbeing have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development	Republic of South Africa	The mining activities will only proceed after effective consultation and mitigation measures are put in place for possible negative impacts.

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
Environmental Impact Assessment (EIA) regulations	Application for environmental authorization: DMRE Reference: MP 30/ 5/ 1/ 1/ 3/ 13941 MP	GN 517/2021 Activities 21
National Environmental Management Act, Act 107 of 1998 (as amended) (NEMA)	Application for environmental authorization: DMRE Reference: MP 30/ 5/ 1/ 1/ 3/ 13941 MP	GN 517/2021 Activities 21
National Water Act, 1998 (Act 36 of 1998), and GN 704 regulation. Best Practice Guidelines: Series A, G, & H	(\$ 21 & S 26) Water use & mine water management	Best practice guidelines will be followed for water management, water characterization, water resource protection, water treatment, and the development of the mine water management model
National Environmental Management: Waste Act, Act 59 of 2008 (NEMWA)NEM: WA	Management measures Environmental awareness plan	All type of waste will be managed as prescribed by the regulation (NEMWA)

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the legislation and policy context
National Heritage Resources Act, 25 of 1999 (NHRA)	Management measures	No mining activities will take place within 500 m of any identified heritage resource, such as a grave. No graves have been identified on the site in question.
Municipality By-Laws: Waste Management by-law Act 59 of 2008, Air Quality Management By-law Act 39 of 2004, Noise control by-law, Spatial Planning and Land Use Management act no 16 of 2013 (SPLUMA).	Environmental Management measures awareness plan	Best practice guidelines will be followed for any by-law's management and the development of the mine environmental and other legislative management.

Table 9: List of activities triggered and their legislation.

Activity	Mining permit area (5 ha)	Activity 21: Listing Notice 1 (GN 517/2021)
Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the MPRDA 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks directly related to the extraction of mineral resource, including activities for which an exemption has been issued in terms of section 106 of the MPRDA (2002).		E.g., In terms of the NWA, a WaterUse License has/has not been applied for
The clearance of an area of 1 ha or more, but less than 20 ha, of indigenous vegetation, except where such clearance of indigenous vegetation is required for: (i) The undertaking of a linear activity. (ii) Maintenance purposes undertaken in accordance with a maintenance management plan.	Mining permit area (5 ha)	Activity 27: Listing Notice 1 (GN517/2021)
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Mining activities	The potential impact on important flora and fauna conservation in the study area, and the management thereof is addressed in this BAR.
Steve Tshwete Local Municipality (2017-2022 Integrated Development Plan – Draft)		The proposed project will have a positive impact on the socio-economic conditions of the local communities

<p>National Environmental Management Air Quality Act (Act No. 39 of 2004, Government Gazette No.27318) (NEMAQA)</p> <p>National Ambient Air Quality (GN 1210: 2009) Mine Health and Safety Act, Act 29 of 1996 National Dust Control Regulations (GN 275: 2017)</p>	<p>Air quality & dust control</p>	<p>Standards for particulates and dust used in the Impact Assessment will regulate the concentration of a substance that can be tolerated without environmental deterioration. Exposure to dust and toxic particles of coal, clay (general) and sand (general) will be managed.</p>
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10. Environmental Authorization Process

10.1 Mineral and Petroleum Resources Development Act

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002), a Mining Permit must be issued prior to the commencement of any mining activities. As per Section 79(4)(a) and (b) of the MPRDA, the Applicant is required to conduct a Basic Assessment and submit an EMPR for approval as well as to notify in writing and consult with Interested and Affected Parties (I&APs) within 90 days of acceptance of the application. The MPRDA also requires adherence with related legislation, chief amongst them is the National Environmental Management Act (Act 107 of 1998, NEMA) and the National Water Act (Act 36 of 1998, NWA).

Several amendments have been made to the MPRDA. These include, but are not limited to, the amendment of Section 102, concerning amendment of rights, permits, programmes and plans, to requiring the written permission of the Minister for any amendment or alteration; and the Section 5A(c) requirement that landowners or land occupiers receive twenty-one (21) days' written notice prior to any activities taking place on their properties. One of the most recent amendments requires all mining related activities to follow the full NEMA process as per the 2014 basic assessment Regulations (as amended), which came into effect on 8th of December 2014.

A Mining Permit is exclusive, transferable, valid for two (2) years and may be renewed for three periods of which may not exceed one year.

10.2 National Environmental Management Act

The main aim of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) is to provide for co-operative governance by establishing decision-making principles on matters affecting the environment. In terms of the NEMA Environmental Impact Assessment (EIA) regulations, the proponent is required to appoint an environmental assessment practitioner (EAP) to undertake the EIA as well as the public participation process. In South Africa, EIA became a legal requirement in 1997 with the promulgation of regulations under the Environmental Conservation Act (ECA). Subsequently, NEMA was passed in 1998. Section 24(2) of NEMA empowers the Minister and any MEC, with the concurrence of the Minister, to identify activities which must be considered, investigated, assessed, and reported on to the competent authority responsible for granting the relevant environmental authorization. On 21 April 2006 the Minister of Environmental Affairs and Tourism promulgated regulations in terms of Chapter 5 of the NEMA.

The objective of the Regulations is to establish the procedures that must be followed in the consideration, investigation, assessment, and reporting of the activities that have been identified. The purpose of these procedures is to provide the competent authority with adequate information to make decisions which ensure that activities which may impact negatively on the environment to an unacceptable degree are not authorized, and that activities which are authorized are undertaken in such a manner that the environmental impacts are managed to acceptable levels.

The aim of the EIA process is to identify and assess the potential impacts associated with the proposed project and to develop measures through which potential negative biophysical and socio-economic impacts can be mitigated and positive benefits can be enhanced. The EIA will ensure that all issues are integrated into the lifecycle of the mining operation and its infrastructure. This will occur during the planning, construction, operation and decommissioning and site closure phases.

The EIA Report and the associated EMPR will indicate how the identified impacts will be avoided, mitigated and/or managed by setting environmental objectives and goals. The EMPR will further outline the implementation programme for the environmental objectives

and goals. The EMPR is a legal requirement of the MPRDA and all mines, existing or new, are required to possess an approved EMPR prior to initiating any mining operations. The EMPR is legally binding, and the proponent is required to meet the requirements specified in the document.

The written decision called an Environmental Authorization, is a legal document setting out the conditions of the Authorization and the actions required to protect human health and the environment. Any affected party may appeal against the decision contained in an Environmental Authorization. Appeals must be lodged with the Minister who considers appeals in terms of the relevant provisions of NEMA and the Environmental Regulations.

An important amendment to the NEMA (December 2014) Regulations is that the Department of Mineral Resources has been the responsible authority for approving and issuing of Environmental Authorizations under the NEMA for mining related activities. The Department of Environmental Affairs is the appeal authority for mining related Environmental Authorizations.

10.3 National Environmental Management: Waste Amendment Act

The Regulations pertaining to the NEMWA activities were published on 3rd of July 2009 in Government Gazette 32368 under GN 718. These were amended in August 2013 in Government Notice Regulation 921. Regulations regarding the planning and management of residue stockpiles and residue deposits were published and commenced on 24 July 2015 in Government Notice Regulation 632 and the List of waste management activities that have or are likely to have a detrimental effect on the environment were amended on the same date by Government Notice Regulation 921. As per this list the following is of important to note:

- ❖ Category A: (15) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining permit or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

Category B: (11) The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right,

exploration right or production right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).

On the 2nd of June 2014 the National Environmental Management: Waste Amendment Act came into force. Of importance for mining activities is that according to this amendment, waste resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals is classified as Hazardous Waste. Waste is accordingly no longer governed by the MPRDA but is subject to all the provisions of the National Environmental Management: Waste Act, 2008 (NEMWA). Section 16 of the NEMWA must also be considered which states as follows:

“A holder of waste must, within the holder's power, take all reasonable measures to:

- ❖ Avoid the generation of waste and where such generation cannot be avoided, to minimize the toxicity and amounts of waste that are generated.
- ❖ Reduce, re-use, recycle and recover waste.
- ❖ Where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner.
- ❖ Manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odours, or visual impacts.
- ❖ Prevent any employee or any person under his or her supervision from contravening the Act.
- ❖ Prevent the waste from being used for unauthorized purposes.

These general principles of responsible waste management are incorporated into the requirements in the EMPR to be implemented for this project.

Schedule 3: Defined Wastes have been broken down into two categories: Category A being hazardous wastes and category B being general wastes. Under Category A (hazardous wastes) the act makes allowance for “wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals”.

In order to understand the implications of this it is important to ensure that the definitions of all the relevant terminologies are defined:

- ❖ Hazardous waste: means “any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristic of that waste, have a detrimental impact on health and the environment and includes hazardous substances, materials or objects within business waste, residue deposits and residue stockpiles.
- ❖ Residue deposits: means “any residue stockpile remaining at the termination, cancellation or expiry of a prospecting right, mining right, mining permit, exploration right or production right.
- ❖ Residue stockpile: means “any debris, discard, tailings, slimes, screening, slurry, waste rock, foundry sand, mineral processing plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated within the mining area for potential re-use, or which is disposed of, by the holder of a mining right, mining permit or, production right or an old order right, including historic mines and dumps created before the implementation of this Act.

Various regulations have been drafted in support of the NEMWA, as discussed below:

- ❖ Proposed Regulations regarding the planning and management of waste from a prospecting, mining, exploration or production operations (2014):
- ❖ Chapter 2, Section 3 states the identification and assessment of any environmental impacts, including those on groundwater, arising from waste must be done as part of the Environmental Impact Assessment (EIA) conducted in terms of the National Environmental Management Act, 1998 (Act No.107 of 1998) (hereafter referred to as the NEMA). The pollution control barrier system shall be defined by the (a) Waste Classification and Management Regulations (2013); (b) National Norms and Standards for the Assessment of Wastes for Landfill Disposal (2013);

and (c) National Norms and Standards for Disposal of Waste to Landfill (2013).

- ❖ Waste Characterization must be done in terms of physical and chemical composition as well as content. The classification must be done in terms of the health and safety classification and the environmental classification.

Proposed Regulations to exclude a waste stream or a portion of a waste stream from the definition of a waste (2014):

This regulation will give the holder of the right the opportunity to exclude a waste stream, or a portion of a waste stream from the definition of a waste. Chapter 2, Section 4 of this Regulation, Sub-section (1) states that any portion of a waste generated from a source listed in Category A of Schedule 2 of the NEMWA, may be excluded from being defined as hazardous on demonstration that such portion of waste is non-hazardous in accordance with the Waste Management and Classification Regulations of 2013. The application process will be in the form of a prescribed process and application must be made to the Minister. This Regulation is however not yet in force. National Norms and Standards for the assessment of waste for landfill disposal (23 August 2013): These norms and standards prescribe the requirements for the assessment of waste prior to disposal to landfill. The aim of the waste classification tests is to characterize the material to be deposited or stored in terms of the above-mentioned waste classification guidelines set by the Department of Environmental Affairs (DEA).

The outcomes of the tests provide the necessary information in terms of:

- ❖ Identification of chemical substances present in the waste.
- ❖ Determination of the total concentrations (TC) and leachable concentrations (LC) of the elements and chemical substances that have been identified in the waste and that are specified in Section 6 of the above-mentioned Regulations. The obtained TC and LC values of the waste material will be compared to the threshold limits for total concentrations (TCT limits) and leachable concentrations (LCT limits) specified in Section 6

of the above-mentioned Regulations. Based on the TC and LC values of the elements and chemical substances in the waste exceeding the corresponding TCT and LCT limits respectively, the specific type of waste for disposal to landfill will be determined in terms of Section 7 of the Regulations.

10.4 The National Environmental Management: Biodiversity Act

The National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004, NEMBA), “provides for: the management and conservation of South Africa's biodiversity within the framework of the NEMA; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bio-prospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute (SANBI); and for matters conducted therewith”.

In terms of the Biodiversity Act, the applicant has a responsibility for: The conservation of endangered ecosystems and restriction of activities according to categorization of the area (not just by listed activity as specified in the EIA regulations); Promote the application of appropriate environmental management tools in order to ensure integrated environmental management of activities thereby ensuring that all developments within the area are in line with ecological sustainable development and protection of biodiversity. Limit further loss of biodiversity and conserve endangered ecosystems.

Regulations published under the NEMBA also provide a list of protected species, according to the Act (GNR 151 dated 23 February 2007, as amended in GNR 1187 dated 14 December 2007). Section 57 of NEMBA identifies restricted activities involving threatened or protected species. Restricted activities include the gathering, collecting, cutting, uprooting, damaging or destroy a listed species.

10.4 The National Environmental Management: Protected Areas Act

The National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003) (NEMPAA) serves to: “provide for the protection and conservation of ecologically viable areas representative of South Africa's biological biodiversity and its natural landscapes and seascape; for the establishment of a national register of all national, provincial and

local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas; for the continued existence, governance and functions of South African National Parks; and for matters in connection therewith.

The objectives of this Act are –

- ❖ To provide, within the framework of the national legislation, including the National Environmental Management Act, for the declaration and management of protected areas.
- ❖ To provide for co-operation governance in the declaration and management of protected areas.
- ❖ To affect a national system of protected areas in South Africa as part of a strategy to manage and conserve its biodiversity.
- ❖ To provide for a diverse and representative network of protected areas on state land, private land, communal land and marine water.
- ❖ To promote sustainable utilization of protected areas for the benefit of people, in a manner that would preserve the ecological character of such areas.
- ❖ To promote participation of local communities in the management of protected areas, when appropriate
- ❖ To provide for the continued existence of South African National Parks.

10.5 National Water Act

The National Water Act, 1998 (Act 36 of 1998) (NWA) makes provision for two types of application for water use licenses, namely individual applications, and compulsory applications. The NWA also provides that the responsible authority may require an assessment by the Applicant of the likely effect of the proposed license on the resource quality, and that such assessment be subject to the EIA regulations. A person may use water if the use is-

- ❖ Permissible as a continuation of an existing lawful water use (ELWU).
- ❖ Permissible in terms of a general Authorization (GA).

- ❖ Permissible under Schedule 1.
- ❖ Authorized by a licensed.

The NWA defines 11 water uses. A water use may only be undertaken if authorized. Water users are required to register certain water uses that took place on the date of registration, irrespective of whether the use was lawful or not.

Section 21 of the National Water Act 1998 lists the following 11 water uses which can only be legally undertaken through the water use Authorization issued by the Department of Water and Sanitation (DWS):

- (a) Taking water from a water resource.
- (b) Storing water.
- (c) Impeding or diverting the flow of water in a watercourse.
- (d) Engaging in a stream flow reduction activity contemplated in Section 36.
- (e) Engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1).
- (f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduits.
- (g) Disposing of waste in a manner which may detrimentally impact on a water resource.
- (h) Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process.
- (i) Altering the bed, banks, course or characteristics of a watercourse.
- (j) Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people.
- (k) Using water for recreational purposes.

In terms of the National Water Act, no Water Use License has been applied for this project. DWS was engaged about this project so they can direct us whether it is viable or not to apply for water use license.

10.6 National Heritage Resources Act

The National Heritage Resources Act, 1999 (NHRA) stipulates that cultural heritage resources may not be disturbed without authorization from the relevant heritage authority. Section 34(1) of the NHRA states that, “no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority” The NHRA is utilized as the basis for the identification, evaluation, and management of heritage resources and in the case of CRM those resources specifically impacted on by development as stipulated in Section 38 of NHRA, and those developments administered through NEMA, MPRDA and the DFA legislation. In the latter cases the feedback from the relevant heritage resources authority is required by the State and Provincial Departments managing these Acts before any authorizations are granted for development. The last few years have seen a significant change towards the inclusion of heritage assessments as a major component of Environmental Impacts processes required by NEMA and MPRDA. This change requires us to evaluate the Section of these Acts relevant to heritage (Fourie, 2008b).

The NEMA 23(2)(b) states that an integrated environmental management plan should, “...identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage”. A study of subsections (23)(2)(d), (29)(1)(d), (32)(2)(d) and (34)(b) and their requirements reveals the compulsory inclusion of the identification of cultural resources, the evaluation of the impacts of the proposed activity on these resources, the identification of alternatives and the management procedures for such cultural resources for each of the documents noted in the Environmental Regulations. A further important aspect to be taken account of in the Regulations under NEMA is the Specialist Report requirements laid down in Section 33 (Fourie, 2008b).

MPRDA defines ‘environment’ as it is in the NEMA and therefore acknowledges cultural resources as part of the environment. Section 39(3)(b) of this Act specifically refers to the evaluation, assessment, and identification of impacts on all heritage resources as identified in Section 3(2) of the National Heritage Resources Act that are to be impacted

on by activities governed by the MPRDA. Section 40 of the same Act requires the consultation with any State Department administering any law that has relevance on such an application through Section 39 of the MPRDA. This implies the evaluation of Heritage Assessment Reports in Environmental Management Plans or Programmes by the relevant heritage authorities (Fourie, 2008b).

The NHRA identifies 5 activities that require a Heritage Impact Assessment (HIA). An HIA is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources.

An HIA must be done under the following circumstances:

1. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300 m in length.
2. The construction of a bridge or similar structure exceeding 50 m in length.
3. Any development or other activity that will change the character of a site and exceed 5 000 m² or involve three or more existing erven or subdivisions thereof.
4. Re-zoning of a site exceeding 10 000 m².
5. Any other category provided for in the regulations of SAHRA or a provincial heritage authority.

South African Heritage Resource Agency has been consulted for this project so they can have an input to the proposed application.

10.7 Mine Health and Safety Act 29 of 1996

The Mine Health and Safety Act 29 of 1996 intends:

- to provide for protection of the health and safety of employees and other persons at mines and, for that purpose -
 - to promote a culture of health and safety;
 - to provide for the enforcement of health and safety measures;

- to provide for appropriate systems of employee, employer and State participation in health and safety matters;
 - to establish representative tripartite institutions to review legislation, promote health and enhance properly targeted research;
 - to provide for effective monitoring systems and inspections, investigations and inquiries to improve health and safety;
 - to promote training and human resources development;
 - to regulate employers' and employees' duties to identify hazards and eliminate, control and minimise the risk to health and safety;
 - to entrench the right to refuse to work in dangerous conditions; and
 - to give effect to the public international law obligations of the Republic relating to mining health and safety; and
- to provide for matters connected therewith.

HEALTH AND SAFETY AT MINES

Owner. to ensure safety 2

(1). The owner of every mine that is being worked must-

(a) ensure, as far as reasonably practicable, that the mine 5 is designed, constructed and equipped –

- (i) to provide conditions for safe operation and a healthy working environment; and
- (ii) with a communication system and with electrical, mechanical and other equipment as IO .. necessary to achieve those conditions;

(b) ensure, as far as reasonably practicable, that the mine is commissioned, operated, maintained and decommissioned in such a way that employees can perform their work without endangering the health and safety of themselves or of any other person;

(c) compile an annual report on health and safety at the mine including the statistics on health and safety that must be kept in tenns of this Act and the annual 15 medical report referred to in section 16; and 20 .

(d) if the owner is a body corporate, and the mine employs more than 50 employees, publish and distribute the report referred to in paragraph (c), in an appropriate form, to the mine's shareholders.

(2) . The owner of a mine that is not being worked, but in respect of which a closure certificate in terms of the Minerals Act has not been issued, must take reasonable steps to continuously prevent injuries, ill-health, loss of life or damage of any kind from occurring at or because of the mine.

11. Need and desirability

Describe methodology/technology to be employed, including the type of commodity to the prospected/mined and for a linear activity, a description of the route of the activity.

In South Africa, the production of economic output has historically been dominated by the mining industry. It alleviates poverty and offers work. Mining contributions to the total government revenue are directed to the national and sub-national levels. The profits of mining companies and taxes generated by companies, in addition, contribute to the Gross Domestic Product (GDP) of the country.

South Africa contributes about 3.5% of the world's coal resources. The country's production is around 3.3% of the world's annual total and exports approximately 6% of global exports.

Coal is the major primary energy source for South Africa. More than 90% of the country's electricity and approximately 30% of the liquid fuel are produced from coal (DoE, 2016). Coal also plays a significant role in supply to the South African chemicals industry and is an essential component of its steelmaking industry. With the country's attempts of diversifying energy and moving to cleaner energy, coal is still expected to play a major role in the next decade. The majority of coal comes from the Witbank and Highveld coalfields, which together account for about 75% of South Africa's production. However, these sources will be exhausted in the next century (DMRE, 2016).

The applicant identified the proposed area because of its immediate availability backed by data reviewed in the CPR, which has proven that coal resources are available in the

area. The project plan and site layout are based on limiting the project area footprint and avoiding environmentally and socially sensitive areas where possible, while still considering engineering feasibility and financial considerations. The proposed project will benefit Pullens Hope and the surrounding local areas like Arnot, Handrina and Komati directly and indirectly by generating additional employment and improve and develop their state through maintenance of roads, infrastructure, community and skills development.

Direct economic benefits will be derived from wages, taxes and profits. Indirect economic benefits will be derived from the procurement of goods and services and the spending power of employees. Employment will allow employees to gain mine construction and operation skills. The mining sector has provided more employment opportunities for the citizens in general. The provincial citizens of the Mpumalanga Province especially local communities will be awarded more employment opportunities. Should the proposed mining operation be authorized, the following economic development activities will result: Job creation, Development of skills, Potential for business opportunities, stimulation of economic activities in the local vicinity.

Jaments (Pty) Ltd's proposed mine will supply Coal that will be used for electricity generation and other industries locally and internationally. Therefore, it is justifiable to say there is already a market for Coal in the area. Hence the proposed operation will generate cash flow in Pullens Hope area and the surrounding areas, increase employment opportunities, promote development and boost local economy.

Advantages

- There is demand for coal in the market.
- Coal-fired power stations are reliable
- Mpumalanga's coal resources are at shallow depth, hence the low mining cost
- Despite its recent electricity struggles, South Africa's infrastructure to generate electricity from coal is well-established
- Burning coal is the most cost-effective and energy-efficient way of generating electricity

Disadvantages

- Coal has the most waste problems of all energy sources. Waste includes sulphur and nitrogen oxides, organic compounds, greenhouse gases and a lot of ash
- South Africa's coal fields are concentrated in Mpumalanga, which limits the location options for power stations and results in rezoning of other land uses within the province to coal mining.

g) Motivation for the overall preferred site, activities and technology alternative

The proposed location is in an agricultural area; during site evaluation, it was discovered that wildlife animals (such as Impala, Springbrook, Blue Crane, Ostrich, Buffalo, Gemsbok, Zebra, Orachs, and Letswe) rely on the proposed site for survival. The proposed coal mining site is covered with natural vegetation and few wetlands; as a result, it is not flexible in terms of land use alternatives. Once mining operations in the intended region begin, the disturbed animals will be relocated to a safer location where mining activities would not disturb them. The proposed site was identified as the preferred alternative due to the following reasons:

- The site offers the sought-after resource.
- The mining impacts can be contained to one area.
- The mining area can be accessed by an existing unnamed access road from R35 which further joins a gravel road, leading to the proposed project area.
- The open cast mining of the coal has been identified as the most effective method to produce the desired coal. The potential impacts on the surrounding environment, associated with open cast mining, is deemed to be of low significance.
- The general waste produced on-site will be contained in sealed refuse bins to be transported to the local municipal landfill site.
- As equipment maintenance and servicing will be done at an off-site workshop, the amount of hazardous waste to be produced at the site will be minimal and mainly as a result of accidental oil or diesel spillages.

- Contaminated soil will be removed to the depth of the spillage and contained in sealed bins until removed from site by a hazardous waste-handling contractor to be disposed of at a registered hazardous waste handling site.



Figure 13: Proposed project area

h) Full description of process followed to reach proposed preferred alternatives within the site

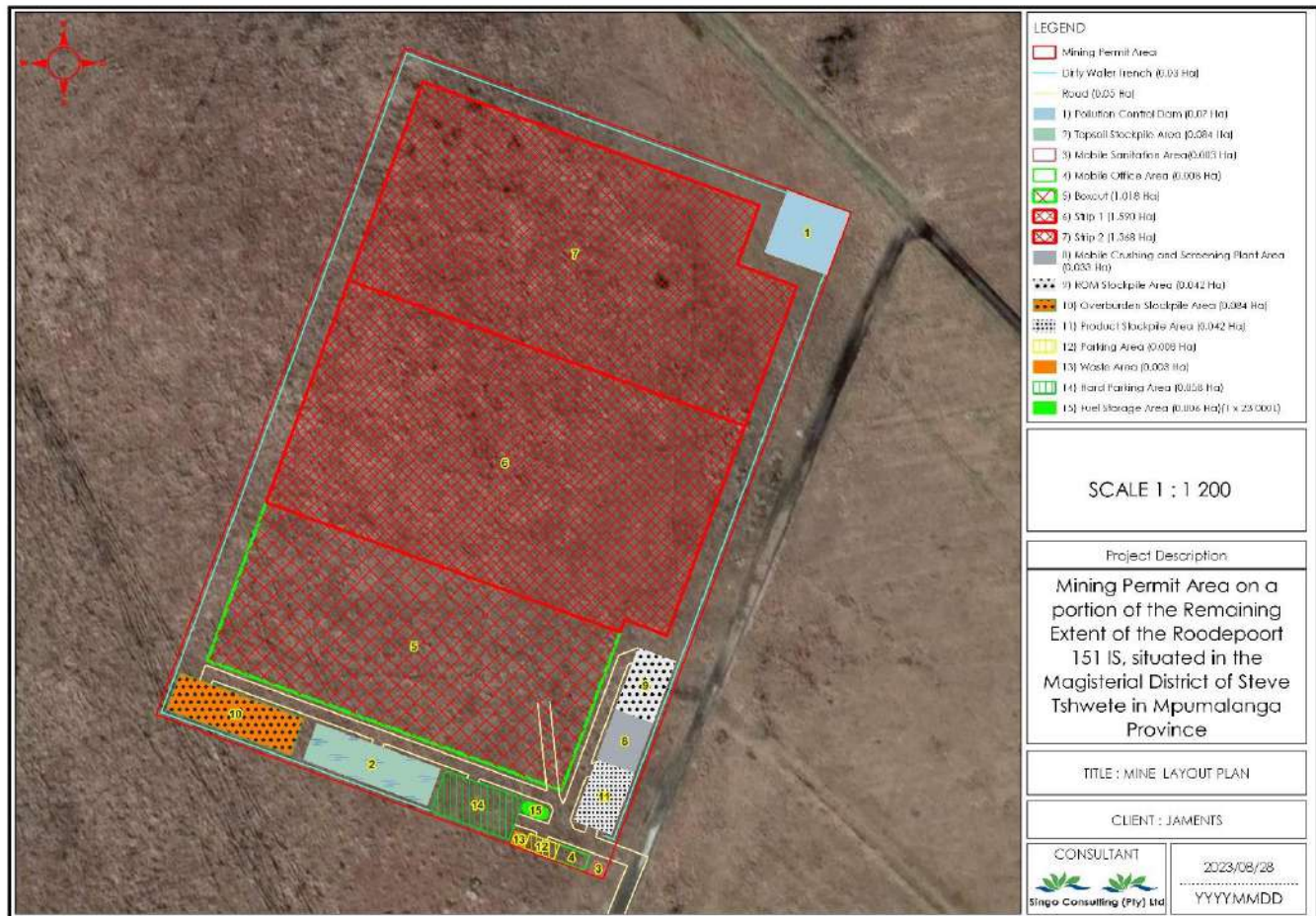


Figure 14: Mine layout plan (Singo Consulting (Pty) Ltd, 2023)

i) Details of the development footprint alternatives considered.

With reference to the site plan provided as Appendix and the location of individual site activities, provide details of the alternatives considered with respect to:

- (a) the property on which or location where it is proposed to undertake the activity
- (b) the type of activity to be undertaken
- (c) the design or layout of the activity
- (d) the technology to be used in the activity
- (e) the operational aspects of the activity
- (f) the option of not implementing the activity

The development footprint of the proposed project is 5 ha, which is the maximum legislated aerial extent that may be approved for a Mining Permit application in terms of the MPRDA, 2002 (as amended). The geology is the primary driver in determining the

location for mining. As such, no assessment of alternative development scenarios was conducted for this activity.

a) The property on which or location where it is proposed to undertake the activity

The proposed site is situated in close proximity to Pullens Hope, specifically ward 5 of Steve Tshwete Local Municipality under the Nkangala District Municipality, Mpumalanga Province. The mining application includes the portion of the remaining extent of the farm Roodepoort 151 IS. The site can be accessed via the unnamed road from the R35 road, followed by a gravel road that is directly opposite the Pullens Hope. The application area has been selected based on geological formations, and land uses that have modified the land surface in the immediate surroundings of the application area. The area of interest is located in the Vryheid Formation which is mostly associated with the mineral sought-after.

b) The type of activity to be undertaken

The main activity to be undertaken is the extraction of in-situ coal resources on portion of the portion of the remaining extent of the farm Roodepoort 151 IS using open cast mining technique. The mining method proposed, open cast, allows easy access of machinery to the site and does not require extensive machinery as other methods, making it economical feasible for small-scale miners. It reduces the overall costs associated with the mining process, thus allowing financial viability in small scale mining of coal deposits.

c) The design or layout of the activity

The proposed mining method is opencast. The open cast pit will be mined using conventional truck and shovel mechanism using roll over techniques in a single direction. Sustainable development principle to be applied during mining and rehabilitation phase to ensure that the mined-out area is restored to pre-mining condition. The primary procedure that will be implemented during the mining process includes:

- Digging and trenching around mining area
- Building a Pollution Control Dam
- Connect Trenches to the pollution control dam
- Build a flat ramp for water bowser

- Topsoil to be stripped and stacked along the boundary / edge of the mining permit area
- Ripping of hard overburden and stockpiling
- Excavation of the initial box cut
- Extraction of coal and run of mine (RoM)
- Load and haul
- Backfilling rehabilitation concurrently as mine progress forward

e) Operation aspect of the activity

The timing of implementing mining programme will commence as soon as the permit is granted by the DMRE, the landowner, interested and affected parties will be notified about the mining programme to ensure a satisfactory working and adhering relationship.

f) Option of not implementing the activity

Should the proposed mining operation not be authorised, it is anticipated that there will be no production of coal, that can lead to a shortage in the supply of coal to the power stations for power generation purposes and this will have a negative impact on the power stations, as they rely on coal to produce the electricity.

The company identified the need for coal in the area due to an increase in coal usage. In this light the applicant identified the proposed areas as the preferred and only viable site alternative. From extensive work conducted previously in this area, it is known that this area contains the resource being sought. This land may contain levels of contamination on the property is believed to have a higher significance without the need or motivation to justify it.

Various project alternatives were considered during the planning phase of the project. These included the following:

- **Open cast mining (preferred alternative) vs. underground mining**

The open cast mining method is used when deposits of commercially useful minerals or rock are found near the surface, where the overburden is relatively thin, or the material is structurally unsuitable for tunnelling.

Underground mining is used where the mineral occurs deep below the surface and the overburden is thick.

Open cast mining of the coal has been identified as the most cost-effective method to produce the desired coal as it is found near the surface, with only a narrow layer of overburden that needs to be removed.

The geology of the area and depth of coal to be mined is structurally unsuitable for tunnelling.

The open cast mining method will not produce any residual waste to be disposed of. Due to the location of the proposed coal pits, the potential impacts on the surrounding environment is expected to be insignificant. It is proposed that all mining-related infrastructure be contained in the boundary of the mining area.

- **Temporary infrastructure (preferred alternative) vs. permanent infrastructure**

Temporary infrastructure use will entail the use of track-based or easily removable infrastructure. This includes a mobile in-pit crusher plant, temporary weigh bridge and chemical toilet, with off-site vehicle and equipment servicing (at the applicant's existing workshop). The off-site office will be used for project administration purposes.

Positive aspects: The infrastructure can be moved around in the mining area boundaries as mining progresses, decreasing the distance material has to be transported from the crusher plant to the stockpile area. In addition, the crusher plant and other equipment can move out of the mining area (and onto the existing road) during a blast to prevent potential fly rock damage. During the decommissioning phase, infrastructure will be removed from the mining area, making site rehabilitation easy and effective.

Permanent infrastructure will entail the construction of an office building with ablution facilities, installation of a septic tank to be connected to the ablution facilities, installation of a permanent weigh bridge and permanent crusher plant.

The use of permanent infrastructure will increase the impact of the proposed project on the environment as it will entail the establishment of more structures, necessitate the use of concrete products on site in order to establish this infrastructure, lengthen the period required for rehabilitation as well as increase the rehabilitation cost as the permanent

infrastructure will either have to be decommissioned or be maintained after the closure of the site.

Due to the small size of the mining area the infrastructure may be exposed to fly rock damage during blasting events. The construction of permanent infrastructure on site will increase the visual impact of the proposed project on the surrounding environment and additional mitigation measures will have to be implemented to address the impact. In the light of the above, the use of temporary infrastructure is deemed to be the most viable preferred alternative.

- **Access onto provincial road (preferred alternative) vs. national road**

Regional route (R35): The use of R35 by trucks transporting material from the mining area to clients is the preferred alternative here, since the R35 is approximately 11 km away from the proposed mining permit area. The national road N11 is approximately 27 Km away from the proposed project area, to minimise the impact the activity may have on traffic, it is proposed that this option is not implemented, and the alternative regional road (as mentioned above) be used as access road to and from the proposed mining permit area.

- **No-go alternative**

The no-go alternative entails no change to the status quo and should therefore be considered. From the baseline environmental sensitivity conducted, it was found that part of the proposed area is characterised as being CBA: Irreplaceable, another as CBA: Optimal and the other part as Heavily Modified in respect to the Mpumalanga Biodiversity Sector Plan Category but during site assessment the area was found to be heavily modified.

12. Details of the Public Participation Process followed

Describe the process undertaken to consult I&APs, including public meetings and one-on-one consultation. The affected parties must be specifically consulted regardless of whether or not they attended public meetings. Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

Public Participation Methodology

South Africa, being one of the countries with the most progressive constitutions, enshrined the public's right to be involved in decisions. Section 57(1) of the new Constitution that provides: "The National Assembly may (b) make rules and orders concerning its business, with due regard to representative and participatory democracy, accountability, transparency and public involvement". This provision, along with several others gave rise to many new trends in South African legislation. In environmental legislation, the idea of public participation (or stakeholder engagement) features strongly and especially the National Environmental Management Act, 1998 (Act 107 of 1998, NEMA – as amended) and the recent regulations passed under the auspices of this Act make very strict provisions for public participation in environmental decision-making.

Public participation can be defined as "a process leading to a joint effort by stakeholders, technical specialists, the authorities and the proponent who work together to produce better decisions than if they had acted independently" (Greyling, 1999). From this definition, it can be noted that the input of the public is regarded as very important indeed.

The Public Participation Process (PPP) is designed to provide sufficient and accessible information to Interested and Affected Parties (I&APs) in an objective manner to assist them to:

- ❖ Raise issues of concern and suggestions for enhanced benefits.
- ❖ Verify that their issues have been recorded.
- ❖ Assist in identifying reasonable alternatives.
- ❖ Contribute relevant local information and knowledge to the environmental assessment.
- ❖ Comment on the findings of the environmental assessments.
- ❖ Obtain information on the outcome, i.e., the competent authority's decision, and how and by when the decision can be appealed.

Public Participation Plan

The public participation process is deemed essential as it enhances partnerships between the government and citizens during the decision-making process. This study perused the meaning and merits of public participation, and how democracy could be enhanced through the public participation process. The Democratic Decision-Making Theory and the Technological Acceptance Model underpinned the study. These theories highlighted the need to include the citizens in the decision-making process and the relevance of the South African government to support and educate the public on the usefulness of adopting information science to achieve effective governance.

A qualitative study was applied in this study and data were collected from secondary sources such as articles, government legislation, textbooks, and the Internet. Major findings depict that public participation involves a process by which the parliament and provincial legislatures refer to the citizens, individuals, government entities, and concerned organization in the decision-making process to achieve good governance.

Notification of I&APs

Public Participation remains a cornerstone of the Environmental Impact Assessment process. It ensures provision of relevant and enough information with openness and transparency. Public Participation process presents to I&APs, an opportunity to understand what the project is about, and affords them an opportunity to make valuable contributions towards the basic assessment process.

I&AP can be any person, group of persons or organization interested in or affected by the proposed activity, and any organ of state that may have jurisdiction over any aspect of the activity. The key objective of PPP during the basic assessment Process is to afford the I&APs with an opportunity to comment and provide valuable inputs during the planning phase of the project.

The project timelines have been developed on the section below.

- ❖ **Announcement of the project:** The 18th of August 2023
- ❖ **Review of Draft BAR & EMPr:** The 07th of September 2023 to the 08th of October 2023 (with the exclusion of public holidays).
- ❖

Engagement of I&APs was done through the following:

Stakeholders were given 30 days to review the DBAR & BAR, from the first day they have received it. Feedback received from stakeholders during this 30-day period was also integrated into the BAR and EMPr. Engagement of I&APs was done through the following: publishing of advertisement in "Middleburg Observer" newspaper on the 18th of August 2023 (refer to figure 17), emails, one-on-one consultation, phone calls and meetings. On-site notices were placed at entrance of the farm and were extended to Gerard Sekoto Public Library, and Steve Tshwete Local Municipality, refer to figure 18.

Landowner Consultation

The land belongs to SANCOR (Pty) Ltd as per the title deed illustrated in Figure 19 below. SANCOR (Pty) Ltd was consulted through phone on the 18th of August 2023, and he stated that he is not available since he is in Namibia. That we should contact his son, whom we called but received no response. During the site assessment, the caretaker of the proposed project site provided us with the email address of the landowner, whom we also consulted through email on August 19, 2023. Follow-up phone call to respond or acknowledge the email was made on the 31st of August 2023 and He (Jannie Scoeman) mentioned that he will get back to with a response once he opens his emails.

On September 6, 2023, an objection letter was received from SANCOR (Pty) Ltd. stating that SANCOR (Pty) Ltd is in opposition to the mining permit application (refer to Appendix 9). The following reasons were given:

- ❖ SANCOR is actively using the area as a game camp, which is fenced in, and as such, the water resources are of economic value to the owner where the area is a farming unit (see game drinking dam location as per your Google view).
- ❖ The report map by Geovicon Environmental (Pty) Ltd. indicates that the area was mapped in detail in March 2021 by Riana Bate.
- ❖ The information was reported to the MPTA, DWS, and the EIA and EIR report for EMivista Mining 123 Pty Ltd. (MP30/5/1/2/2/10302 MR) for an application to mine coal on a high-lying portion of the remaining extent of the farm roodepoort 151 IS, where measures to protect the indicated SANCOR low-lying pan and associated wetland areas were included.

- ❖ The indicated location at the proposed mining permit MP13941MP is located within SANCOR game camp and wetland(water-locked area every summer), as mapped by Geovicon Environmental (Pty) Ltd.
- ❖ The objection is thus also supported on the basis that your mining permit area is located within the brown area (actual low-laying pan outline as per MTPA, i.e., wetland area).

Ward Councillor / Community Meeting

A face-to-face consultation meeting was also held on the 18th of August 2023 with the Steve Tshwete Local Municipality Speaker (Mrs Thembisile Sindane) where she provided us with the name and contacts of ward 5 councillor. The proofs of the consultation meetings held are attached as Appendix 6.

A meeting was held with the ward councilor (Monakedi Mphogo) of ward 5 (the affected ward) at the Steve Tshwete Sitting Room on the 24th of August 2023, whereby we agreed that the meeting with the community should be on the 9th of September 2023. Hence, the community meeting took place successfully on September 9, 2023, at SIS Farm, involving the Roodepoort community. Please refer to the attached meeting minutes, labeled as Appendix 10, for more details. The ward councilor also mentioned that Ward 5 does not have a tribal leader and that Steve Tshwete in general does not have tribal leaders that are recognised by COGSTA.

Plugging of site notices

Site notices have been strategically placed to provide the public with essential information about the project. These notices serve as a means for individuals to access relevant details about project scope and the objective of the applicant. By ensuring that these notices are prominently displayed in accessible locations, we aim to foster transparency and enable community members to stay informed and engaged throughout the project's development (Refer to figure 18).

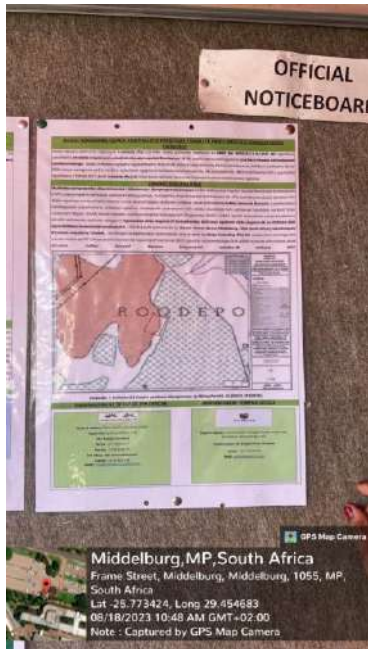


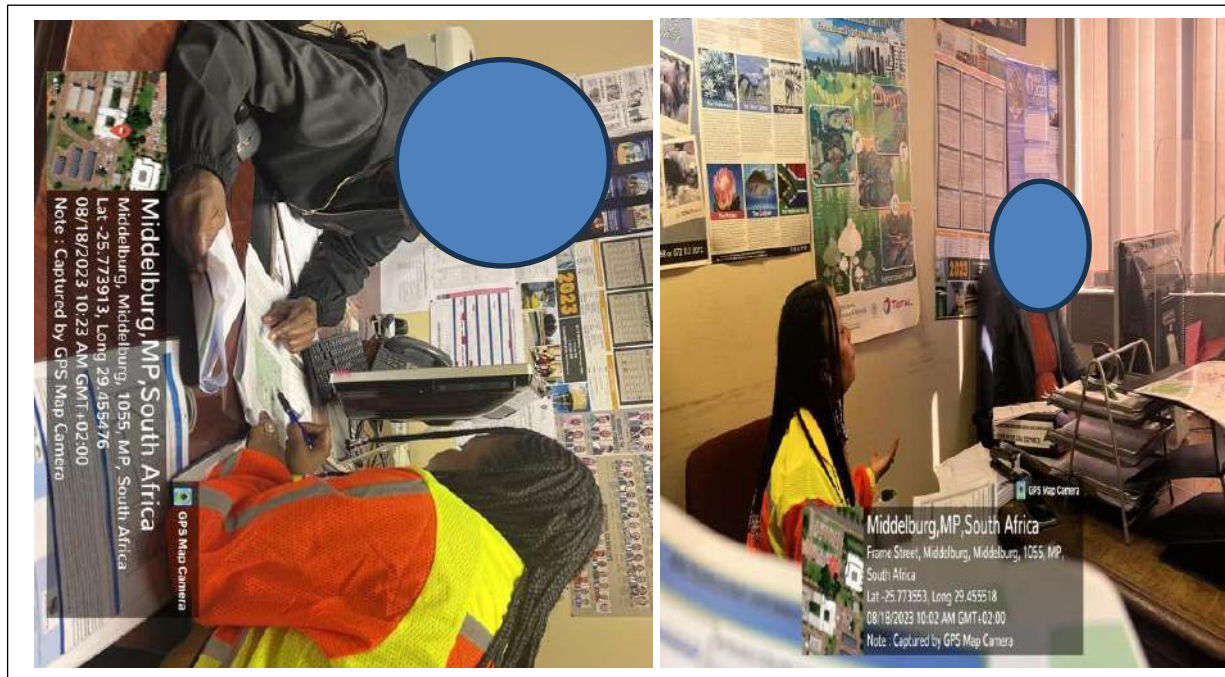
GPS Map Camera
 --,MP, South Africa
 Steve Tshwete, MP, South Africa
 Lat -26.044885, Long 29.556074
 08/18/2023 02:10 PM GMT+02:00
 Note : Captured by GPS Map Camera



GPS Map Camera
 Middelburg,MP, South Africa
 Frame Street, Middelburg, Middelburg, 1055, MP,
 South Africa
 Lat -25.773403, Long 29.454683
 08/18/2023 10:48 AM GMT+02:00
 Note : Captured by GPS Map Camera

Figure 16: Plugging of Site Notices (Singo Consulting (Pty) Ltd, 2023)





Consultation with Stakeholders (Singo Consulting (Pty) Ltd, 2023)

WinDeed Database D/O Property - List Lexis® WinDeed
 IS, 151, MPUMALANGA

Any personal information obtained from this search will only be used as per the Terms and Conditions, agreed to, and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPIA) and shall not be used for marketing purposes.

SEARCH CRITERIA			
Search Date	2023/08/14 07:55	Farm Number	151
Reference	-	Registration Division	IS
Report Print Date	2023/08/14 07:56	Portion Number	-
Farm Name	-	Remaining Extant	N/D
Deeds Office	Mpumalanga	Search Source	WinDeed Database

PORTION LIST				
Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
	SAMCOR PTY LTD	T135575/1997	1997/12/18	3 200 000
1	S A M S FARMS PTY LTD	T30015/1974	1974/08/21	-
2	SAMPHYL FARMS PTY LTD	T31056/1975	1975/09/17	-
3	ROCKDALE INDUSTRIAL PTY LTD	T5855/2023	2023/06/19	26 200 000
5	S I S LIVESTOCK PTY LTD	T14264/2017	2017/12/01	1 930 000
6	** FOR INFO REFER TO REGISTRAR OF DEEDS **	REPLACED	-	-
7	** FOR INFO REFER TO REGISTRAR OF DEEDS **	REPLACED	-	-
8	SAMPHYL FARMS PTY LTD	T15866/1974	1974/05/24	-
9	SAMPHYL FARMS PTY LTD	T15866/1974	1974/05/24	-
10	SAMPHYL FARMS PTY LTD	T15866/1974	1974/05/24	-
11	ROCKDALE INDUSTRIAL PTY LTD	T1089/2021	2021/02/15	72 600 000
12	** FOR INFO REFER TO REGISTRAR OF DEEDS **	REPLACED	-	-
13	CHERDESNA FARMS PTY LTD	T60415/1993	1993/08/09	65 000
14	JARRAEGS TRUST	T5279/2016	2016/04/28	570 000
15	** FOR INFO REFER TO REGISTRAR OF DEEDS **	REPLACED	-	-
16	** FOR INFO REFER TO REGISTRAR OF DEEDS **	REPLACED	-	-
17	JARRAEGS TRUST	T5278/2016	2016/04/28	10 500 000
18	S A M S FARMS PTY LTD	T29623/1977	1977/10/13	-

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Figure 17: Windeed results (windeed search, 2023)

Land Claim

Singo Consulting (Pty) Ltd. sent a land claim inquiry email on August 19, 2023, for any possible land claim assistance on portion of the portion of the remaining extent of the farm Roodepoort 151 IS. A response was received from the Department of Agriculture, Land Reform, and Rural Development (DALRRD) on 5th September 2023, stating that there is no land claim that was lodged against the farm, Refer to Appendix 9.

Traditional authorities

No tribal authority has been identified around the proposed area.

Municipality

The project is located in the Mpumalanga province's Magisterial District of Steve Tshwete, which is governed by Steve Tshwete Local Municipality. Singo Consulting (Pty) Ltd. consulted with the speaker, and according to the speaker, the project area falls under Ward 5. The contact details of the ward councillor were shared. Singo Consulting (Pty) Ltd. also consulted with the town planner; according to the town planner, the area is zoned for agricultural activities, and she recommends that after getting an authorization, the applicant must run a land use (rezoning) application before commencement of activity. The Environmental Officer's department was additionally consulted with a BID, and the admin lady mentioned that she will pass all the information to Environmental Officer since she was not around.

Community

The Mining project was advertised on the *Middleburg Observer Newspaper* on the 18th of August 2023. Steve Tshwete Local Municipality and Gerard Sekoto Library were also consulted, BIDS were shared, and site notices were also posted outside and inside the libraries. Site notices were also posted around the surrounding community (Roodepoort Farm). For community meeting, Ward 5 Councilor was consulted and requested that we hold a community meeting on the 9th of September 2023. Hence, the community meeting took place successfully on September 9, 2023, at SIS Farm, involving the Roodepoort community. Please refer to the attached meeting minutes, labeled as Appendix 10, for more details.

List of Authorities Identified and Notified

The following authorities have been identified and notified of the proposed Mining Permit project:

- SANCOR (Pty) Ltd.
- Nkangala District Municipality
- Steve Tshwete Local Municipality
- Department of Water and Sanitation
- Department of Agriculture, Forestry and Fisheries
- Department of Forestry, Fisheries and the Environment
- Mpumalanga Tourism and Parks Agency
- Department of Agriculture, Land Reform and Rural Development
- South African National Roads Agency Ltd (SANRAL).
- Eskom SOC Limited.
- The South African Heritage Resources Agency
- Transnet
- Department of Employment & Labour


Summary of Issues Raised by I&Aps


The stakeholders, interested and affected parties were informed about the project through publication of a newspaper, plugging of site notices and also consulted through emails attached with BID and Reg 2.2 map. Draft BAR and EMPr was also be shared with stakeholders, interested and affected parties through courier, emails and hand delivery on the 07th of September 2023 to the 08th of October 2023. Additionally, on October 5, 2023, follow-up emails were sent to all stakeholders who had not submitted their comments.

The landowner was consulted via email attached with landowner notification letter, BID and Reg 2.2 map. Draft BAR and EMPr was also shared with the landowner through email, an objection response was received on the 6th of the September 2023 (Refer to appendix 9). The Land Restitution department was also consulted, a response was received from the Department of Agriculture, Land Reform, and Rural Development (DALRRD) on 5th September 2023, stating that there is no land claim that was lodged against the farm.

	<p>6/09/2023 (Email)</p>	<p>Objection relating to mining permit application:</p> <ul style="list-style-type: none"> ❖ SANCOR is actively using the area as a game camp, which is fenced in, and as such, the water resources are of economic value to the owner where the area is a farming unit (see game drinking dam location as per your Google view). ❖ The report map by Geovicon Environmental (Pty) Ltd. indicates that the area was mapped in detail in March 2021 by Riana Bate. ❖ The information was reported to the MPTA, DWS, and the EIA and EIR report for EMivista Mining 123 Pty Ltd. (MP30/5/1/2/2/10302 MR) for an application to mine coal on a high-lying portion of the remaining extent of the farm roodepoort 151 IS, where measures to protect the indicated SANCOR low-lying pan and associated 	<ul style="list-style-type: none"> ❖ Your objection has been received, it will be attended to and incorporated into the final BAR and EMPr. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	
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			<p>wetland areas were included.</p> <ul style="list-style-type: none"> ❖ The indicated location at the proposed mining permit MP13941MP is located within SANCOR game camp and wetland(water-locked area every summer), as mapped by Geovicon Environmental (Pty) Ltd. ❖ The objection is thus also supported on the basis that your mining permit area is located within the brown area (actual low-laying pan outline as per MTPA, i.e., wetland area). 		
Adjacent Landowners					
<p>Name: Jan Patgieter</p> <p>Email: jan@rockd.co.za</p> <p>Tel.: +27 72 212 9944</p>	X	<p>18/08/ 2023 (Face to Face)</p>	<ul style="list-style-type: none"> ❖ Share all the information you are consulting me with via email. ❖ The landowner of the site you are looking for is jannie Scoeman. You can contact him on 082 388 3111 	<ul style="list-style-type: none"> ❖ BID and Reg 2.2 map were shared via email as per request. ❖ Draft BAR and EMPr was sent for review and no comments have been raised as yet. ❖ Closure email was shared on the 5th of October 2023. 	See Appendix 6


Local Municipality					
 <p>STEVE TSHWETE LOCAL MUNICIPALITY</p> <p><u>Environmental Officer</u> Contact Person: Pearl Masumbuko Email: pearlm@stlm.gov.za</p> <p>Contact Person: Given Ledwaba Email: givenledwaba@stlm.gov.za</p>	X	18/08/2023 (Face to face)	Town Planner: <ul style="list-style-type: none"> ❖ The area is zoned for agricultural, and a rezoning licence must be applied before the project activities commences. 	<ul style="list-style-type: none"> ❖ BID was submitted face to face during consultation on the 18th of August 2023. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	See Appendix
		18/08/2023 (Face to Face)	Environmental Officers Office: <ul style="list-style-type: none"> ❖ I am not an EO; I am an administrative assistant; nevertheless, since she is not present, I will relay all of this information to the EO when she arrives. 	<ul style="list-style-type: none"> ❖ BID was submitted face to face during consultation on the 18th of August 2023. ❖ A hard copy of Draft BAR and EMPr was send via email on the 7th of September for review and comments. ❖ Closure email was shared on the 5th of October 2023. 	See Appendix


<p>Office of the Speaker</p> <p>Contact Person; Thembisile Sindane</p> <p>Email: thembisilem@stlm.gov.za</p>		<p>18/08/2023 (Face to face)</p>	<ul style="list-style-type: none"> ❖ The area that you are referring to falls under Ward 5. And the ward councillor of that ward is Caroline Mphogo. ❖ If you want to consult ward councillors, you can come on Tuesday, because that is when they are available. 	<ul style="list-style-type: none"> ❖ We will try to get hold of the ward councillor and make an appointment with her. 	
 <p>Contact Person : Skosana Maggie Millicent</p> <p>Email:skosanamm@nkangaladm.gov.za</p>	<p>X</p>		<ul style="list-style-type: none"> ❖ No issue raised 	<ul style="list-style-type: none"> ❖ BID was shared through consultation email on the 29^h of August 2022 ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. ❖ Closure email was shared on the 5th of October 2023. 	<p>See Appendix</p>

Community				
Ward 5 Councillor Contact person: Caroline Mphogolo Email: corolinem@stlm.gov.za	19/08/2023 (Phone call)	<ul style="list-style-type: none"> ❖ I am familiar with the project you are discussing, and I am delighted that you are consulting with me first. However, I will try to schedule a meeting before we have a community gathering. I'm currently busy, but may we meet on August 24th, 2023? 	<ul style="list-style-type: none"> ❖ The date has been accepted, and we will see you at the meeting. 	Appendix
	24/08/2023 (Face to face)	<p>Agenda: selecting best suitable date for community meeting</p> <ul style="list-style-type: none"> ❖ I think the best meeting venue can be at Pullens Hope, since it is the community that is going to be affected. ❖ At first, I need to also make arrangements with the owners of the farms so that they can avail themselves during the meeting. ❖ The best date for a community meeting is 	<ul style="list-style-type: none"> ❖ The points that are raised are very crucial, and we will keep communicating should the date selected be changed. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	

			September 9 th of September 2023.		
<p>Roodeport Community meeting</p> <p>Date: 09/09/ 2023</p> <p>Time: 11: 00 am</p> <p>Vanue: SIS Farm</p> <p>Attendees: See attached attendance register attached in appendix 10</p>		<p>09/09/2023</p> <p>(Face to face)</p>	<ul style="list-style-type: none"> ❖ When the rock is particularly hard, what will happen to the nearby town when it is blasted? ❖ Since the life span is 2 years, what if your target is not reached? ❖ For opportunities, who do we consult, because we know that the ward councillor is not the rightful candidate? 	<ul style="list-style-type: none"> ❖ If they chance to be closer, they inspect where the house is before they blast; if not, they go to the location where they have a deal with the affected neighbourhood. ❖ You can still apply for renewal to DMRE. ❖ Once the mine begins operations, skill training developments will be developed, and an agreement will be reached between the community and the mine. However, don't expect the miner to hire someone who lacks qualifications for a job that requires a 	

			<ul style="list-style-type: none"> ❖ We kindly request that once you get a response back from DMRE regarding the application, you should inform us. ❖ We have certificates that have expired; what will happen to us? 	<p>professional certificate.</p> <ul style="list-style-type: none"> ❖ The councillor also said that for the time being, it's just a mining permission application, but if it's approved, that's where we'll talk about job chances. ❖ We are given 90 days to compile a report, and that's where we are going to submit it to DMRE and they will make a final judgment on whether to grant or not grant the permit application. ❖ The councillor emphasized that they will start with people whose qualifications are valid. ❖ Since you all know that mining might come to our community, if you know that your 	
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			<ul style="list-style-type: none"> ❖ What will happen to the graves if they are within the proposed project? There 	<p>certificates are expired, go and renew them. If you know you have any excavators you want them to use, go and fix your things and be ready, should this permit be granted.</p> <ul style="list-style-type: none"> ❖ We did site assessment on the proposed project site and there are no graves, but if we happen to find them, a 100-meter buffer will be applied. 	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA)					
 <p>Contact Person: Ria Barkhuizen (NR) Email: Barkhuizenr@nra.co.za nrstat@nra.co.za</p>	X	18/09/2023 (Email)	<ul style="list-style-type: none"> ❖ The South African National Roads Agency SOC Limited (SANRAL0 has no objection to the application as no national roads or 	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023 ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. ❖ Kindly note that your comments below have been received; they will be incorporated into the final BAR and 	Appendix

			interchnages under jurisdiction of SANRAL will be affected.	EMPr.	
 <p>Contact Person: Livhuwani Mashamba Email: wayleavesmou@eskom.co.za</p>	X	25/08/2023 (Email)	<ul style="list-style-type: none"> ❖ Eskom Distribution will raise no objection to the proposed development, provided Eskom's rights and services are acknowledged and respected at all times. ❖ There is 9 and 15,5 meters building and tree restriction on either side of the Centre lines of the 11kV power line and 132kV powerline which must be adhered to in all future development and or construction. ❖ Eskom's rights are protected by servitude. Further to the above the following conditions must be adhered to and accepted in writing before any construction procedures: 	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023. ❖ Drafft BAR and EMPr was send via email on the 7th of September for review and comments. ❖ Kindly note that your comments below have been received; they will be incorporated into the final BAR and EMPr. ❖ The client will receive guidance and recommendations on ensuring compliance with all the previously mentioned requirements set forth by Eskom. 	Appendix

			<ol style="list-style-type: none"> 1. Eskom Distribution shall at all times have unobstructed access to and egress from its services. 2. The applicant will adhere to all relevant environmental legislation. Any cost incurred by Eskom Distribution as a result of non-compliance will be charged to the applicant. 3. No construction or excavation work shall be executed within 11 metres from any Eskom power line structure, and/or within 11 metres from any stay wire. 4. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the applicant's activities or because of the presence of his equipment, or installation within the servitude or wayleave area, the applicant shall pay such costs to Eskom on demand. 	<ul style="list-style-type: none"> ❖ It is imperative that the client follows these stipulations meticulously to align with Eskom's standards and expectations. Adherence to these requirements is vital to not only meet regulatory obligations but also to maintain a positive working relationship with Eskom and uphold the quality and efficiency of the project or operation. ❖ Therefore, the client will be advised on the necessary steps and actions to be taken in order to fully comply with Eskom's specifications and guidelines. 	
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			<p>5. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's requirements.</p> <p>6. Eskom Distribution shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the area where Eskom Distribution has its services, by the applicant, his/her agent, contractors, employees, successors in title and assigns.</p> <p>7. The applicant indemnifies Eskom against loss, claims or damages including claims pertaining to interference with Eskom Distribution services or apparatus or otherwise.</p>		
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			<p>The applicant's attention is drawn to section 27(3) of the Electricity Act 1987, as amended in 1994, which stipulates that the applicant can be fined and/or imprisoned as a result of damage to Eskom's apparatus.</p> <p>8. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the applicant must give at least seven working days prior notice of the commencement of work The Eskom's authorised area representative for the Hendrina CNC: Nathan Mbabane, at 013 296 3457/ 072 423 5301 Email: MbalanN@eskom.co.za</p> <p>9. This allows time for arrangements to be</p>		
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			<p>made for supervision and/or precautionary instructions to be issued.</p> <p>10. Under no circumstances shall rubble, earth or other material be dumped within the servitude or Way Leave restriction area. The applicant shall maintain the area concerned to Eskom's satisfaction. The applicant shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.</p> <p>11. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).</p> <p>12. Eskom may stipulate any additional requirements to illuminate any possible exposure to Customers or Public to coming into contact or</p>		
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			<p>be exposed to any dangers of Eskom plant.</p> <p>13. Costs incurred by Eskom to comply with statutory requirements in terms of an applicant's (or his contractors) works, equipment or plant in the servitude area, shall be paid to Eskom on demand.</p> <p>14. If for any reason the structure is required to be moved or dismantled the applicant will be responsible for the removal and/or possible re-location of the attachment.</p> <p>15. No work may commence unless Eskom has received the applicant's written acceptance of the conditions specified in the letter of consent and/or permit and the approval is valid for a period of 60 days from date of letter.</p> <p>16. The applicant or his / her contractor on site must at all times be in possession of the letter of consent. Should the site agent or contractor</p>		
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			<p>on site not be able to produce the required approval on inspection, all site activities will be stopped.</p> <p>17. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with. NOTE: Where and electrical outage is required, at least fourteen workdays is required to arrange same.</p> <p>18. Eskom Standard gates must be installed in the road reserve fence to ensure access to Eskom's services.</p> <p>19. Statutory clearances as specified by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), Regulation 15 of the Electrical Machinery Regulations, shall be complied with.</p> <p>❖ Should the applicant or his contractor damage any of Eskom services during commencement of any work whatsoever, then</p>		
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			<p>Eskom's 24-hour Contact Centre Tel: 08600 37566 must be dialed immediately to report the incident. Any relocation of Eskom's services, due to this construction, will be for the account of the Applicant.</p> <ul style="list-style-type: none"> ❖ The Applicant will also be responsible for granting Eskom an alternative route for the power line. The Eskom Customer Contact Centre at 08600 37566 must be contacted in connection with any line deviation and costs. Attached Annexes D (Letter of consent) and E (Indemnity Form) must be completed and returned to this office before commencement of any operations, maps indicating positions of Eskom Distribution services and Clearance standards. ❖ We thank you and hope you will find the above in order. Should you have technical queries on the Eskom standards and specifications please feel free to phone our Asset Creation, Manager Design Engineering Marumo at Tel: 		
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			+27 13 693 3735 or email: MarumoS@eskom.co.za		
 <p>Contact Person: Yuza Chabalala Email: yuza.Chabalala@transnet.net</p>	X		❖ No issues raised.	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023 ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. ❖ Closure email was shared on the 4th of October 2023. 	Appendix
			❖ No issues raised.	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	Appendix
	X		❖ No issues raised.	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments 	Appendix

			Act, Act no 22 of 1994 and the Restitution of Land Rights Amendment Act, (Act no 15 of 2014).	comments.	
 <p>water & sanitation Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA</p> <p>Contact Person: Nonkanyiso Mcineka Supervisor: Musa Lubambo Email: McinekaN@dws.gov.za; lubambom@dws.gov.za</p>	X		❖ No issues raised.	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023 ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	Appendix
 <p>environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA</p> <p>Contact Person: Portia Makitla Email: PMakitla@dffe.gov.za</p>	X	17/10/2022 (Email)	<ul style="list-style-type: none"> ❖ It is recommended that the sensitive habitats in close proximity to the development footprint must be avoided or demarcated as No-Go area (i.e. NFEPA and CBAs) 	<ul style="list-style-type: none"> ❖ Stakeholder Invitation email with BID, REG 2.2 and KML for comments were sent on 19th of August 2023. ❖ Comments and recommendations received and they will be incorporated in the final BAR to be send to the DMRE for adjudication. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and 	See Appendix

				comments.	
 <p>Contact Person: Mervyn Lotter Email: Mervyn.Lotter@mtpa.co.za</p> <p>Contact Person: Phumla Nkosi Email: Phumla.Nkosi@mtpa.co.za</p>	X	12/09/2023 (Email)	<ul style="list-style-type: none"> ❖ My sincere apologies , I must have missed this email. May you please re-send the kml files so I can work on it. ❖ Thank you for the data , I realized I had already made the maps but forgot to send. My sincere apologies once again. Please see attached. 	<ul style="list-style-type: none"> ❖ An email for request of Sensitivity maps and species status was sent on the 19th of August 2023. ❖ I hope this email finds you well. I am writing to follow up on the previous email below regarding the sensitivity map that we require for the compilation of the Basic Assessment Report(BAR). We kindly request your prompt assistance in providing us with the sensitivity map as soon as possible. The timely receipt of this map will greatly facilitate 	See Appendix

				<p>our efforts in compiling the BAR & EMPr and ensure that we adhere to our project deadlines. Your cooperation in this matter is highly appreciated.</p> <p>If you require any additional information or have any questions, please do not hesitate to reach out to me. We look forward to your prompt response. Thank you for your attention to this matter.</p> <ul style="list-style-type: none"> ❖ A hard copy of Draft BAR and EMPr was sent for review and no comments have been raised as yet. 	

 <p>agriculture, forestry & fisheries Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA</p> <p>Contact Person: Rhulani Chavalala Email: RhulaniC@daff.gov.za</p>	X		❖ No issues were raised.	<ul style="list-style-type: none"> ❖ BID was shared through consultation email on the 05/08/2022 of 2022. ❖ Draft BAR and EMPr was send via email on the 7th of September for review and comments. 	See Appendix
			❖ No issues raised	❖ The DBAR was send via email on the 7 th of September and couriered via Post net on the 08 th of September 2022	See Appendix
 <input type="text"/>	X		❖ No issues raised	❖ SAHRA was consulted on this date (16/08/2023) Through their website (https://sahris.sahra.org.za)	See Figure
OTHER INTERESTED AND AFFECTED PARTIES					

(iv) The Environment attributes associated with the alternatives

Geology of the Project Area

Regional Geology

The proposed project area follows under the main Karoo supergroup. The geology of the study site is characterized by Vryheid Formation under Ecca group.

The South African Coalfields

South Africa's coal resources are contained in the Ecca deposits, a stratum of the Karoo Supergroup. There are 19 coalfields in the country, and they are largely located in the northeastern quarter of the country, i.e., Mpumalanga, Limpopo and extend to KwaZulu-Natal and the Free State. The coalfields where production occurs include Ermelo, Highveld, Kangwane, Kliprivier, Nongoma, Soutpansberg, Utrecht, Vereeniging-Sasolburg, Vryheid, Waterberg (Ellisras) and Witbank (Figure 1). The majority of coal comes from the Witbank and Highveld coalfields, which together account for about 75% of South Africa's production. However, these sources will be exhausted in the next century (DMR, 2016). Alternatively, the Waterberg coalfield in the Limpopo province contains vast resources of coal and is the next area that will supply South Africa with energy well into the future. Although the Waterberg is very small in area compared to the likes of the Witbank and Highveld coalfields it has a total seam thickness of about 110m which makes the reserves of the Waterberg to be large (Chabedi & Zvarivadza, 2016).

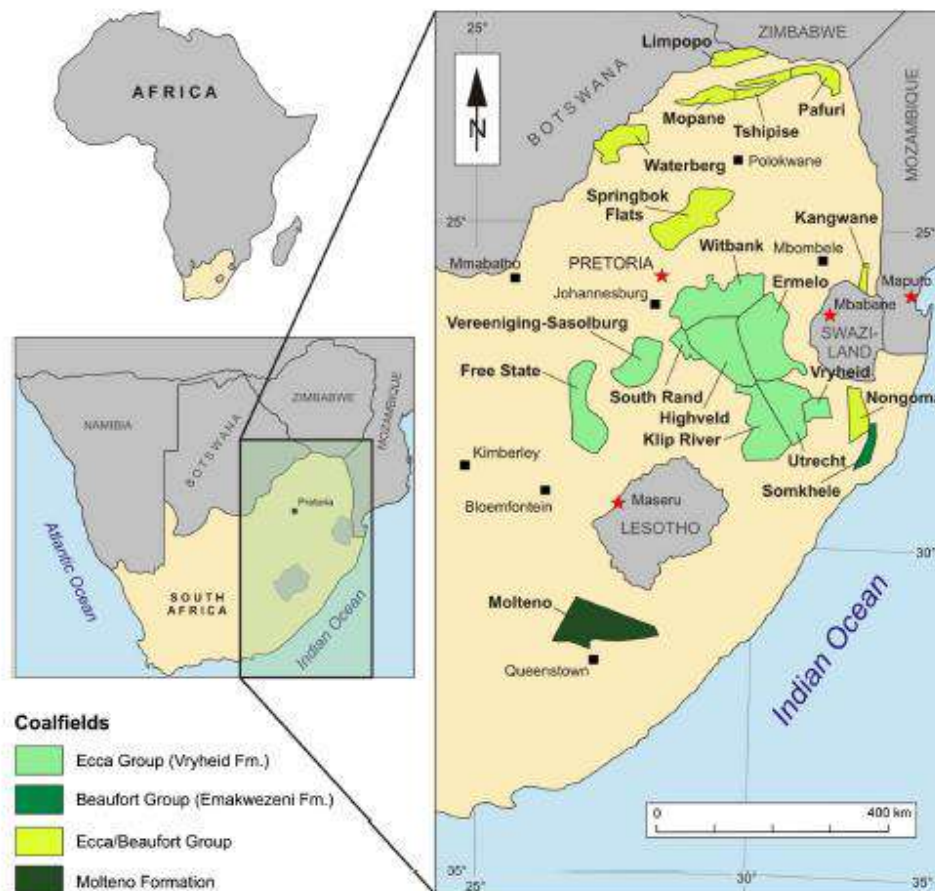


Figure 18: Coal field of South Africa (adopted from Hancox and Gotz, 2014).

Generally, the rank or carbon content of the coal increases eastwards while the number and thickness of reserves decreases. Consequently, coal from Mpumalanga and Limpopo is usually classified as bituminous, occurring in seams up to several metres thick, while KwaZulu-Natal coal is often anthracitic and are found in relatively thin seams. The recoverable coal reserves in South Africa amount to some 66.7 billion tons, equivalent to about 7% of the world's total (DMR, 2016).

Karoo Supergroup

The sedimentary part of the Karoo Supergroup is subdivided into four main lithostratigraphic units, which from the base up are the Dwyka, Ecca, Beaufort and Stormberg (Molleno, Elliot and Clarens formations) groups (Johnson et al., 1996; SACS, 1980;). These are capped by some 1.4 km of basaltic lavas of the Drakensberg Group (Johnson et al., 1996; Veevers et al., 1994), the extrusion of which is related to the break-up of Gondwana (Cox, 1992). The basement to the Karoo Supergroup fills in both the MKB and in the northern basins is heterogeneous (Bordy

et al., 2004a; Hancox, 1998; Rutherford, 2009) and this heterogeneity plays a significant control on the nature of the fill, particularly during the early phases of the deposition of the Karoo Supergroup.

Dwyka Group

The rocks of the Dwyka Group in South Africa are amongst the most important glaciogenic deposits from Gondwana. This Group is named for exposures along the Dwyka River east of Laingsburg and forms the basal succession of the Karoo Supergroup. Dwyka Group strata are mostly contained within bedrock valleys incised into Archean to lower Palaeozoic bedrock (Visser, 1990; Visser and Kingsley, 1982; Von Brunn, 1996). The lithologies in the areas underlying the coalfields of South Africa consist of a heterolithic arrangement of massive and stratified polymictic diamictites, conglomerates, sandstones and dropstone-bearing varved mudstones. The easily identifiable lithologies form a good marker below the coal bearing Eccca Group. In the distal sector of the MKB these sedimentary strata accumulated largely as ground moraine associated with continental ice sheets and is generally composed of basal lodgement and supraglacial tills. These deposits are generally massive, but crude horizontal bedding occurs in places towards the top (Tankard et al., 1982).

Eccca Group

In the 1970s, a number of studies (Cadle, 1974; Hobday, 1973, 1978; Mathew, 1974; Van Vuuren and Cole, 1979) showed that the Eccca Group could be subdivided into several informal units based on the cyclic nature of the sedimentary fills. In 1980 the South African Committee for Stratigraphy (SACS, 1980) introduced a formal lithostratigraphic nomenclature for the Eccca Group in the northern, distal sector of the MKB, which replaced the previously used informal Lower, Middle and Upper subdivisions with the Pietermaritzburg Shale Formation, the Vryheid Formation, and the Volksrust Shale Formation.

Local Geology

Vryheid Formation

The Vryheid Formation has been classified into three distinct lithofacies configurations. Fine-grained mudstone, carbonaceous shale with alternating layers of bituminous coal seams, and coarse-grained, bioturbated juvenile sandstones dominate them, respectively. The rock

sediments are mostly structured in upward-coarsening cycles, while some fining-upward cycles may be seen in the easternmost deposits of this formation. The Vryheid Formation's alternate rock types suggest seasonal fluctuations in storms and better weather in a pro-delta location. Carbonaceous shales formed under the water's surface in anoxic circumstances, whereas coal formed from compacted plant debris deposited at the bottom of peat swamps. These marshes grew on abandoned alluvial plains with stagnant water. In Nongoma, KwaZulu-Natal, the Vryheid Formation reaches a maximum elevation of 1030m. The Vryheid Formation reaches a maximum elevation of 1030m within the Nongoma Graben near Nongoma, KwaZulu-Natal. The Vryheid Formation contains a diverse range of Glossopteris fossil coal floras, including fertile organs and fruitifications, lycopods, rare ferns such as *Asterotheca hammanskraalensis*, horsetail species such as *Annularia*, cordaitales, conifers, ginkgoales, rare fossil wood, and diverse palynomorphs. Trace fossils of *Skolithos*, *Diplocraterion*, *Helminthopsis*, and planolites, as well as uncommon insects, putative conchostracans, non-marine bivalves, and fish scales, are abundant but of limited diversity. The coal seams are categorized as compaction fossils.

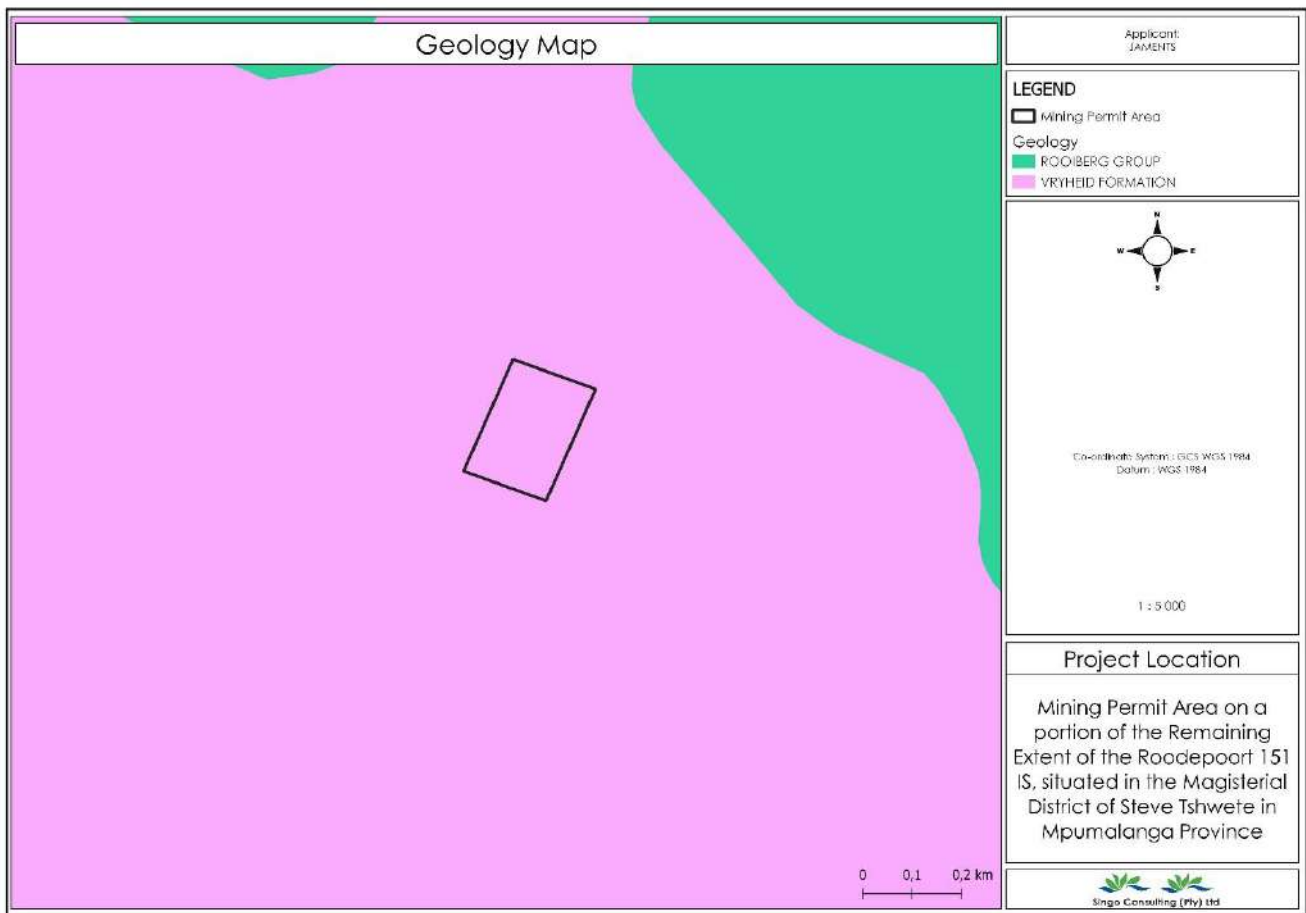


Figure 19: Geological map of the project area.

Biodiversity

The biodiversity of this proposed site can be classified as not heavily modified, with no CBA optimal and ESAs close to the site as shown in figure 22 below. According to the Mpumalanga Biodiversity Sector Plan, CBA optimal areas are located as part of the most efficient solution to meet biodiversity targets. CBA irreplaceable refers to areas which are 80-100% irreplaceable for meeting biodiversity conservation targets, or critical linkages or critically endangered ecosystems. According to the screening report, the area's terrestrial biodiversity is very sensitive as shown in figure 23 below.

The map below in figure 23 presenting terrestrial biodiversity of the area, it is confirmed that the permit is situated in other natural area. permit area its natural areas which are not identified as CBAs or ESAs but provide a range of ecosystem services from their ecological infrastructure.

There are critical species will be affected by the proposed project as there are no critical animals that depend or live within and around the proposed mining permit. Therefore, critical

species will be harmed unless they are moved to a new place or Eco will have to be onsite every day to monitor the operation so that the animals don't get harmed. Although the area is characterised by Moist sandy Highveld Grassland according to the GIS specialist, the area is under other natural areas by other activities which leads to vanished of these Moist Sandy Highveld grassland mentioned on the vegetation type section.

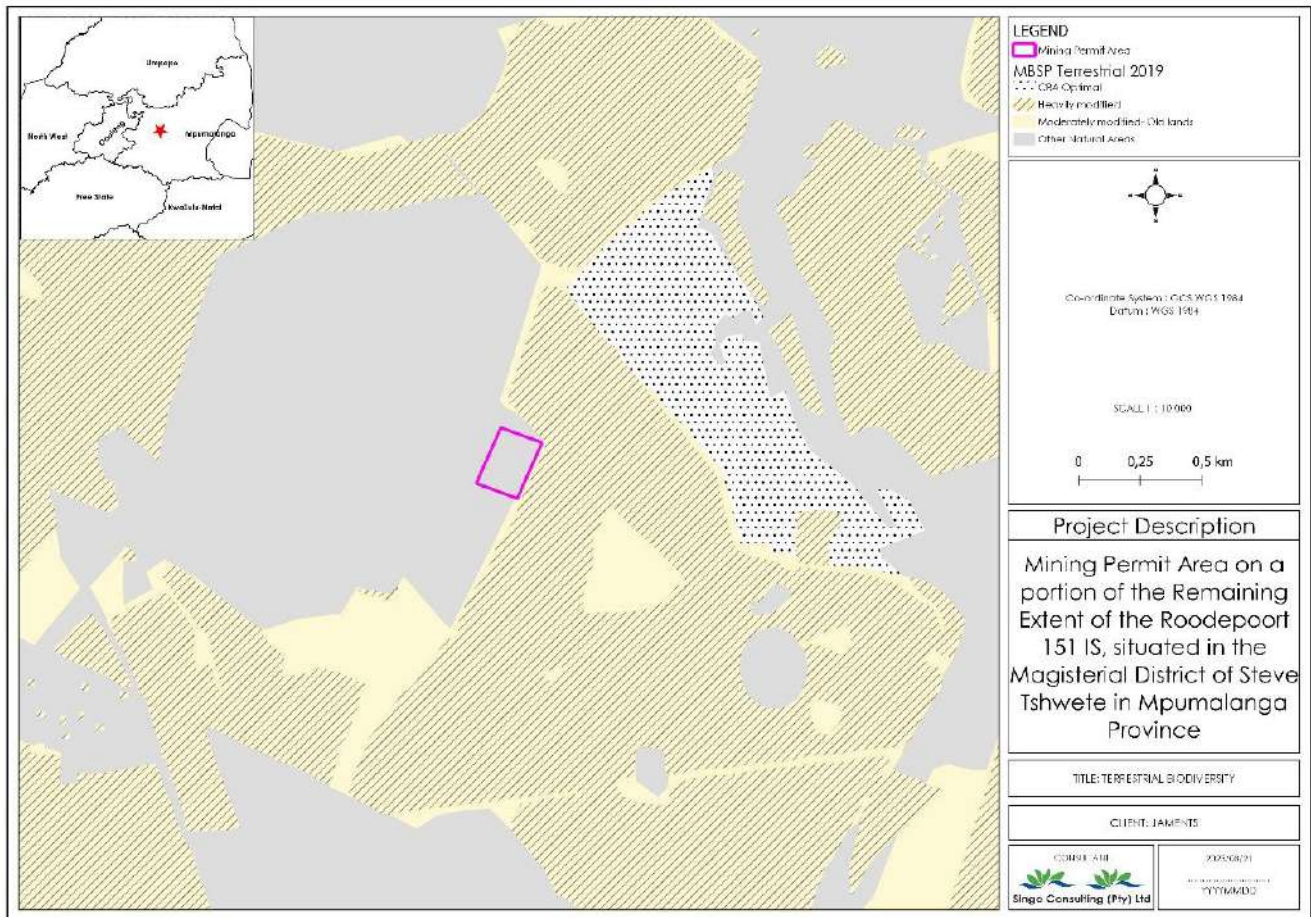


Figure 20: Terrestrial Biodiversity (Singo Consulting (Pty) Ltd, 2023)

Protected areas

The screenshot of the DFFE protected regions on farm Roodepoort 151 JS is provided below. This screenshot shows the protected zones beneath the property before any inquiry. The DEA section confirms that there are no protected areas on the proposed project site. See figure 27 below.

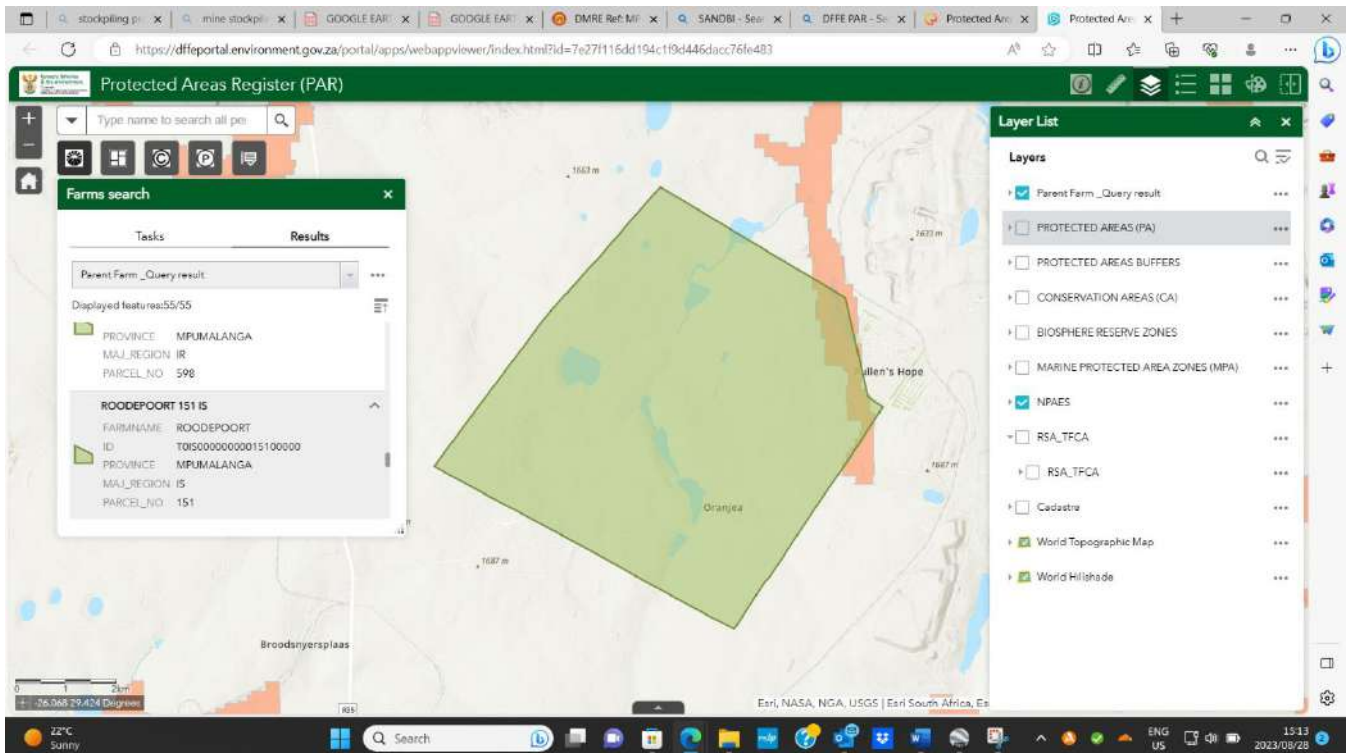


Figure 21: Protected Areas (dffportal.environment.gov.za, 2023)

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

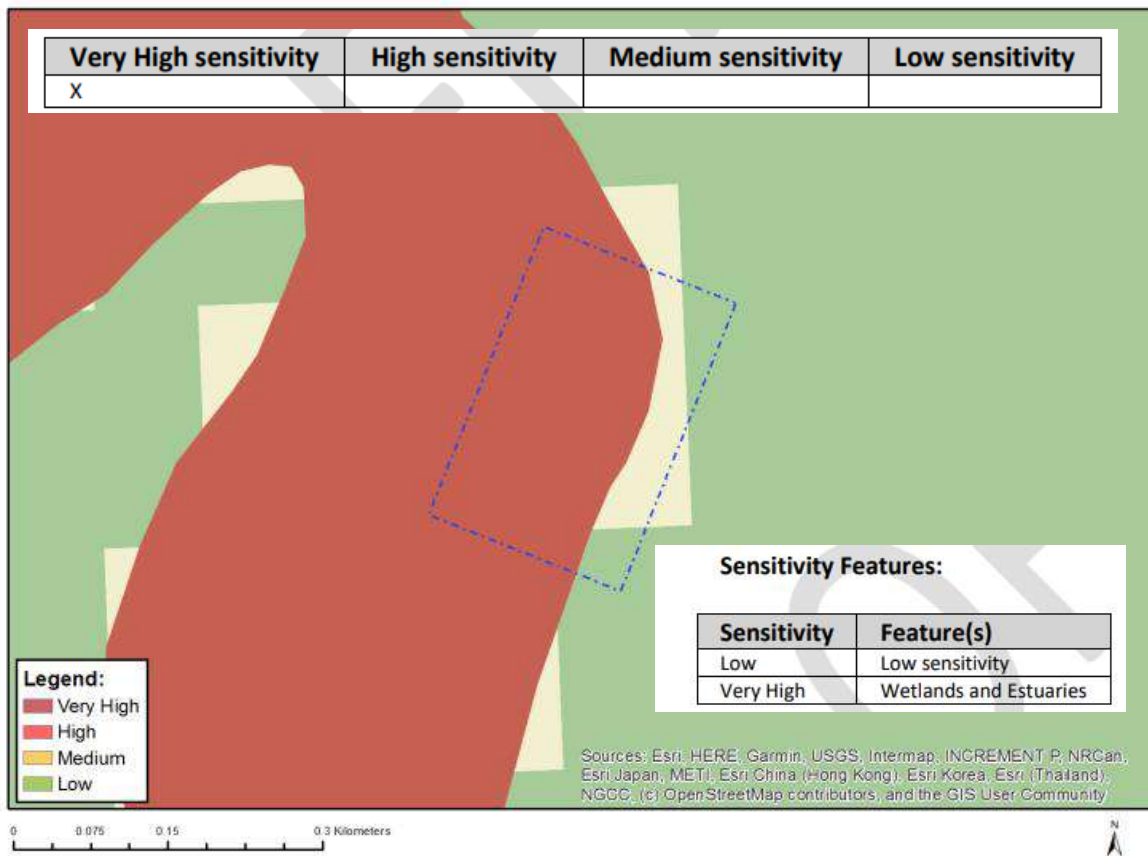


Figure 22: Biodiversity sensitivity (Screening tool)

➤ Natural vegetation

The vegetation cover in the proposed area is classified as grassland. Grasslands are dominated by a single layer of grasses (Rutherford & Westfall, 1986). The amount of cover depends on rainfall and the degree of grazing. The vegetation type is endangered nationally with none conserved and 55% altered, primarily by cultivation. The conservation status of this vegetation type is very poor, with large parts that are either currently cultivated or have been previously ploughed, and the remaining untransformed vegetation that occurs as patchy remnants that are often heavily grazed.

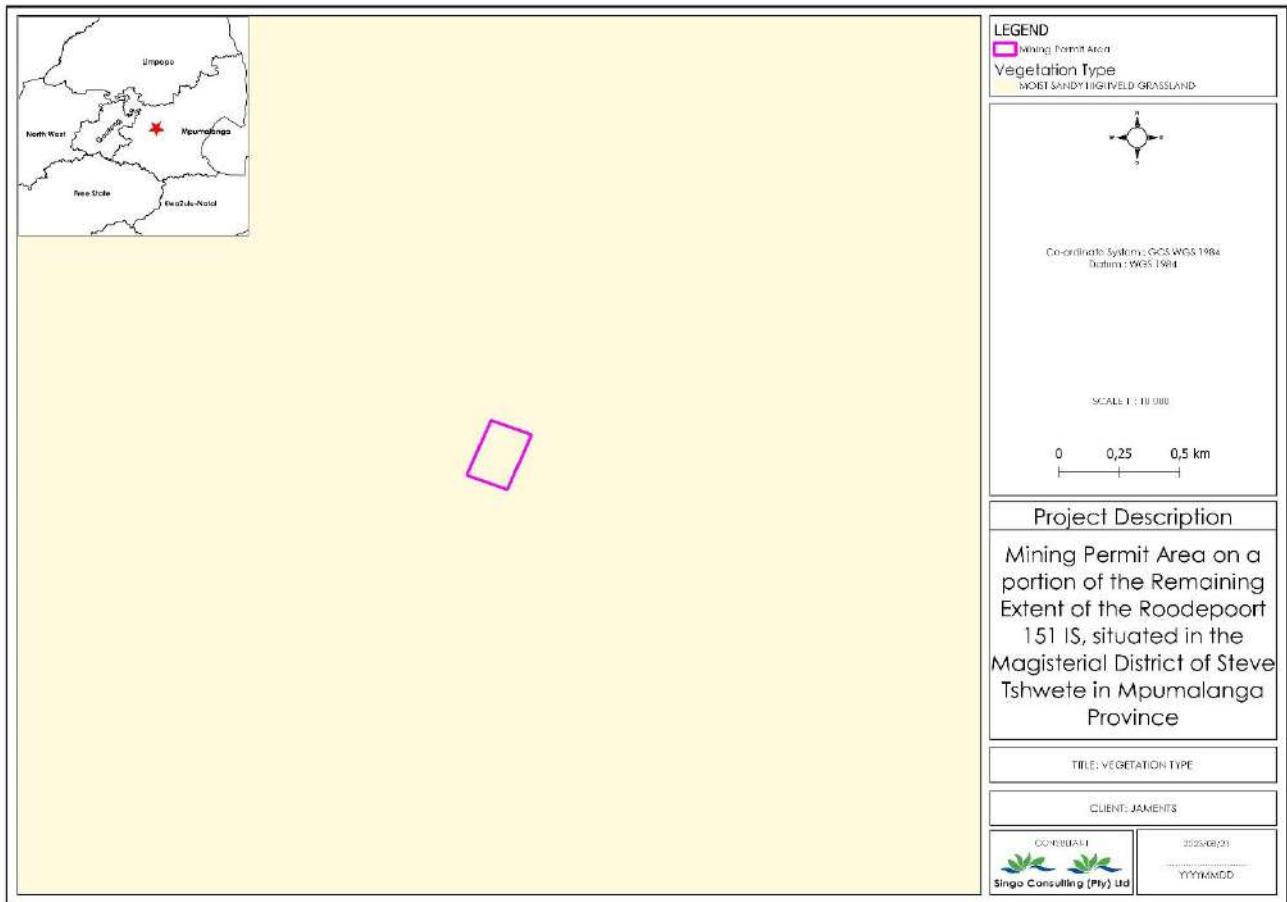


Figure 23: Vegetation type (Singo Consulting (Pty) Ltd, 2023)

According to the Screening tool, the area has medium sensitive plant species including *Pachycarpus suaveolens* and *Bronchycorythis conica* subsp. *transvaalensis*, commonly known as Albertina Sizulu Orchid.

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

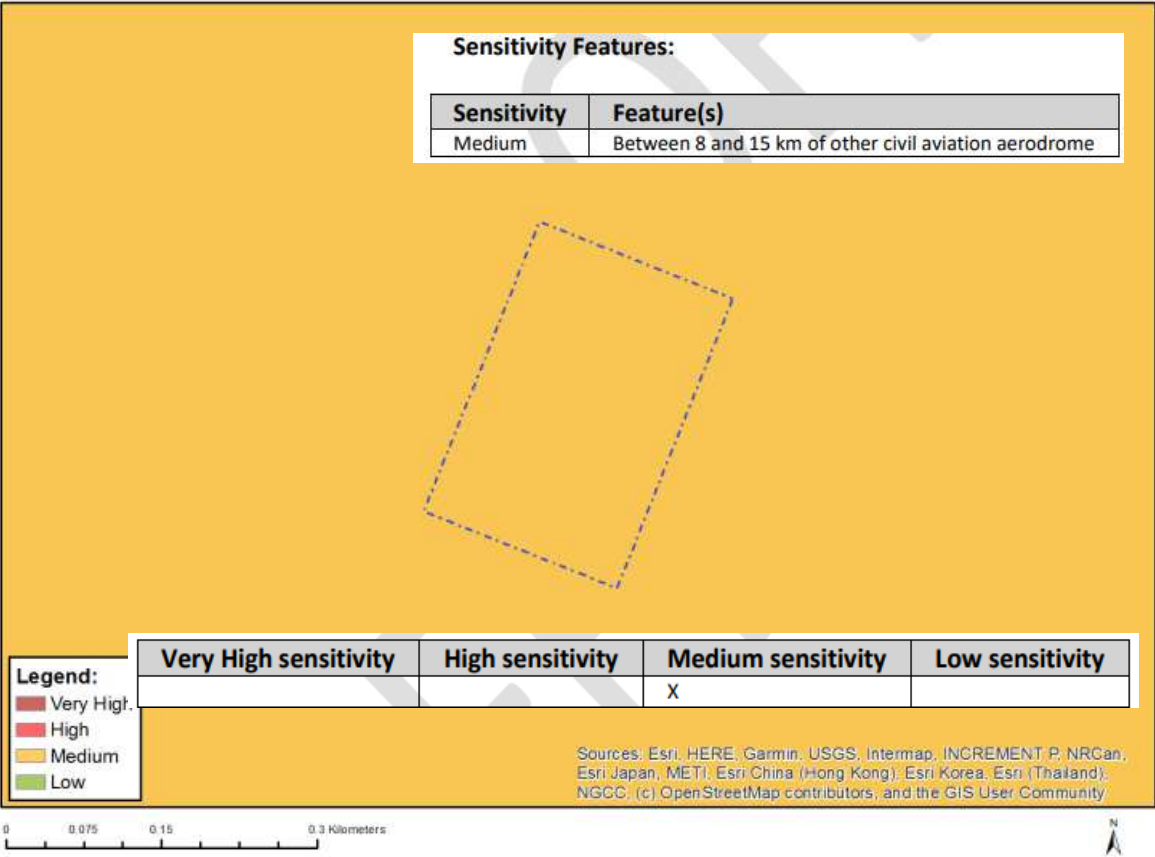


Figure 24: Plant species sensitivity (Screening tool)

The status species report received from the Mpumalanga Tourism Agency and Parks indicate that the plant species found in the area includes *Callilepis leptophylla*, commonly known as Wild Daisy. The ground truthing confirmed the presence of Wild Daisy and the area was found to be a mixture of natural vegetation (which is mostly grass) and a heavily modified portion where there are eucalyptus trees which are alien species. This area is dominated by a Highveld grassland vegetation.



Photo 1: Site vegetation (Singo Consulting (Pty) Ltd, 2023)

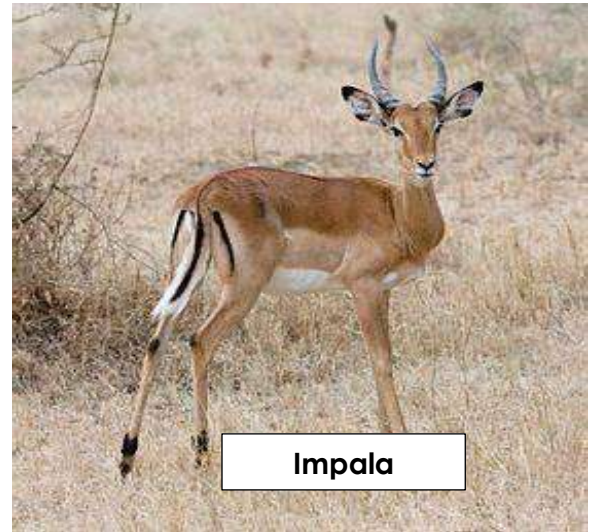
➤ **Fauna**

According to the screening report as shown in figure below, the animal species sensitivity of the proposed project area is medium. Species found in the area includes but not limited to: Aves-Sagittarius serpentarius commonly known as Secretarybird, Chrysospalax villosus commonly known as Rough haired golden mole and Dasymys robertsii commonly known as

the African marsh rat., large mammals that are found in th the area inc ludes Leptailurus serval.



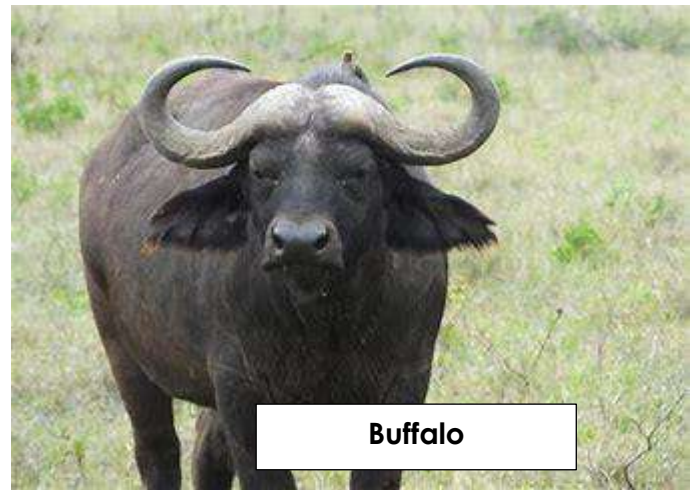
Blue Crane



Impala



Ostrich



Buffalo



Zebra



Gemsbok

STEPHEN
POPE

Figure 25: Animals living on site. (<https://www.bing.com/images/search>, 2023)

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

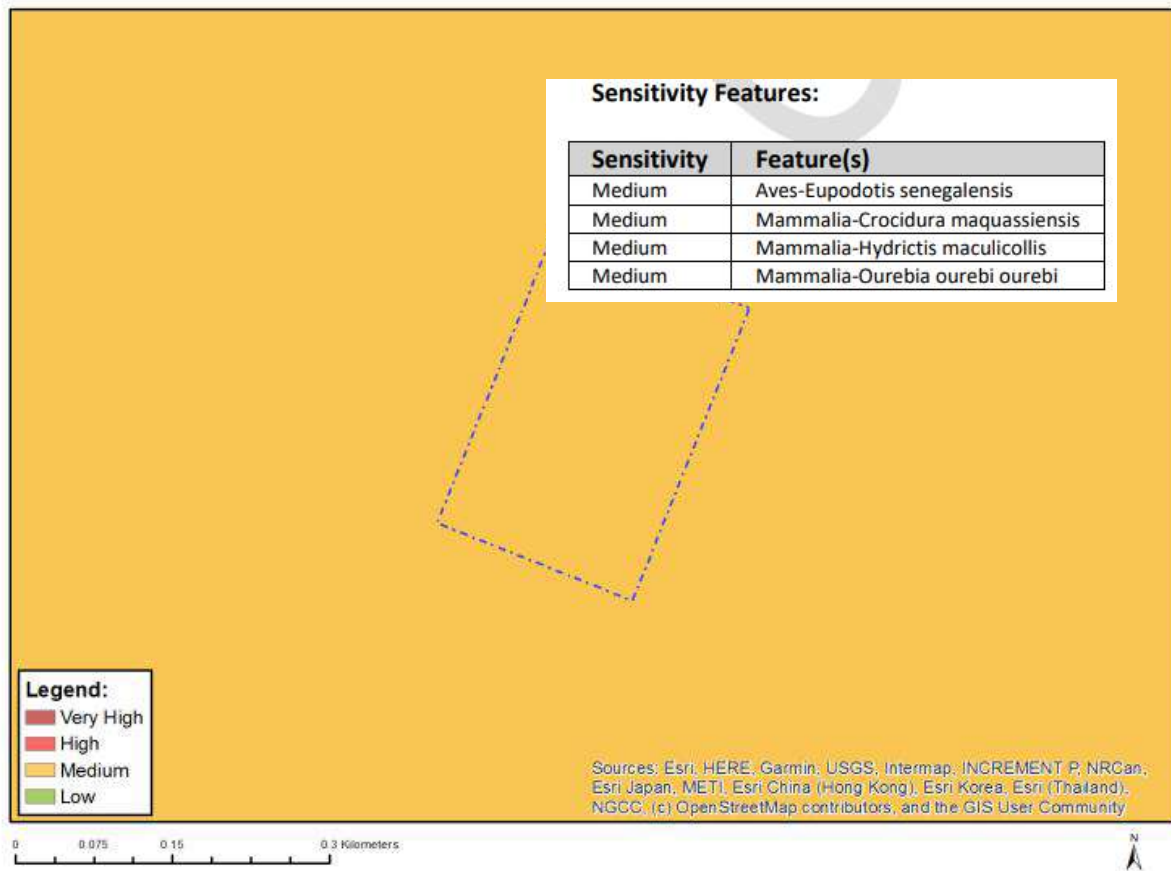


Figure 26: Animal species sensitivity (Screening tool)

Soil

According to the basic soil study that was done inhouse by Singo Consulting, the soil class on the proposed mining permit area is Association of classes 1 to 4: Undifferentiated structureless soils as shown in the map in figure 20 below. The Association of classes 1 to 4: Undifferentiated structureless soils can be defined based on their soil depth, Soil Drainage, and erodibility.

➤ Soil depth

Depth of the soil profile is from the top to the parent material or bedrock. This type of soil can be classified as a restricted soil depth. A restricted soil depth is a nearly continuous layer that has one or more physical, chemical, or thermal properties.

➤ **Soil drainage**

Soil drainage is a natural process by which water moves across, through, and out of the soil because of the force of gravity. The soils in the proposed area have an excessive drainage due to the soils having very coarse texture. Their typical water table is less than 150.

➤ **Erodibility**

Erodibility is the inherent yielding or non-resistance of soils and rocks to erosion. The freely drained structureless soils have high erodibility. A high erodibility implies that the same amount of work exerted by the erosion processes lead to a larger removal of material.

➤ **Natural Fertility**

Soil fertility refers to the ability of soil to sustain agricultural plant growth, i.e., to provide plant habitat and result in sustained and consistent yields of high quality. The soil, as a nature of them, contains some nutrients which is known as 'inherent fertility'. Among the plant nutrients, nitrogen, phosphorus, and potassium is essential for the normal growth and yield of crop. The proposed area has a low natural fertility soil.

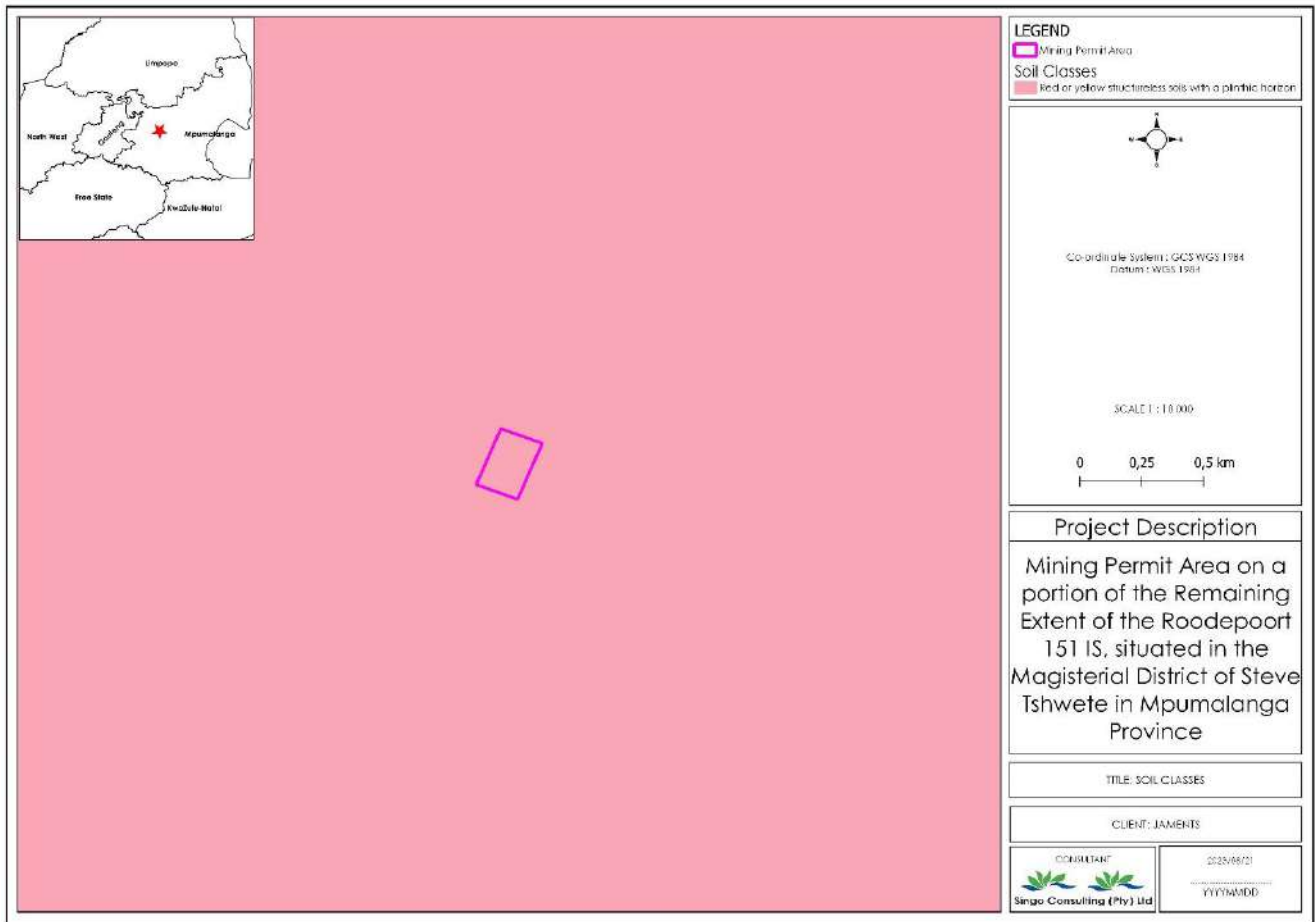


Figure 27: Soil classes (Singo Consulting (Pty) Ltd, 2023)



Photo 2: Soil type on site (Singo Consulting (Pty) Ltd, 2023)

Surface water

➤ Drainage

The hydrology surrounding the proposed area is of vital importance. In this context hydrology is all the surface waters appearing within and nearby the proposed project area, where a potential to be impacted upon by the project existence. The hydrology map, illustrates that the following water bodies exists within and nearby the project area:

➤ Flats

According to the basic hydrological study conducted in house, the above-mentioned water bodies are found off site, on an elevation between 1545 and 1550 mamsl, in the western direction as shown in hydrology and topography map on figure 23 below. The flats are approximately less than 1km from

the proposed project site. Contrary to the above information, freshwater biodiversity map as shown in the figure 24 below and the screening report shows the presence of a wetland within the proposed project area. During ground truthing a dry wetland was observed within the mining permit area and a buffer distance of 500 m will be kept from the wetland.

The identification of these water bodies allows for better mitigation measures which will have to be put in place before and during the mining operation. This is because the water bodies not only serve as habitat for the local ecosystems, but also as a source of water for the local communities for domestic use.

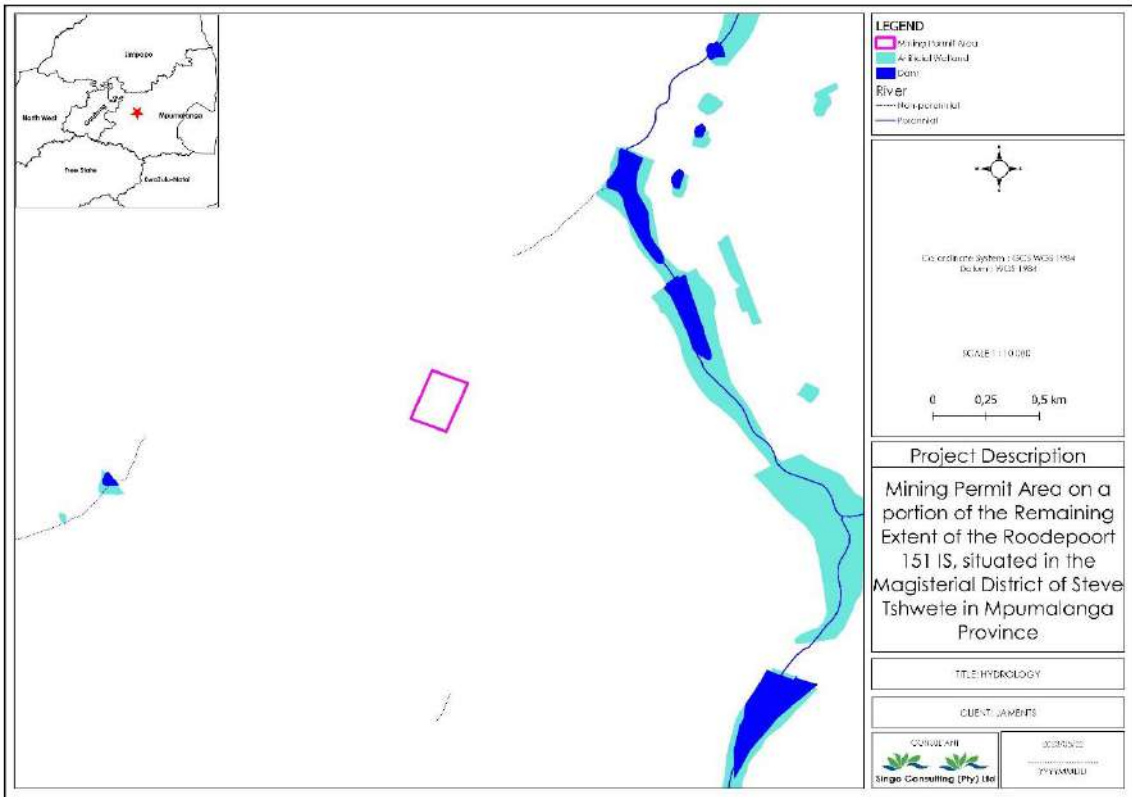


Figure 28: Hydrology and topology (Singo Consulting (Pty) Ltd, 2023)

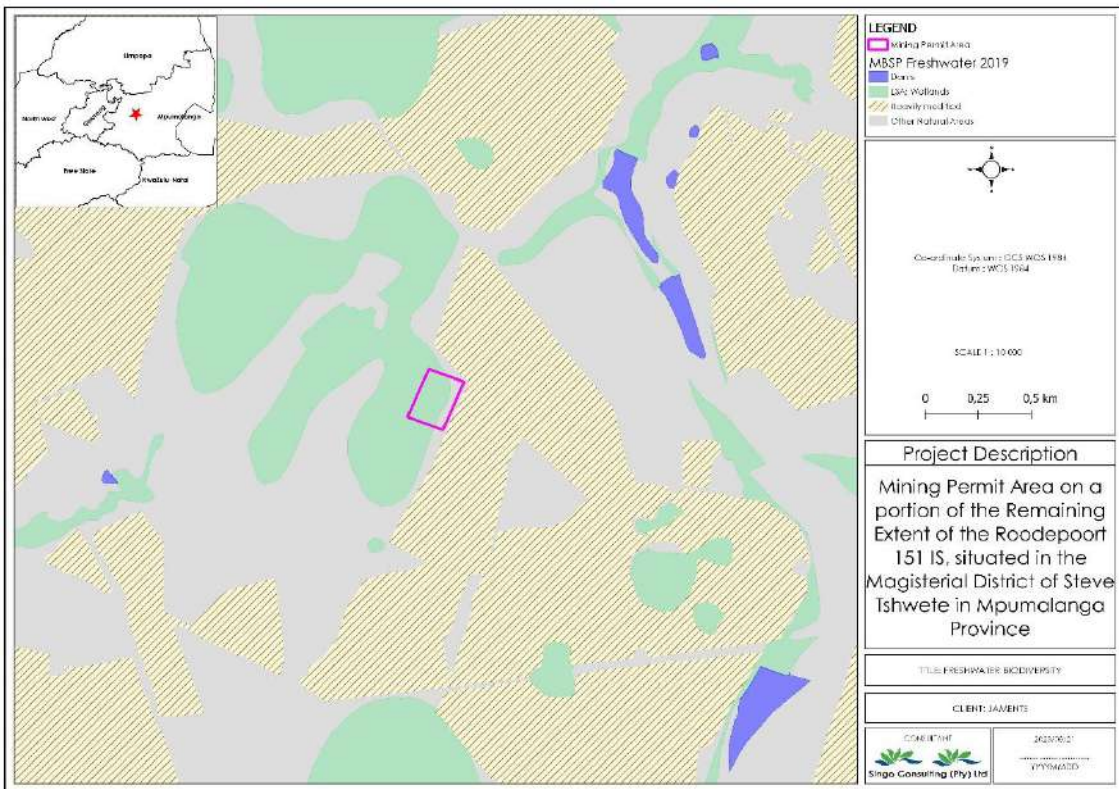


Figure 29: Freshwater Biodiversity (Singo Consulting (Pty) Ltd, 2023)

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

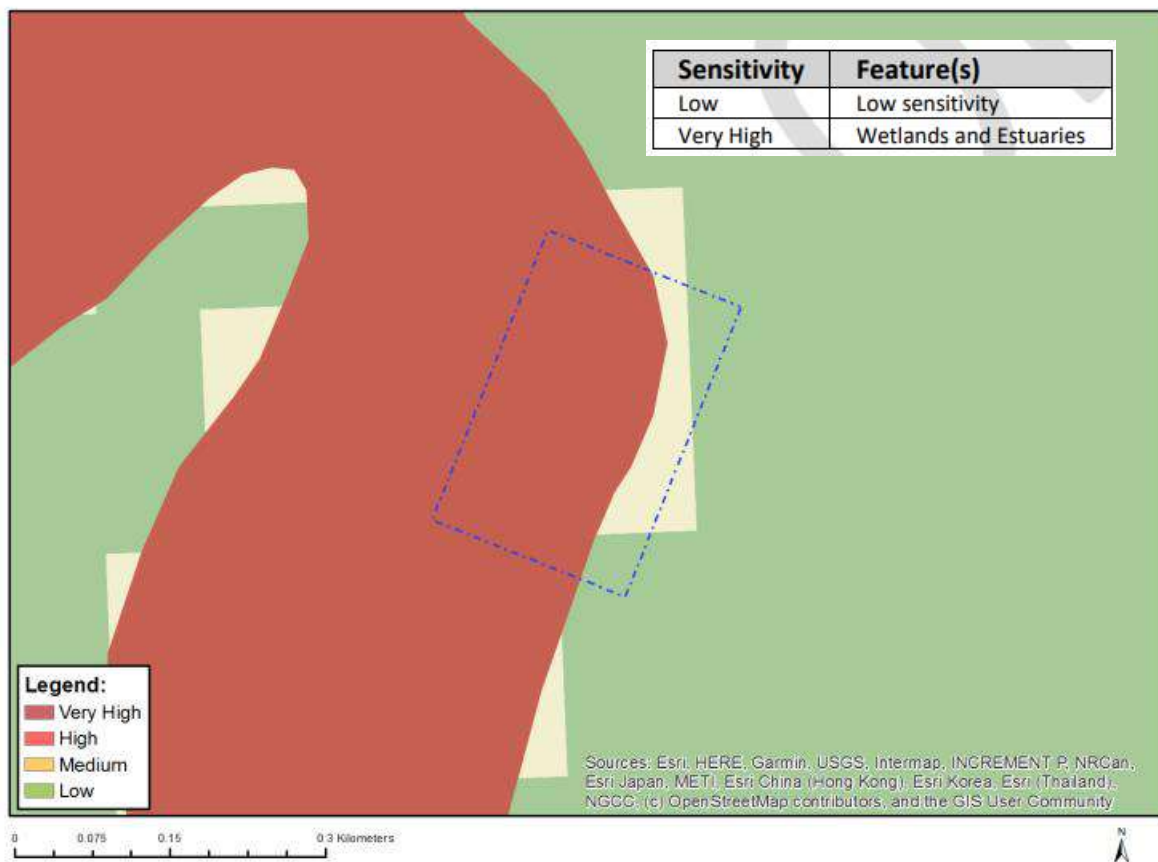


Figure 30: Aquatic sensitivity (Singo Consulting (Pty) Ltd, 2023)

The study area falls on Quaternary Catchment B12B under the Olifants Water Management Area, B12B is found in the upper olifants (WRC, 2012). The WRC 2012 study, presents hydrological parameters for each quaternary catchment including area, mean annual precipitation (MAP) and mean annual runoff (MAR) (Refer to Table 11).

Table 10: WRC 2012 Report, WMA, QC

Quaternary Catchment	S-Pan Evaporation		Rainfall	
	Evaporation Zone	MAE (mm)	Rainfall Zone	MAP (mm)
B12B	4A	1700	B1C (ZB1CB)	684

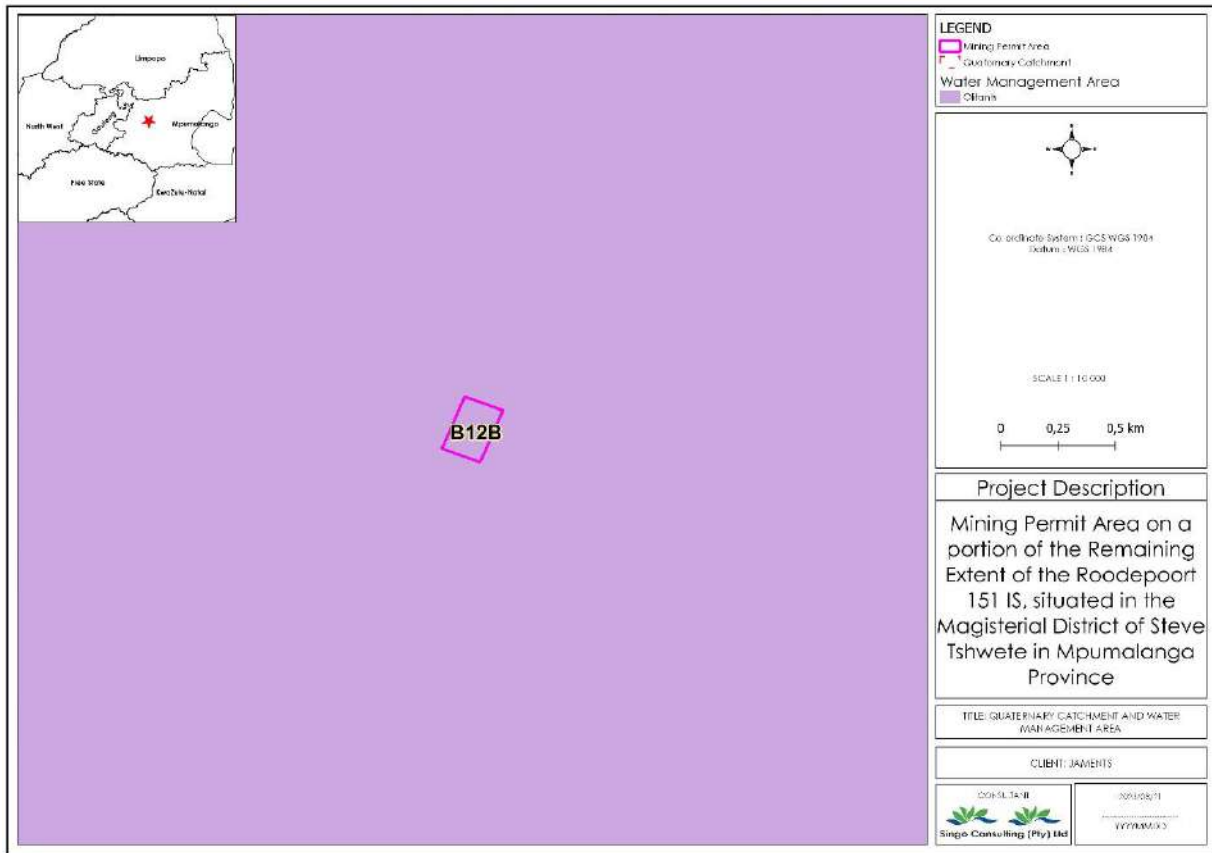


Figure 31: Quaternary catchment (Singo Consulting (Pty) Ltd, 2023)

Topography

Topography is a field of geoscience and planetary science and is concerned with local detail in general, including not only relief but also natural and artificial features, and even local history and culture. The flow of water during rainy seasons flows from the area of high elevation to the area of low elevation. The study area is situated on a flat or gentle topography on 1555m mean average sea level, and as seen on Figure 36. The contour elevation is decreasing from the study area towards the west direction and the Northern direction.

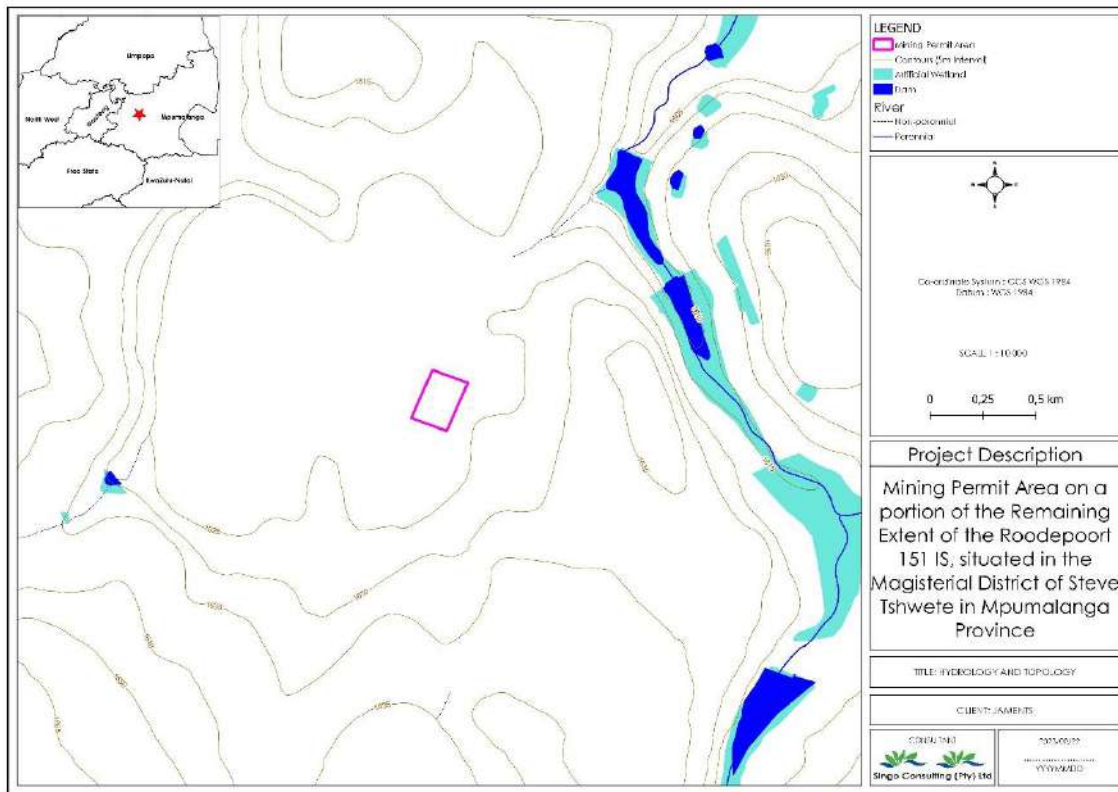


Figure 32: Topography (Singo Consulting (Pty) Ltd, 2023)

Climate

In Middelburg, the climate is warm and temperate. In winter, there is much less rainfall in than in summer. In Middelburg, the average annual temperature is 15.5 °C. The rainfall here averages 683 mm. The driest month is July. There is 5 mm of precipitation in July. With an average of 115 mm, the most precipitation falls in November. With an average of 20.3 °C, January is the warmest month. June has the lowest average temperature of the year. It is 8.5 °C. The precipitation varies 110 mm between the driest month and the wettest month. During the year, the average temperatures vary by 11.8 °C.

➤ Temperature

Average High and Low Temperatures

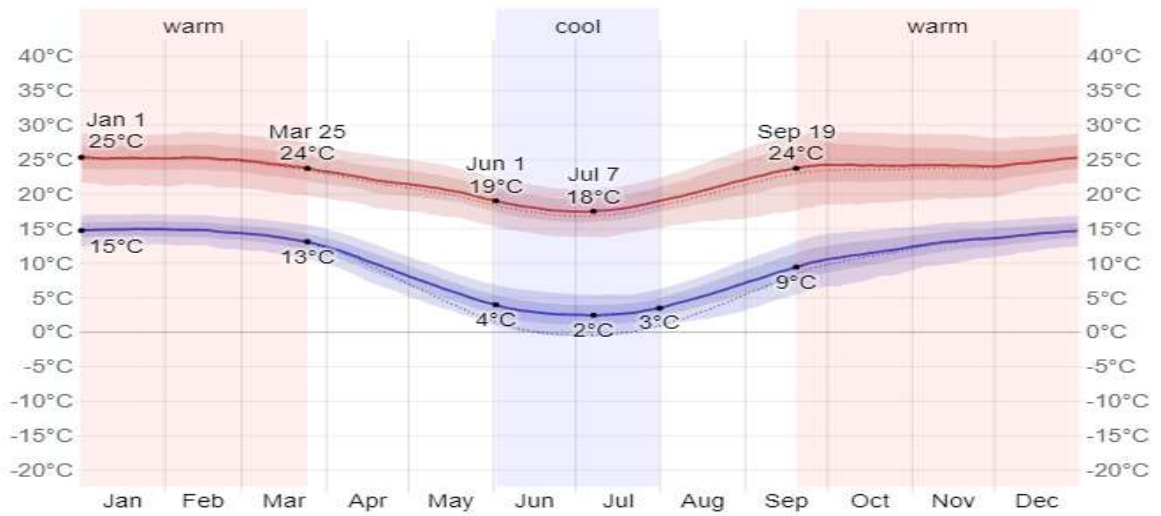


Figure 33: Summary of average temperature (weatherspark.com)

The mean minimum annual temperature for the proposed project area is range from 0.1-2 Degree Celsius as seen in Figure 38 below.

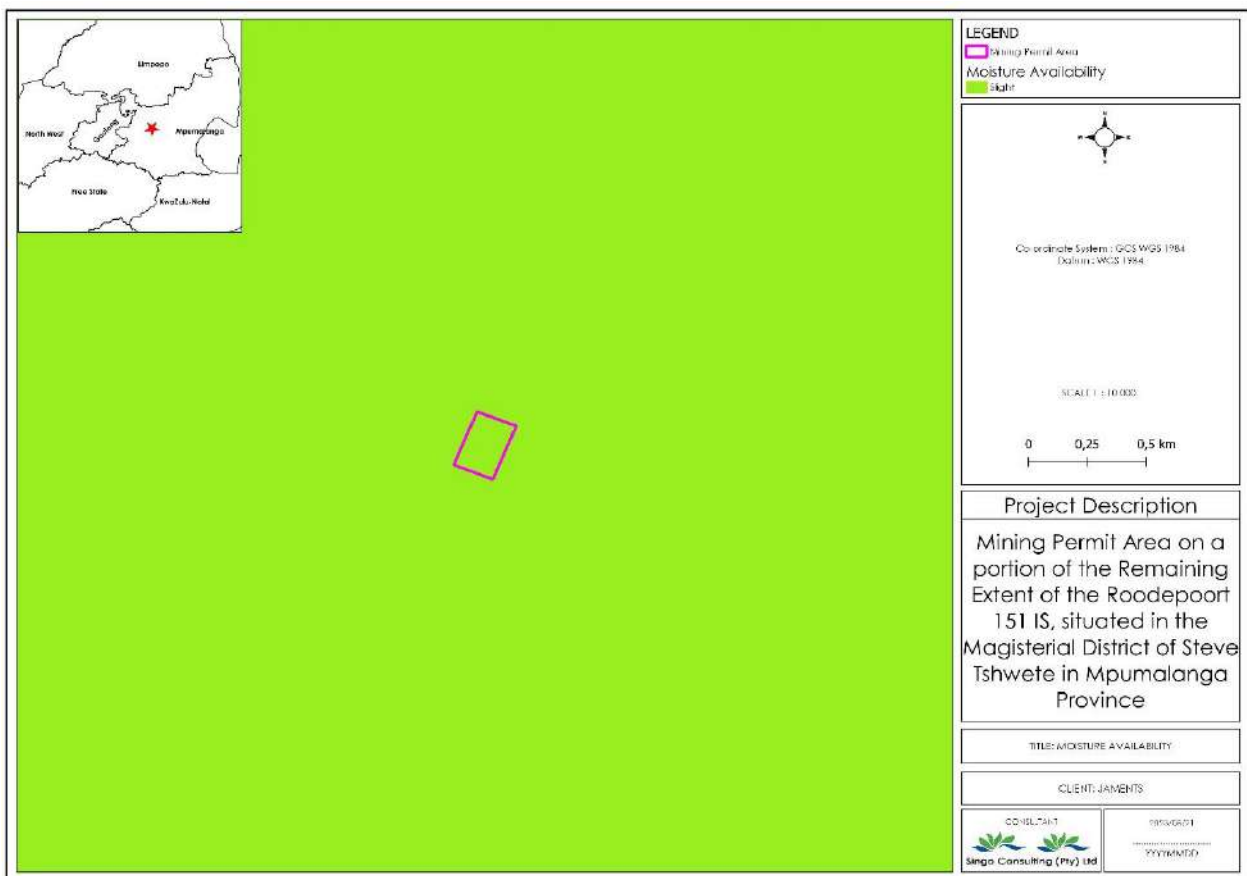


Figure 34: Annual minimum temperature (Singo Consulting (Pty) Ltd, 2023)

➤ **Rainfall**

The rainy period of the year lasts for 8.0 months, from September 7 to May 9, with a sliding 31-day rainfall of at least 13 millimeters. The month with the most rain in Witbank is December, with an average rainfall of 98 millimeters. The rainless period of the year lasts for 4.0 months, from May 9 to September 7. The month with the least rain in Witbank is July, with an average rainfall of 2 millimeters.

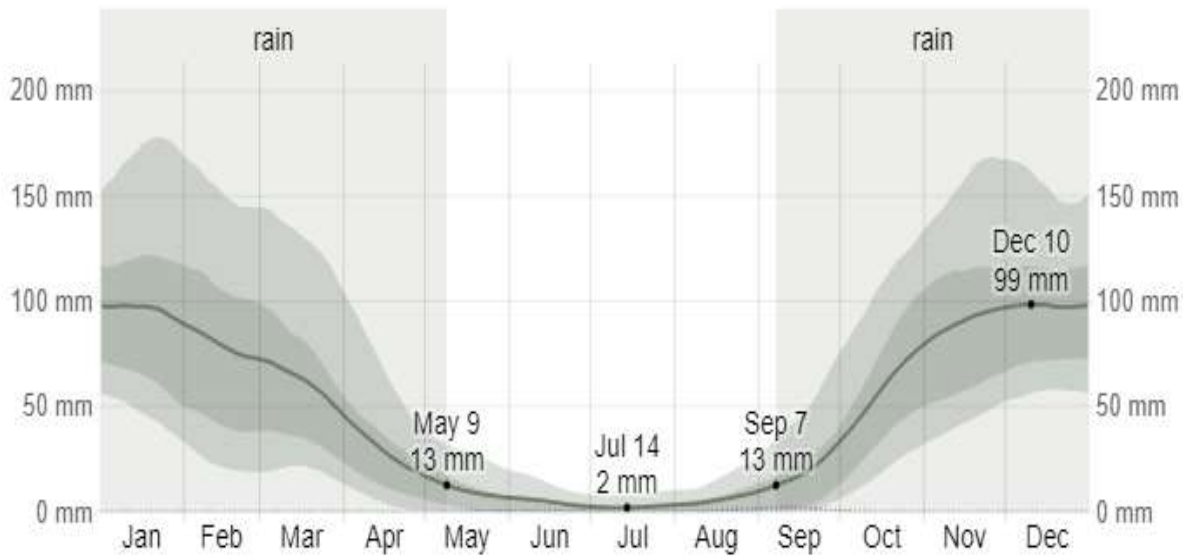


Figure 35: Average monthly rainfall (Weatherspark.com)

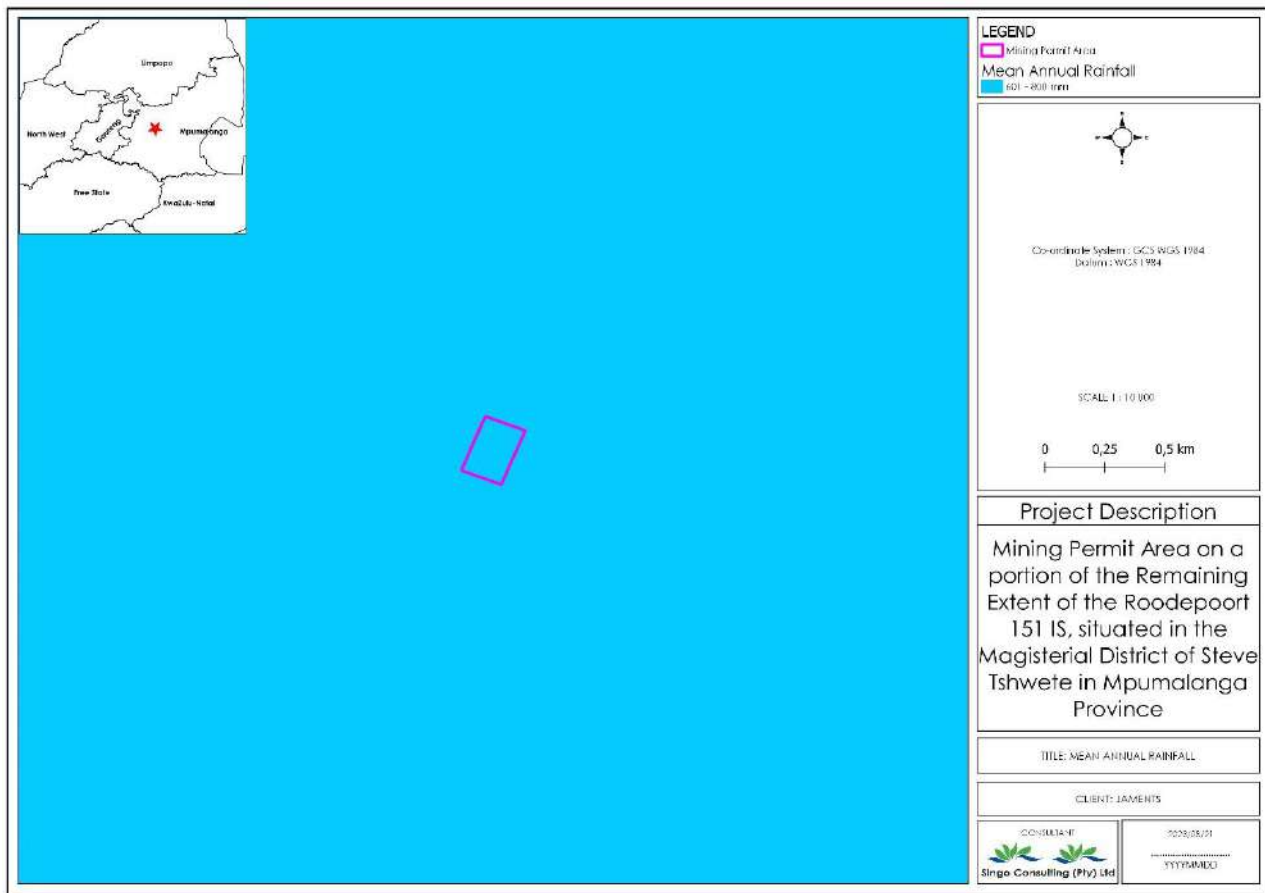


Figure 36: Mean annual rainfall (Singo Consulting (Pty) Ltd, 2023)

Cultural and heritage environment

Heritage resources such as Stone Age sites, rock paintings and engravings; stone tools; small, inconspicuous stone walled sites from the Late Iron Age farming communities; formal and informal graveyards, etc. may occur in the study area.

no heritage sites were discovered within or near the permit area during site assessment. Should any heritage resources of significance be exposed during the construction or rather operational phase of the project, the South African Heritage Resources Agency (SAHRA) should be notified immediately, all development activities should be stopped, and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorization (permits) from SAHRA to conduct the required mitigation measures.

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

Figure 37: Archaeological Features assessed on site and Map.

SAHRA was consulted regarding the proposed project as shown in the figure below for more information regarding the heritage of the area.

DMRE Ref: MP 30/ 5/ 1/ 1/ 3/ 13941 MP

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CaseHeader	LocationInfo	Admin	
Status: SUBMITTED			
HeritageAuthority(s): SAHRA MPHRA			
Case Type: Section 38 (1) - Decision from Heritage Authority required			
Development Type: Mining			
ProposalDescription: Jaments (Pty) Ltd has lodged an application with the Department of Mineral Resources and Energy (DMRE Ref: MP 30/ 5/ 1/ 1/ 3/13941 MP) for the purpose of extracting Coal on portion of the remaining extent of the farm Roodepoort 151 IS, situated in the Magisterial district of Steve Tshwete in Mpumalanga Province.			
Expanded_Motivation: Jaments (Pty) Ltd has applied for a mining permit to mine coal on portion of the remaining Extent of the farm Roodepoort 151 IS, Magisterial District of Steve Tshwete in Mpumalanga Province. The method that will be employed is a very basic form of open cast mining, and a 5-ha area will be demarcated for mining activities. Blasting and subsequent mining of the coal utilizing a truck and shovel operation will be conducted. The mined coal will be crushed and screened utilizing a mobile crushing and screening plant. A front- end loader will be utilized to load the material into haulage trucks. The coal will be processed within/off the site. Should the proposed mining activities change, this will be indicated in the form of a Section 102 Amendment Application of the MPRDA.			
ApplicationDate: Wednesday, August 16, 2023 - 08:51			
CaseID: 22154			
Applicants: Jaments (Pty) Ltd			
Consultants/Experts: Ndinannyi Kenneth			
OtherReferences:			
CaseReference	Department	ApplicationType	DeadlineDate
DMRE Ref: MP 30/ 5/ 1/ 1/ 3/ 13941 MP	Department of Mineral Resources - Mpumalanga	Prospecting Rights	06/09/2023
ReferenceList:			

AdditionalDocuments


-  [Background Information Document.pdf](#)

Figure 38: SAHRA consultation

Socio-Economic Environment

Reference to the following section has been made from (2022 - 2027) Draft Integrated Development Plan of Steve Tshwete Local Municipality.

➤ Introduction

The chapter on the situational analysis provides a status quo of the existing trends and the socio-economic conditions in the Steve Tshwete Municipality. It provides a brief description of the opportunities and the strengths of the municipal area concisely while providing inputs and plans to solve the existing challenges.

Socio-economic

The development of the Strategic Plan of the Mpumalanga Department of Economic Development and Tourism (MDEDT) for the period 2022 to 2027 is based on new priorities for the Mpumalanga administration and aims to fast track growth, support priority sectors, create jobs and promote economic participation by all its people. The Department's vision is for a "an inclusive, global competitive economy" and its mission is "to drive economic growth that creates decent employment and promote sustainable development through partnership". The implementation of the plan is founded on Outcome 4 of national government's Medium Term Strategic Framework (MTSF) for 2022 to 2027, which is, "Decent employment through inclusive growth".

According to the strategy, the province has at least 80% of the coal reserves in South Africa. There is also a large forestry sector and a strong agricultural sector with the potential to absorb lower skilled labour. The active mining, agricultural and forestry sectors also provide possibilities for beneficiation. The province is strategically located with access to inland provinces and proximity to Swaziland and Mozambique, including the Maputo port. Although infrastructure, that is, roads, transport and logistics, electricity, water, telecommunications and medical care, is regarded as generally good there is also an acknowledgement that rural infrastructure is poor. The natural landscape in the province is ideal to stimulate tourism. The Department has developed good working relations with its stakeholders. It however recognises the need for improving alignment amongst stakeholders in the province.

Mpumalanga Premier Mtshweni in her State of the Province Address on 22 February 2019 (Mpumalanga Provincial Government, 2019) stated that the provincial economy grew at 3% in 2014 but last year recorded a rate of less than 1%. The Mpumalanga Strategy identifies five prioritised economic sectors in the province, namely, agriculture for the promotion of agro-processing, mining for value addition through beneficiation and energy generation, manufacturing, Information Communication Technology, and tourism and cultural industries for job creation and growth of Small, Medium and Micro Enterprises (SMMEs). The department is promoting collaboration amongst departments in all spheres of government and with the private sector, to put together a comprehensive support package for SMMEs and cooperatives.

Population demographics

Population at the provincial, municipal and ward levels. This represents decreasing population densities of 56.6, 35.4, 27.3 and 7.3 persons per km² as one goes from provincial to ward levels.

Table 11: Population and Density

Profile	Population
Mpumalanga Province	4 039 939
District municipality	1 135 409
Local municipality	164 608
Ward	5 924

Forty eight percent (48%) of the population in the ward is in the age category 18 to 64, representing the generally employable population. This is lower than in the local municipality (59% of the population). There was a larger proportion of females at ward level (52%) than at local municipality level (50%). It is possible that job seekers in the ward, including men, may have moved out of the ward looking for work. The predominant language as one moved from district municipality to local municipality and then ward level was increasingly isiZulu, that is, 60%, 71%, 91% of households respectively. At provincial level, the dominant language was Siswati (27%), followed by isiZulu (24%).

Education

At ward level, about 18% of people 20 years and older (503 people) had completed matric and 1% had completed undergraduate studies. Thirty two percent (32%) had some secondary education and 7% had completed primary school. Twenty five percent of the population had had no schooling. Formal education levels were therefore low at ward level. At the local municipal level, about 38% of individuals 20 years and older (33 290 people) had completed matric. This was greater than the percentage in the district municipality (36%) and the same as in the province. Sixty-three-point four percent of individuals in this age group had completed Grade 9 or higher in the local municipality, which was higher than in the GSDM and the same as the province. Twelve percent (12%) of this age group had no schooling at local municipal level.

Employment and income

At local municipal level, large proportions of the households recorded annual earnings in the categories R10 000 to R20 000 (18%), R20 000 to R40 000 (21%), and R40 000 to R 75 000 (15%). Thirteen percent did not have any income and 11% received less than R10 000 per annum, that is, almost a quarter (24%) of the households were living on less than R835 per month. At ward level, 27% of the households lived on an income of less than R835 a month and 45% of the population earned between R10 000 and R40 000 per annum. Another 16% earned between R40 000 to R 75 000. More households at the ward level (72%) were therefore earning an income in the lower brackets, that is less than R 40 000 annually.

Steve Tshwete Local Municipality's population has increased from 171 982 in 2011 to 189 036 in 2016. The population growth rate between 2022 to 2027 is 2.0. The number of people residing in 'urban 'Middelburg and 'rural 'Middelburg has remained the same between 2022 to 2027, with 96 693 people in urban areas and 96343 in rural areas.

Concluding Remarks

The municipality has been under strain because of the influx of job seekers and high unemployment rate, and it faces challenges in accommodating the area's potential educated young people due to a lack of economic opportunities.

The primary positive impact of the excavation activities will be the temporary creation of jobs during the project's construction phase. The project may also result in a temporary boost in small local businesses in the area, and it is safe to conclude that the mining project will contribute to the growth of the manufacturing and mining employment industries, as well as help address the challenges that the communities most affected by the proposed project are currently facing.

(b) Description of the current land uses

Show all environmental and current land use features.

Land uses

According to the land use and cover map in Figure 42, the area is characterized by natural vegetation. During site evaluation, natural vegetation and eucalyptus trees were identified onsite. There is no river that passes through the mining permit area; however, there are several dams and wetlands that are within 500m of the proposed site. It is therefore necessary to adhere to a 500-metre buffer zone on the wetlands or dams observed in the project area. The surrounding areas are characterised by natural vegetation. During the site assessment, wild

animals (Buffalos, Zebra, Impala, Gemsbok, and Blue Crane) were also observed, depending on the proposed land for survival. Transportation of the material will generate noise daily, which will affect the animals on site. Mitigation measures should be implemented to ensure that animals on site are protected at all times. and that employees conduct themselves in an acceptable manner while on site to lessen the noise impact of the proposed activity on the surrounding environment.

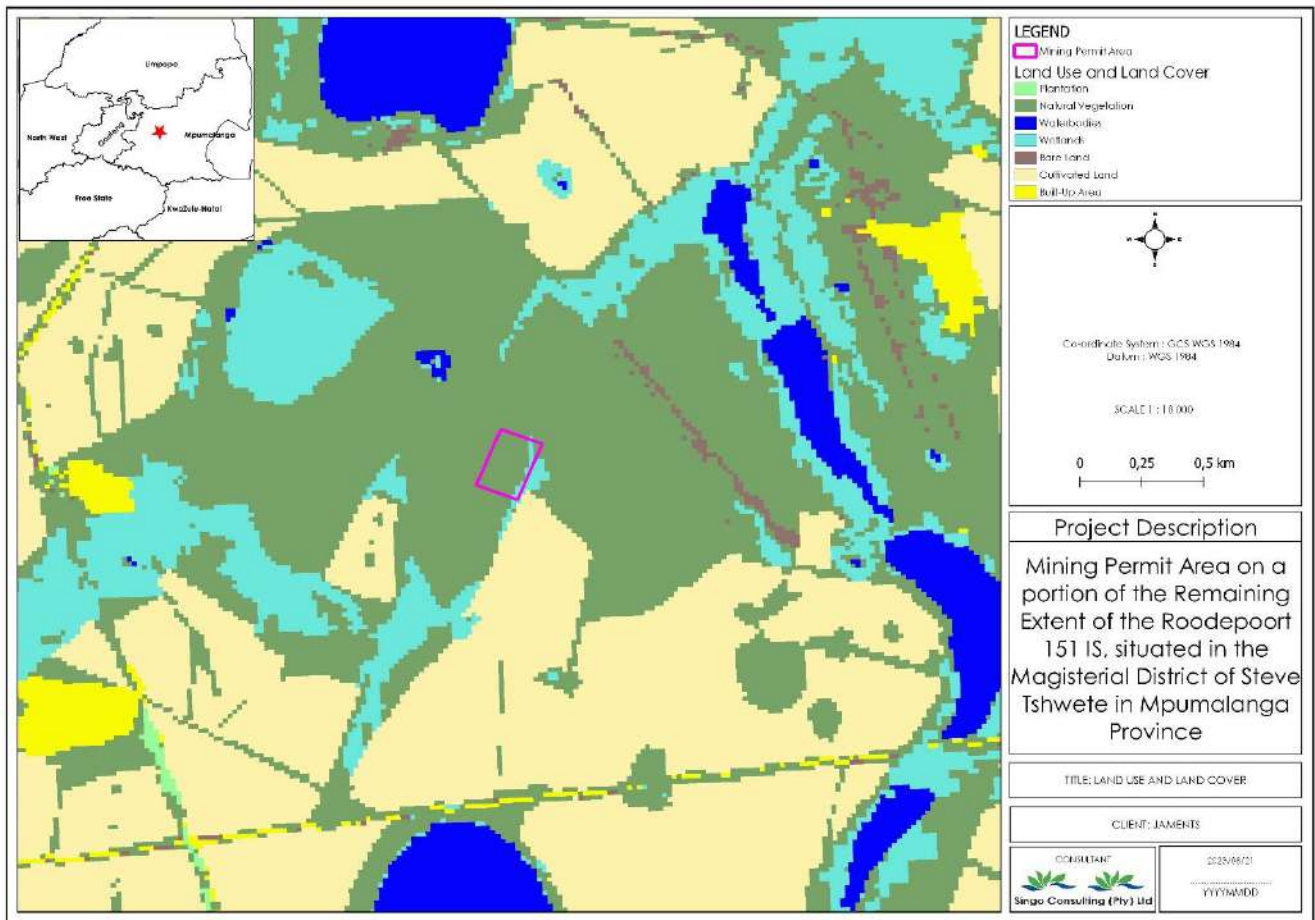


Figure 39: Land use and land cover (Singo Consulting (Pty) Ltd, 2023)

Environmental features

The proposed site is natural vegetation area cover, nearby areas are dominantly used for grazing. The impact of the proposed mining area on the infrastructural features of the surrounding area is considered of low significance, as the impact of the mining activities will be concentrated within the 5-ha footprint area of the mine.

Infrastructure

Infrastructure is the basic facilities and systems that serve a state, region, or other place, including the services and facilities necessary for the functioning of its economy.

Infrastructure consists of infrastructure developments, both public and private, such as Buildings, highways, bridges, tunnels, sewage electric grids and telecommunications.

The property lies within the proposed project area, there is no electric power line within the proposed area. However, it was observed 1km away from the proposed site.

(a) Public roads

The proposed project area is located approximately 47.2 km South of Middelburg town, approximately 63.9 km South-East of Witbank and about 5.5km north east of Pullens hope. The project site covers an area of about 5 hectares (ha) Access to the site is via R35 to unmaned gravel road that leads to Roodepoort farm.

Description of specific environmental features and infrastructure on the site.

The following table provides a description of the land uses and/or prominent features that currently occur within 1 Km radius of the site:

Land use character	Yes	No	Description
Natural area	Yes		The area has no activities occurring on it, only wild animals (Refer to figure 25 above) that depends on the land for grazing.
Low-density residential		No	
Medium-density residential		No	
High-density residential		No	
Informal residential		No	
Retail commercial and warehousing		No	
Light industrial		No	
Medium industrial		No	
Heavy industrial		No	
Power station		No	
Office/consulting room		No	
Military or police base/ station/compound		No	
Soil heap or slimes dam		No	
Quarry, mine or borrow pit		No	
Dam or reservoir		No	

Land use character	Yes	No	Description
Hospital/medical centre		No	
School or crèche		No	
School		No	
Tertiary education facility		No	
Church		No	
Old age home		No	
Sewage treatment plant		No	
Train station or shunting yard		No	
Railway line		No	
Major (road 4 lines or more)		No	
River, stream or wetland		No	
Agriculture		No	
Nature conservation area		No	
Mountain, hill or ridge		No	
Museum		No	
Historical building		No	
Plantation		No	
Landfill/waste treatment site		No	
Archaeological sites		No	
Other land uses		No	

d) Environmental and current land use map.

(Show all environmental, and current land use features)

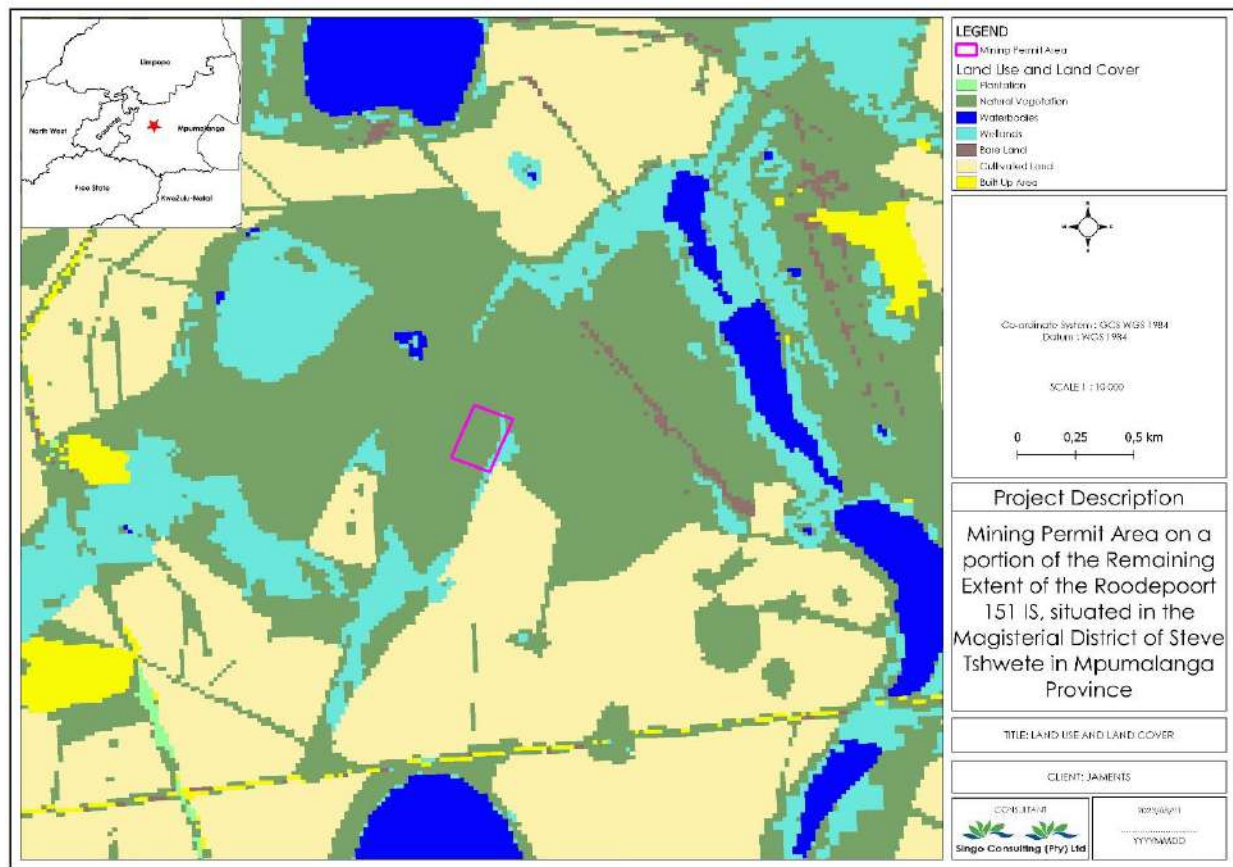


Figure 40: Land uses and land cover (Singo Consulting (Pty) Ltd, 2023)

(v) Impacts and risks identified, including the nature, significance, consequence, extent, duration and probability of the impacts

The following potential impacts were identified of each main activity in each phase. The significance rating was determined using the methodology described in. The impact rating listed below was determined for each impact prior to bringing the proposed mitigation measures into consideration. The degree of mitigation indicates the possibility of partial, full or no mitigation of the identified impact.

Stripping and stockpiling of topsoil

➤ Significant impacts:

Visual intrusion associated with the establishment of the mining area.

Dust nuisance caused by soil disturbance.

Noise nuisance caused by machinery stripping and stockpiling the topsoil.

Infestation of the topsoil heaps by weeds or invader plants.

Loss of topsoil due to incorrect storm water management.

Contamination of area with hydrocarbons or hazardous waste materials.

Blasting

➤ **Significant impacts:**

Health and safety risk posed by blasting activities.

Dust nuisance caused by blasting activities.

Noise nuisance caused by blasting activities.

Excavation

➤ **Significant impacts:**

Visual intrusion associated with the excavation activities.

Dust nuisance due to excavation activities.

Noise nuisance generated by excavation equipment.

Unsafe working conditions for employees.

Negative impact of the fauna and flora of the area.

Contamination of area with hydrocarbons or hazardous waste materials.

Weed and invader plant infestation of the area.

In-pit crushing

➤ **Significant impacts:**

Dust nuisance due to the crushing activities.

Noise nuisance generated by the crushing activities.

Contamination of area with hydrocarbons or hazardous waste materials.

Stockpiling and transporting

➤ **Significant impacts:**

Visual intrusion associated with the stockpiled material and vehicles transporting material.

Loss of material due to ineffective storm water handling Weed and invader plant infestation of the area due to the disturbance of the soil

Dust nuisance from stockpiled material and vehicles transporting the material

Degradation of access roads

Noise nuisance caused by vehicles

Contamination of area with hydrocarbons or hazardous waste materials

Sloping and landscaping during rehabilitation

➤ **Significant impacts:**

Soil erosion

Health and safety risk posed by un-sloped areas

Dust nuisance caused during sloping and landscaping activities

Noise nuisance caused by machinery

Contamination of area with hydrocarbons or hazardous waste materials

Replacing of topsoil and rehabilitation of disturbed area

➤ **Significant impacts:**

Loss of reinstated topsoil due to the absence of vegetation

Infestation of the area by weed and invader plants

(vi) Methodology for the assessment of the potential environmental, social and cultural impacts

The impact assessment process may be summarized as follows:

- Identification of proposed mining activities including their nature and duration.
- Screening of activities likely to result in impacts or risks.
- Utilization of the above-mentioned methodology to assess and score preliminary impacts and risks identified.
- Inclusion of I&AP comments regarding impact identification and assessment.
- Finalization of impact identification and scoring.

The impact significance rating methodology is guided by the requirements of the NEMA 2014 EIA Regulations (as amended). Please refer to Section 9.1 for a full description of the impact assessment methodology. Please refer to the table below for a description of the activities and associated impacts.

The Impact Assessment Methodology

The subsections below present the approach to assessing the identified potential environmental impact with the aim of determining the relevant environmental significance.

➤ **Method of Assessing Impacts**

The requirements of the NEMA 2014 EIA Regulations guide the impact assessment process (as amended). The Environmental Risk (ER) is calculated by comparing the

Consequence (C) of each effect (which includes Nature, Extent, Duration, Magnitude, and Reversibility) to the Probability/Likelihood (P) of the impact occurring. The Environmental Risk is determined by this. Other criteria, including as cumulative impacts, public concern, and the risk of irreversible resource loss, are also considered when determining a Prioritization Factor (PF), which is then applied to the ER to establish the overall Significance (S).

➤ **Determination of Environmental Risk**

The significance (S) of an impact is determined by applying a Prioritization Factor (PF) to the Environmental Risk (ER).

The Environmental Risk is dependent on the Consequence (C) of the particular impact and the Probability (P) of the impact occurring. Consequence is determined through the consideration of the Nature (N), Extent (E), Duration (D), Magnitude (M) and Reversibility (R) applicable to the specific impact.

For the purpose of this methodology the Consequence of the impact is represented by:

Aspect	Score	Definition
Nature	- 1	Likely to result in a negative/ detrimental impact
	+1	Likely to result in a positive/ beneficial impact
Extent	1	Activity (i.e. limited to the area applicable to the specific activity)
	2	Site (i.e. within the development property boundary),
	3	Local (i.e. the area within 5 km of the site),
	4	Regional (i.e. extends between 5 and 50 km from the site
	5	Provincial / National (i.e. extends beyond 50 km from the site)
Duration	1	Immediate (<1 year)
	2	Short term (1-5 years)
	3	Medium term (6-15 years)
	4	Long term (the impact will cease after the operational life span of the project),
	5	Permanent (no mitigation measure of natural process will reduce the impact after construction).
Magnitu de/ Intensity	1	Minor (where the impact affects the environment in such a way that natural, cultural and social functions and processes are not affected)
	2	Low (where the impact affects the environment in such a way that natural, cultural and social functions and processes are slightly affected)
	3	Moderate (where the affected environment is altered but natural, cultural and social functions and processes continue albeit in a modified

		way)
	4	High (where natural, cultural or social functions or processes are altered to the extent that it will temporarily cease) or
	5	Very high / don't know (where natural, cultural or social functions or processes are altered to the extent that it will permanently cease)
Reversibility	1	Impact is reversible without any time and cost
	2	Impact is reversible without incurring significant time and cost
	3	Impact is reversible only by incurring significant time and cost
	4	Impact is reversible only by incurring prohibitively high time and cost
	5	Irreversible Impact

$$C = (E+D+M+R) \times N \ 4$$

Each individual aspect in the determination of the Consequence is represented by a rating scale as defined in

Table 12.

Table 12: Criteria for determination of impact Consequence.

Aspect	Score	Definition
	5	Irreversible Impact

Once the C has been determined the ER is determined in accordance with the standard risk assessment relationship by multiplying the C and the P. Probability is rated/scored as per Table 13.

Table 13: Probability scoring.

Probability	1	Improbable (the possibility of the impact materializing is very low as a result of design, historic experience, or implementation of adequate corrective actions; <25%),
	2	Low probability (there is a possibility that the impact will occur; >25% and <50%),
	3	Medium probability (the impact may occur; >50% and <75%),
	4	High probability (it is most likely that the impact will occur- > 75%

		probability), or
	5	Definite (the impact will occur),

The result is a qualitative representation of relative ER associated with the impact. ER is therefore calculated as follows (Table 14):

$$ER = C \times P$$

Table 14: Determination of Environmental Risk.

Consequence	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
	Probability					

The outcome of the environmental risk assessment will result in a range of scores, ranging from 1 through to 25. These ER scores are then grouped into respective classes as described in

Table 15.

Table 15: Significance classes.

Environmental Risk Score	
Value	Description
< 10	Low (i.e. where this impact is unlikely to be a significant environmental risk),
≥ 10; < 20	Medium (i.e. where the impact could have a significant environmental risk),
≥ 20	High (i.e. where the impact will have a significant environmental risk).

The impact ER will be determined for each impact without relevant management and mitigation measures (pre- mitigation), as well as post implementation of relevant management and mitigation measures (post-mitigation). This allows for a prediction in the degree to which the impact can be managed/ mitigated.

Impact Prioritization

In accordance with Appendix 3(1)(j) of the NEMA 2014 EIA Regulations (as amended) (GNR 326 of 2017), and in addition to the assessment criteria presented in the Section above, each potentially significant impact must be evaluated in terms of cumulative impacts and the degree to which the impact may cause irreplaceable resource loss.

Furthermore, public opinion and attitude about a potential development, as well as its potential consequences, must be considered during the decision-making process.

An impact Prioritization Factor (PF) will be assigned to each impact ER in order to ensure that these considerations are considered (post-mitigation). This element is used to direct the attention of the decision-making authority on the higher priority/significant issues and impacts, rather than to distract from the risk assessments. The PF will be applied to the ER score assuming that all recommended management/mitigation measures are executed.

Table 16: Criteria for the determination of prioritization.

Public response (PR)	Low (1)	Issue not raised in public response.
	Medium (2)	Issue has received a meaningful and justifiable public response.
	High (3)	Issue has received an intense meaningful and justifiable public response.
Cumulative Impact (CI)	Low (1)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is unlikely that the impact will result in spatial and temporal cumulative change.
	Medium (2)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is probable that the impact will result in spatial and temporal cumulative change.
	High (3)	Considering the potential incremental, interactive, sequential, and synergistic cumulative impacts, it is highly

		probable/definite that the impact will result in spatial and temporal cumulative change.
Irreplaceable loss of resources (LR)	Low (1)	Where the impact is unlikely to result in irreplaceable loss of resources.
	Medium (2)	Where the impact may result in the irreplaceable loss (cannot be replaced or substituted) of resources but the value (services and/or functions) of these resources is limited.
	High (3)	Where the impact may result in the irreplaceable loss of resources of high value (services and/or functions).

The value for the final impact priority is represented as a single consolidated priority, determined as the sum of each individual criterion. The impact priority is therefore determined as follows:

Priority = PR + CI + LR

The result is a priority score which ranges from 3 to 9 and a consequent PF ranging from 1 to 2 (Table 17).

Table 17: Determination of prioritization factor.

Priority	Ranking	Prioritization Factor
3	Low	1
4	Medium	1.17
5	Medium	1.33
6	Medium	1.5
7	Medium	1.67
8	Medium	1.83
9	High	2

In order to determine the final impact significance, the PF is multiplied by the ER of the post mitigation scoring. The ultimate aim of the PF is to be able to increase the post mitigation environmental risk rating by a full ranking class, if all the priority attributes are high (i.e. if an impact comes out with a medium environmental risk after the conventional impact rating, but there is significant cumulative impact potential, significant public response, and significant potential for irreplaceable loss of resources, then the net result would be to upscale the impact to a high significance.

Table 18: Environmental significance rating.

Environmental Significance Rating	
Value	Description
≤ 1	Very low (impact is negligible. No mitigation required)
>1≤2	Low negative (i.e. where this impact would not have a direct influence on the decision to develop in the area).
>2≤3	Moderate negative (i.e. where the impact could influence the decision to develop in the area).
>3≤4	High negative (i.e. where the impact must have an influence on the decision process to develop in the area).
>4≤5	Very high negative (impact is of highest order possible. Mitigation is required to lower impacts to acceptable levels. Potential fatal flaw)
0	No impact
>1≤2	Low positive (i.e. where this impact would not have a direct influence on the decision to develop in the area).
>2≤3	Moderate positive (i.e. where the impact could influence the decision to develop in the area).
>3≤4	
>4≤5	High positive (i.e. where the impact must have an influence on the decision process to develop in the area)

vii) The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected

The proposed mine will be established on a natural area which is being utilized as a grazing land by animals observed on site. The adjacent land is being utilised for agricultural purposes and mining. Upon closure of the mining area, the land will, once again, be useful for agricultural purposes.

Due to the distance from residential area to the mine, low-medium significantly negative impacts on the community could be identified. The dust and noise impacts that may emanate from the mining area during the operational phase could have a negative impact on the surrounding farmsteads if the mitigation measures proposed in this document are not implemented and managed on-site. The operation of the mine will, however, also have a number of positive impacts, such as permanent job creation for

skilled, semi-skilled and un-skilled workers. The proposed mine will, therefore, contribute to upgrading/ maintaining infrastructure in and around Middelburg area, which will indirectly contribute to the economy of the area.

viii) The possible mitigation measures that could be applied and the level of risk

Visual mitigation

The risk of the proposed mining activities having a negative impact on the aesthetic quality of the surrounding environment can be reduced to medium risk through the implementation of the following mitigation measures:

- The site must be kept neat and in good condition at all times.
- Upon closure, the site must be rehabilitated and sloped to ensure that the visual impact on the aesthetic value of the area is minimal.

Dust handling

The risk of dust generated from the proposed mining activities having a negative impact on the surrounding environment can be reduced to low-medium through the implementation of the following mitigation measures:

Dust liberation into the surrounding environment must be effectively controlled by the use of, *inter alia*, water spraying and/or other dust-allaying agents.

The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression.

Access road speeds must be limited to 40km/h to prevent excessive dust generation.

Roads must be sprayed with water or an environmentally friendly dust allaying agent, that contains no PCBs (e.g. DAS products), if dust is generated above acceptable limits.

The in-pit crusher plant must have operational water sprayers to alleviate dust generation from the conveyor belts.

Noise handling

The risk of noise, generated from the proposed mining activities, having a negative impact on the surrounding environment can be reduced to low-medium through the implementation of the following mitigation measures:

The applicant must ensure that employees and staff conduct themselves in an

acceptable manner while on site, both during work hours and after hours.

No loud music may be permitted at the mining area.

All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act.

The type, duration and timing of the blasting procedures must be planned with due cognisance of other land users and structures in the vicinity.

Surrounding landowners must be notified, in writing, prior to blasting occasions.

Management of weed or invader plants

The risk of weeds or invader plants invading the disturbed area can be reduced to low through the implementation of the following mitigation measures:

A weed and invader plant control management plan must be implemented at the site to ensure eradication of all listed invader plants in terms of Conservation of Agricultural Act (Act No 43 1983).

Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used:

The plants can be uprooted, felled or cut off and destroyed completely.

The plants can be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an herbicide.

The temporary topsoil stockpiles must be kept free of weeds.

Storm water handling

The risk of contamination through dirty storm water escaping from work areas, or erosion or loss of material caused by uncontrolled storm water flowing through the mining area, can be reduced to low by implementing the following mitigation measures:

Storm water must be diverted around the topsoil heaps, stockpile areas and access roads to prevent erosion and loss of material.

Runoff water must also be diverted around the stockpile areas with trenches and contour structures to prevent erosion of the work areas.

Mining must be conducted in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions the DWS may impose:

Clean water (e.g. rainwater) must be kept clean and routed to a natural watercourse by a system separate from the dirty water system. Clean water must be prevented from

running or spilling into dirty water systems.

Dirty water must be collected and contained in a system separate from the clean water system.

Dirty water must be prevented from spilling/seeping into clean water systems.

The storm water management plan must apply for the entire life cycle of the mine and over different hydrological cycles (rainfall patterns).

The statutory requirements of various regulatory agencies and the interests of stakeholders must be considered and incorporated into the storm water management plan.

Management of health and safety risks

The health and safety risk posed by the proposed mining activities can be reduced to low through the implementation of the following mitigation measures:

The type, duration and timing of the blasting procedures must be planned with due cognisance of other land users and structures in the vicinity,

The surrounding landowners and communities must be informed, in writing, ahead of any blasting event.

Measures to limit fly rock must be taken.

Audible warning of a pending blast must be given at least 3 minutes before the blast.

All fly rock (with diameters of 150 mm and larger) which falls beyond the working area, together with the rock spill, must be collected and removed,

Workers must have access to the correct PPE, as required by law.

All operations must comply with the Occupational Health and Safety Act (OHSA).

Waste management

The risk of waste generation having a negative impact on the surrounding environment can be reduced to low through by implementing the following mitigation measures:

No processing area or waste pile may be established within 100 m of the edge of any river channel or other water bodies.

Regular vehicle maintenance may only take place within the service bay area of the off-site workshop. If emergency repairs are needed on equipment unable to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 l closed container/bin to be removed from the emergency service area to the workshop in order to ensure proper disposal.

Any effluents containing oil, grease or other industrial substances must be collected in a

suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.

Spills must be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage and the polluted soil and disposing of it at a recognised facility. Proof hereof should be filed.

Suitable covered receptacles should be available at all times and conveniently placed for waste disposal.

Non-biodegradable refuse, such as glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point, collected on a regular basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.

Biodegradable refuse generated should be handled as indicated above.

Management of access roads

The risk on the condition of the roads, as a result of the proposed mining activities, can be reduced to low-medium by implementing the following mitigation measures:

Storm water must be diverted around the access roads to prevent erosion.

Erosion of access road: Vehicular movement must be restricted to existing access routes to prevent criss-crossing of tracks through undisturbed areas. Rutting and erosion of the access road as a result of the mining activities should be repaired by the applicant.

Topsoil handling

The risk of topsoil loss can be reduced to low by implementing the following mitigation measures:

Where applicable, the first 300 mm of topsoil should be removed in strips and stored along the boundary of the mining area. Stockpiling of topsoil must be done to protect it from erosion, which includes mixing it with overburden or other material. The topsoil must be used to cover the rehabilitated area and improve the establishment of natural vegetation.

The temporary topsoil stockpiles of each removed strip must be kept weed free.

Topsoil stockpiles must be placed on a levelled area and measures should be implemented to safeguard the piles from being washed away in the event of heavy rain/storm water.

Topsoil heaps should not exceed 1.5 m, in order to preserve micro-organisms in the topsoil, which can be lost due to compaction and lack of oxygen.

Should natural vegetation not establish on the heaps within 6 months of stockpiling, it must be planted with an indigenous grass species.

Storm and runoff water should be diverted around the stockpile area and access roads to prevent erosion.

Protection of fauna and flora

The risk on the fauna and flora of the footprint area, as well as the surrounding environment, as a result of the proposed mining activities, can be reduced to low by implementing the following mitigation measures:

The site manager must ensure that no fauna is caught, killed, harmed, sold or played with.

Workers must be instructed to report any animals that may be trapped in the working area.

No snares may be set or nests raided for eggs or young.

No plants or trees may be removed without the approval of the ECO.

(ix) Motivation where no alternative sites were considered

Jaments (Pty) Ltd identified the growing need for coal resources due to an increase in power demand. In this light, the applicant identified the proposed area as the preferred and only viable site alternative because of its immediate availability backed by data reviewed in the PWP, which has proven that coal resources are available in the area. The establishment of a coal pit in this un-utilised area was found to be most viable.

Various project alternatives were considered during the planning phase of the project and the preferred alternatives proved to be:

- The open cast mining of the coal has been identified as the most effective method to produce the desired coal product.
- The use of temporary infrastructure will reduce the impact on the environment and decrease closure objectives with regard to infrastructure decommissioning.
- It is recommended that the existing farm road connected to the provincial road south-east of the property be used as an access road.

(x) Statement motivating the alternative development location within overall site

The open cast mining of the coal has been identified as the most cost-effective method to produce the desired coal product. The proposed method will produce any residual (overburden) waste to be disposed of. Due to the remote location of the coal pit, the potential impacts on the surrounding environment, associated with open cast mining, is considered of low significance. It is proposed that all mining-related infrastructure will be contained within the boundaries of the mining area. As no permanent infrastructure will be established on site, the layout/position of the temporary infrastructure will be determined by the mining progress and available space in the mining area after excluding the CBA irreplaceable area.

i) Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (In respect of the final site layout plan) through the life of the activity

During the impact assessment process, several potential impacts were identified of each main activity in each phase. An initial significance rating was determined for each potential impact, should the mitigation measures proposed in this document not be implemented on-site. The impact assessment process continued to identify mitigation measures to address the impact that the proposed mining activity may have on the surrounding environment. A significance rating was again determined for each impact using a relevant methodology. The impact ratings listed in the following section was determined for each impact after bringing the proposed mitigation measures into consideration and therefore represents the final layout/activity proposal.

j) Assessment of each identified potentially significant impact and risk

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
E.g. for prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office and access route. E.g. for mining - excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams, boreholes, accommodation, offices, ablution, stores workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.	Including the potential impacts for cumulative impacts, e.g. dust, noise, drainage, surface disturbance, fly rock and surface water contamination, groundwater contamination, and air pollution.		In which impact is anticipated, e.g. construction, commissioning, operational decommissioning, closure, post-closure.	if not mitigated	Modify, remedy, control, or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation and alternative activity. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation.	if mitigated
Stripping and stockpiling of topsoil	Visual intrusion associated with the establishment of the mining area	The visual impact may affect the residents of the immediate area. (Farmsteads)	Site establishment /construction phase	Medium – High	Control: Implementation of proper housekeeping	Medium
	Dust nuisance caused by the disturbance of soil	Dust will be contained within the property boundaries		Medium	Control: Dust suppression	Low
	Noise nuisance caused by machinery stripping and stockpiling the	The noise impact should be contained within the boundaries of the property but might have a periodic impact on		Medium	Control: Noise control measures	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	topsoil	the closest residents on the farmsteads and Middelburg Community.				
	Infestation of the topsoil heaps by weeds and invader plants	Biodiversity		Low-medium	Control and remedy: Implementation of weed control	Low
	Loss of topsoil due to incorrect storm water management	Loss of topsoil will affect the rehabilitation of the mining area.		Medium	Control: Storm water management	Low
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed		Medium-high	Control and remedy: Implementation of waste management	Low
Blasting	Health and safety risk posed by blasting activities	Impact might affect the employees working on site	Operational phase	Medium	Control: Health and safety monitoring and management	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Dust nuisance caused by blasting activities	Depends on the blast, the impact might affect the surrounding community. Blasting will occur twice a year.		Low-medium	Control: Dust suppression	Low-medium
	Noise nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community. Blasting will occur twice a year.		Low-medium	Control: Noise control measures	Low
Excavation	Visual intrusion associated with the excavation activities	The visual impact may affect the residents of the immediate area.	Operational phase	Medium-high	Control: Implementation of proper housekeeping	Medium
	Dust nuisance due to excavation activities	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Medium	Control: Dust suppression	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Noise nuisance generated by excavation equipment	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents at the farmsteads and also Middelburg Community.		Medium-high	Control: Noise control measures	Low
	Unsafe working conditions for employees	Impact might affect employees.		Low	Control: Health and safety monitoring and management	Low
	Negative impact on the fauna and flora of the area	Biodiversity		Medium	Control: Protection of fauna and flora through operational phase	Low
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed.		Medium	Control: Implementation of waste management	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Weed and invader plant infestation	Biodiversity		Low-medium	Control: Implementation of weed control	Low
Crushing	Dust nuisance due to the crushing activities	Dust will be contained in property boundaries and therefore affect only the landowner.	Operational phase	Medium	Control: Dust suppression	Low-medium
	Noise nuisance generated by the crushing activities	The noise impact should be contained within the boundaries of the property, but might have a periodic impact at the farmsteads and also Middelburg Community.		Medium	Control: Noise control measures	Low-medium
	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed		Medium	Control: Implementation of waste management	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Stockpiling and transporting	Visual intrusion associated with the stockpiled material and vehicles transporting the material	The visual impact may affect the residents of the immediate area.	Operational phase	Medium	Control: Implementation of proper housekeeping	Low-medium
	Loss of material due to ineffective storm water handling	Impact will affect income of applicant.		Low-medium	Control: Storm water control measures	Low
	Weed and invader plant infestation of the area due to soil disturbance	Biodiversity		Low-medium	Control and remedy: Implementation of weed control	Low
	Dust nuisance from stockpiled material and vehicles transporting the material	Dust will be contained within the property boundaries		Medium	Control: Dust suppression	Low
	Degradation of access roads	All road users will be affected.		Medium	Control and remedy: Road management	Low-medium

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	Noise nuisance caused by vehicles	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the farmsteads and also Middelburg Community.		Medium	Control: Noise management monitoring and management	Low
	Contamination of area with hydrocarbons or hazardous waste	Contamination may cause surface or ground water contamination if not addressed		Medium	Control: Implementation of waste management	Low
Sloping and landscaping during rehabilitation	Soil erosion	Biodiversity	Decommissioning phase	Low-medium	Control: Soil management	Low
	Health and safety risk posed by un-sloped areas	Impact will affect the employees and residents of the property		Medium-high	Control: Health and safety monitoring and management	Low
	Dust nuisance caused during sloping and	Dust will be contained within the property		Low-medium	Control: Dust suppression	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	landscaping	boundaries				
	Noise nuisance caused by machinery	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the farmsteads and also Middelburg Community.		Low-medium	Control: Noise monitoring	Low
	Contamination of area with hydrocarbons or hazardous waste	Contamination may cause surface/ground water contamination if not addressed		Low-medium	Control: Waste management	Low
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Biodiversity and soil management	Decommissioning phase	Low-medium	Control: Soil management	Low
	Infestation of the area by	Biodiversity and soil management		Low-medium	Control and remedy: Implementation of	Low

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
	weed and invader plants				weed control	

Summary of specialist reports

This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form.

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
Rehab Study	<ul style="list-style-type: none"> • It is recommended that the financial provision for closure and rehabilitation be annually updated as per the requirements of the MPRDA. • Surface water monitoring of the pans and associated wetlands surrounding the project area is to be undertaken to determine the impacts associated with operations of the mine. • Regular audits should be undertaken by a soil scientist during the soil stripping process. This will guarantee that soil is stripped and stockpiled correctly. • Regular audits should be undertaken to monitor the progress of areas that have been rehabilitated. • Long term management of the rehabilitated areas will be required via contractual agreements with landowners in the area and rehabilitation should also be undertaken to best practice. • An independent Environmental Assessment Practitioner shall be appointed to ensure compliance with requirements of the Final Rehabilitation, decommissioning and Closure Plan. 	X	The possible mitigation measures that could be applied and the level of risk
Hydrogeological Study	<p>Monitoring</p> <ul style="list-style-type: none"> • Conduct water monitoring and implement remedial actions as required and effective rehabilitation to as close to pre-mining conditions as practically possible. 	X	The possible mitigation measures that could be applied and the level of risk

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul style="list-style-type: none"> • It is recommended that the monitoring network be placed at the boundaries; north, south, east and west of the proposed mining permit. The construction must be overseen by a qualified Hydrogeologist to monitor pollution in the upper weathered aquifer as well as the lower fractured aquifer. • A monitoring network should be dynamic. This means that the network should be extended over time to accommodate the migration of contaminants through the aquifer as well as the expansion of infrastructure and/or addition of possible pollution sources. An audit on the monitoring network should be conducted annually <p>Modelling</p> <ul style="list-style-type: none"> • The numerical model should be recalibrated as soon as more hydrogeological data such as monitoring holes are made available. This would enhance model predictions and certainty. <p>Water contamination</p>		

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul style="list-style-type: none"> Prevention of pollution of surface water resources and impacts on other surface water users by training of workers to prevent pollution, equipment and vehicle maintenance, fast and effective clean-up of spills, effective waste management, manage clean and dirty water in accordance. <p>Flow of water</p> <ul style="list-style-type: none"> The disturbance of streams and surface drainage patterns and reduction in flow to downstream must be mitigated through careful design of ephemeral stream diversion that minimizes impacts on the downstream environment, limit activities and infrastructure within wetland and watercourses and their flood lines and implementation of storm water management plan to divert clean water. Clean water trenches should be constructed surrounding the mining permit to prevent clean water from entering the mining area, regarded as a dirty water catchment. Dirty water trenches must be constructed as well to direct water from the mine to the pollution control dam, thereby preventing any contaminant water from leaving the mine area. <p>Water use license</p>		

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul style="list-style-type: none"> • Most of the mining activities like dust suppression, dewatering of pit water, abstraction of water from mine boreholes as well as mining within 500m from the water course triggers section 21 of the national water act 36 of 1998 (NWA) and must be authorised by applying a water use license at the department of water and sanitation before conducting any of these activities. 		
Hydrological Study	<ul style="list-style-type: none"> • Surface water quality monitoring is to be conducted monthly during the construction and operational phases of the project. • A GN 704 audit is to be conducted bi-annually to assist with compliance to the separation of clean and dirty water infrastructure • The construction phase of the project must take place during the dry months so as to minimise pollutant runoff; and • An independent ECO is to be appointed during construction. The mine's internal Environmental officers must be conversant with best practices in line with rehabilitation during decommissioning and an audit is to be conducted during and after rehabilitation. 	X	The possible mitigation measures that could be applied and the level of risk

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul style="list-style-type: none"> Where mining infrastructure, such as haul roads, are required across natural watercourses, new storm water infrastructure, such as pipes and culverts could replace the hydraulic function currently offered by the natural water courses. This infrastructure should be designed for both hydraulic performance and environmental functionality. A thorough assessment of the suitability of the new stormwater infrastructure must be made at preliminary design stage. Water use licence application for this project is mandatory as the activities will be within the 500m regulated area of the Olifants River, the proposed project is triggering Section 21 c and i of the National Water Act water uses . 		
Soil Study	<ul style="list-style-type: none"> The proposed mining land should be returned to its origin as before mining activities and the rehabilitation performance assessment in the proposed land must be done progressively (annually) during the operational phase by a soil specialist. Final surface rehabilitation of all disturbed areas during mining activities. Rehabilitation of unnecessary water management facilities once appropriate to do so. 	X	The possible mitigation measures that could be applied and the level of risk

List of studies undertaken	Recommendations of specialist reports	Specialist recommendations included in the EIA report Mark with an X where applicable	Reference to applicable report section Where specialist recommendations have been included
	<ul style="list-style-type: none"> • Specialists should be used to evaluate the erosion and other possible impacts during the entire mining process. • Limit impacts to the footprints to keep physical impacts as small as possible. Areas for road, site lay-out should be minimized, dust generation. 		

I) Environmental impact statement

(i) Summary of the key findings of the basic assessment

The key findings of the basic assessment are as follows:

- The project area is covered by natural vegetation and is not heavily modified with alien invasive species.
- Both the existing and new road will be used to access the proposed mining permit area
- The applicant's off-site workshop will be used for servicing vehicles, thereby reducing the risk of hazardous spills and contamination at the mining site.
- Due to the remote setting of the coal pit, the majority of potential impacts can be contained within the boundaries, provided that mitigation measures proposed in this document is implemented on-site.
- The mining operation will have a temporary visual impact on the surrounding environment. Upon closure of the proposed mining area the visual impact on the proposed mining area will be mitigated and addressed.

(ii) Final site map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structure and infrastructure on the environmental sensitivities of the preferred site indicating areas that must be avoided, including buffers. Attach as an Appendix



Figure 41: Site activities (Singo Consulting (Pty) Ltd, 2023)

(iii) Positive and negative impacts of the proposed activity and alternatives

The positive impacts associated with the project include:

- Job creation, although a fixed number of jobs to be created cannot be stated at this stage, will include multiple job opportunities for skilled, semi-skilled and unskilled personnel will be created by this project. This will contribute to the socio-economic status of the Witbank area.
- The coal to be mined will be supplied to power stations, hence it will enhance the security to generate electricity without re-occurrence of load shedding.
- The negative impacts associated with the project and that was of Low-Medium or Medium significance includes:

f) Visual intrusion associated with the establishment of the mining area	g) Medium
h) Visual intrusion associated with the excavation activities	i) Medium
j) Visual intrusion associated with the stockpiled material and vehicles transporting the material	k) Low-medium
l) Dust nuisance caused by ripping/ blasting activities	m) Low-medium
n) Dust nuisance due to the crushing activities	o) Low-medium
p) Noise nuisance generated by excavation equipment	q) Low-medium
r) Noise nuisance generated by the crushing activities	s) Low-medium
t) Degradation of access roads	u) Low-medium

m) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr

Based on the assessment and, where applicable, recommendations from specialist reports, documentation of proposed impact management objectives and impact management outcomes for inclusion in the EMPr and as an authorisation condition.

Management objectives	Role	Management outcomes
Dust handling	<p>Site Manager to ensure compliance with EMP guidelines.</p> <p>Compliance to be monitored by the Environmental Control Officer.</p>	<p>Control dust liberation into the surrounding environment by using water spraying and/or other dust allaying agents.</p> <p>Limit speed on the access roads to 40km/h to prevent the generation of excess dust.</p> <p>Spray roads with water or an environmentally friendly dust-allaying agent that contains no PCB's (e.g. DAS products) if dust is generated above acceptable limits.</p> <p>Assess effectiveness of dust suppression equipment.</p> <p>Ensure the crusher plant has operational water sprayer to alleviate dust generation from the conveyor belts.</p>

Management objectives	Role	Management outcomes
Noise handling	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<p>Ensure that employees and staff conduct themselves in an acceptable manner while on site.</p> <p>No loud music may be permitted at the mining area.</p> <p>Ensure that all mining vehicles are equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act.</p> <p>Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</p> <p>Notify surrounding land owners in writing prior to blasting.</p>
Management of weed/ invader plants	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<p>Implement a weed and invader plant control management plan.</p> <p>Control declared invader or exotic species on the rehabilitated areas.</p> <p>Keep the temporary topsoil stockpiles free of weeds.</p>
Surface and storm water handling	Site Manager to ensure compliance with EMP guidelines.	Divert storm water around topsoil heaps, stockpile areas and access

Management objectives	Role	Management outcomes
	<p>Compliance to be monitored by the Environmental Control Officer.</p>	<p>roads to prevent erosion and material loss.</p> <p>Divert runoff water around stockpile areas with trenches and contour structures to prevent erosion of work areas.</p> <p>Conduct mining in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose.</p>
<p>Management of health and safety risks</p>	<p>Site Manager to ensure compliance with EMP guidelines.</p> <p>Compliance to be monitored by the Environmental Control Officer.</p> <p>Blasting contractor to comply with national blasting requirements.</p>	<p>Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</p> <p>Inform the surrounding landowners and communities of any blasting event.</p> <p>Use noise mufflers and/or soft explosives during blasting, limit fly rock.</p>

Management objectives	Role	Management outcomes
		<p>Give audible warning of a pending blast at least 3 minutes in advance of the blast.</p> <p>Remove all fly rock (of diameter 150 mm and larger) which falls beyond the working area, with the rock spill.</p> <p>Ensure that workers have access to the correct PPE as required by law.</p> <p>Ensure all operations comply with the Occupational Health and Safety Act.</p>
Waste management	<p>Site Manager to ensure compliance with EMP guidelines.</p> <p>Compliance to be monitored by the Environmental Control Officer.</p>	<p>Ensure no waste pile is established within 100 m of the edge of any river channel or other water bodies.</p> <p>Ensure regular vehicle maintenance take place within the service bay area of the off-site workshop. If emergency repairs are needed on site, ensure drip trays is present. Ensure all waste products are disposed of in a 200L closed container/bin inside the emergency service area.</p> <p>Collect effluents containing oil, grease or other industrial substances in a suitable receptacle and remove from site, for resale or appropriate disposal at a recognised facility.</p>

Management objectives	Role	Management outcomes
		<p>Clean spills immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and disposing thereof at a recognised facility. File proof.</p> <p>Ensure availability of suitable covered, conveniently placed receptacles at all times for waste disposal.</p> <p>Store non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., in a container with a closable lid at a collecting point. Collection should take place on a regular basis and disposed of at the recognised landfill site at Witbank. Prevent refuse from being dumped on or in the vicinity of the mine area.</p> <p>Biodegradable refuse to be handled as indicated above.</p>
Management of access roads	Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.	<p>Divert storm water around access roads to prevent erosion.</p> <p>Erosion of access road: Restrict vehicular movement to existing access routes to prevent crisscrossing of tracks through undisturbed areas.</p>

Management objectives	Role	Management outcomes
Topsoil handling	<p>Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the Environmental Control Officer.</p>	<p>Remove the first 300mm of topsoil in strips and store at stockpile area.</p> <p>Keep the temporary topsoil stockpiles free of weeds.</p> <p>Place topsoil stockpiles on a levelled area and implement measures to safeguard the piles from being washed away in the event of heavy rains/storm water.</p> <p>Topsoil heaps should not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen.</p> <p>Seed the stockpiled topsoil heaps if vegetation does not re-establish within 6 months of stockpiling.</p> <p>Divert storm- and runoff water around the stockpile area and access roads to prevent erosion.</p>
Fauna and flora	<p>Site Manager to ensure compliance with EMP guidelines. Compliance to be monitored by the</p>	<p>Ensure no fauna is caught, killed, harmed, sold or played with.</p> <p>Instruct workers to report any animals that may be trapped in the working area. Ensure no snares are set or nests raided for eggs or young.</p>

Management objectives	Role	Management outcomes
	Environmental Control Officer.	Do not remove plants/trees without ECO approval.

n) Aspects for inclusion as conditions of authorisation

Any aspects which must be made conditions of the Environmental Authorisation.

The management objectives listed in this report should be considered for inclusion in the environmental authorisation.

o) Description of any assumptions, uncertainties, and gaps in knowledge

Which relate to the assessment and mitigation measures proposed.

The assumptions made in this document, which relate to the assessment and mitigation measures proposed, stem from site-specific information gathered from the property owner, as well as site inspections and background information gathering.

p) Reasoned opinion as to whether the proposed activity should be authorised

No fatal flaws could be identified that were deemed severe enough to prevent the activity from continuing, should the mitigation measures and monitoring programmes proposed in this document should be implemented on site. The management objectives listed in this report should be considered for inclusion in the Environmental Authorisation.

q) Period for which the Environmental Authorisation is required

The applicant requests the Environmental Authorisation to be valid for a two-year period.

r) Undertaking

Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to the Basic Assessment Report and the Environmental Management Programme report.

The undertaking required to meet the requirements of this section is provided at the end of the EMP and is applicable to the Basic Assessment Report and the Environmental Management Programme report.

S) Financial provision

State the amount required to manage and rehabilitate the environment.

Table 19: Financial provision

i) Explain how the aforesaid amount was derived

CALCULATION OF THE QUANTUM

Applicant: JAMENTS (PTY) LTD
 Evaluator: INNOCENT MONAMA

Ref No.: MP 30/ 5/ 1/ 1/ 3/ 13941 MP
 Date: 31-August

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	19	1	1	0
1							
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	0,05	49	1	1	2,45
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	3,976	284292	0,6	1	678206,9952
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0,255	189528	1	1	48329,64
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	5	150138	0,1	1	75069
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0,129	57087	1	1	7364,223
14	2 to 3 years of maintenance and aftercare	ha	5	19980	1	1	99900
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							908872,3082
1	Preliminary and General		109064,677		weighting factor 2 1		109064,677
2	Contingencies			90887,23082			90887,23082
Subtotal 2							1108824,22
VAT (15%)							166323,63
Grand Total							1275148

Sign
Date

Innocent Monama
31/08/2023

The financial provision amount was derived from the financial calculator/ quantum. The annual amount required to manage and rehabilitate the environment was estimated to be R1 275 148.00

ii) Confirm that this amount can be provided from operating expenditure

Confirm that the amount is anticipated to be an operating cost and is provided for as such in the Mining Work Programme, Financial and Technical Competence Report or PWP.

The mining operation will be self-funded through income generated by sales of the coal mined. Bridging finance, will be supplied where needed by potential investors.

f) Specific information required by the Competent Authority

i) Compliance with the provisions of sections 24(4) (a) and (b) read with section 24 (3)(a) and (7) of the NEMA (107 of 1998). The BASIC ASSESSMENT report must include the:

(1) Impact on the socio-economic conditions of any directly affected person

Provide the results of investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an Appendix.

The proposed coal mine will be established on a heavily modified area covered with natural vegetation. Upon closure, the land will be rehabilitated to a state fit for agricultural purposes. The dust and noise impacts that may emanate from the mining area during the operational phase could have a negative impact on the surrounding agricultural land and dam if the mitigation measures proposed in this document are not implemented and managed on-site. The mining operation will have a temporary visual impact on the surrounding environment. Upon closure of the proposed mining area the visual impact on the proposed mining area will be mitigated and addressed. The proposed project is expected to have an impact on the dam as there is a dam that is approximately 500m to 1km radius of the permit area. therefore, Proper storm water and waste management must be implemented on the site in order to minimise the potential of pollution of the dam.

The operation of the mine will have several positive impacts, such as job creation for skilled, semi-skilled and unskilled permanent workers. The proposed coal mine pit will therefore contribute locally by aiding in the development of the area and boosting the local economy through increased municipal revenue. On a national scale, this will aid by boosting the slowly growing SA economy.

(2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act

Provide the results of investigation, assessment and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No 25 of 1999) with the exception of the national estate contemplated in section 3(2)(i)(vi) and (vii) of the Act, attach the investigation report and confirm that the applicable mitigation is reflected herein.

The 5ha space has no national heritage.

u) Other matters required in terms of section 24(4)(a) and (b) of the Act

The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as an Appendix.

The site and project alternatives investigated during the impact assessment process were done at the hand of information obtained during the site investigation, public participation process and desktop studies conducted of the study area. As discussed earlier, the following alternatives were considered:

- Establishment of a coal mine 400m away from any form of development vs. establishment of a coal pit in an un-utilised (preferred alternative)
- Open cast mining (preferred alternative) vs. underground mining
- Temporary Infrastructure (preferred alternative) vs. permanent Infrastructure
- Access onto provincial road (preferred alternative) vs. access onto national road
- No-go alternative on CBA irreplaceable area.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Draft Environmental management programme

a) Details of the EAP

Confirm that the requirements for the provision of the details and expertise of the EAP are already included in Part A, section 1(a) herein as required).

Refer to section 1 of Part A and Appendix 2.

b) Description of the aspects of the activity

Confirm that the requirements to describe the aspects of the activity that are covered by the draft environmental management programme is already included in Part A, herein, as required.

The aspects of the activity that are covered by the environmental management programme has been described and included in Part A.

c) Composite map

Provide a map (attached as an Appendix) at an appropriate scale which superimposes the proposed activity, its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, such as buffers.

As mentioned in Part A, section 2.1 this map has been compiled and is attached as Figure 1

d) Description of impact management objectives, including management statements

i) Determination of closure objectives

Ensure that the closure objectives are informed by the type of environment described.

The decommissioning phase will entail the rehabilitation of the mining site. Once mining activities cease, the area will be fully rehabilitated. The perimeter walls of the open cast pit will either be sloped at 1:3 to the pit floor to prevent soil erosion. The applicant will comply with the minimum closure objectives as prescribed by DMRE and detailed below.

Rehabilitation of the excavated area:

- Rocks and coarse material removed from the excavation must be dumped into the excavation.
- No waste will be permitted to be deposited in the excavations.
- Once overburden, rocks and coarse natural materials have been added to the excavation and profiled with acceptable contours and erosion control measures, the topsoil previously stored will be returned to its original depth over the area.
- The area will be fertilised if necessary to allow vegetation to establish rapidly. The site will be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from site closure.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area seeded with a vegetation seed mix to their specification.

Rehabilitation of plant area:

- Photographs of the mining area and office sites, before and during the mining operation and after rehabilitation, will be taken at selected fixed points and kept on record for the information of the Regional Manager.
- On completion of mining operations, the surface of these areas, if compacted due to hauling and dumping operations, will be scarified to a depth of at least 300 mm and graded to an even surface condition and the previously stored topsoil will be returned to its original depth over the area.
- Prior to replacing the topsoil, the overburden material that was removed from these areas will be replaced in the same order as it originally occurred.
- The area will then be fertilised if necessary to allow vegetation to establish rapidly. The site will be seeded with a local, adapted indigenous seed mix if natural vegetation does not re-establish within 6 months after closure of the site.
- If a reasonable assessment indicates The compacted areas will be ripped, and the topsoil returned over the area.

- Coarse natural material used for the construction of ramps will be removed and dumped into the excavations.
- Stockpiles will be removed during the decommissioning phase, the area ripped and the topsoil returned to its original depth to provide a growth medium.
- On completion of operations, all structures or objects will be dealt with in accordance with Section 44 of the MPRDA, 2002 (Act 28 of 2002):
- Where sites have been rendered devoid of vegetation/grass or soils have been compacted by traffic, the surface will be scarified or ripped.
- The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if natural vegetation does not re-establish within 6 months of the closure of the site.
- that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area seeded with a seed mix to their specification.

Final rehabilitation:

- Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required), maintenance and weed/alien clearing.
- All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA).
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried or burned on the site.
- Weed/alien clearing will be done sporadically during the life of the mining activities.

- Species regarded as Category 1 weeds according to CARA (Conservation of Agricultural Recourses Act, 1983 – Act 43; Regulations 15 & 16 (as amended in March 2001) need to be eradicated from the site.
- Final rehabilitation will be completed within a period specified by the Regional Manager.

Confirm specifically that the environmental objectives in relations to closure have been consulted with landowner and interested and affected parties.

The following have been highlighted as closure objectives:

- Minimising the area to be disturbed and to ensure that the areas disturbed during the mining activities are rehabilitated and stable, as per the commitments made in the EMP.
- Sustaining the pre-mining land use and return the site to its near natural state as far as possible.
- This EMP will be made available to and discussed with each landowner before any mining activity commences on his/her property.
- Access to each property and placement of infrastructure will be done in consultation with the relevant landowner.

Proof of consultation is attached. Comments on the closure and rehabilitation will be expected from landowners and I&As after the review of the DBAR. All the issues raised by the I&As will be incorporated in the final BAR

ii) Volume and rate of water use required for the operation

It is estimated that the mining activities will require approximately 18 000L of water per day for dust suppression purposes.

iii) Has a water use license has been applied for?

No, a Water Use License (WUL) Application will be lodged to the Department of Water and Sanitation upon issuing of the Mining Permit by the Department of Mineral Resources and Energy.

iv) Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of any listed activity.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
<p>E.g. for prospecting – drill site, site camp, ablution, facilities, accommodation, equipment storage, sample storage, site office, access route, etc. E.g. for mining – excavations, blasting, stockpiles, discard dumps/dams, loading, hauling and transport. Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water</p>	<p>Of operation in which activity will take place. State: Planning and design, pre-construction, construction operational, rehabilitation, closure, post-closure</p>	<p>Volumes, tonnages and hectares or m²</p>	<p>Describe how recommendations herein will remedy the cause of pollution or degradation</p>	<p>Description of how each recommendation herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities</p>	<p>Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to rehabilitation specifically this must take place at the earliest opportunity. With regard to rehabilitation, therefore state either: Upon cessation of the individual activity or, upon</p>

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
control, berms, roads, pipelines, power lines, conveyors, etc.					cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Stripping and stockpiling of topsoil	Site establishment/ construction phase	4.84ha	<p>Visual mitigation</p> <ul style="list-style-type: none"> ➤ The site must be neat and kept in good condition at all times. ➤ Upon closure, the site must be rehabilitated and sloped to ensure that visual impact on the aesthetic value of the area is minimal. <p>Dust handling</p> <ul style="list-style-type: none"> ➤ Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying 	<ul style="list-style-type: none"> ➤ Dust and Noise: NEMAQA, 2004 ➤ Regulation 6(1) ➤ Weeds: CARA, 1983 ➤ Storm Water: NWA, 1998 ➤ Waste: NEM:WA, 2008 	Throughout the site establishment phase.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>agents.</p> <ul style="list-style-type: none"> ➤ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness. ➤ Speed on the access roads must be limited to 40km/h to prevent excess dust generation. ➤ Roads must be sprayed with water or an environmentally friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>an acceptable manner while on site, both during work hours and after hours.</p> <ul style="list-style-type: none"> ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act. <p>Weed and invader plant management</p> <ul style="list-style-type: none"> ➤ A weed and invader plant control management plan must be implemented at the site to ensure eradication of all listed invader plants in terms of CORA (Act No 43 1983). ➤ Management must take responsibility to 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>control declared invader or exotic species on the rehabilitated areas. The following control methods can be used:</p> <p>The plants can be uprooted, felled or cut off and can be destroyed completely.</p> <p>The plants can be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an herbicide.</p> <p>The temporary topsoil stockpiles must be kept free of weeds.</p> <p>Storm water handling</p>		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> ➤ Storm water must be diverted around the topsoil heaps, stockpile areas and access roads to prevent erosion and material loss. ➤ Runoff water must be diverted around the stockpile areas with trenches and contour structures to prevent erosion of the work areas. <p>Waste management</p> <ul style="list-style-type: none"> ➤ No processing area or waste pile may be established within 100 m of the edge of any river channel or other water bodies. ➤ Regular vehicle maintenance may only take place in the service bay area of the off-site workshop. If emergency 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>repairs are needed on equipment not able to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 l closed container/bin to be removed from the emergency service area to the workshop to ensure proper disposal.</p> <ul style="list-style-type: none"> ➤ Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, for resale or appropriate disposal at a recognised facility. ➤ Spills must be cleaned immediately to the satisfaction of the 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>Regional Manager by removing the spillage and the polluted soil and disposing it at a recognised facility. Proof must be filed.</p> <ul style="list-style-type: none"> ➤ Suitable covered receptacles must be available at all times and conveniently placed for waste disposal. ➤ Non-biodegradable refuse, such as glass bottles, plastic bags, metal scrap, etc., must be stored in a container with a closable lid at a collecting point and collected on a regular basis and disposed of at a recognised landfill site. Specific precautions must be 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> ➤ Biodegradable refuse generated must be handled as indicated above. 		
Ripping/Blasting	Operational phase	3.9ha	<p>Management of Health and Safety Risks</p> <ul style="list-style-type: none"> ➤ The type, duration and timing of the blasting procedures must be planned with due cognizance of other land users and structures in the vicinity, ➤ The surrounding landowners and communities must be informed in writing ahead of any blasting event ➤ Measures to limit fly rock must be taken 	<p>Health and safety</p> <ul style="list-style-type: none"> ➤ MHTS, 1996 ➤ OHS, 1993 ➤ OHSAS 18001 <p>Dust and noise NEMAQA, 2004 Regulation 6(1)</p>	Applicable with each blasting event.

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> ➤ Audible warning of a pending blast must be given at least 3 minutes before the blast ➤ All fly rock (of diameter 150mm and larger) which falls beyond the working area, together with the rock spill must be collected and removed, ➤ Workers must have access to the correct PPE as required by law. ➤ All operations must comply with the OHSA. <p>Dust handling</p> <ul style="list-style-type: none"> ➤ Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>agents.</p> <ul style="list-style-type: none"> ➤ Speed on the access roads must be limited to 40km/h to prevent the generation of excess dust. <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in an acceptable manner while on site, both during work hours and after hours. ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act. ➤ The type, duration 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>and timing of the blasting procedures must be planned with due cognizance of other land users and structures in the vicinity. Surrounding land owners must be notified in writing prior to blasting.</p>		
Excavation	Operational phase	4.47 ha	<p>Visual mitigation</p> <ul style="list-style-type: none"> ➤ The site needs to have a neat appearance and be kept in good condition at all times. ➤ Upon closure the site needs to be rehabilitated and sloped to ensure that the visual impact on the aesthetic value of the area is kept to a minimum. <p>Dust handling</p>	<p>Dust and noise NEM:AQA, 2004 Regulation 6(1)</p> <p>Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001</p> <p>Fauna and flora NEM:BA, 2004</p> <p>Waste NEMWA, 2008</p> <p>Weeds CARA, 1983</p>	Throughout the operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> <li>➤ Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. <li>➤ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness. <li>➤ Speed on the access roads must be limited to 40km/h to prevent the generation of excess dust. <li>➤ Roads must be sprayed with water or an environmentally friendly dust-allaying agent that contains no PCBs (e.g. DAS 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>products) if dust is generated above acceptable limits.</p> <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in an acceptable manner while on site, both during work hours and after hours. ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the Road Transport Act. <p>Management of health and safety risks</p> <ul style="list-style-type: none"> ➤ Workers must have access to the correct 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>PPE as required by law.</p> <ul style="list-style-type: none"> ➤ All operations must comply with the OHSA. <p>Protection of fauna and flora</p> <ul style="list-style-type: none"> ➤ The site manager should ensure that no fauna is caught, killed, harmed, sold or played with. ➤ Workers should be instructed to report any animals that may be trapped in the working area. ➤ No snares may be set, or nests raided for eggs or young. ➤ No plants or trees may be removed without the approval of the ECO. <p>Waste management</p> <ul style="list-style-type: none"> ➤ No processing area or waste pile may 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>be established within 100 m of the edge of any river channel or other water bodies.</p> <ul style="list-style-type: none"> ➤ Regular vehicle maintenance may only take place within the service bay area of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 L closed container/bin to be removed from the emergency service area to the workshop in order to ensure proper disposal. ➤ Any effluents containing oil, grease or other industrial 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>substances must be collected in a suitable receptacle and removed from site, for resale/ appropriate disposal at a recognised facility.</p> <ul style="list-style-type: none"> ➤ Spills must be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and disposing it at a recognised facility. Proof must be filed. ➤ Suitable covered receptacles must be available at all times and conveniently placed for waste disposal. ➤ Non-biodegradable refuse 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>such as glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point and collected on a regular basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> ➤ Biodegradable refuse generated must be handled as indicated above. <p>Management of weed/invader plants</p> <ul style="list-style-type: none"> ➤ A weed and invader plant control management plan must be implemented at the 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>site to ensure eradication of all listed invader plants in terms of CORA (Act No 43 1983).</p> <ul style="list-style-type: none"> ➤ Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used: <ul style="list-style-type: none"> The plants can be uprooted, felled or cut off and can be destroyed completely. The plants can be treated with an herbicide that is registered for use in connection therewith and in accordance with 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>the directions for the use of such an herbicide.</p> <p>The temporary topsoil stockpiles need to be kept free of weeds.</p>		
Crushing	Operational phase	0.05 ha	<p>Dust handling</p> <ul style="list-style-type: none"> ➤ Dust liberation into the surrounding environment must be effectively controlled by using, inter alia, water spraying and/or other dust-allaying agents. ➤ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness. ➤ Speed on the access roads must be limited to 40km/h to prevent excess dust 	<p>Dust and noise NEMAQA 2004</p> <p>Waste NEMWA 2008</p>	Throughout the operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>generation.</p> <ul style="list-style-type: none"> ➤ The crusher plant must have operational water sprayers to alleviate dust generation from conveyor belts. <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in an acceptable manner while on site, during work hours and after hours. ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act. <p>Waste management</p> <ul style="list-style-type: none"> ➤ No processing 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>area or waste pile may be established within 100 m of the edge of any river channel or other water bodies.</p> <ul style="list-style-type: none"> ➤ Regular vehicle maintenance may only take place in the service bay of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 l closed container/bin to be removed from the emergency service area to the workshop for proper disposal. ➤ Any effluents containing oil, grease or other industrial 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>substances must be collected in a suitable receptacle and removed from site, either for resale or appropriate disposal at a recognised facility.</p> <ul style="list-style-type: none"> ➤ Spills must be cleaned up immediately to the satisfaction of the Regional Manager by removing spillage and polluted soil and by disposing it at a recognised facility. Proof must be filed. ➤ Suitable covered receptacles must be available at all times and conveniently placed for the disposal of waste. ➤ Non-biodegradable refuse 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>such as glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point and collected on a regular basis and disposed of at a recognised landfill site. Specific precautions must be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> ➤ Biodegradable refuse generated must be handled as indicated above. 		
Stockpiling and transporting	Operational phase	0.36 ha	<p>Visual mitigation</p> <ul style="list-style-type: none"> ➤ The site must be neat and be kept in good condition at all times. ➤ Upon closure, the 	<p>Storm water NWA, 1998</p> <p>Weeds CARA, 1983</p> <p>Dust and noise NEMAQA, 2004</p>	Throughout operational phase

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>site must be rehabilitated and sloped to ensure that the visual impact on the aesthetic value of the area is minimal.</p> <p>Storm water handling</p> <ul style="list-style-type: none"> ➤ Storm water must be diverted around the stockpile areas and access roads to prevent erosion and material loss. ➤ Runoff water must be diverted around the stockpile areas with trenches and contour structures to prevent erosion of work areas. ➤ Mining must be conducted in accordance with the Best Practice Guideline for small scale mining that relates to storm 	<p>Regulation 6(1) Waste NEMWA, 2008</p>	

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>water management, erosion and sediment control and waste management, developed by the DWS, and any other conditions that the DWS may impose:</p> <ul style="list-style-type: none"> ➤ Clean water (e.g. rainwater) must be kept clean and be routed to a natural watercourse by a system separate from the dirty water system. Prevent clean water from running or spilling into dirty water systems. ➤ Dirty water must be collected and contained in a system separate from the clean water system. ➤ Dirty water must be prevented from 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>spilling/seeping into clean water systems.</p> <ul style="list-style-type: none"> ➤ The storm water management plan must apply for the entire life cycle of the mine and over different hydrological cycles (rainfall patterns). ➤ The statutory requirements of various regulatory agencies and the interests of stakeholders must be considered and incorporated into the storm water management plan. <p>Management of weed/invader plants</p> <ul style="list-style-type: none"> ➤ A weed and invader plant control management plan must be implemented at the site to ensure 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>eradication of all listed invader plants in terms of CORA (Act No 43 1983).</p> <ul style="list-style-type: none"> ➤ Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used: <ul style="list-style-type: none"> The plants can be uprooted, felled or cut off and can be destroyed completely. The plants can be treated with an herbicide that is registered for use in connection therewith and in accordance with the directions for the use of such an 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>herbicide.</p> <ul style="list-style-type: none"> ➤ The temporary stockpile area must be kept free of weeds. <p>Dust handling</p> <ul style="list-style-type: none"> ➤ Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. ➤ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness. ➤ Speed on the access roads must be limited to 40km/h to prevent excess dust generation. ➤ Roads must be 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>sprayed with water or an environmentally-friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits.</p> <p>Management of access roads</p> <ul style="list-style-type: none"> ➤ Storm water should be diverted around the access roads to prevent erosion. ➤ Vehicular movement must be restricted to existing access routes to prevent crisscrossing of tracks through undisturbed areas. ➤ Rutting and erosion of the access road caused as a result of the mining activities 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>must be repaired by the applicant.</p> <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in an acceptable manner while on site, both during work hours and after hours. ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and kept roadworthy in terms of the Road Transport Act. <p>Waste management</p> <ul style="list-style-type: none"> ➤ No processing area or waste pile may be established within 100 m of the edge of any river channel or other water bodies. 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<ul style="list-style-type: none"> <li>➤ Regular vehicle maintenance may only take place in the service bay area of the off-site workshop. If emergency repairs are needed on equipment not able to move to the workshop, drip trays must be present. All waste products must be disposed of in a 200 l closed container/bin to be removed from the emergency service area to the workshop for proper disposal. <li>➤ Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from site, for resale or appropriate 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>disposal at a recognised facility.</p> <ul style="list-style-type: none"> ➤ Spills must be cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and disposing of it at a recognised facility. Proof must be filed. ➤ Suitable covered receptacles must be available at all times and conveniently placed for waste disposal. ➤ Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>collecting point and collected on a regular basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> ➤ Biodegradable refuse generated must be handled as indicated above. 		
Sloping and landscaping during rehabilitation	Decommissioning phase	5 ha	<p>Storm water handling</p> <ul style="list-style-type: none"> ➤ Storm water must be diverted around the rehabilitated area to prevent erosion and loss of reinstated material. <p>Management of health and safety risks</p> <ul style="list-style-type: none"> ➤ Excavations have to be rehabilitated as stipulated in the closure 	<p>Storm water NWA, 1998</p> <p>Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001</p> <p>Dust and noise NEMAQA 2004, Regulation 6(1)</p> <p>Waste NEMWA 2008</p>	Upon cessation of mining

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>plan to ensure the site is safe upon closure.</p> <ul style="list-style-type: none"> ➤ Workers must have access to the correct PPE as required by law. ➤ All operations must comply with the OHSA. <p>Dust handling</p> <ul style="list-style-type: none"> ➤ Dust liberation into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. ➤ The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness. ➤ Speed on the access roads must be limited to 40km/h to 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>prevent excess dust generation.</p> <ul style="list-style-type: none"> ➤ Roads must be sprayed with water or an environmentally friendly dust-allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. <p>Noise handling</p> <ul style="list-style-type: none"> ➤ The applicant must ensure that staff conduct themselves in an acceptable manner while on site, both during work hours and after hours. ➤ No loud music permitted at the mining area. ➤ All mining vehicles must be equipped with silencers and kept 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>roadworthy in terms of the Road Transport Act.</p> <p>Waste management</p> <ul style="list-style-type: none"> ➤ Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried/burned on site ➤ Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from site, for resale/ appropriate disposal at a recognised facility. ➤ Spills must be 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>cleaned up immediately to the satisfaction of the Regional Manager by removing the spillage together with the polluted soil and disposing of it at a recognised facility. Proof should be filed.</p> <ul style="list-style-type: none"> ➤ Suitable covered receptacles must be available at all times and conveniently placed for waste disposal. ➤ Non-biodegradable refuse, like glass bottles, plastic bags, metal scrap, etc., should be stored in a container with a closable lid at a collecting point and collected on a regular 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>basis and disposed of at a recognised landfill site. Specific precautions should be taken to prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> ➤ Biodegradable refuse generated must be handled as indicated above. 		
Replacing of topsoil and rehabilitation of disturbed area	Decommissioning phase	5 ha	<p>Rehabilitation of excavated area</p> <ul style="list-style-type: none"> ➤ Rocks and coarse material removed from the excavation must be dumped into the excavation. ➤ No waste will be permitted to be deposited in the excavations. ➤ Once overburden, rocks and coarse 	<p>Rehabilitation MPRDA, 2008</p> <p>Health and safety MHSA, 1996 OHSA, 1993 OHSAS 18001</p> <p>Dust and noise NEMAQA, 2004 Regulation 6(1)</p> <p>Weeds CARA, 1983</p> <p>Waste NEMWA, 2008</p>	Upon cessation of mining

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>natural materials have been added to the excavation and were profiled with acceptable contours and erosion control measures, the topsoil previously stored will be returned to its original depth over the area.</p> <ul style="list-style-type: none"> ➤ The area will be fertilized if necessary to allow vegetation to establish rapidly. The site will be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from site closure. ➤ If a reasonable assessment indicates 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area seeded with a vegetation seed mix to his or her specification.</p> <p>Rehabilitation of plant area</p> <ul style="list-style-type: none"> ➤ The compacted areas will be ripped and the topsoil returned over the area. ➤ Coarse natural material used for the construction of ramps will be removed and dumped into the 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>excavations.</p> <ul style="list-style-type: none"> ➤ Stockpiles will be removed during the decommissioning phase, the area ripped and topsoil returned to original depth to provide a growth medium. ➤ On completion of operations, all structures or objects will be dealt with in accordance with Section 44 of the MPRDA 2002 (Act 28 of 2002): <ul style="list-style-type: none"> Where sites have been rendered devoid of vegetation/grass or soils have been compacted by traffic, the surface will be scarified or ripped. 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>The site will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if natural vegetation does not re-establish within 6 months of site closure.</p> <p>Photographs of the mining area and office sites, before and during the mining operation and after rehabilitation, will be taken at selected fixed points and kept on record for the information of the Regional Manager.</p> <p>On completion of mining operations,</p>		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>the surface of these areas, if compacted due to hauling and dumping operations, will be scarified to a depth of at least 300 mm and graded to an even surface condition. The previously stored topsoil will be returned to its original depth over the area.</p> <p>Prior to replacing the topsoil, the overburden material that was removed from these areas will be replaced in the same order as it originally occurred.</p>		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>The area will then be fertilized if necessary to allow vegetation to establish rapidly. The site will be seeded with a local, adapted indigenous seed mix if natural vegetation does not re-establish within 6 months after site closure. If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious</p>		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>effects on the soil arising from the mining operation be corrected and the area be seeded with a seed mix to their specification.</p> <p>Final rehabilitation</p> <ul style="list-style-type: none"> ➤ Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required) and maintenance, and weed/alien clearing. ➤ All infrastructure, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA). ➤ Waste material of 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			<p>any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried/burned on site.</p> <ul style="list-style-type: none"> ➤ Weed/alien clearing will be done in a sporadic manner during the life of the mining activities. Species regarded as Category 1 weeds according to CORA, 1983 – Act 43; Regulations 15 & 16 (as amended in March 2001) must be eradicated from the site. ➤ Final rehabilitation 		

Activities	Phase	Size and scale of disturbance	Mitigation measures	Compliance with standards	Time period for implementation
			will be completed within a period specified by the Regional Manager.		

e) Impact management outcomes

A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplated in paragraph.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
Whether listed or not. E.g. excavations, blasting, stockpiles, discard dumps/ dams, loading, hauling, transport, water supply dams and boreholes, accommodation,	E.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution, etc.		In which impact is anticipated. E.g. construction, commissioning, operational decommissioning, closure and post-closure.	Modify, remedy, control or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls,	Impact avoided, noise levels, dust levels, rehabilitation standards, end-use objectives, etc.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc.				avoidance, relocation, alternative activity, etc.	
Topsoil stripping and stockpiling	Visual intrusion associated with the establishment of the mining area.	The visual impact may affect the residents of the immediate area.	Site establishment/ construction phase	Control: Implementation of proper housekeeping	<ul style="list-style-type: none"> ➤ Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Dust nuisance caused by soil disturbance.	Dust will be contained within property boundaries and therefore affect only the landowner.		Control: Dust suppression	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					with the standard published in the NIOSH guidelines – particulates >1/10 th of the occupational exposure limit. NEMAQA 2004, Regulation 6(1)
	Noise nuisance caused by machinery stripping and stockpiling the topsoil.	The noise impact should be contained within property boundaries, but might have a periodic impact on the closest residents of the Witbank community.		Control: Noise control measures	<ul style="list-style-type: none"> ➤ Noise levels on the site must be managed and needs to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008 ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Infestation of the topsoil heaps by weeds	Biodiversity		Control and remedy: Implementation	<ul style="list-style-type: none"> ➤ The impact must be avoided through the eradication of

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	and invader plants			of weed control	Category 1 weeds/ invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Loss of topsoil due to incorrect storm water management.	Loss of topsoil will affect the rehabilitation of the mining area.		Control: Storm water management	<ul style="list-style-type: none"> ➤ The impact must be avoided through the implementation of storm water management.
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed		Control and remedy: Implementation of waste management	<ul style="list-style-type: none"> ➤ The impact must be avoided through the implementation of the mitigation measures stipulated in this document. ➤ Should spillage occur, the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
Ripping/Blasting	Health and safety risk posed	Impact might affect the	Operational phase	Control: Health and safety	<ul style="list-style-type: none"> ➤ Impact must be avoided through

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	by blasting activities	employees working on site.		monitoring management	<p>compliance with the MHPA, 1996, OSHA, 1993 and OHSAS 18001</p> <ul style="list-style-type: none"> ➤ Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day.
	Dust nuisance caused by blasting activities	Dependent on the blast, the impact might affect the surrounding community. Blasting will only occur twice a year.		Control: Dust suppression	<p>Gravimetric dust levels has to comply with the standard published in the NIOSH guidelines particulates >1/10th of the occupational exposure limit. NEMAQA, 2004 Regulation 6(1)</p>
	Noise nuisance caused by blasting activities	Dependent on the blast, the impact might affect the		Control: Noise control measure	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		surrounding community. Blasting will only occur twice a year.			standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008 > Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
Excavation	Visual intrusion associated with the excavation activities	The visual impact may affect the residents of the immediate area.	Operational phase	Control: Implementation of proper housekeeping	> Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Dust nuisance due to excavation activities.	Dust will be contained within the property boundaries and will therefore		Control: Dust suppression	> Fallout dust levels must comply with the acceptable dust fall rate published for non-residential areas, as per National Dust Control Regulations 2013

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		affect only the landowner.			<ul style="list-style-type: none"> – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels must comply with the standard published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit. ➤ NEMAQA, 2004 Regulation 6(1).
	Noise nuisance generated by excavation equipment	The noise impact must be contained within the boundaries of the property, but might have a periodic impact on the closest residents of the Witbank community.		Control: Noise control measures	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					protection.
	Unsafe working conditions for employees.	Impact might affect employees		Control: Health and safety monitoring and management	<ul style="list-style-type: none"> ➤ Impact must be avoided through compliance with the MHSA, 1996, OHSA, 1993 and OHSAS 18001
Excavation	Negative impact on the fauna and flora of the area.	Biodiversity	Operational phase	Control: Protection of fauna and flora through operational phase	<ul style="list-style-type: none"> ➤ The impact must be avoided through implementation of the mitigation measures stipulated in this document. ➤ NEMBA, 2004.
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed.		Control: Implementation of waste management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in accordance with the

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	Weed and invader plant infestation of the area.	Biodiversity		Control: Implementation of weed control	standards of the NEMWA, 2008. <ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
Crushing	Dust nuisance due to the crushing activities	Dust will be contained within the property boundaries and will therefore affect only the landowner.	Operational phase	Control: Dust suppression	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					<p>guidelines – Particulates >1/10th of the occupational exposure limit.</p> <ul style="list-style-type: none"> ➤ NEMAQA, 2004 Regulation 6(1).
	Noise nuisance generated by the crushing activities	The noise impact should be contained within the boundaries of the property, but might have a periodic impact on the closest residents of the Witbank community.		Control: Noise control measures	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if		Control: Implementation of waste management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
		not addressed.			<p>stipulated in this document.</p> <ul style="list-style-type: none"> ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
	Loss of material due to ineffective storm water handling.	Impact will affect income of applicant.		Control: Storm water control measures	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of storm water management.
	Weed and invader plant infestation of the area due to the disturbance of the soil	Biodiversity		Control and remedy: Implementation of weed control	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
Stockpiling and transporting	Dust nuisance from stockpiled material and vehicles transporting the material.	Dust will be contained within the property boundaries and will therefore affect only the landowner.	Operational phase	Control: Dust suppression	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit. ➤ NEMAQA, 2004 Regulation 6(1).
	Degradation of access roads.	All road users will be affected.		Control and remedy: Road management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of the mitigation measures proposed in this document.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	Noise nuisance caused by vehicles.	The noise impact should be contained within the boundaries of the property but might have a periodic impact on the closest residents of the Witbank community.		Control: Noise management monitoring and management	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEMAQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
Sloping and landscaping during rehabilitation	Contamination of area with hydrocarbons or hazardous waste materials	Contamination may cause surface or ground water contamination if not addressed.	Decommissioning phase	Control: Implementation of waste management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					accordance with the standards of the NEM:WA, 2008.
	Soil erosion	Biodiversity		Control: Soil management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ CARA, 1993
	Health and safety risk posed by un-sloped areas	Impact will affect employees and residents of the property		Control: Health and safety monitoring and management.	<ul style="list-style-type: none"> ➤ The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSWA, 1993 and OHSAS 18001
	Dust nuisance caused during sloping and landscaping activities.	Dust will be contained within the property boundaries and will therefore affect only the landowner.		Control: Dust suppression	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					<p>mg/m²/day.</p> <ul style="list-style-type: none"> ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates >1/10 of the occupational exposure limit. NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance caused by machinery.	The noise impact should be contained within the boundaries of the property but might have a periodic impact on the closest residents of the Witbank community.		Control: Noise monitoring	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
	Contamination of area with hydrocarbons or hazardous waste materials.	Contamination may cause surface or ground water contamination if not addressed.		Control: Waste management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM:WA, 2008.
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Biodiversity and soil management	Decommissioning phase	Control: Soil management	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ CARA, 1993
	Infestation of the area by weed and invader plants.	Biodiversity and soil management		Control and remedy: Implementation of weed control	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of

Activity	Potential impact	Aspects affected	Phase	Mitigation type	Standard to be achieved
					Category 1 weeds/invaser plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.

f) Impact management actions

A description of impact management actions, identifying the manner in which the impact management objectives and outcomes in paragraph (c) and (d) will be achieved.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
Whether listed or not, e.g. excavations, blasting, stockpiles, discard dumps/dams, loading, hauling, transport, water supply dams, boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines,	E.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution, etc.	Modify, remedy, control or stop through, e.g. noise control measures, storm water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity, etc. E.g. Modify through alternative method, control through noise control, control through management and	Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation therefore state either – Upon cessation of the individual activity or upon the cessation of	A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
power lines, conveyors, etc.		monitoring, and remedy through rehabilitation.	mining, bulk sampling or alluvial diamond prospecting as the case may be.	
Topsoil stripping and stockpiling	Visual intrusion associated with the establishment of the mining area.	Control: Implementation of proper housekeeping	To be implemented daily throughout the site establishment / construction phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	Impact on the surrounding environment must be mitigated until rehabilitation standards can be implemented in terms of the MRDA.
	Dust nuisance caused by the disturbance of soil.	Control: Dust suppression	To be implemented daily throughout the site establishment / construction phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an 	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> ➤ Environmental Control Officer. 	<p>levels have to comply with the standard published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit NEMAQA, 2004 Regulation 6(1)</p>
	<p>Noise nuisance caused by machinery stripping and stockpiling the topsoil.</p>	<p>Control: Noise control measures</p>	<p>To be implemented daily throughout the site establishment / construction phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	<p>Infestation of the topsoil heaps by weeds and invader plants</p>	<p>Control and remedy: Implementation of weed control</p>	<p>To be implemented when necessary throughout the site</p>	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			establishment / construction phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Loss of topsoil due to incorrect storm water management.	Control: Storm water management	To be implemented daily throughout the site establishment / construction phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an Environmental Control officer 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of storm water management.
	Contamination of area with hydrocarbons or hazardous waste	Control and remedy: Implementation of waste management	To be implemented daily throughout the site establishment / construction phase:	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of the mitigation measures

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	materials		<ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<p>stipulated in this document.</p> <ul style="list-style-type: none"> ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM:WA, 2008.
Ripping/Blasting	Health and safety risk posed by blasting activities	Control: Health and safety monitoring and management	<p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSWA, 1993 and OHSAS 18001
	Dust nuisance caused by blasting activities	Control: Dust suppression	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. 	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<p>Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day.</p> <ul style="list-style-type: none"> ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit. ➤ NEMAQA, 2004 Regulation 6(1)
	Noise nuisance caused by blasting activities	Control: Noise control measures	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
Excavation	Visual intrusion associated with the excavation activities	Control: Implementation of proper housekeeping	To be implemented daily throughout the operational phase: ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer.	hearing protection. ➤ Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Dust nuisance due to excavation activities.	Control: Dust suppression	To be implemented daily throughout the operational phase: ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer.	➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – $600 < \text{Dust Fall} < 1\,200 \text{ mg/m}^2/\text{day}$ ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				<p>>1/10th of the occupational exposure limit.</p> <ul style="list-style-type: none"> ➤ NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance generated by excavation equipment.	Control: Noise control measures	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Unsafe working conditions for employees.	Control: Health and safety monitoring and management	<p>To be daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring 	<ul style="list-style-type: none"> ➤ The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSAS, 1993 and OHSAS 18001

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			of site by an ➤ Environmental Control Officer.	
	Negative impact on the fauna and flora of the area.	Control: Protection of fauna and flora through operational phase	To be daily throughout the operational phase: ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer.	➤ The impact should be avoided through the implementation of the mitigation measures stipulated in this document. ➤ NEM:BA, 2004.
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	To be implemented daily throughout the operational phase: ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer.	➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEM:WA, 2008.

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Weed and invader plant infestation of the area.	Control: implementation of weed control	<p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
Crushing	Dust nuisance due to the crushing activities	Control: Dust suppression	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply with the standard published in the NIOSH guidelines – Particulates

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				<p>>1/10th of the occupational exposure limit.</p> <ul style="list-style-type: none"> ➤ NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance generated by the crushing activities.	Control: Noise control measures	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			compliance monitoring of site by an <ul style="list-style-type: none"> ➤ Environmental Control Officer. 	however occur the area needs to be cleaned in accordance with the standards of the NEM:WA, 2008.
Stockpiling and transporting	Visual intrusion associated with the stockpiled material and vehicles transporting the material.	Control: Implementation of proper housekeeping	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Impact on the surrounding environment mitigated until rehabilitation standards can be implemented.
	Loss of material due to ineffective storm water handling.	Control: Storm water control measures	<ul style="list-style-type: none"> ➤ To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of storm water management

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	Weed and invader plant infestation of the area due to the disturbance of the soil	Control and remedy: Implementation of weed control	<p>Environmental Control Officer.</p> <p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the mitigation measures in this document.
	Dust nuisance from stockpiled material and vehicles transporting the material.	Control: Dust suppression	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply with the standard

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				<p>published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit.</p> <ul style="list-style-type: none"> ➤ NEM:AQA, 2004 Regulation 6(1).
	Degradation of access roads	Control and remedy: Road management	<p>To be implemented when necessary throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation of the mitigation measures proposed in this document.
	Noise nuisance caused by vehicles.	Control: Noise management monitoring and management	<p>To be implemented daily throughout the operational phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			compliance monitoring of site by an <ul style="list-style-type: none"> ➤ Environmental Control Officer. 	standards of SANS 10103:2008. <ul style="list-style-type: none"> ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or hazardous waste materials.	Control: Implementation of waste management	To be implemented daily throughout the operational phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Quarterly compliance monitoring of site by an ➤ Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
Sloping and landscaping during rehabilitation	Soil erosion	Control: Soil management	To be implemented throughout the rehabilitation / closure phase: <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ CARA, 1993

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> ➤ Compliance monitoring of site by an Environmental Control Officer. 	
	Health and safety risk posed by un-sloped areas	Control: Health and safety monitoring and management.	<p>To be implemented throughout the rehabilitation / closure phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through compliance with the standards of the MHSA, 1996, OHSA, 1993 and OHSAS 18001
	Dust nuisance caused during sloping and landscaping activities.	Control: Dust suppression	<p>To be implemented throughout the rehabilitation / closure phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Fallout dust levels has to comply with the acceptable dust fall rate published for non-residential areas in the National Dust Control Regulations 2013 – 600 < Dust Fall < 1 200 mg/m²/day. ➤ Gravimetric dust levels have to comply

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
				<p>with the standard published in the NIOSH guidelines – Particulates >1/10th of the occupational exposure limit.</p> <ul style="list-style-type: none"> ➤ NEM:AQA, 2004 Regulation 6(1).
	Noise nuisance caused by machinery.	Control: Noise monitoring	<p>To be implemented throughout the rehabilitation / closure phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ Noise levels on the site has to be managed and need to comply with the standards stipulated in NEM:AQA, 2004 Regulation 6(1) as well as the noise standards of SANS 10103:2008. ➤ Employees working in areas with noise levels of more than 82dBA need to be issue with hearing protection.
	Contamination of area with hydrocarbons or	Controls: Waste management	To be implemented throughout the rehabilitation / closure phase:	<ul style="list-style-type: none"> ➤ The impact must be avoided through implementation of mitigation measures

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
	hazardous waste materials.		<ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> stipulated in this document. ➤ Should spillage however occur the area needs to be cleaned in accordance with the standards of the NEMWA, 2008.
Replacing of topsoil and rehabilitation of disturbed area	Loss of reinstated topsoil due to the absence of vegetation	Control: Soil management	<p>To be implemented throughout the rehabilitation / closure phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. ➤ Compliance monitoring of site by an Environmental Control Officer. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the implementation the mitigation measures stipulated in this document. ➤ CARA, 1993
	Infestation of the area by weed and invader plants.	Control and remedy: Implementation of weed control	<p>To be implemented throughout the rehabilitation / closure phase:</p> <ul style="list-style-type: none"> ➤ Daily compliance monitoring by site management. 	<ul style="list-style-type: none"> ➤ The impact should be avoided through the eradication of Category 1 weeds/invader plants in terms of CARA, 1993 as well as the implementation of the

Activity	Potential impact	Mitigation type	Time period for implementation	Compliance with standards
			<ul style="list-style-type: none"> ➤ Compliance monitoring of site by an Environmental Control Officer. 	mitigation measures in this document.

i) Financial Provision

1. Determination of the amount of financial provision

(a) Closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

The closure objectives are aimed at re-instating the landform, land use and vegetation units to the same as before mining operations take place unless a specific, reasonable alternative land use is requested by the landowner. As such, the intended end use for the disturbed Mining Permit area and the closure objectives will be defined in consultation with the relevant landowner. Proof of such consultation will be submitted together with the Application for Closure Certificate. The overall aim of the rehabilitation plan is to rehabilitate the environment to a condition as close as possible to that which existed prior to mining. This shall be achieved with several specific objectives

- Making the area safe, i.e., decommission mining activities to ensure that the environment is safe for people and animals. This entails refilling the excavations.
- Recreating a free draining landform. This entails earthworks infilling, reshaping, levelling, etc. to recreate as close as possible the original topography and to ensure a free draining landscape.
- Re-vegetation. This involves either reseeding or allowing natural succession depending on the area, climate etc.
- Storm water management and erosion control. Management of stormwater and prevention of erosion during rehabilitation (e.g., cut off drains, berms etc. and erosion control where required).

b) Confirm specifically that the environmental objectives in relation to

The Public Participation Process (PPP) is a requirement of several pieces of the South African legislation and aims to ensure that all relevant Interested and Affected Parties (I&APs) are consulted, involved and their opinions are considered, and a record included in the reports submitted to Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study.

The PPP which forms part of the Mining Permit application needs to be managed

sensitively and according to best practices in order to ensure and promote:

- Compliance with national legislation.
- Establish and manage relationships with key stakeholder groups.
- Encourage involvement and participation in the environmental study and authorisation/approval process.

As such, the purpose of the PPP and stakeholder engagement process is to:

- Introduce the proposed project.
- Explain the environmental authorizations required.
- Explain the environmental studies already completed and yet to be undertaken (where applicable).
- Determine and record issues, concerns, suggestions and objections to the project.
- Provide opportunity for input and gathering of local knowledge.
- Establish and formalize lines of communication between the I&APs and the project team.
- Identify all significant issues for the project.
- Identify possible mitigation measures or environmental management plans to minimise and/or prevent negative environmental impacts and maximise and/or promote positive environmental impacts associated with the project.

Landowners and I&APs will be consulted and provided an opportunity to comment on the draft Basic Assessment Report, EMPR including all decommissioning, closure and rehabilitation plans. Their comments have been included in this final BAR and EMPR for consideration by the DMRE as part of their decision-making.

- (b) Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure**

Integrated Rehabilitation and Closure Plan

The main aim in developing this rehabilitation plan is to mitigate the impacts caused by the mining activities and to restore land back to a satisfactory standard. It is best practice to develop the rehabilitation plan as early as possible so as to ensure the optimal management of rehabilitation issues that may arise. It is important that the project's closure plan is defined and understood before starting the process and is complementary to the rehabilitation goals. Rehabilitation and closure objectives need to be tailored to the project and be aligned with the EMPR.

The overall rehabilitation objectives for this project are as follows:

Maintain and minimise impacts to the ecosystem within the study area.

- Re-establishment of the pre-developed land capability to allow for a suitable post-mining land use.
- Prevent soil, surface water and groundwater contamination.
- Comply with the relevant local and national regulatory requirements.
- Maintain and monitor the rehabilitated areas.

Successful rehabilitation must be sustainable, requires an understanding of the basic baseline environment and project management to ensure that the rehabilitation program is a success.

Phase 1: Making Safe

The Mining activity will result in an open pit. The purpose of rehabilitation will be to ensure the site becomes safe for humans and animals. The open pit will be filled with overburden. The overburden will be loaded, trucked and placed into the pit, and the topography in the area adjacent to the pit shaped to ensure that a free draining topography results.

Once the pit has been backfilled, 300mm thick topsoil or soft overburden in place of soil will be spread on rehabilitated areas. Once placed, the "growth medium" should then be fertilized, ripped, and revegetated. A small topsoil stockpile should be left for remedial work.

The following actions are required to meet the objectives of this phase:

- Remove all the facilities and equipment from the site.
- Inert waste with a salvage value to individuals such as scrap metal, building materials, etc. will be removed and disposed of at a proper facility.
- The company contracted to supply fuel will be requested to remove all fuel storage and reticulation facilities.
- Those sections of haul road where a lot of Coal spillage has occurred, will be picked up and the waste material taken back to the discard dump.
- Remove or control residual hazardous materials. Identify any potential toxic overburden or exposed strata and manage them so as to prevent environmental damage.
- Access roads around the site should be ripped for all areas except those needed to access the facilities for inspection after closure. Roads that can and will be used by other users post closure should, however, be left provided this is agreed upon by all parties concerned. For the rehabilitation of roads, a cost has been allocated to rip the area, add 300 mm topsoil, and vegetate.
- Negotiations will take place with landowners to establish which sections of haul road they will require. The extra portions not required will be left and the remainder ripped. This would normally mean that the edges or verges are ripped, and the centre portion remains. They will be responsible for maintaining the roads after closure.

Phase 2: Landform Design, Erosion Control and Revegetation

Landform, erosion control and re-vegetation are important parts of the rehabilitation process. Landform and land use are closely interrelated, and the landform should be returned as closely as possible to the original landform. Community expectations, compatibility with local land use practices and regional infrastructure, or the need to replace natural ecosystems and faunal habitats all support returning the land as closely as possible to its original appearance and productive capacity.

This requires the following:

- Deep rip compacted surfaces to encourage infiltration, allow plant root growth and key the topsoil to the subsoil, unless subsurface conditions dictate otherwise.
- Reinststate natural drainage patterns disrupted by mining wherever possible.
- Characterize the topsoil and retain it for use in rehabilitation. It is preferable to reuse the topsoil immediately rather than storing it in stockpiles. Only discard if it is physically or chemically undesirable, or if it contains high levels of weed seeds or plant pathogens.
- If topsoil is unsuitable or absent, identify and test alternatives substrates, e.g. overburden that may a suitable substitute after addition of soil improving substances.
- Lime and superphosphate are applied to the surface.
- These ameliorants are then incorporated by deep ripping, which penetrated 100 mm through the soil into the underlying overburden material.
- Fertilizer is applied as part of seedbed preparation.
- Consider spreading the cleared vegetation on disturbed areas.
- Re-vegetate the area with plant species consistent with the post mining land use.
- The site is then mulched together with an indigenous grass seed mix. This is to stimulate the long-term establishment of indigenous vegetation and to reduce erosion during early plant growth.

Phase 3: Monitoring and Maintenance

The post-operational monitoring and management period following decommissioning of mining activities must be implemented by a suitable qualified independent party for a minimum of one (1) year unless otherwise specified by the Competent Authority.

Maintenance will specifically focus on annual fertilizing the rehabilitated area (where

required), control of all other alien plants and general maintenance, including rehabilitation of cracks, subsidence and erosion gullies. Continuous erosion monitoring of rehabilitated areas and slopes should be undertaken and zones with excessive erosion should be identified. The cause of the erosion should be identified, and rectified. Zones with erosion will need to be repaired with topsoil.

The monitoring activities during this period will include but not be limited to:

- Biodiversity monitoring.
- Re-vegetation of disturbed areas where required.

Provision must be made to monitor any unforeseen impact that may arise as a result of the proposed mining activities and incorporated into post closure monitoring and management. The small-scale mine shall continue to monitor and manage rehabilitation areas until the vegetation is self-sustaining and meets the requirements of the landowner or land manager, until their management can be integrated into the management of the surrounding area.

Post-Closure Monitoring and Maintenance

Prior to decommissioning and rehabilitation activities, a monitoring programme shall be developed and submitted to the relevant authority for approval, as a part of the Final Rehabilitation Plan. The programme is to include proposed monitoring during and after the closure of the trench site and related activities.

It is recommended that the post-closure monitoring include the following:

- Confirmation that any waste, wastewater or other pollutants that is generated as a result of decommissioning will be managed appropriately, as per the detailed requirements set out in the Final Rehabilitation Plan.
- Confirmation that all de-contaminated sites are free of residual pollution after decommissioning.
- Confirmation that acceptable cover has been achieved in areas where natural vegetation is being re- established. 'Acceptable cover' means re-establishment of pioneer grass communities over the disturbed areas at a density similar to surrounding undisturbed areas, non-eroding and free of invasive alien plants.

- o Confirmation that the Mining Permit site is safe and is not resulting in a pollution hazard.

Annual environmental reports will be submitted to the Designated Authority and other relevant Departments for at least one-year post-decommissioning. The frequency and duration of this reporting period may be increased to include longer term monitoring, at intervals to be agreed with the Designated Authority.

The monitoring reports shall include a list of any remedial action necessary to ensure that infrastructure that has not been removed remains safe and pollution free and that rehabilitation of project sites are in a stable, weed and free condition.

(d) Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives

The rehabilitation plan is compatible with the closure objectives in that it seeks to ensure that negative impacts on the receiving environment that could not be prevented or mitigated during mining are rehabilitated. The use of indigenous species during re-vegetation will ensure that ecosystem restoration is initiated and prevent invasion by alien species. The appropriate disposal of waste will ensure that land is usable, in alignment with surrounding land uses and that no hazardous materials are left on-site post-mining.

Rehabilitation of the excavated area

- Rocks and coarse material removed from the excavation must be dumped into the excavation.
- No waste will be permitted to be deposited in the excavations.
- Once overburden, rocks and coarse natural materials has been added to the excavation and was profiled with acceptable contours and erosion control measures, the topsoil previously stored will be returned to its original depth over the area.
- The area will be fertilised if necessary to allow vegetation to establish rapidly. The site will be seeded with a local or adapted indigenous seed mix in order to propagate the locally or regionally occurring flora, should natural vegetation not re-establish within 6 months from site closure.

- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a vegetation seed mix to their specification.

Rehabilitation of plant area

- The compacted areas will be ripped, and the topsoil returned over the area.
- Coarse natural material used for the construction of ramps will be removed and dumped into the excavations.
- Stockpiles will be removed during the decommissioning phase, the area ripped, and the topsoil returned to its original depth to provide a growth medium.
- On completion of operations, all structures or objects will be dealt with in accordance with Section 44 of the MPRDA, 2002 (Act 28 of 2002):

Where sites have been rendered devoid of vegetation/grass or soils have been compacted owing to traffic, the surface will be scarified or ripped.

The site will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if natural vegetation does not re-establish within 6 months of the closure of the site.

- Photographs of the mining area and office sites, before and during the mining operation and after rehabilitation, will be taken at selected fixed points and kept on record for the information of the Regional Manager.
- On completion of mining operations, the surface of these areas, if compacted due to hauling and dumping operations, will be scarified to a depth of at least 300 mm and graded to an even surface condition and the previously stored topsoil will be returned to its original depth over the area.
- Prior to replacing the topsoil, the overburden material that was removed from these areas will be replaced in the same order as it originally occurred.
- The area shall then be fertilised if necessary to allow vegetation to establish rapidly. The site will be seeded with a local, adapted indigenous seed mix if natural vegetation does not re-establish within 6 months after site closure.

- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a seed mix to their specification.

Final rehabilitation

- Rehabilitation of the surface area will entail landscaping, levelling, top dressing, land preparation, seeding (if required), maintenance, and weed/ alien clearing.
- All infrastructures, equipment, plant, temporary housing and other items used during the mining period will be removed from the site (section 44 of the MPRDA).
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the mining area and disposed of at a recognised landfill facility. It will not be permitted to be buried/burned on site.
- Weed/alien clearing will be done in a sporadic manner during the life of the mining activities.
- Species considered Category 1 weeds as per CARA, 1983 – Act 43, Regulations 15 & 16 (as amended in March 2001) must be eradicated from site.
- Final rehabilitation will be completed within a period specified by the Regional Manager.

(e) Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline

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

- Mine type and saleable mineral by-product
According to Tables B.12, B.13 and B.14:

Mine type	Coal
Saleable mineral by-product	None

- Risk ranking
According to Tables B.12, B.13 and B.14:

Primary risk ranking (either Table B.12 or	C (Low risk)
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B.13)	
Revised risk ranking (B.14)	N/A

- Environmental sensitivity of the mine area

According to Table B.4:

Environmental sensitivity of the mine area	Low
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- Level of information

According to Step 4.2:

Level of information available	Limited
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- Identify closure components

According to Table B.5 and site-specific conditions:

Component nr	Main description	Applicability of closure components	
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		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
6	Opencast rehabilitation including final voids and ramps	Yes	
7	Sealing of shafts, adits and inclines		No
8 (A)	Rehabilitation of overburden and spoils	Yes	
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		Yes
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b) Calculation of closure costs

CALCULATION OF THE QUANTUM

Applicant: **JAMENTS (PTY) LTD**
 Evaluator: **INNOCENT MONAMA**

Ref No.: **MP 30/ 5/ 1/ 1/ 3/ 13941 MP**
 Date: **31-August**

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	0,05	49	1	1	2,45
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	3,976	284292	0,6	1	678206,9952
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0,255	189528	1	1	48329,64
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	5	150138	0,1	1	75069
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0,129	57087	1	1	7364,223
14	2 to 3 years of maintenance and aftercare	ha	5	19980	1	1	99900
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							908872,3082

1	Preliminary and General	109064,677	weighting factor 2	109064,677
			1	
2	Contingencies	90887,23082		90887,23082
Subtotal 2				1108824,22

Sign	Innocent Monama		VAT (15%)	166323,63
Date	31/08/2023		Grand Total	1275148

(f) Confirm that the financial provision will be provided as determined

The amount will be provided from the operating expenditure.

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 of **R1 275 148.00**

Mechanisms for compliance monitoring against EMP

Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including:

- a) Monitoring of Impact Management Actions
- b) Monitoring and reporting frequency
- c) Responsible persons
- d) Time period for implementing impact management actions
- e) Mechanisms for monitoring compliance

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul style="list-style-type: none"> • Topsoil stripping and stockpiling • Ripping/Blasting • Excavation • Crushing • Stockpiling and transporting • Sloping and landscaping during rehabilitation 	<p>Dust monitoring</p> <ul style="list-style-type: none"> • The dust generated by the mining activities should be continuously monitored and addressed by the implementation of dust 	<p>Dust handling and monitoring</p> <ul style="list-style-type: none"> • Dust suppression equipment, like a water car and water dispenser. The applicant already has this equipment available. 	<p>Role</p> <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMP guidelines. • Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> • Control dust liberation into surrounding environment by 	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
	suppression methods.		<p>using, e.g., water spraying and/or other dust-allaying agents.</p> <ul style="list-style-type: none"> • Limit speed on access roads to 40km/h to prevent excess dust generation. • Spray roads with water/environmentally friendly dust allaying agent that contains no PCBs (e.g. DAS products) if dust is generated above acceptable limits. • Assess effectiveness of dust suppression equipment. • Re-vegetate all disturbed/exposed areas as soon as possible to prevent any dust source from being created. • Ensure the crusher is equipped with water 	compliance monitoring of site by an Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul style="list-style-type: none"> • Topsoil stripping and stockpiling • Ripping/Blasting • Excavation • Crushing • Sloping and landscaping during rehabilitation 	<p>Noise monitoring</p> <ul style="list-style-type: none"> • The noise generated by the mining activities should be continuously monitored, and any excessive noise should be addressed. 	<p>Noise handling and monitoring</p> <ul style="list-style-type: none"> • Site manager to ensure that the vehicles are equipped with silencers and kept roadworthy. • Compliance with the appropriate legislation with respect to noise will be mandatory. 	<p>sprayers.</p> <p>Role</p> <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. • Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> • Ensure that staff conduct themselves in an acceptable manner while on site. • No loud music permitted at mining area. • Ensure that all mining vehicles are equipped with silencers and kept roadworthy in terms of the Road Transport Act. • Plan the type, duration and 	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<p>timing of the blasting procedures with due cognizance of other land users and structures in the vicinity.</p> <ul style="list-style-type: none"> • Notify surrounding landowners in writing prior blasting occasions. • Use noise mufflers and/or soft explosives during blasting. 	
<ul style="list-style-type: none"> • Topsoil stripping and stockpiling • Excavation Stockpiling and transporting 	<p>Management of weed or invader plants</p> <ul style="list-style-type: none"> • The presence of weed and/or invader plants should be continuously monitored, and any unwanted plants should be removed. 	<p>Management of weed or invader plants</p> <ul style="list-style-type: none"> • Removal of weeds should be manually or by the use of an approved herbicide 	<p>Role</p> <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. • Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> • Implement a weed and invader plant control management plan. 	<p>Throughout operational and decommissioning phase</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<ul style="list-style-type: none"> Control declared invader or exotic species on the rehabilitated areas. Keep the temporary topsoil stockpiles free of weeds. 	site by an Environmental Control Officer.
<ul style="list-style-type: none"> Stockpiling and transporting Sloping and Landscaping during rehabilitation 	<p>Surface and storm water monitoring</p> <ul style="list-style-type: none"> The effectiveness of the storm water infrastructure needs to be continuously monitored. 	<p>Surface and storm water handling</p> <ul style="list-style-type: none"> Trenches and contours to be made to direct storm- and runoff water around the stockpile areas. 	<p>Role</p> <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. <p>Compliance to be monitored by the Environmental Control Officer.</p> <p>Responsibility</p> <ul style="list-style-type: none"> Divert storm water around topsoil heaps, stockpile areas and access roads to prevent erosion and material loss. Divert runoff water around the stockpile areas with trenches and contour structures to prevent 	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<p>erosion of the work areas.</p> <ul style="list-style-type: none"> Conduct mining in accordance with the Best Practice Guideline for small scale mining that relates to storm water management, erosion and sediment control and waste management, developed by the DWS, and any other conditions the DWS may impose. 	
<ul style="list-style-type: none"> Ripping/Blasting Excavation Sloping and Landscaping during rehabilitation 	<p>Management of health and safety</p> <ul style="list-style-type: none"> All health and safety aspects need to be monitored on a daily basis. 	<p>Management of health and safety risks</p> <ul style="list-style-type: none"> Site manager to ensure that workers are equipped with required PPE while operating on site. The necessary warning signs must 	<p>Role</p> <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> Submit an application for 	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> Daily compliance monitoring by site management.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
		<p>be present at the site to inform the public and workers of mining activities.</p>	<p>approval of access onto the R392 to the Department of Roads and Public Works prior to the commencement of work.</p> <ul style="list-style-type: none"> • Inform the Traffic Department of each blast. If necessary, arrange for temporary road closure during a blast. • Plan the type, duration and timing of the blasting procedures with due cognizance of other land users and structures in the vicinity. • Inform the surrounding landowners and communities of any blasting event. • Use noise mufflers and/or soft explosives during 	<ul style="list-style-type: none"> • Quarterly compliance monitoring of site by an Environmental Control Officer

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			blasting. <ul style="list-style-type: none"> • Limit fly rock. • Give audible warning of a pending blast at least 3 minutes before the blast. • Remove all fly rock (diameter 150mm and larger) which falls beyond working area, together with the rock spill. • Ensure that workers have access to the correct PPE as required by law. 	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
<ul style="list-style-type: none"> Excavation Crushing stockpiling and transporting Sloping and landscaping during rehabilitation 	<p>Waste management</p> <ul style="list-style-type: none"> Management of waste should be a daily monitoring activity. Hydrocarbon spills need to be cleaned immediately and the site manager should check compliance daily. 	<p>Waste management</p> <ul style="list-style-type: none"> Closed containers for the storage of general/hazardous waste until waste is removed to the appropriate landfill site. Hydrocarbon spill kits to enable sufficient clean-up of contaminated areas. Drip trays should be available to place underneath haul vehicles while the vehicles are parked at night. Should a vehicle have a break down, it should be 	<p>Role</p> <ul style="list-style-type: none"> Site Manager to ensure compliance with EMPr guidelines. Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> Ensure that vehicle repairs only take place in the service bay area and all waste products are disposed of in a 200 l closed container/bin inside the emergency service area. Collect any effluents containing oil, grease or other industrial substances in a suitable receptacle and remove from site, for resale or appropriate disposal at a recognised 	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> Daily compliance monitoring by site management. Quarterly compliance monitoring of site by an Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
		serviced immediately.	facility. <ul style="list-style-type: none"> • Clean spills immediately to the satisfaction of the Regional Manager by removing the spillage and polluted soil and by disposing of them at a recognised facility. • Ensure availability of suitable covered, conveniently placed receptacles at all times for waste disposal. • Place all used oils, grease or hydraulic fluids therein and remove receptacles from site regularly for disposal at a registered/licensed hazardous disposal facility. • Store non-biodegradable refuse such as glass bottles, 	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<p>plastic bags, metal scrap, etc., in a container with a closable lid at a collecting point. Collection should take place regularly and disposed of at the recognised landfill site at Witbank. Prevent refuse from being dumped on or in the vicinity of the mine area.</p> <ul style="list-style-type: none"> • Biodegradable refuse to be handled as indicated above. 	

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
Stockpiling and transporting	<p>Management of access roads</p> <ul style="list-style-type: none"> • Access road conditions must be continuously monitored. • Vehicles carrying materials has to be equipped with adequate tarpaulin type covers to ensure that material being transported will not leave the vehicle during transportation. 	<p>Management of access roads</p> <ul style="list-style-type: none"> • Dust suppression equipment such as a water car and dispenser. • Trenches and contours to be made to direct storm- and runoff water around the access roads. 	<p>Role</p> <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. • Compliance to be monitored by the Environmental Control Officer. <p>Responsibility</p> <ul style="list-style-type: none"> • Maintain newly constructed access roads (if applicable) to minimise dust, erosion or undue surface damage. • Divert storm water around access roads to prevent erosion. <p>Erosion of access road: Restrict vehicular movement to existing access routes to prevent crisscrossing of tracks through undisturbed areas.</p>	<p>Throughout construction, operational and decommissioning phase</p> <ul style="list-style-type: none"> • Daily compliance monitoring by site management. • Quarterly compliance monitoring of site by an • Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<ul style="list-style-type: none"> • Cover vehicles carrying materials with adequate tarpaulin type covers to ensure that material being transported does leave the vehicle during transportation. • Ensure vehicles entering and using the public road system from the site does not exceed the permissible legal limits on gross vehicle mass and individual axle loads as prescribed in terms of the National Road Traffic Act (Act No 93 of 1996). 	
Topsoil stripping and stockpiling	Topsoil handling <ul style="list-style-type: none"> • When topsoil has been removed from any area the topsoil heaps 	Topsoil handling <ul style="list-style-type: none"> • Excavating equipment to remove the first 300mm of topsoil from the proposed 	Role <ul style="list-style-type: none"> • Site Manager to ensure compliance with EMPr guidelines. • Compliance to be monitored by the 	Throughout construction, operational and decommissioning phase <ul style="list-style-type: none"> • Daily

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
	<p>need to be continuously protected against loss of soil due to wind and water erosion.</p>	<p>work areas. The applicant already has this equipment available.</p> <ul style="list-style-type: none"> • Trenches and contours to be made to direct storm and runoff water around stockpiled topsoil area. 	<p>Environmental Control Officer.</p> <p>Responsibility</p> <ul style="list-style-type: none"> • Remove the first 300mm of topsoil in strips and store at the stockpile area. • Keep the temporary topsoil stockpiles free of weeds. • Place topsoil stockpiles on a levelled area and implement measures to safeguard the piles from being washed away in the event of heavy rains/storm water. • Topsoil heaps should not exceed 2 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. 	<p>compliance monitoring by site management.</p> <ul style="list-style-type: none"> • Quarterly compliance monitoring of site by an • Environmental Control Officer.

Source activity	Impacts required monitoring programme	Functional requirements for monitoring	Roles and responsibilities for the execution of monitoring programmes	Monitoring and reporting frequency and time periods for implementing impact management actions
			<ul style="list-style-type: none"> Divert storm- and runoff water around the stockpile area and access roads to prevent erosion. 	

l) Indicate frequency of the submission of the performance assessment/ environmental audit report

The committed time frames for monitoring and reporting are stipulated in the following:

Monitoring aspect	Time frames	Reporting
Dust handling	Throughout construction, operational and decommissioning phase	Daily compliance monitoring by site management Quarterly compliance monitoring of site by an Environmental Control Officer
Noise handling		
Management of weed/invader plants	Throughout operational and decommissioning phase	
Surface and storm water handling		
Management of health and safety risks	Throughout construction, operational and decommissioning phase	
Waste management		
Management of access roads		
Topsoil handling		

It is proposed that the performance assessment/environmental audit report be quarterly submitted to DMR.

m) Environmental Awareness Plan

(1) Manner in which the applicant intends to inform employees of any environmental risk which may result from their work

Training, as detailed below, will address the specific measures and actions required for specific emergency events. In this way, each employee will be provided the knowledge required for their job to, firstly, prevent impact and secondly identify if an impact is likely to occur and then report the possibility of risk or impact immediately so as to ensure immediate response. The most likely potential environmental emergencies in this proposed mining operation are fires and explosion, chemical spills/leaks, and flooding. In the case of environmental emergencies, the remedial measures and actions as listed in the Emergency Response Plan should be followed, in addition the following relevant authorities should be contacted:

Dept. of Water Affairs

Mr Masala Mulaudzi (Acting Chief Director: Mpumalanga)

Private Bag X11259

NELSPRUIT

1200

Tel: (013) 759 7300

Fax: (013) 759 7525

Cell: 082 327 5886

Prorom Building

c/o Brown & Paul Kruger Streets

NELSPRUIT

1200

MulaudziM@dws.gov.za

Dept. of Mineral Resources and Energy

Mpumalanga

Saveways Crescent Centre, Mandela Drive, Steve Tshwete, 1035

Private Bag X7279, STEVE TSHWETE, 1035(013) 653 0500 (013) 690 3288

Secretary

Ms L Maphopha

Lydia.Maphopha@dmr.gov.za

Steve Tshwete Fire Department

WOLTEMADE STREET, STEVE TSHWETE (WITBANK), 1034

PO BOX 3, STEVE TSHWETE (WITBANK), 1035

Contact number (s)(013) 690-6360 Fax (013) 690-6380

Fire and explosion control measures

Hazardous waste and dangerous substances can, by the verify definition, be flammable and reactive. As such, special precautionary measures must be taken when handling these substances. On the other hand, veld fires and fires resulting from other sources must be handled with extreme caution. In the event of a fire:

- i. Fire extinguishers must be placed around the mine at accessible locations and needs to be frequently inspected and maintained in working condition.

- ii. An alarm must be activated to alert all employees and contractors.
- iii. Identify the type of fire and the appropriate extinguishing material. E.g., water for a grass fire and mono ammonium phosphate-based fire extinguisher for chemical and electrical fires
- iv. In the event of a small fire, the fire extinguishers placed around the mine should be used to contain and extinguish the fire.
- v. In the event of a large fire, the fire department will be notified.
- vi. All staff will receive training in response to a fire emergency on site, including evacuation procedures.
- vii. A Fire Association should be set up with the mine and surrounding landowners (especially other mining permits and major collieries such as Blesbok colliery mine in close proximity) to facilitate communication during fire events and assist in fighting fires, where necessary. If such an association exists, the mine will join it.
- viii. If possible, surrounding drains, such as storm water drains must be covered and/or protected to prevent any contaminated water from entering the drains.
- ix. In case of a chemical or petroleum fire, run-off from the area must be contained as far as possible using the most appropriate measures, e.g. spill absorbent cushions, sand or a physical barrier.
- x. Contaminated run-off must be diverted into an oil sump or cleaned up.

Control measures include:

- xi. Minimizing the storage of flammable liquids on site (e.g. fuel, flammable wastes)
- xii. Using a nitrogen atmosphere for organic waste liquid with a low flashpoint stored in tanks
- xiii. Not allowing smoking anywhere on site
- xiv. Providing an emergency tipping area for waste loads identified to be on fire or otherwise deemed an immediate risk
- xv. Preparing and annually reviewing a fire risk assessment
- xvi. Ensuring all staff are appropriately trained for fire and explosion hazards

Other than explosion incidents related to mining, explosions can occur in the workshop areas when working with gas cylinders and chemicals. These could result in large numbers of employees being injured and requiring medical assistance.

The procedure to be followed includes:

- i. Devising safe evacuation routes in the event of an uncontrolled explosion and all staff trained on relevant evacuation routes and assembly points.
- ii. Providing first aid to injured parties, once safe to do so for first responders.
- iii. Notifying relevant emergency response units and hospitals of incoming patients.
- iv. Notifying the DMRE of the incident.

Chemical spills

Hydrocarbons such as diesel, petrol, and oil used as fuel for mine machinery will be kept on site, meaning that spillage may occur. As this is a coal mine there is also the possibility of a coal spillage occurring. Any chemicals contained on site, such as those associated with explosives may also be detrimental to the environment if spills occur. In the event of a spillage, procedures must be put into place to ensure that there are minimal impacts to the surrounding environment.

The following procedure applies to a chemical spill:

- i. The incident must be reported to the SHE officer immediately.
- ii. The SHE officer will assess the situation from the information provided and set up an investigation team. Included in this team could be the General Mine Manager, SHE Officer, the employee who reported the incident and an individual responsible for the incident.
- iii. When investigating the incident, priority must be given to safety.
- iv. Once the situation has been assessed, the Environmental Coordinator must report back to the Mine Manager.
- v. The General Mine Manager and the investigation team must make a decision on what measures can be taken to limit the damage caused by the incident, and if possible, any remediation measures that can be taken.

- vi. In the event of a small spillage, the soil must be treated in situ, using Hazmat clean up kits and bioremediation.
- vii. Every precaution must be taken to prevent the spill from entering the surface water environment.
- viii. In the event of a large spillage, adequate emergency equipment for spill containment or collection, such as additional supplies of booms and absorbent materials, will be made available and if required, a specialised clean-up crew will be called in to decontaminate the area. The soil must be removed and treated at a special soil rehabilitation facility.
- ix. Reasonable measures must be taken to stop the spread of spills and secure the area to limit access.

Flooding

There is always potential for flooding during the rainy season. This could result in a large volume of water accumulating in a water containment facility, which could cause major damage to equipment and endanger the lives of employees on site. Procedures must be put in place to ensure a quick response to flood events and minimal damage.

The procedure for flooding is as follows:

- i. During operations, DWS's flood warning system must be reviewed annually.
- ii. The use of emergency pumps must occur if the water floods the pit.
- iii. Mine management must be made aware of any such event so they can take appropriate action to ensure minimal production losses.
- iv. The Pollution Control Dam should have a 0.8m freeboard and an overflow or outlet to ensure that no damage occurs to the facilities.
- v. All contaminated water must be contained on site, as far as possible and discharges to the environment must only occur if necessary in an extreme flood event.

(2) Manner in which risk will be dealt with to avoid pollution or environmental degradation

Training (educational needs)

The Safety, Health and Environment (SHE) Officer must ensure that:

- i. New employees attend environmental awareness programmes through inductions
- ii. Mine management conducts bi-annual workshops
- iii. Documented training and competency
- iv. Training records be maintained
- v. Training includes proper management of waste streams, labelling, containers and emergency procedures outlined
- vi. Hazardous waste handlers and their supervisors/managers must complete training or on-the-job instruction relevant to their duties to include hazardous waste management procedures and contingency plan implementation
- vii. Training of all personnel must be completed before duties are assigned and training in terms of handling of hazardous waste must be repeated annually and as and when required

Outsourced specialist skills

A training department will be established on site during operations. All inductions and workshops will be hosted by this department. This department, in conjunction with the SHE Officer, is responsible for ensuring job-specific training for personnel performing tasks, which can cause significant environmental (e.g. receipt of bulk hazardous chemicals/fuel, hazardous materials handling, responding to emergency situations etc.). The General Mine Manager (GM) with the assistance of the SHE Officer must identify relevant personnel and training courses. Short courses such as First aid training, Level 1 and 2; Fire Fighting Level; safety representative training; etc. should be mandatory and sourced from the training providers,

Review and updating of training manual and course layout

Before implementing the emergency and response plans and other environmental standard operating procedure, the SHE Coordinator and GM/Supervisors will designate

and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

All training manual and courses must be reviewed with all employees at the following times:

- i. Initially when the plan is developed,
- ii. Whenever the employee's responsibilities or designated action under the plan change, and whenever the plan or mining processes has changed.
- iii. At least annually employee meetings are to be held to train employees of the contents of the EP&RP and revise the plan as appropriate.
- iv. Drills will be conducted, and full participation encouraged.
- v. All training must be documented in writing and copies sent to GM.

Effectiveness of the environmental management training will be done by management through task observations and during internal and external audits. All training material for presentation to personnel and contractors will be reviewed annually to ensure consistency with organisational requirements and best practice guidelines. In addition to this, annual monitoring reports, audit results and all incident reports will be reviewed; any shortcomings and non-compliance will be highlighted, and management measures incorporated or improved upon within the training material.

Records

The mine will keep records such as waste, water, electricity usage etc. Record of incoming and outgoing waste must be kept, and these must include:

- i. Types and categories of incoming and outgoing waste
- ii. Quantities of each waste type and category
- iii. Transporter details
- iv. Safe disposal certificate must always be returned and filed at waste disposal site
- v. Training records for all employees working on the hazardous waste facility
- vi. All records must be computerised or legible paper trails and cross-referenced, waste tracking easily accessed

vii. Records must be kept in a database on site for 3 years or more

Records from the implementation of this EAP will be kept and controlled in accordance with the SHE Management System Control of Records Procedure of the mine, which is required to be implemented so as to provide evidence of conformity and effective operation of the relevant requirements of the SHE management system.

Environmental awareness notice boards

The following basic environmental education material will be posted on a monthly basis on accessible notice boards on mine premises, one topic will be selected each month:

<p>WHAT IS THE ENVIRONMENT?</p> <ul style="list-style-type: none"> - Soil - Water - Plants - People - Animals - Air we breathe - Buildings, cars and houses 	<p>WHY MUST WE LOOK AFTER THE ENVIRONMENT?</p> <ul style="list-style-type: none"> - It affects us all as well as future generations - We have a right to a healthy environment - A contract has been signed - Disciplinary action (e.g. construction could stop or fines issued)
<p>ANIMALS</p> <ul style="list-style-type: none"> - Do not injure or kill any animals on the site - Ask your supervisor or Contract's Manager to remove animals found on site 	<p>TREES AND FLOWERS</p> <ul style="list-style-type: none"> - Do not damage or cut down any trees or plants without permission - Do not pick flowers 
<p>SMOKING AND FIRE</p> <ul style="list-style-type: none"> - Put cigarette butts in a rubbish bin - Do not smoke near gas, paints or petrol - Do not light any fires without permission - Know the positions of fire fighting equipment - Report all fires - Do not burn rubbish or vegetation without permission 	<p>PETROL, OIL AND DIESEL</p> <ul style="list-style-type: none"> - Work with petrol, oil & diesel in marked areas - Report any petrol, oil & diesel leaks or spills to your supervisor - Use a drip tray under vehicles & machinery - Empty drip trays after rain & those away when instructed 
<p>DUST</p> <ul style="list-style-type: none"> - Try to avoid producing dust - Use water to make ground & soil wet 	<p>NOISE</p> <ul style="list-style-type: none"> - Do not make loud noises around the site, especially near schools and homes - Report or repair noisy vehicles 
<p>TRUCKS AND DRIVING</p> <ul style="list-style-type: none"> - Always keep to the speed limit - Drivers - check & report leaks and vehicles that belch smoke - Ensure loads are secure & do not spill 	<p>RUBBISH</p> <ul style="list-style-type: none"> - Do not litter - put all rubbish (especially cement bags) into the bins provided - Report full bins to your supervisor - The responsible person should empty bins regularly 
<p>EATING</p> <ul style="list-style-type: none"> - Only eat in demarcated eating areas - Never eat near a river or stream - Put packaging & leftover food into rubbish bins 	<p>TOILETS</p> <ul style="list-style-type: none"> - Use the toilets provided - Report full or leaking toilets 



The operations manager must ensure that they understand the EMP document, its requirements and commitments before any mining takes place. An Environmental Control Officer must ensure compliance of mining activities to the management programmes described in the EMP. The following list represents the basic steps towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks.

Site management

- i. Stay within site boundaries – do not enter adjacent properties
- ii. Keep tools and material properly stored
- iii. Smoke only in designated areas
- iv. Use toilets provided – report full or leaking toilets

Water management and erosion

- i. Check that rainwater flows around work areas and is not contaminated
- ii. Report any erosion
- iii. Check that dirty water is kept from clean water
- iv. Do not swim in or drink from streams

Waste management

- i. Take care of your own waste
- ii. Keep waste separate into labelled containers – report full bins
- iii. Place waste in containers and always close lid

- iv. Don't burn waste
- v. Pick-up any litter laying around

Hazardous waste management (petrol, oil, diesel, grease)

- i. Never mix general waste with hazardous waste
- ii. Use only sealed, non-leaking containers
- iii. Keep all containers closed and store only in approved areas
- iv. Always put drip trays under vehicles and machinery
- v. Empty drip trays after rain
- vi. Stop leaks and spills, if safe
- vii. Keep spilled liquids moving away
- viii. Immediately report the spill to the site manager/supervision
- ix. Locate spill kit/supplies and use to clean-up, if safe
- x. Place spill clean-up wastes in proper containers
- xi. Label containers and move to approved storage area

Discoveries

- i. Stop work immediately
- ii. Notify site manager/supervisor
- iii. Includes archaeological finds, cultural artefacts, contaminated water, pipes, containers, tanks and drums, any buried structures

Air quality

- i. Wear protection when working in very dusty areas
- ii. Implement dust control measures:
 - Sweep paved roads
 - Water all roads and work areas
 - Minimise handling of material
 - Obey speed limit and cover trucks

Driving and noise

- i. Use only approved access roads
- ii. Respect speed limits
- iii. Only use turn-around areas – no crisscrossing through undisturbed areas
- iv. Avoid unnecessary loud noises
- v. Report or repair noisy vehicles

Vegetation and animal life

- i. Do not remove any plants or trees without approval of the site manager
- ii. Do not collect firewood
- iii. Do not catch, kill, harm, sell or play with any animal, reptile, bird or amphibian on site
- iv. Report any animal trapped in the work area
- v. Do not set snares or raid nests for eggs or young

Fire management

- i. Do not light any fires on site, unless contained in a drum at demarcated area
- ii. Put cigarette butts in a rubbish bin
- iii. Do not smoke near gas, paints or petrol
- iv. Know the position of firefighting equipment
- v. Report all fires
- vi. Don't burn waste or vegetation

n) Specific information required by the Competent Authority

Among others, confirm that the financial provision will be reviewed annually.

The applicant undertakes to annually review and update the financial provision calculation, upon which it will be submitted to DMR for review and approved as sufficient to cover the environmental liability at the time and for closure of the mine at that time.

2. UNDERTAKING

The EAP herewith confirms

- a) the correctness of the information provided in the reports
- b) the inclusion of comments and inputs from stakeholders and I&APs
- c) the inclusion of inputs and recommendations from the specialist reports where relevant
- d) that the information provided by the EAP to I&APs and any response of the EAP to comments or inputs made by I&APs are correctly reflected herein

Signature of the Environmental Assessment Practitioner

Singo Consulting (Pty) Limited

Name of company

Date

Appendix 1: EAP's CV and Qualifications

Appendix 2: BID

Appendix 3: Baseline studies

Appendix 4: DMRE letters.



mineral resources & energy

Department
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag X7279, Emalahleni, 1035, Tel: 013 653 0500, Fax 013 690 3288, Saveways Centre, First Floor, Mandela Drive, Emalahleni, 1035, Directorate: Mineral Regulation: Mpumalanga Region, Enquiries: S.B Malla Email Address: Basetsana_malla@dmre.gov.za Sub-directorate: Mineral Laws, Ref: MP 30/5/1/1/3/13941 MP.

BY: Email/Fax

The Director/s
Jaments (Pty) Ltd
Private Bag X7297
Highveld Mall
Witbank
1035

Fax: 086 514 4103

Email: kenneth@singoconsulting.co.za

Received by
L. Homoyi
07/08/2023


ACCEPTANCE OF AN APPLICATION FOR MINING PERMIT IN TERMS OF SECTION 27 OF THE MINERAL AND PETROLEUM DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) [HEREIN AFTER REFERRED TO AS THE ACT] AS AMENDED BY SECTION 23 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT AMENDMENT ACT, 2008 (ACT 49 OF 2008) [HEREINAFTER REFERRED TO AS THE AMENDMENT ACT].

1. Please be informed that your application for a mining permit to mine **Coal on Portion of the remaining extent of the farm Roodepoort 151 IS, Magisterial District of Steve Tshwete**, is hereby accepted in terms of Section 27 of the Act.
2. Furthermore, note that acceptance of your application does not grant you the right to commence with mining operations. Your application will be evaluated/ processed and a recommendation will be made on either to issue or refuse your application. Any person operating without an issued mining permit will be in contravention of Section 5(4) of the MPRDA and would be guilty of an offence in terms of the relevant Act.
3. Please take notice that in terms of Section 27(5) of the Act as amended by Section 23(e)(a) and Section 23(e)(b) of the Amendment Act, you are required to:-

13941 MP- Acceptance

3.1. To consult in the prescribed manner with the landowner, lawful occupier and any interested and affected parties and the Land Restitution Commission including and to include the result of such consultation in the relevant environmental reports to be submitted and uploaded on the SAMRAD system.

4. Please take note that failure to adhere to the timeframe stipulated above and to submit any documentation required in terms of this notice will result into non-compliance with the provision of the Act and the Amendment Act and will result in your application being processed for refusal.

Yours Faithfully:



REGIONAL MANAGER
MPUMALANGA REGION

DATE: 07/08/2023

13941 MP- Acceptance

Appendix 5: Project Maps

Appendix 6: Stakeholder Consultation

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Tuesday, 29 August 2023 09:57
To: 'jan@rockd.co.za'
Subject: ADJACENT LANDOWNER INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: Background Information Document.pdf; Mining Permit Area.kml; REG 2.2 .pdf
Importance: High

Good day,

Singo Consulting (Pty) Ltd extends greetings.

Singo Consulting (Pty) Ltd on behalf of: **Jaments(Pty) Ltd** hereby wishes to inform you that it has applied for a Mining Permit together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) (Ref: **MP 30/5/1/1/3/13941 MP**) for the extraction of **Coal on portion of the remaining extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province.**

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) where one of the requirements is that all stakeholders must be notified of **Jaments (Pty) Ltd.** intentions to obtain a Mining Permit for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow enforce any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- ✓ Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process;
- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on the Basic Assessment Report (BAR) & Environmental Management Programme report (EMPr)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme report (BAR & EMPr). A Basic Assessment process has commenced, for your participation kindly fill the registration and comment form at the end of the Background Information Document attached and register your comments, issues, and/or questions that you may have about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (for a brief description of the proposed project and timelines, KML and Reg 2.2 Map).

Should you know anyone who might be interested in this project, kindly forward this email to that person.

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Thursday, 31 August 2023 10:19
To: 'Rhulani C@daff.gov.za'
Cc: 'Nompumelelo, Ndhlovu'; 'mahlatsi@singoconsulting.co.za'
Subject: STAKEHOLDER INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: REG 2.2.pdf; Mining Permit Area.kml; Background Information Document.pdf
Importance: High

Good day,

Singo Consulting (Pty) Ltd extends greetings.

Singo Consulting (Pty) Ltd on behalf of : **Jaments(Pty) Ltd** hereby wishes to inform you that it has applied for a Mining Permit together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) (Ref: **MP 30/5/1/1/3/13941 MP**) for the extraction of Coal on portion of the remaining extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province.

This Notification is being given in compliance with the terms of; Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) where one of the requirements is that all stakeholders must be notified of **Jaments (Pty) Ltd**, intentions to obtain a Mining Permit for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow enforce any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- ✓ Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process;
- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on the Basic Assessment Report (BAR) & Environmental Management Programme report (EMPr)

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Please find the attached Background Information Document (for a brief description of the proposed project and timelines, KML and Reg 2.2 Map).

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Thursday, 31 August 2023 10:21
To: 'Themba.Mkhonto@drdlr.gov.za'
Cc: 'Nompumelelo Ndlovu'; 'mahlatsi@singoconsulting.co.za'
Subject: STAKEHOLDER INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: REG 2.2.pdf; Mining Permit Area.kml; Background Information Document.pdf
Importance: High

Good day,

Singo Consulting (Pty) Ltd extends greetings.

Singo Consulting (Pty) Ltd on behalf of : **Jaments(Pty) Ltd** hereby wishes to inform you that it has applied for a Mining Permit together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) (**Ref: MP 30/5/1/1/3/13941 MP**) for the extraction of Coal on portion of the remaining extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province.

This Notification is being given in compliance with the terms of; Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) where one of the requirements is that all stakeholders must be notified of **Jaments (Pty) Ltd.** intentions to obtain a Mining Permit for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow enforce any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

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- ✓ Contribute to local knowledge;
- ✓ Comment on the Basic Assessment Report (BAR) & Environmental Management Programme report (EMPr)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme report (BAR & EMPr). A Basic Assessment process has commenced, for your participation kindly fill the registration and comment form at the end of the Background Information Document attached and register your comments, issues, and/or questions that you may have about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (for a brief description of the proposed project and timelines, KML and Reg 2.2 Map).

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Monday, 14 August 2023 13:08
To: 'mutshidzi@singoconsulting.co.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo Ndhlovu'; 'mahlati@singoconsulting.co.za'; 'Bongokuhle, Sibiya'
Subject: REQUEST FOR STUDIES
Importance: High

Good day,

Kindly assist with studies of the following project:

C:\Users\innoc\Dropbox\SC PROJECT FOLDER\environmental folders\environmental folders\MINING\Bongani Group\JAMENTS NVE BR OP NMZ\Application 240 Roodepoort 151 IS\MP

Operation H Telo Hinkwaswo

Innocent, Monama
Public Participation Officer
BSc. Environmental Science

+27 67 826 4182
innocent@singoconsulting.co.za

+27 13 692 0041 | +27 86 514 4103 | www.singoconsulting.co.za

Singo Consulting (Pty) Ltd
Protect & Manage the best standing environment

Office 870, 5 Balaasika Street,
Tsebet Park Ext 2, Witbank, 1040

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Tuesday, 29 August 2023 11:03
To: 'skosanamm@nkangaladm.gov.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo, Ndhlovu'; 'mahlatsi@singoconsulting.co.za'
Subject: STAKEHOLDERS INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: Background Information Document.pdf; Mining Permit Area.kml; REG 2.2.pdf
Importance: High

Good day,

Singo Consulting (Pty) Ltd extends greetings.

Singo Consulting (Pty) Ltd on behalf of : **Jaments(Pty) Ltd** hereby wishes to inform you that it has applied for a Mining Permit together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) (Ref: **MP 30/5/1/1/3/13941 MP**) for the extraction of **Coal on portion of the remaining extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province.**

This Notification is being given in compliance with the terms of; Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) where one of the requirements is that all stakeholders must be notified of **Jaments (Pty) Ltd.** intentions to obtain a Mining Permit for the above-mentioned commodity. This invitation is extended to you as the department you serve may somehow enforce any of the laws of the Republic of South Africa that ensure; pollution prevention & environmental degradation, encourage sustainable development & socio-economic development, or might be affected by activities to be taking place instead. Hence you are being offered an opportunity to:

- ✓ Register as an Interested and Affected Party (I&AP) and to respond to the environmental compliance process;
- ✓ Raise issues of concern and provide suggestions for enhanced benefits;
- ✓ Contribute to local knowledge;
- ✓ Comment on the Basic Assessment Report (BAR) & Environmental Management Programme report (EMPr)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorisation process by conducting an Environmental Impact Assessment, Public Participation Process (PPP) for the proposed project and compile a Basic Assessment Report & Environmental Management Programme report (BAR & EMPr). A Basic Assessment process has commenced, for your participation kindly fill the registration and comment form at the end of the Background Information Document attached and register your comments, issues, and/or questions that you may have about the proposed project. Should you need any clarity on the attached document or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (for a brief description of the proposed project and timelines, KML and Reg 2.2 Map).

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Wednesday, 04 October 2023 09:51
To: 'Melissa.Lewis@birdlife.org.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo.Ndhlovu'; 'mahlatsi@singoconsulting.co.za'; 'luyolo@jaments.co.za'; 'vhumatshelo@jaments.co.za'
Subject: RE: STAKEHOLDER INVITATION TO COMMENT ON DBAR & EMPR FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Importance: High

Good Day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

This email serves as a kind reminder that we will be submitting the BAR & EMPr for mining permit application of extracting Coal on a portion of the remaining Extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province **with Ref: MP 30/ 5/ 1/ 1/ 3/13941 MP** to the competent authority for adjudication.

Kindly note that we will be submitting without your comments/concerns on the shared Draft BAR & EMPr, unless these are received on or before the 08th of October 2023.

Operation: H. Teka Hahwaqwe
Innocent, Monama
Public Participation Officer
BSc. Environmental Science
+27 67 826 6182
innocents@singoconsulting.co.za
www.singoconsulting.co.za
Office 870, 5 Balalala Street,
Tsobel Park East 2, Witbank, 1040.

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Thursday, September 7, 2023 10:04 AM
To: 'Melissa.Lewis@birdlife.org.za' <Melissa.Lewis@birdlife.org.za>
Cc: 'rudzani@singoconsulting.co.za' <rudzani@singoconsulting.co.za>; 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>; 'Nompumelelo.Ndhlovu' <nompumelelo@singoconsulting.co.za>; 'mahlatsi@singoconsulting.co.za' <mahlatsi@singoconsulting.co.za>; 'luyolo@jaments.co.za' <luyolo@jaments.co.za>; 'vhumatshelo@jaments.co.za' <vhumatshelo@jaments.co.za>
Subject: STAKEHOLDER INVITATION TO COMMENT ON DBAR & EMPR FOR MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Importance: High

Good day,

Receive warm greetings from Singo Consulting

Appendix 7: POS

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Friday, 08 September 2023 09:52
To: 'jannie@sancor.co.za'; 'admin@sancor.co.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'luyolo@jaments.co.za'; 'vhumatshelo@jaments.co.za'; 'Nompumelelo, Ndhlovu'; 'mahlatsi@singoconsulting.co.za'
Subject: RE: LANDOWNER INVITATION TO COMMENT ON THE MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: Jaments(Pty) Ltd_ Roodepoort 151.pdf
Importance: High

Good day,

Receive warm greetings from Singo Consulting

Kindly find and review the attached Draft BAR & EMPr for the proposed mining permit application of extracting Coal on a portion of the remaining Extent of the farm Roodepoort 151 IS, situated in the Magisterial District of Steve Tshwete in Mpumalanga Province. Take note that you have 30 calendar days to review and forward any comments to be incorporated into the final BAR & EMPr report.

Note that the document is encrypted to prevent unauthorized access and distribution, kindly use the following pin for access; **SC2012**.

Operation H. Tolu Hinkwawo

Innocent, Monama
Public Participation Officer
BSc. Environmental Science

+27 67 826 4182
innocen@singoconsulting.co.za

+27 15 692 0041 +27 86 814 4105 www.singoconsulting.co.za

Singo Consulting (Pty) Ltd
Work in synergy for better mining outcomes

Office 870, 5 Balakisa Street,
Tsebet Park Ext 2, Witbank, 3040

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Saturday, August 19, 2023 8:02 AM
To: 'jannie@sancor.co.za' <jannie@sancor.co.za>; 'admin@sancor.co.za' <admin@sancor.co.za>
Cc: 'rudzani@singoconsulting.co.za' <rudzani@singoconsulting.co.za>; 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>; 'luyolo@jaments.co.za' <luyolo@jaments.co.za>; 'vhumatshelo@jaments.co.za' <vhumatshelo@jaments.co.za>; 'Nompumelelo, Ndhlovu' <nompumelelo@singoconsulting.co.za>; 'mahlatsi@singoconsulting.co.za' <mahlatsi@singoconsulting.co.za>
Subject: LANDOWNER INVITATION TO COMMENT ON THE MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Importance: High



Office 870
 1 Bulelaka Street
 Easton Park Est 2
 Witbank

enquiries@singoconsulting.co.za

www.singoconsulting.co.za

+27 78 272 830

POSTNET SUBMISSION FORM

Document Number: PVA81934709751
 Number of Doc Being Sent: One (1)
 Company Name: Singo Consulting
 Client Name: Tamara's Cattle
 Type of Document Being Sent: DBAR & EMR
 Sender's Name (SC): Lorraine Signature: [Signature] Date: 07-09-2023
 Postnet Receiver: Mnette Signature: [Signature] Date: 7/9/23

Receiver 2 Information

Name: Agriculture, Landcare, & Rural Development
 Address: 27 Bina Street Old Rembrandt Bld
2nd Floor Office B., Heidspruit, 1200
RT Thabane
013 754 0701 / 072 4094 789

 Project Manager	Date: <u>07-09-2023</u>	APPROVAL: Director	Date: _____
	Date: _____		Date: _____





Office 870
 5 Balalaika Street
 Tshabane Park Est 2
 Witbank

PROOF OF SUBMISSION

I, Ivy, herewith acknowledge receipt of:


1 x copy of the report titled: DEBAR&EMP

for Taments (Pty) Ltd

Name of Department:	LIBRARY
Physical Address of Department:	
Tell No.:	013 249 7314
Email:	

Date: 12 / 09 / 2023

Time: 13:30

Signature: 

SURADO SEKOTO
 Public library / Openbare biblioteek
 Box 14 / Bus 14
 Middelburg, 1060
 Date: _____





Office 870
 5 Malanika Street
 Testet Park Ext. 2
 Witbank



PROOF OF SUBMISSION

I, NE RATHIEMANO, herewith acknowledge receipt of:

X copy of the report titled: DBAR&EMP,

for Jaments (Pty) Ltd

Name of Department:	Erruwo & Solid Waste
Physical Address of Department:	Chr Wanders and Walter 2nd Street Middelburg. 1050
Tel No.:	013 249 7057
Email:	erruwo@dlm.gov.zw

Date: 12 / 09 / 2023

Time: 13:44

Signature: NE RATHIEMANO






POSTNET SUBMISSION FORM

Document Number: PNA 81911452687
 Number of Doc Being Sent: ONE (1)
 Company Name: Singo Consulting
 Client Name: Tarrant's (Pty) Ltd
 Type of Document Being Sent: DEAR & EMPR
 Sender's Name (SC): Michelle Signature: [Signature] Date: 07-09-2023
 Postnet Receiver: Minette Signature: [Signature] Date: 7/9/23

Receiver 2 Information

Name: Phumla Masei - MTPA
 Address: Block 9, Lynton Park Consulting (Pty) Ltd
Hillside, Johannesburg, Gauteng
018 254 2279

	APPROVAL:
..... 07-09-2023
Project Manager Date	Director Date



Appendix 8: Landowner consultation

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Saturday, 19 August 2023 08:02
To: 'jannie@sancor.co.za'; 'admin@sancor.co.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'luyolo@jaments.co.za'; 'vhumatshe@jaments.co.za'; 'Nompumelelo, Ndhlou'; 'mahlatsi@singoconsulting.co.za'
Subject: LANDOWNER INVITATION TO COMMENT ON THE MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.
Attachments: Landowner Notification Letter.pdf; Mining Permit Area.kml; REG 2.2.pdf
Importance: High

Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd

Singo Consulting (Pty) Ltd on behalf of **Jaments (Pty) Ltd (DMRE Ref: MP 30/ 5/ 1/ 1/ 3/13941 MP)** hereby wish to inform you that it has submitted an application for a Mining Permit together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources and Energy (DMRE) for the purpose of extracting **Coal on portion of the remaining extent of the farm Roodepoort 151 IS**, situated in the Magisterial District of **Steve Tshwete** in **Mpumalanga Province** respectively. Kindly note that Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the Environmental Authorization processes by conducting Environmental Impact Assessment and Public Participation.

This notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that landowners and stakeholders must be notified of **Jaments (Pty) Ltd's** intention to obtain Environmental Authorization for mining the above-mentioned minerals.

You have been identified as the **landowner of Portion of the remaining extent of the farm Roodepoort 151 IS** (kindly refer to attached WinDeed results on the page 3). Your comments are critical in decision making at the Department of Mineral Resources and Energy (DMRE) concerning the proposed project.

We hope that this is in line with your office and your response will be highly appreciated. Should you have any queries regarding the proposed project, please do not hesitate to contact us on the contact details provided below.

Operation: H. Telo Hlwagawo

Innocent, Monama
Public Participation Officer
BSc. Environmental Science

+27 67 826 4182
innocent@singoconsulting.co.za

+27 15 692 0041 | +27 86 514 4103 | www.singoconsulting.co.za

Singo Consulting (Pty) Ltd
Providing Energy for the mining environment

Office 870, 5 Balalaka Street,
Tsebet Park Ext 2, Witbank, 3040

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Thursday, 07 September 2023 10:04
To: 'Sancor Admin'
Cc: 'Rudzani, Radebe (RRS)'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo, Ndhlovu'; 'mahlatsi@singoconsulting.co.za'; 'luyolo@jaments.co.za'; 'vhumatshelo@jaments.co.za'
Subject: RE: Objection MP30/5/1/1/3941 MP
Importance: High

Good day,

Singo consulting extends its warmest greetings.

Your objection has been received, it will be attended to and incorporated into the final BAR and EMP.

Operator: Hi Telo Hloko
Innocent, Monama
Public Participation Officer
BSc. Environmental Science
+27 67 826 4182
innocent@singoconsulting.co.za
+27 13 692 0041 | +27 86 514 4103 | www.singoconsulting.co.za
Singo Consulting (Pty) Ltd
Office 870, 5 Babajale Street, Tsobot Park Ext 2, Witbank, 1040

From: Sancor Admin <admin@sancor.co.za>
Sent: Wednesday, September 6, 2023 9:26 AM
To: innocent@singoconsulting.co.za
Subject: Objection MP30/5/1/1/3941MP

Please find attached objection.

Regards
Sancor

SANCOR (Edms) Bpk
Plaas Wolvenfontein Middelburg
Btw: 426 011 7165
Reg: 1997/002744/07

OBJECTION – MP30/5/1/1/3/13941MP

5 September 2023

Sancor (Pty) Ltd

OBJECTION RELATING TO A MINING PERMIT APPLICATION DMR REF :

MP30/5/1/1/3/13941MP

REFER SINGO CONSULTING PTY LTD - MP30/5/1/1/3/13941MP – LETTER DATED 18 AUGUST 2023

APPLICATION FOR A MINING PERMIT ON A PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF STEVE TSHWETE IN MPUMALANGA PROVINCE

LOCATED WITHIN THE WETLAND AREA (WATER LOCKED AREA EVERY SUMMER) OF THE CATCHMENT OF THE SANCOR GAME CAMP IN NEAR FASCINITY TO THE GAME DRINKING DAM ACTIVELY USED FOR GAME FARMING

1. Sancor Pty Ltd is actively using the area as per attached map as a game camp which is fenced-in and as such the water resources is of economical value to the owner where the area is a farming unit

– see game drinking dam location as per your google view
2. See attached report map by Geovicon Environmental (Pty) Ltd indicating that the area was mapped in detail in March 2021 by Riana Bate

The information was reported on to the MPTA, DWS (Department Water and Sanitation) and the EIA and EIR report for Emivista Mining 123 Pty Ltd - MP30/5/1/2/2/10302MR for an Application to mine coal on a high lying Portion of the Remaining Extent of the farm Roodepoort 151 IS, where measures to protect the indicated Sancor low lying pan and associated wetland areas was included
3. The indicated location at the proposed Mining permit MP13941MP is located within the Sancor game camp and wetland (water locked area every summer) as mapped by Geovicon Environmental (Pty) Ltd

The objection is thus also supported on the basis that your Mining permit application map (Reg 2 (2) map) for **MP30/5/1/1/3/13941MP** applied for, indicates that the applied for mining permit is located within the brown area (actual low lying pan outline as per MPTA i.e. wetland area)

As such your application is not acceptable and hence the objection as the area is not at least 100m away from the wetland area and any mining will thus negatively impact on the game drinking water actively used from the game drinking dam.



Yours Faithfully

Sancor (Pty) Ltd

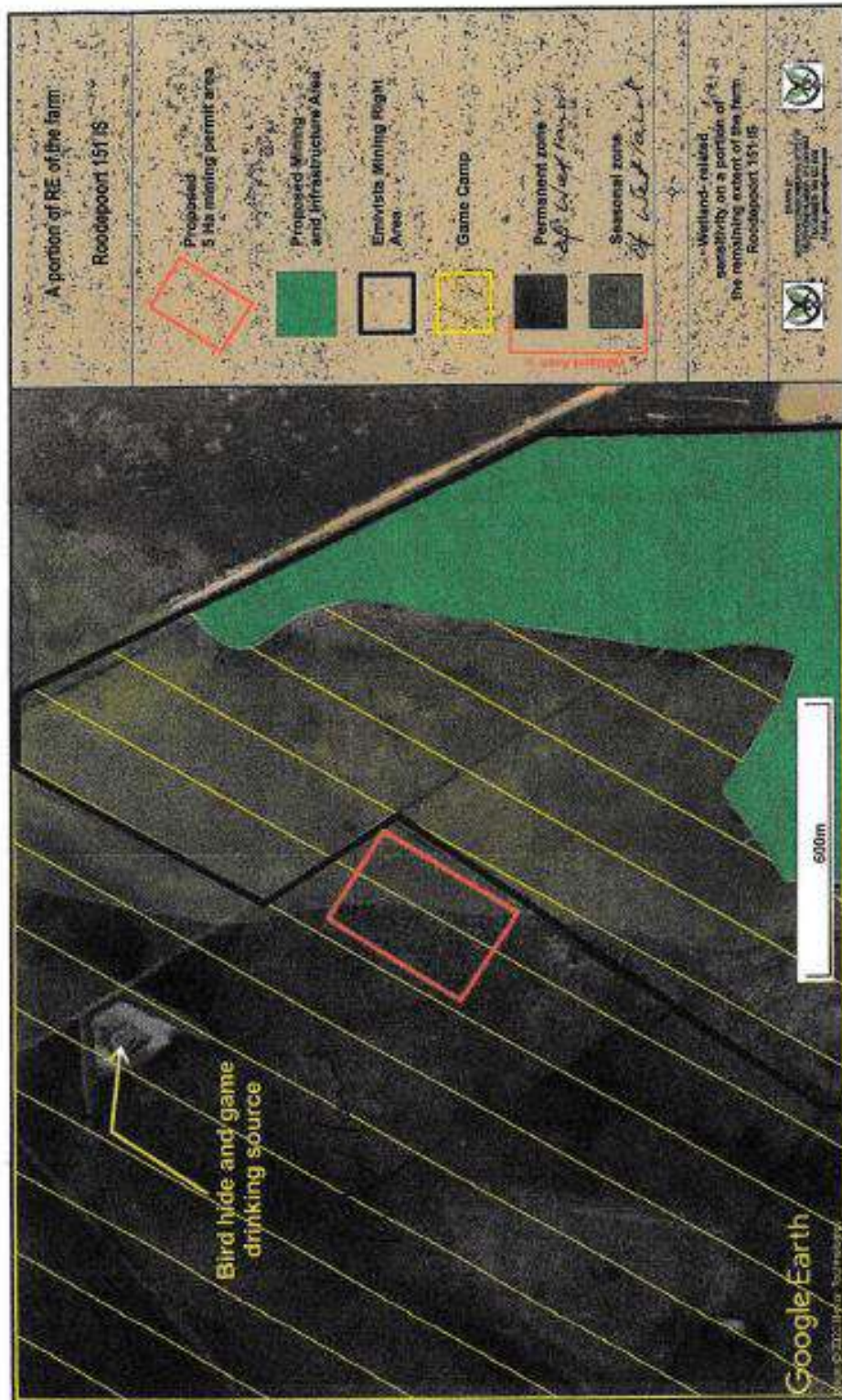
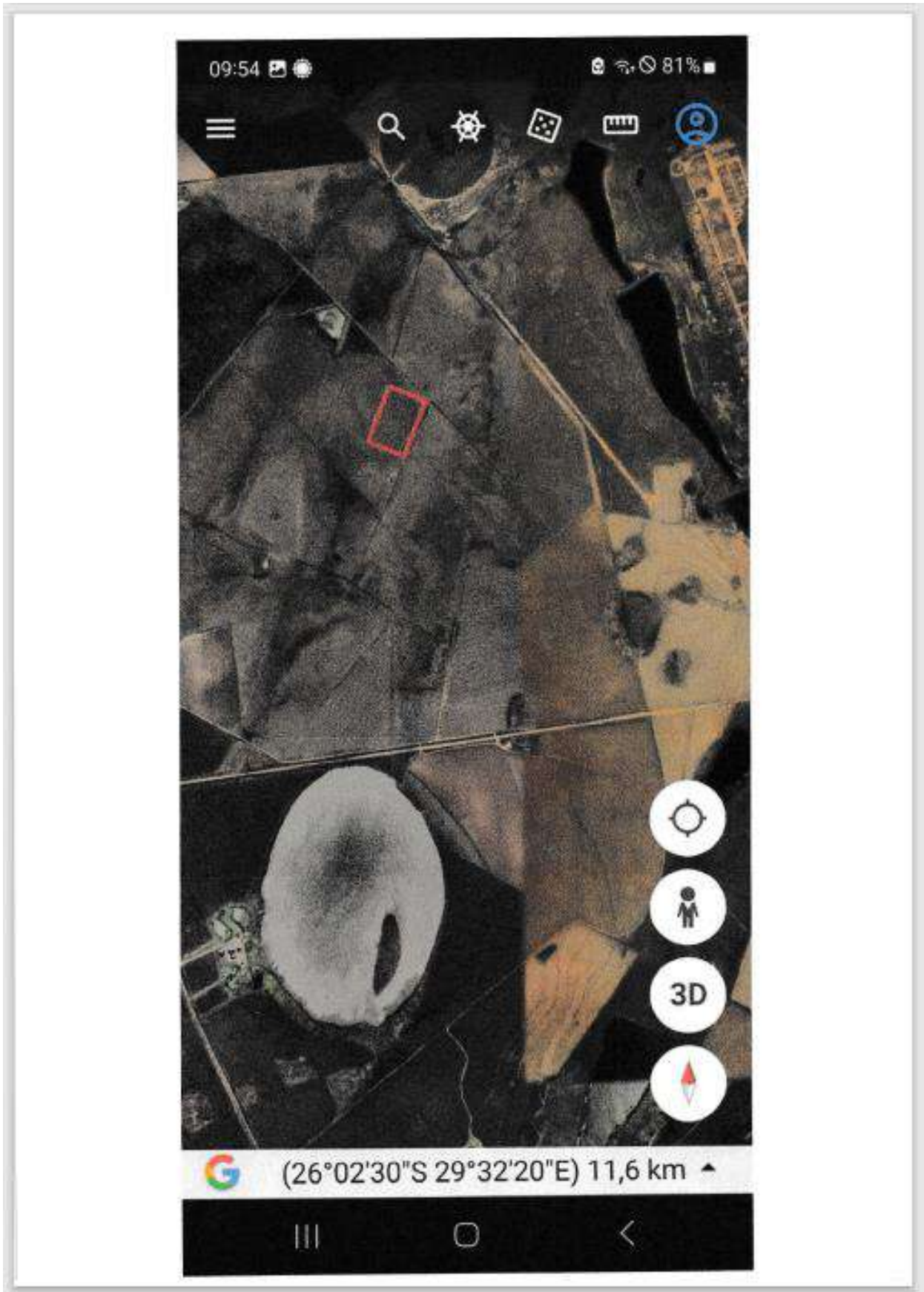


Figure 1: Wetland related sensitivity associated with the proposed 5Ha mining permit area

Managing Director: O.T. Shaikwana (B.Sc., B.Com); Directors: J.M. Buz (Ph. Sc., Nat.), M.Sc.; T. G. Telo (B.Sc.)





+27 13 692 0041 +27 78 2737 838
 +27 72 081 9082
kenneth@singoconsulting.co.za www.singoconsulting.co.za
 Office 870
 5 Balalaka Street
 Taxbet Park Ext 2
 Witbank +27 86 514 4103

Protect & manage the best remaining environment

I, _____ herewith acknowledge receipt of: One (1) copy of the letter entitled: mining permit application on a portion of the remaining portion 8 of the farm Driefontein 338 j.s. situated in the magisterial district of eMalahleni in Mpumalanga province, [DMRE REF: MP30/5/1/342/14232 MP].

Please comment and return to:

Physical address:	Office No. 870, 5 Balalaka Street, Taxbet Park Ext 2, eMalahleni 1040
Postal address	P/Bag X7214 Postnet Suite 125 Ben Fleur Witbank 1035
Tel No:	+27 13 6920 041
Cell No:	+27 67 826 4182
Fax No:	+27 86 5144 103
Email:	admin@singoconsulting.co.za kenneth@singoconsulting.co.za innocent@singoconsulting.co.za



Personal Details:

Full Names and Surname:		SANCOR (PTY) LTD			
Contact Details:					
Tel(w):		Tel(h):		Fax No:	
Email: admin@Sancor.co.za					
Physical Address:					
Postal Address:					
Preferred method of communication: fax <input type="checkbox"/> e-mail <input checked="" type="checkbox"/> post <input type="checkbox"/> <i>see email above</i>					
Preferred telephonic communication: cell <input type="checkbox"/> home <input type="checkbox"/> work <input type="checkbox"/>					
Organisation/Representative:					
Farm name, number and subdivision or Street Address (if applicable):				Remaining Extent of Roodepoort 151 IS	

1. What is your interest in the proposed project? E.g. Property Owner/ Lessee/ Tenant?
Please provide details of the property.

Owner - Remaining Extent of Roodepoort 151 IS




5. Are there, in your opinion, any other interested/ or affected parties that should be contacted in relation to this application? Please "X" appropriate box.

 YES

 NO

6. if yes, please provide their contact details:

Name: <i>Riana Bate</i>	Organization: <i>Geovicon</i>	
Contact details: <i>082 359 5604</i>		
Address:		
Tel No:	Fax No:	Cell No:
Email address:		

Signature: 

Date: _____

THANK YOU



Appendix 9: Comments and response letters

Innocent, Monama

From: Ria Barkhuizen (NR) <Barkhuizenr@nra.co.za>
Sent: Monday, 28 August 2023 21:00
To: Innocent, Monama
Subject: RE: STAKEHOLDER INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS.

Good day

New applications should be posted, courier or hand delivered to SANRAL's office.
Email applications won't be accepted anymore.

Please note that the previous email is incorrect.

Regards
Ria



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: MPUMALANGA
18 Bell Street, Bell Tower building, Restitutor House, Nelspruit | Private Bag X11330, Nelspruit, 1200
Tel: (013) 752 4054 | Fax: (013) 752 5410

Enquiries: Thandeka Dhlamini
Tell : 013 752 4054 Ext 1016

SINGO CONSULTING

ATTENTION: INNOCENT MONAMA

LAND CLAIM IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994 AND AS AMENDED IN TERMS OF THE RESTITUTION OF THE LAND RIGHTS AMENDMENT ACT 2014 (ACT NO 15 OF 2014).

REFERENCE NUMBER: R/6/143/284/19883

PROPERTY DESCRIPTION OF THE CLAIMED LAND

- Portion of the remaining extent of the farm Roodepoort 151 IS

We refer to the above claim that was lodged on the **17 September 2014** with the Commission on Restitution of Land Rights.

Please note that there is no land claim lodged against the farm. Note that the lodgement of land claim is based on the Restitution of Land Rights Act, Act no 22 of 1994 and the Restitution of Land Rights Amendment Act, (Act no 15 of 2014).

The Commission is empowered to investigate all land claims and where applicable issues a Government Gazette to interested and affected parties if such land claims has been approved as valid claims.

The above claim was lodged in terms of the Restitution of Land Rights Amendment Act, 2014 (Act No 15 of 2014) ("the Amendment Act") which, amongst others, reopened the lodgement of claims for a period of five years.

The validity of the Amendment Act was challenged in the Constitutional Court. The Constitutional Court found the Amendment Act to be invalid because of the failure of Parliament to facilitate public involvement as required by the Constitution. The Amendment Act ceased to be law on 28 July 2016 and the Commission is no longer allowed to accept lodgement of new claims from that date.



The Constitutional Court ordered that the claims that were lodged between 1 July 2014 and 27 July 2016 are validly lodged, but it interdicted the Commission from processing those claims until the Commission has finalised the claims lodged by 31 December 1998 or until Parliament passes a new law providing for the re-opening of lodgement of land claims. Parliament was given until 27 July 2018 to pass such a law.

The Commission will therefore not be processing these new claims until it finishes claims lodged by 31 December 1998 or until Parliament passes a new law providing for re-opening of lodgement of claims.

We apologise for the inconvenience caused.

Please quote the claim reference number in all correspondence with the Commission.

Yours sincerely,


MR. E. S. NKOSI
CHIEF DIRECTOR
OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER
DATE: 04/09/2023

5 September 2023

Sancor (Pty) Ltd

OBJECTION RELATING TO A MINING PERMIT APPLICATION DMR REF :

MP30/5/1/1/3/13941MP

REFER SINGO CONSULTING PTY LTD - MP30/5/1/1/3/13941MP – LETTER DATED 18 AUGUST 2023

APPLICATION FOR A MINING PERMIT ON A PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF STEVE TSHWETE IN MPUMALANGA PROVINCE

LOCATED WITHIN THE WETLAND AREA (WATER LOCKED AREA EVERY SUMMER) OF THE CATCHMENT OF THE SANCOR GAME CAMP IN NEAR FASCINITY TO THE GAME DRINKING DAM ACTIVELY USED FOR GAME FARMING

1. Sancor Pty Ltd is actively using the area as per attached map as a game camp which is fenced-in and as such the water resources is of economical value to the owner where the area is a farming unit

– see game drinking dam location as per your google view
2. See attached report map by Geovicon Environmental (Pty) Ltd indicating that the area was mapped in detail in March 2021 by Riana Bate

The information was reported on to the MPTA, DWS (Department Water and Sanitation) and the EIA and EIR report for Emivista Mining 123 Pty Ltd - MP30/5/1/2/2/10302MR for an Application to mine coal on a high lying Portion of the Remaining Extent of the farm Roodepoort 151 IS, where measures to protect the indicated Sancor low lying pan and associated wetland areas was included
3. The indicated location at the proposed Mining permit MP13941MP is located within the Sancor game camp and wetland (water locked area every summer) as mapped by Geovicon Environmental (Pty) Ltd

The objection is thus also supported on the basis that your Mining permit application map (Reg 2 (2) map) for **MP30/5/1/1/3/13941MP** applied for, indicates that the applied for mining permit is located within the brown area (actual low laying pan outline as per MPTA i.e. wetland area)

As such your application is not acceptable and hence the objection as the area is not at least 100m away from the wetland area and any mining will thus negatively impact on the game drinking water actively used from the game drinking dam.

Yours Faithfully

Sancor (Pty) Ltd

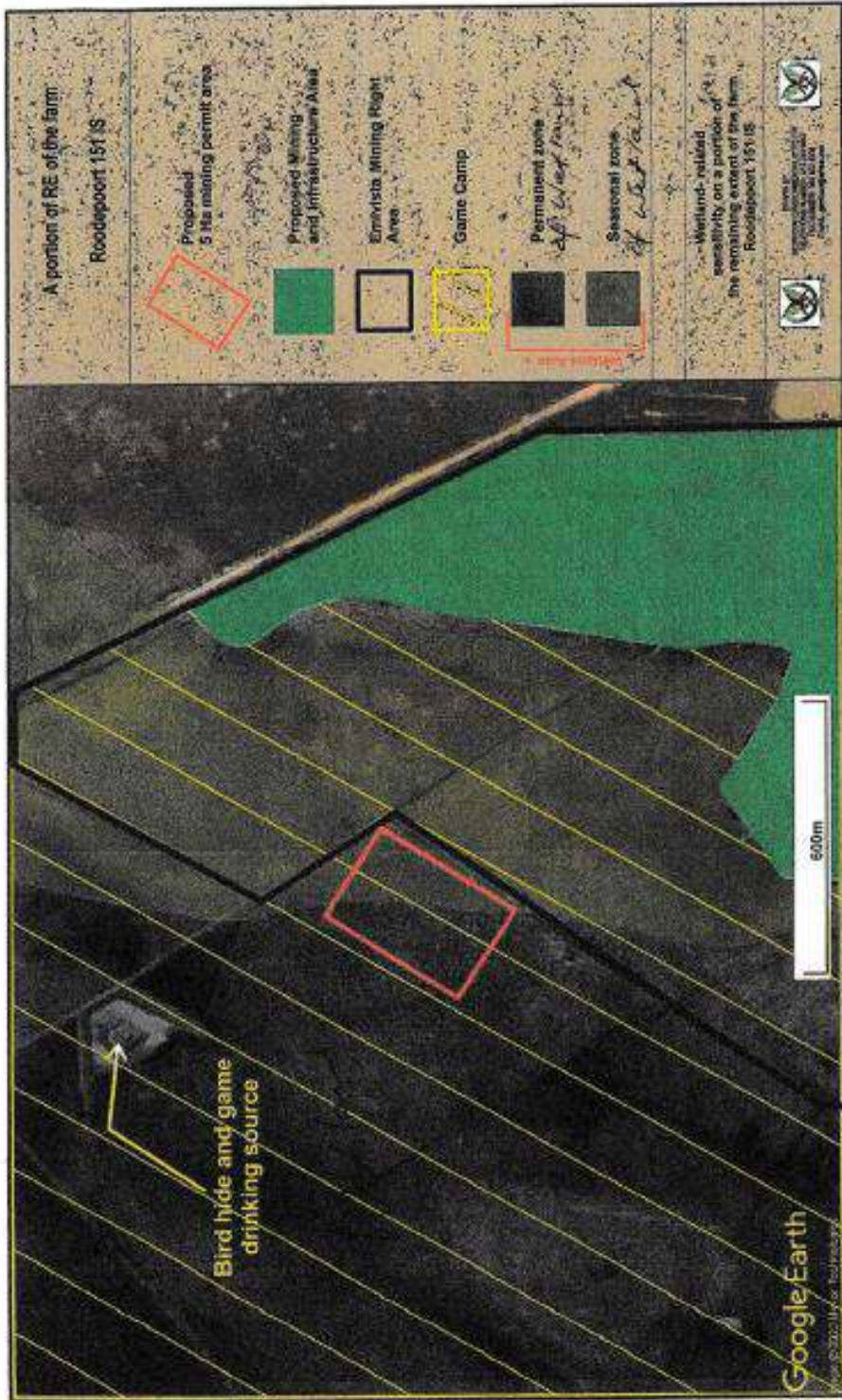


Figure 1: Wetland related sensitivity associated with the proposed 5Ha mining permit area

Managing Director: O. T. Shikwane (B.Sc. Honors); Directors: J.M. Boo (B. Sc. Nat.), M.Sc., T. G. Tefu (B. Sc.)

18 August 2023

Attention: SANCOR (Pty) Ltd

MINING PERMIT APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF STEVE TSHWETE IN MPUMALANGA PROVINCE (DMRE REF: MP 30/ 5/ 1/ 1/ 3/ 13941 MP).

Singo Consulting (Pty) Ltd on behalf of **Jaments (Pty) Ltd** wishes to inform you about a Mining Permit Application for the above-mentioned mineral on the above-mentioned property. **Jaments (Pty) Ltd** has applied for Mining Permit together with the Environmental Authorization (EA) in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA). This remaining proposed farm is situated in the Magisterial District of eMalahleni, Mpumalanga Province.

Singo Consulting (Pty) Ltd has been appointed as an independent **Environmental Assessment Practitioner (EAP)**. We are conducting a Basic Assessment process, if you have any comment(s) concerning the proposed project or terms and conditions you want to lay down, kindly fill the comment form below and register your comments and forward back to the PPP Officer (Innocent Monama), Environmental Assessment Practitioner (EAP), (Dr Kenneth Singo) using the contact details provided below by no later than 30-days upon the receipt of this letter.

You have been identified as the landowner of the remaining extent of the farm Roodepoort 151 IS. (kindly refer to attached WinDeed results on the page 3). Your comments are critical in decision making at the Department of Mineral Resources and Energy (DMRE) concerning the proposed project.

Should you have any queries regarding the proposed project, please do not hesitate to contact us on the contact details provided below.

Warm Regards.







Singo Consulting (Pty) Ltd

+27 13 692 0041

+27 76 2727 838
+27 72 081 9082

www.singoconsulting.co.za

www.singoconsulting.co.za

Office 870
5 Botatoka Street
Tasbet Park Ext 2
Witbank

+27 86 514 4933

Protect & manage the best remaining environment

I, _____ herewith acknowledge receipt of: One (1) copy of the letter entitled: mining permit application on a portion of the remaining portion 8 of the farm Driefontein 338 js. situated in the magisterial district of eMalahleni in Mpumalanga province, (DMRE REF: MP30/5/1/342/14232 MP).

Please comment and return to:

Physical address:	Office No. 870, 5 Botatoka Street, Tasbet Park Ext 2, eMalahleni 1040
Postal address	P/Bag X7214 Postnet Suite 125 Ben Fleur Witbank 1035
Tel No:	+27 13 6920 041
Cell No:	+27 67 826 4182
Fax No:	+27 86 5144 103
Email:	admin@singoconsulting.co.za kenneth@singoconsulting.co.za innocent@singoconsulting.co.za



Personal Details:

Full Names and Surname:					<i>SANCOR (PTY) LTD</i>				
Contact Details:									
Tel(w):		Tel(h):			Fax No:		Cell No:		
Email: <i>admin@sancor.co.za</i>									
Physical Address:									
Postal Address:									
Preferred method of communication: fax <input type="checkbox"/> e-mail <input checked="" type="checkbox"/> post <input type="checkbox"/> <i>All email only</i>									
Preferred telephonic communication: cell <input type="checkbox"/> home <input type="checkbox"/> work <input type="checkbox"/>									
Organisation/Representative:									
Farm name, number and subdivision or Street Address (if applicable):					<i>Remaining extent of Roodepoort 151 IS</i>				

1. What is your interest in the proposed project? E.g. Property Owner/ Lessee/ Tenant? Please provide details of the property.

Owner - Remaining extent of Roodepoort 151 IS



SANRAL



BUILDING SOUTH AFRICA
THROUGH BETTER ROADS

Reference: N11/1/R Contact Person: Mr. J Oliver
Date: 18 September 2023 Direct Line: +27 (0) 12 426 6200
Email: nratat@nra.co.za Website: www.nra.co.za

Singo Consulting (Pty) Ltd

By email: admin@singoconsulting.co.za

Dear Sir / Madam

**MINING PERMIT ON PORTION OF THE REMAINING EXTENT OF THE FARM
ROODEPOORT 151 IS**

DMRE REF: MP 30/5/1/1/3/13941 MP

The above-mentioned report prepared by Singo Consulting (Pty) Ltd and submitted to SANRAL for review and comment has reference.

The South African National Roads Agency SOC Limited (SANRAL) has no objection to the application as no national roads or interchanges under the jurisdiction of SANRAL will be affected.

Yours sincerely

STATUTORY CONTROL OFFICER: NORTHERN REGION

Northern Region 58 Mile Street, Menlo Park, 0801 | Postal Address: Private Bag 937, Louisa Road, 0800 | Tel +27 (0) 12 426 6200 Fax +27 (0) 12 426 1880
Email info@sanral.co.za | Visit us at www.sanral.co.za

Directors: Mr TB Mhambeni (Chairperson), Mr RL Demaria (CEO), Mr R Houwer, Mr TP Matsoa, Mr E Makhubela, Mr C Jacobs, Mr R Botha, Mr W Ncwane | Company Secretary: Ms A Mathew

Reg. No. 2005/00564/06. An agency of the Department of Transport.

Page 1 of 1



Innocent Manama
Singo Consulting
Office number 870, 5 Balalaika street
Tasbet Park Ext 2
Emalahleni
1040
Email: Innocent@singoconsulting.co.za
Tel: +27 67 828 4182

Date: 25 August 2023

Enquiries: Nondwe Khanye
Tel +27 53 830 5946

Our ref: LD-INV/E/NK/292/2023
Your ref: **30/ 5/ 1/ 1/ 3/13941 MP**

Dear Innocent

STAKEHOLDER INVITATION TO REVIEW & COMMENT ON MINING PERMIT AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION OF THE REMAINING EXTENT OF THE FARM ROODEPOORT 151 IS. REF NUMBER: 30/ 5/ 1/ 1/ 3/13941 MP

This notice affects the existing Eskom Distribution Powerlines,

KOMATI RURAL TEE-KOMATI 1 11KV LINE
KLIPCOAL-KJUDU 132KV LINE
KUDU-NASARET 132KV LINE

And the following Transmission Powerline

ARNOT-KRUISPUNT 275kV LINE

which traverse the proposed areas.

Eskom Distribution will raise no objection to the proposed development, provided Eskom's rights and services are acknowledged and respected at all times.

There is 9 and 15,5 meters building and tree restriction on either side of the Centre lines of the 11kV power line and 132kV powerline which must be adhered to in all future development and or construction. Eskom's rights are protected by servitude.

Further to the above the following conditions must be adhered to and **accepted in writing** before any construction procedures: -

1. Eskom Distribution shall at all times have unobstructed access to and egress from its services.
2. The applicant will adhere to all relevant environmental legislation. Any cost incurred by Eskom Distribution as a result of non-compliance will be charged to the applicant.
3. No construction or excavation work shall be executed within 11 metres from any Eskom power line structure, and/or within 11 metres from any stay wire.
4. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the applicant's activities or because of the presence of his equipment

Limanga Cluster Mpumalanga
Asset Creation
28 Ferreira Street Nelspruit 1200
P O Box 579 Nelspruit 1200 SA
Tel +27 13 755 9045 Fax +27 13 755 9660 www.eskom.co.za
Eskom Holdings SOC Ltd Reg No 200201542730



or installation within the servitude or wayleave area, the applicant shall pay such costs to Eskom on demand.

5. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's requirements.
6. Eskom Distribution shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the area where Eskom Distribution has its services, by the applicant, his/her agent, contractors, employees, successors in title and assigns.
7. The applicant indemnifies Eskom against loss, claims or damages including claims pertaining to interference with Eskom Distribution services or apparatus or otherwise. The applicant's attention is drawn to section 27(3) of the Electricity Act 1987, as amended in 1994, which stipulates that the applicant can be fined and/or imprisoned as a result of damage to Eskom's apparatus.
8. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the applicant must give at least seven working days prior notice of the commencement of work. The Eskom's authorised area representative for the Hendrina CNC: **Nathan Mbabane**, at **013 296 3457/ 072 423 5301** Email: MbalanN@eskom.co.za.
9. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued.
10. Under no circumstances shall rubble, earth or other material be dumped within the servitude or Way Leave restriction area. The applicant shall maintain the area concerned to Eskom's satisfaction. The applicant shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.
11. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).
12. Eskom may stipulate any additional requirements to illuminate any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.
13. Costs incurred by Eskom to comply with statutory requirements in terms of an applicant's (or his contractors) works, equipment or plant in the servitude area, shall be paid to Eskom on demand.
14. If for any reason the structure is required to be moved or dismantled the applicant will be responsible for the removal and/or possible re-location of the attachment.
15. No work may commence unless Eskom has received the applicant's written acceptance of the conditions specified in the letter of consent and/or permit and the approval is valid for a period of 60 days from date of letter.
16. The applicant or his / her contractor on site must at all times be in possession of the letter of consent. Should the site agent or contractor on site not be able to produce the required approval on inspection, all site activities will be stopped.
17. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with. **NOTE:** Where and electrical outage is required, at least fourteen workdays is required to arrange same.

LD-INV/ENK/2932023

18. Eskom Standard gates must be installed in the road reserve fence to ensure access to Eskom's services.

19. Statutory clearances as specified by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), Regulation 15 of the Electrical Machinery Regulations, shall be complied with.

Should the applicant or his contractor damage any of Eskom services during commencement of any work whatsoever, then Eskom's 24-hour Contact Centre Tel: **08600 37566** must be dialed immediately to report the incident.

Any relocation of Eskom's services, due to this construction, will be for the account of the Applicant. The Applicant will also be responsible for granting Eskom an alternative route for the power line. The Eskom Customer Contact Centre at **08600 37566** must be contacted in connection with any line deviation and costs.

Attached Annexes D (Letter of consent) and E (Indemnity Form) must be completed and returned to this office before commencement of any operations, maps indicating positions of Eskom Distribution services and Clearance standards.

We thank you and hope you will find the above in order. Should you have technical queries on the Eskom standards and specifications please feel free to phone our Asset Creation, Manager Design Engineering Marumo at Tel: +27 13 693 3735 or email: MarumoS@eskom.co.za

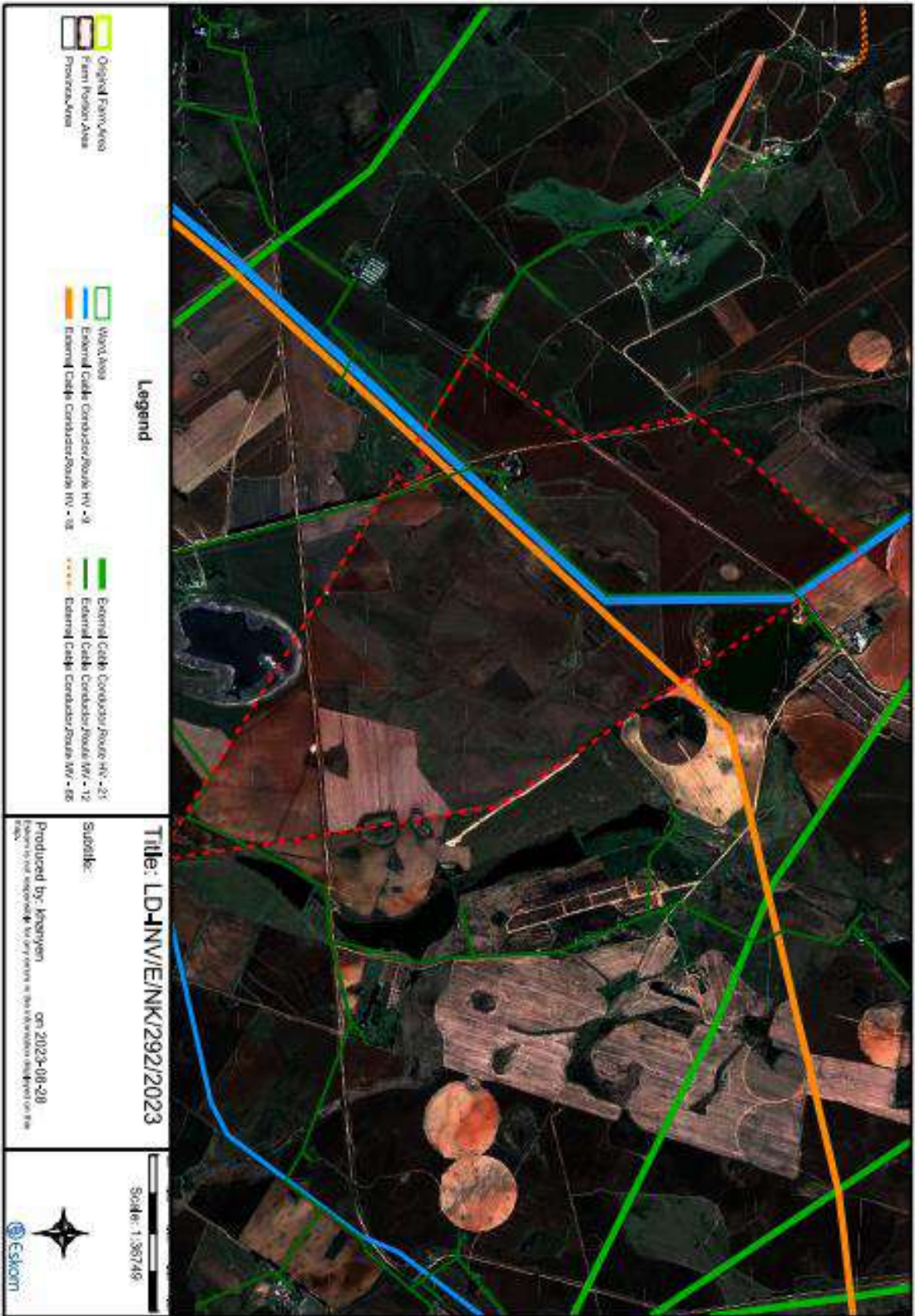
Yours sincerely



For Livhuwani Mashamba
MANAGER LAND DEVELOPMENT AND ENVIRONMENT

Cc: Senior Supervisor Hendrina CNC: **Nathan Mbabane,**

LD-INV/EINK/292/2023



Appendix 10: Minutes of Meetings

Appendix 11: EA form

Appendix 12: Screening

Appendix 13: Sensitivity Maps

