

HENLEY BOOYSEN

Background Information Document

PUBLIC PARTICIPATION PROCESS

PUBLIC PARTICIPATION PROCESS FOR AN APPLICATION FOR A MINING PERMIT FOR RED SOIL (RED GROUND). IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002), THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998); THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS 2014; THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008) AND THE NATIONAL WATER ACT 1998, (ACT 36 OF 1998).

NC30/5/1/3/2/10686MP

A portion of the farm Eureka 200 (4.95 ha)

Located in the Kimberley District, Northern Cape Province

Compiled by Ms. R.H. Oosthuizen

Wadala Mining and Consulting (Pty) Ltd

BACKGROUND INFORMATION DOCUMENT

1. INTRODUCTION

We hereby inform you that Henley Booyesen ("The applicant") has applied for a Mining Permit on "A portion of the farm Eureka 200 (4.95 ha) located in the Kimberley District, Northern Cape Province", Northern Cape Province.

The application was submitted to the Regional Manager, Department of Mineral Resources ("DMR") situated at 65 Phakamile Mabija Street, Kimberley, 8301 with contact number 053-807 1700. The mentioned application was accepted on 21 August 2018 and the prescribed Environmental Management Programme must be submitted in line with legislated time lines.

2. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

The purpose of this document is:

- To notify potential stakeholders of the application for a Mining Permit for Red Soil which was submitted to the Department of Mineral Resources (DMR) on 06 June 2018 and accepted on 21 August 2018 with Reference (NC)30/5/1/3/2/10686MP.
- Provide background information regarding the proposed Mining Permit application for Henley Booyesen.
- Invite potential stakeholders to register themselves as interested and affected parties and to raise issues of importance, share their input, comments and or concerns which will be incorporated into the Environmental Management Programme.
- To inform the Affected and Interested Parties of the requirements in terms of all Governing Legislation applicable to this process.

Henley Booyesen seeks to gather comments, suggestions, issues and concerns from all stakeholders.

3. A BRIEF OVERVIEW

Henley Booyesen ("The applicant") has applied for a Mining Permit on the above mentioned area situated in the Magisterial District of Kimberley, Northern Cape Province to mine for Red Soil.

The property is located 5 km outside of Kimberley and is situated between the N12 south and Landbou road to the south of Kimberley, Northern Cape, South Africa.

3.1 Proposed activity description

Sand will be excavated using a TLB and Front end loader and loaded onto Tipper Trucks as a marketable product.

3.2 Rehabilitation

On completion of the mining operation, the various surfaces, including the access road, the office area, storage areas and the mining area, will finally be rehabilitated as follows: All material on the surface will be removed to the original topsoil level where possible, and excavations sloped and made safe.

All infrastructures, equipment, and other items used during the operational period will be removed from the site.

On completion of operations, all buildings, structures or objects on the office site will be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002, which states:

Regulation 44:

1. *When a prospecting right, mining right, retention permit or mining permit lapses, is cancelled or is abandoned or when any prospecting or mining operation comes to an end, the holder of such right or permit may not demolish or remove any building, structure or object-*
 - (a) *which may not be demolished or removed in terms of any other law;*
 - (b) *which has been identified in writing by the Minister for purposes of this section; or*
 - (c) *which is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.*
2. *The provision of subsection (1) does not apply to bona fide mining equipment, which may be removed.*

○ Rehabilitation of the secured storage areas

On completion of the mining operation, the above areas will be cleared of any remaining contaminated soil which will be placed in acceptable containers and removed with the industrial waste to a recognized disposing facility or by a waste removal company.

All buildings, structures or objects in the secured storage areas shall be dealt with in accordance with regulation 44 of the Minerals and Petroleum Resources Development Act, 2002.

The surface will be ripped or ploughed to a depth of at least 300 mm, where possible, and the topsoil, previously stored adjacent the site, distributed evenly to its original depth over the whole area.

The site will be seeded with a vegetation seed mix adapted to reflect the local indigenous flora if necessary, and where practically possible.

Any other disturbed areas will be rehabilitated as described under the relevant activities.

- Mine residue deposits
 - Disposal facilities
Waste material of all description inclusive of receptacles, scrap, rubble and tyres will be removed entirely from the mining area and disposed of at a recognized landfill facility. It will not be permitted to be buried or burned on the site.
 - Ongoing seepage, control of rain water.
Monitoring of ground or surface water will take place during the mining phase if so requested by the DWS - Kimberley.
 - Long term stability and safety
It will be the objective of the mine to ensure the long term stability of all rehabilitated areas including the sloped and landscaped excavations. This will be done by the monitoring of all areas until a closure certificate has been issued.
 - Final rehabilitation in respect of erosion and dust control
Self-sustaining vegetation will result in the control of erosion and dust and no further rehabilitation is planned.
- Rehabilitation of dangerous excavations
Due to the removal of surface material, excavations could be created that can be classified as dangerous. All available material will be used during backfilling to avoid the existence of dangerous excavations.
- Final rehabilitation of opencast mine-haul ramps and roads and final voids
After rehabilitation has been completed, all roads will be ripped or ploughed, fertilized and seeded, providing the landowner does not want them to remain that way and with written approval from the Director Mineral Development of the Department of Mineral Resources.
- Submission of information
Reports on rehabilitation and monitoring will be submitted annually to the Department of Mineral Resources - Kimberley, as described in the NEMA regulations published 20 November 2015, Appendix 3.
- Maintenance (Aftercare)
Maintenance after closure will mainly concern the regular inspection and monitoring and/or completion of the re-vegetation programme.

The aim of this Environmental Management Plan is for rehabilitation to be stable and self-sufficient, so that the least possible aftercare is required.

The aim with the closure of the mine will be to create an acceptable post-mine environment and land-use. Therefore all agreed commitments will be implemented by the applicant.

○ After-effects following closure

- Acid mine drainage
No potential for bad quality leachate or acid mine drainage development exist after mine closure.
- Long term impact on ground water.
No after effect on the groundwater yield or quality is expected.
- Long-term stability of rehabilitated land
One of the main aims of any rehabilitated ground will be to obtain a self-sustaining and stable end result. As the excavations will be sloped and landscaped and will have long term stability.

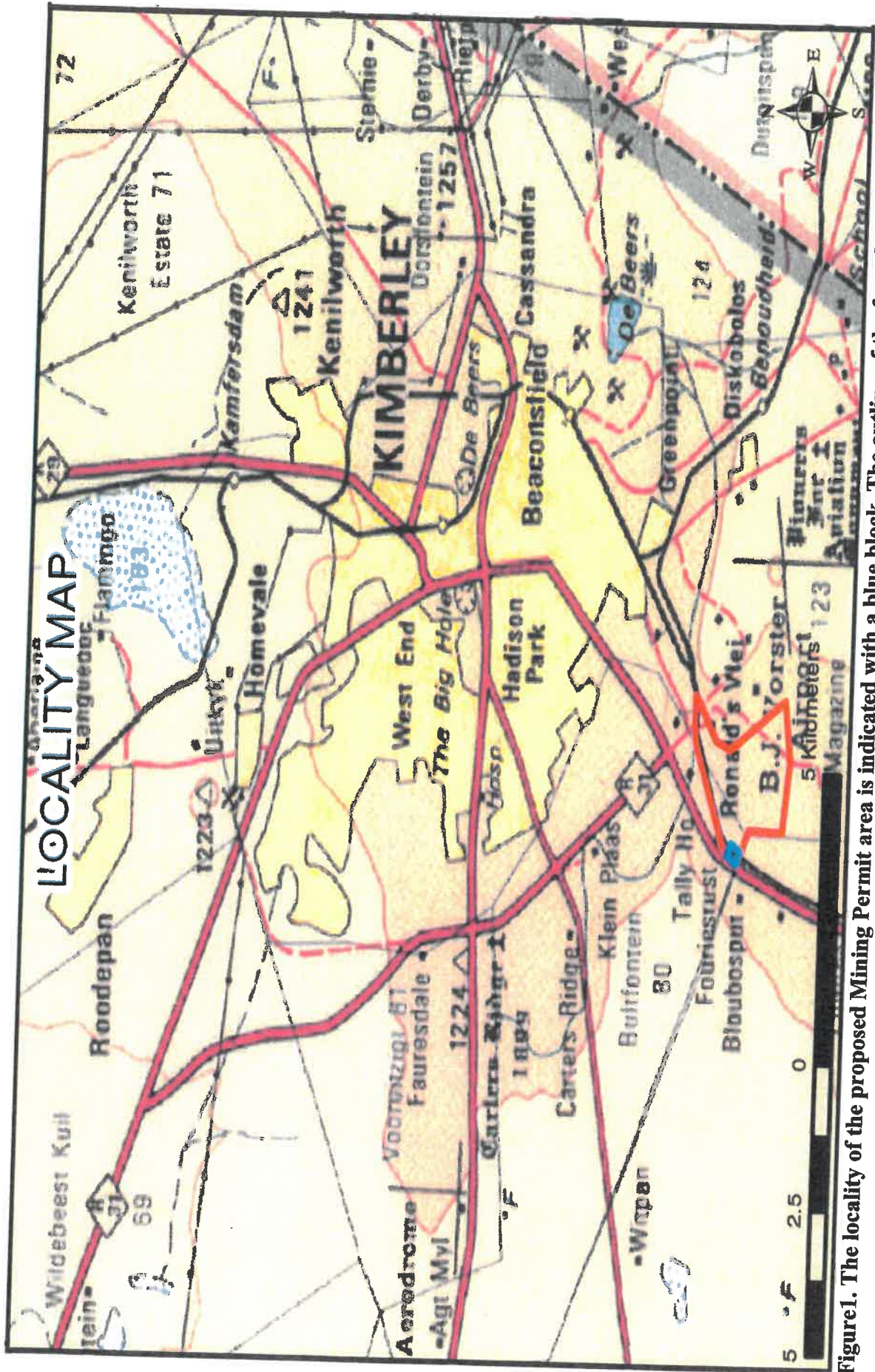


Figure 1. The locality of the proposed Mining Permit area is indicated with a blue block. The outline of the farm boundaries is in red.

3.3 Foreseen Environmental Impacts

3.3.1 Air quality deterioration

Source of the impact

Sources of atmospheric emissions associated with the mining operation are likely to include fugitive dust from materials handling operations if mining takes place and vehicle entrainment of gravel roads.

Description of the impact

During the construction and operation of the mining operation dust can be generated through the use of access roads and haul roads. Air pollution through vehicle entrainment is expected to be negligible due to the small scale of the project and dust suppression measures that will be implemented by the mine. Air pollution from exhaust fumes may also occur although limited mining equipment will be used in this operation.

3.3.2 Soil pollution

Source of the impact

Spillage of hazardous material; runoff.

Description of the impact

During the construction and operation of the mine, there is a possibility that equipment might leak oil, thus causing surface spillages. The hydrocarbon soil contamination will render the soil unusable unless they are decontaminated. The storage of fuels on site might have an impact on soil if the tanks that are available on site are not properly monitored and maintained to avoid leakages. Then there is the potential that contaminated soil can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Soil pollution is therefore possible, but through mitigation it can be minimised. The impact will have minimal severity and slight effect on extent.

3.3.3 Loss of soil fertility

Source of the impact

During the removal of topsoil; stockpiling.

Description of the impact

Improper stockpiling and soil compaction can result in soil sterilisation. Leaching can also occur, resulting in the loss of nutrients.

3.3.4 Soil erosion

Source of the impact

Construction of infrastructure; topsoil removal; potential runoff.

Description of the impact

The construction of infrastructure and facilities in the mining area can result in loss of soil due to erosion. Vegetation will be stripped in preparation for placement of infrastructure and excavations, and therefore the areas will be bare and susceptible to erosion.

The topsoil that is stripped and stockpiled on surrounding areas can be eroded by wind and rain. The soil may be carried away during runoff. The cleared areas will be rehabilitated, but full restoration of soils might only occur over a number of months, subsequent to the re-establishment of vegetation. Therefore the impact will have a moderate severity, throughout the duration of the mining operation.

3.3.5 Broad-scale ecological processes

Source of the impact

The construction of roads, as well as other necessary infrastructure; and the clearing of vegetation for mining.

Description of the impact

Transformation of intact habitat on a cumulative basis would contribute to the fragmentation of the landscape and would potentially disrupt the connectivity of the landscape for fauna and flora and impair their ability to respond to environmental fluctuations. Due to the small size of the operation in the area, this impact should be negligible due to the small scale of the project.

3.3.6 Changes to surface topography

Source of the impact

Development of infrastructure and excavations.

Description of the impact

The infrastructure and stockpiles will alter the topography by adding features to the landscape. Topsoil removal and mining will unearth the natural topography. The impact will be definite if mining is approved and the operation continues.

3.3.7 Visual impacts

Source of the impact

The construction of mining infrastructure, excavations and dust.

Description of the impact

Visual impact of the mining infrastructure, excavations and visibility of dust.

3.3.8 Traffic

Source of the impact

The amount of vehicles will increase with the mining in the area.

Description of the impact

Potential negative impacts on traffic safety and deterioration of the existing road networks.

3.3.9 Heritage resources

Source of the impact

The mining operations can mine through or destroy sites of cultural and heritage importance.

Description of the impact

The deterioration or destruction of sites of cultural and heritage importance

3.3.10 Socio-economic

Source of the impact

The mining operation can create various job opportunities for local people. The mine can also destroy the land capability and land use while mining.

Description of the impact

Loss of potential for the area; influx of workers to the area increases health risks and loitering (resulting in lack of security and safety); negative impact of employment loss during closure.

3.3.11 Interested and affected parties

Source of the impact

The setting up of a Mining operation for Red Soil on "A portion of the farm Eureka 200 (4.95 ha) Located in the Kimberley District, Northern Cape Province".

Description of the impact

Loss of trust and a good standing relationship between the IAPs and the applicant.

3.3.12 Land capability

Source of the impact

Red Soil mining operation.

Description of the impact

Loss of land capability through topsoil removal, disturbances and loss of soil fertility if the mining operation starts.

3.3.13 Land use

Source of the impact

Red Soil mining operation.

Description of the impact

Loss of land use due to poor placement of surface infrastructure and ineffective rehabilitation.

3.3.14 Ground water

Source of the impact

Potential chemical spills if the mining operation continues to mine.

Yellow fleet servicing and tire replacement workshop – Potential diesel and lubricant spills.

Operating of the Wash bay as well as silt trap and oil separator – Potential contaminated water and chemical spills.

Yellow fleet parking area – Potential diesel and lubricant spills.

Septic tank and soak-away systems – Potential infiltration of contaminants through substrata.

Description of the impact

Possible Pollution of underground water sources. Construction of measures to prevent seepage into the groundwater by biological and engineering means. Implementation of the necessary management programs to ensure the integrity of ground water resources will minimise the impact.

3.3.15 Surface water

Source of the impact

Potential chemical spills due to mining operations.

Yellow fleet servicing and tire replacement workshop – Potential diesel and lubricant spills.

Operating of the Wash bay as well as silt trap and oil separator – Potential contaminated water and chemical spills.

Yellow fleet parking area – Potential diesel and lubricant spills.

Description of the impact

During the construction and operation of the mining operation, there is a possibility that equipment might leak oil, thus causing surface spillages. The storage of fuels on site might have an impact on surface water if the containers, tanks that are available on site are not properly monitored and maintained to avoid leakages. There is the potential that contaminated soil can be carried through runoff to contaminate water resources and soil stockpiled for rehabilitation. Surface water pollution is therefore

possible, but through mitigation it can be minimised. The impact will have minimal severity and slight effect on extent.

3.3.16 Disturbance, displacement and killing of fauna

Source of the impact

Vegetation clearing; increase in noise and vibration; human and vehicular movement on site resulting from the mining activities.

Description of the impact

The transformation of natural habitats due to mining and associated infrastructure will result in the loss of habitat affected individual species, and ecological processes. In turn this will result in the displacement of faunal species dependent upon such habitat. Increased noise and vibration due to mining activities will disturb and possibly displace birds and other wildlife. Moving vehicles take a heavy toll in the form of road kills of small mammals, birds, reptiles, amphibians and a large number of invertebrates.

3.3.17 Fauna Loss, damage and fragmentation of natural habitats

Source of the impact

Clearance of vegetation; mining activities.

Description of the impact

The construction of the mining and associated infrastructure will result in the loss of connectivity and fragmentation of natural habitat. Fragmentation of habitat will lead to the loss of migration corridors, in turn resulting in degeneration of the affected population's genetic make-up. This results in a subsequent loss of genetic variability between meta-populations occurring within the study site. Pockets of fragmented natural habitats hinder the growth and development of populations.

3.3.18 Encouragement of bush encroachment

Source of the impact

Clearing of vegetation; disturbances through mining activities.

Description of the impact

The possibility exists that bush encroaching species can multiply as a result of the disturbance interference in the natural ecosystem. While general clearing of the area and mining activities destroy natural vegetation, bush encroaching plants can increase due to their opportunistic nature in disturbed areas. If encroaching plants establish in disturbed areas, it may lower potential for future land use and decrease biodiversity. With proper mitigation, the impacts can be substantially reduced.

3.3.19 Proliferation of alien vegetation

Source of the impact

Clearing of vegetation; mining activities.

Description of the impact

The extent of alien invasive species in the area can increase as a result of the mining in the natural ecosystem. While general clearing of the area and mining activities destroy natural vegetation, invasive plants can increase due to their opportunistic nature in disturbed areas. If invasive plants establish in disturbed areas, it may cause an impact beyond the boundaries of the mining site. These alien invasive species are thus a threat to surrounding natural vegetation and can result in the decrease of biodiversity and ecological value of the area. Therefore, if alien invasive species are not controlled and managed, their propagation into new areas could have a high impact on the surrounding natural vegetation in the long term. With proper mitigation, the impacts can be substantially reduced.

3.3.20 Loss of flora with conservation concern

Source of the impact

Removal of listed or protected plant species; during the construction of roads, as well as other necessary infrastructure; the placement of stockpiles; and the clearing of vegetation for mining.

Description of the impact

It is possible that protected species will be destroyed during the mining operation.

3.3.21 Loss of, and disturbance to indigenous vegetation

Source of the impact

The construction of roads as well as other necessary infrastructure; the placement of stockpiles; and the clearing of vegetation for mining, materials storage and topsoil stockpiles; vehicular movement.

Description of the impact

Construction and mining activities on site will reduce the natural habitat for ecological systems to continue their operation. It is not expected that the areas of high ecological function will rehabilitate following disturbance events. Vehicle traffic generates lots of dust which can reduce the growth success and seed dispersal of many small plant species.

3.3.22 Noise and vibration:

Source of the impact

Noise generated by the vehicles and mining equipment.

Description of the impact

Mining for Red Soil may increase continuous noise levels; the disruption of current ambient noise levels; and the disruption of sensitive receptors by means of increased noise and vibration. This is particularly relevant to IAPs that reside in close proximity to the Mining site and mining location.

3.3.23 Land use:

Source of the impact

Mining for Red Soil.

Description of the impact

Loss of economic function of disturbed area during mining activities and potential loss of land capability post mining (limited to the mining areas).

3.4

Listed Activities applied for in terms of the National Environmental Management Act, 1998 Act 107 of 1998 (NEMA)
Table 1: Listed and Specified Activities

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE (GNR 544, GNR 545 or GNR 546)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
<p>(E.g. for prospecting – drill site, site camp, ablation facility, accommodation, equipment storage, sample storage, site office, access route, etc. ... etc. ... etc. E.g. for mining – excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablation, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc. ... etc. ... etc.)</p> <p>Activity 21 of NEMA Listing Notice 1 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, 202 (Act No. 28 of 202), including associated infrastructure, structures and earthworks directly related to the extraction of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 202 (Act No. 28 of 2002).</p>	4.95ha	X	GNR 983	
<p>Activity 24(ii) of NEMA Listing Notice 1 The development of haul roads 15m wide with no reserve</p>	±1500m ² on the Area.	X	GNR983	
<p>Activity 56(ii) of NEMA Listing Notice 1 The continuous lengthening (and rehabilitation) of haul roads 15m wide with no reserve</p>	±1500m ² on the Area.	X	GNR983	

<p>Activity 27 of NEMA Listing Notice 1</p> <p>The clearance of an area of 1 hectare or more, but less than 20 ha of indigenous vegetation</p>	<p>A total of 4.95 hectares will be physically disturbed were the Red Ground material will be removed.</p>	<p>X</p>	<p>GNR983</p>	
<p>Activity 15 of Category A under the National Environmental Management: Waste Act 59 of 2008</p> <p>The continuous establishment and reclamation of temporary stockpiles resulting from activities which require a mining permit.</p>	<p>1225m² (35m X 35m block)</p>		<p>GNR 633</p>	<p>X</p>
<p>OTHER ACTIVITIES (Associated infrastructure not considered to be listed activities)</p> <p>Temporary Workshop Facilities</p> <p>Storage Facilities</p> <p>Concrete Bund walls and diesel Depots</p> <p>Ablution Facilities</p>	<p>±400m²</p> <p>±400m²</p> <p>±250m²</p> <p>±25m²</p>		<p>NOT LISTED</p>	

3.5 Decommissioning phase/ Closure Period:

The decommissioning phase will only commence once all the mining is completed. During decommissioning all erected structures, e.g. chemical toilets, fences on demarcated areas, equipment and access roads on permission of the surface owners will be rehabilitated to their previous state. Rehabilitation will be done concurrently with the mining and only limited outstanding work will be necessary when mining is ceased.

4 CONCLUSION

It is clear that the destruction of the natural habitat in the mining area is inevitable and that there would be both positive and negative impacts related to the mining activities. The significance of these impacts will however be determined by the success of the mitigation measures that will be implemented by mine management in line with the Approved Environmental Management Programme.



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