mineral resources

Department:
Mineral Resources
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 ACTIVITES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMMENDED)

NAME OF APPLICANT:	**MOSITO MINING (PTY) LTD**
TEL NO:	**083 255 8816**
FAX NO:	**086 607 4721**
POSTAL ADDRESS:	**PO Box 1631, Kimberley, 8300**
PHYSICAL ADDRESS:	**65 Boshof Road, Ernestville, Kimberley**
FILE REFERENCE NUMBER SAMRAD:	**FS 30/5/1/3/2/10201 MP**

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1. IMPORTANT NOTICE:

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

Unless and Environmental Authorization 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 EIA Regulations, 2014, any report submitted as part of an application must be prepared in terms of section 17(1)(c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of application.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorization 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 Authorization 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 gathered 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 the applicant.

2. 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 content within which the proposed activity is located and how the activity complies with the responds to the place 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 –
  (aa) can be reversed

  (bb) may cause irreplaceable loss of resources; and

  (cc) 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 manage and monitored.

PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Contact person and correspondence address

1.1 Details of

1.1.1 Details of the EAP

Name of the Practitioner: Lindie Wiehahn
Tel no: 072 141 4164
Fax No: 086 606 6315
e-mail address: lindie@liwico.co.za

1.1.2 Expertise of the EAP

1.1.2.1 The qualification of the EAP

Current qualifications in this field were obtained through short courses at the University of Potchefstroom, which is the following:

- Introduction to Environmental Management (2002)
- Environmental Impact Assessment (2002)
- The Legal Framework for Managing Water in South Africa (2002)

1.1.2.2 Summary of the EAP's past experience.

(In carrying oath the Environmental impact Assessment Procedure)

During the year 2002 Lindie assisted with two Environmental Impact Assessments for a Golf Course development in Modder Rivier (today known as the Magersfontein Memorial Golf Course) and a Cottage development on the farm Avoca in the Douglas district. Later the same year she successfully completed her first sole Environmental Impact Assessment for the development of a filling station on the N12 at Warrenton.

Lindie was employed since then as an Environmental Consultant. Experiences obtained during these years were the drafting of Environmental Management Programmes, Environmental Management Programme Reports, Environmental Monitoring and Compliance Reports and Environmental Risk Reports. She also conducted several Environmental Impact Assessments for Mining Rights on La Reysstryd 53 IO, Lichtenburg (2004), Longlands, Barkly West (2004) and Lohatlha 673, Postmasburg (2009, 2011) and on the farm Groot Derm 10, Alexanderbay (2012).

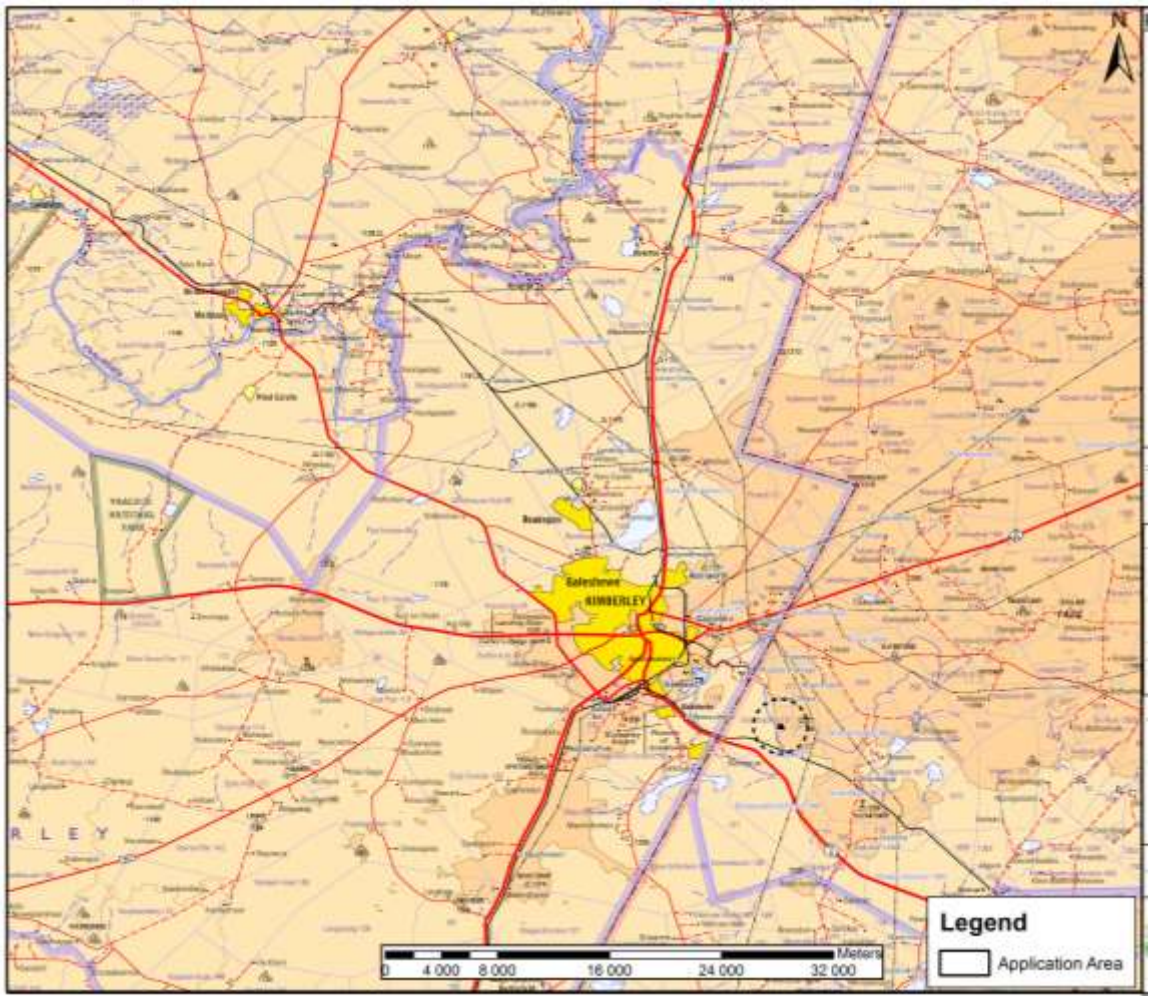
The latest EIA conducted under the new DMR and NEMA regulations is Roodepan 70 (2015).

2. Location of the overall Activity

Farm Name	A certain piece of land on the Remainder of the farm Du Toitspan 119 (now Rooifontein 1722)
Application area (Ha)	5 ha (Five hectares)
Magisterial district:	Boshoff
Distance and direction from nearest town	The proposed mining area is located within the Tokologo District Municipality of the Free State Province and lies approximately 5 km south-east of Kimberley. The site is accessed via a series of gravel roads that turn off from the R64.
21 digit Surveyor General Code for each farm portion	F00400000000011900000

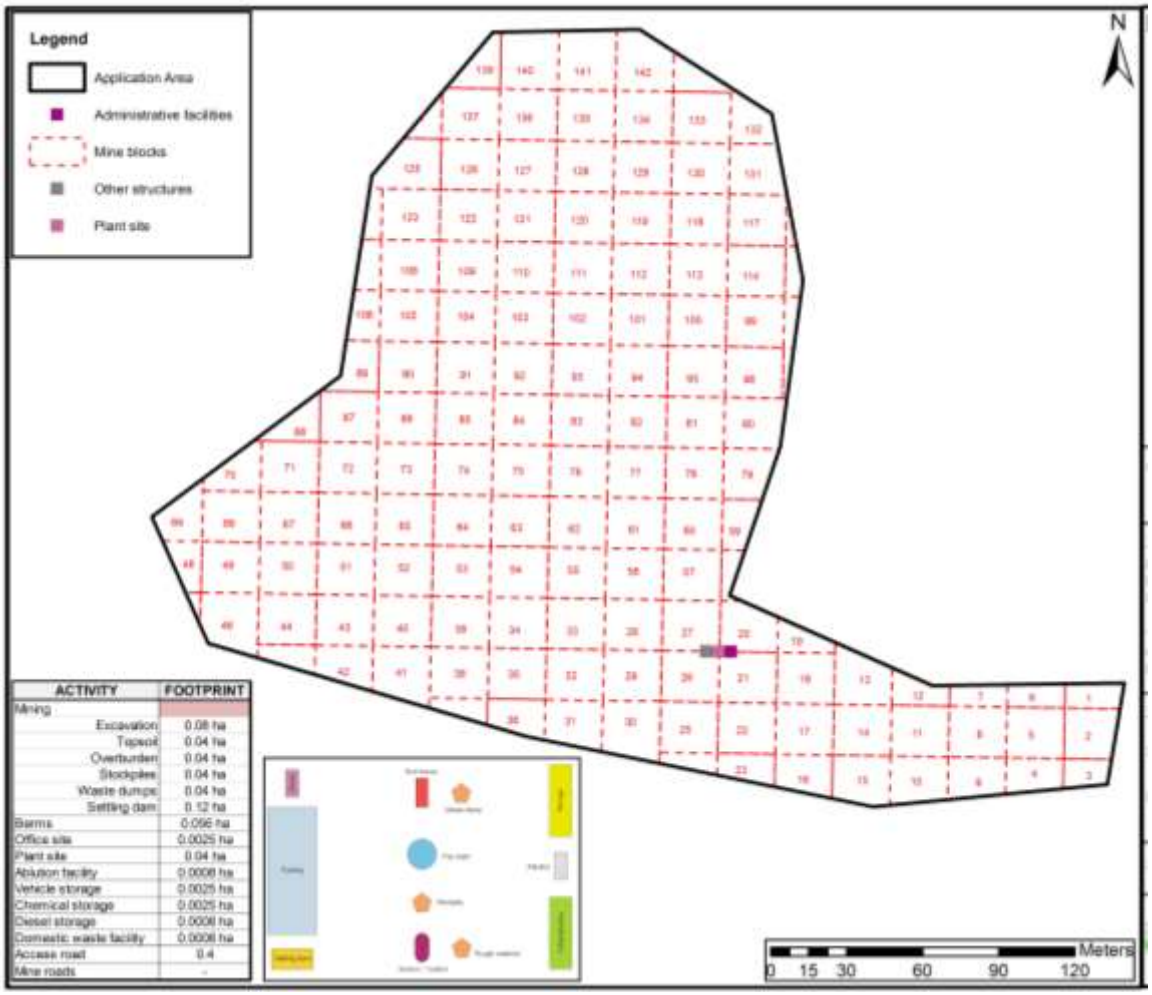
3. Locality map

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



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) of all the aforesaid main and listed activities, and infrastructure to be placed on site)



4.1 Listed and specified activities

NAME OF ACTIVITY **(E.g. For prospecting –** drill site, site camp, ablution 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, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors **etc … etc … etc.)**	ARIAL EXTENT OF THE ACTIVITY HA OR M²	LISTED ACTIVITY **Mark with an X where applicable or affected.**	APPLICABLE LISTING NOTCE **(GNR 544, GNR 545 or GNR 546)**
Mining	5 ha		
Excavation	0.08 ha	X	NEMA GNR 983, Listed 1, Activity 21
Topsoil	0.04 ha	X	NEMA GNR 983, Listed 1, Activity 21
Overburden	0.04 ha	X	NEMA GNR 983, Listed 1, Activity 21

Stock piles	0.04 ha	X	NEMA GNR 983, Listed 1, Activity 21
Waste dumps	0.04 ha	X	NEMA GNR 983, Listed 1, Activity 21
Settling dams	0.12 ha	X	NEMA GNR 983, Listed 1, Activity 21 NEMA GNR 983, Listed 1, Activity 25 NEMWA GNR 921, Category A, Activity 18 (a) (c)
Demarcation berms	0.056 ha		NEMA GNR 983, Listed 1, Activity 21
Office site	0.0025 ha	X	NEMA GNR 983, Listed 1, Activity 21
Plant site	0.04 ha	X	NEMA GNR 983, Listed 1, Activity 21
Ablution Facility	0.0008 ha	X	NEMA GNR 983, Listed 1, Activity 21
Vehicle storage	0.0025 ha	X	NEMA GNR 983, Listed 1, Activity 21
Chemical storage	0.0025 ha	X	NEMA GNR 983, Listed 1, Activity 21
Diesel storage	0.0008 ha	X	NEMA GNR 983, Listed 1, Activity 21
Domestic waste facility	0.0008 ha	X	NEMA GNR 983, Listed 1, Activity 21 NEMWA GNR 921, Category B, Activity 1 (b)
Access road	0.4 ha	X	NEMA GNR 983, Listed 1, Activity 21
Mine road		X	NEMA GNR 983, Listed 1, Activity 21

4.2 Description of the activities to be undertaken

(Describe Methodology or technology to be employed, including the type of commodity to be prospected / mined and for a linear activity, a description of the route of the activity)

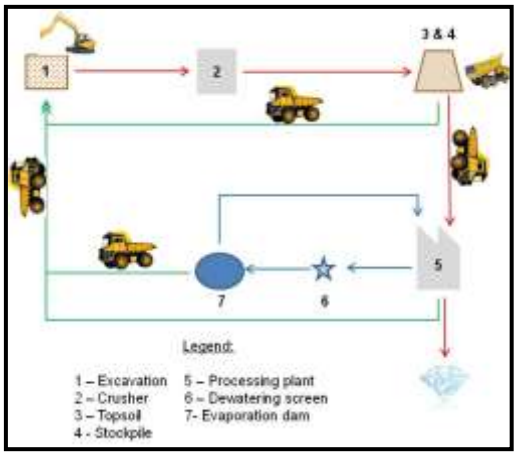
- Construction

  During the construction for the mining operations will an area of 20 x 25 m be cleared for the plant, storage and office sites. These sites will be also be clearly demarcated as well as the different structures.

  Attached to this document within the Proposed Mine Layout plan the location of such structures is indicated, but the actual location of such structures can only be determined once the right has been issued and an in-depth environmental study conducted to ensure the lease environmental damage possible.

- Operational

  During the operational phase a block of 20 x 10 x 5 m will be taken and the material removed and processed to remove all possible diamonds. The following methodology process will be implemented to ensure cost effective mining activities as well as successful rehabilitation:



  - The material removed is screened and transported to the processing plant.

  - At the processing plant is the gravel washed in a rotating pan to obtain a concentrate of heavy material. The lighter material is discarded with the puddle, which is a by-product of diamond recovery processes and treated with a dewatering screen. The waste materials will be used for the backfilling of the excavation, while the excess water is recycled and sored within a settling dam

  - The concentrate obtained from the washing plant is now being treated at the sorting/recovery plant where all diamonds are recovered and the surplus used for further backfilling purposes.

  - After all backfilling occurred the settled materials from the settling dam is used as an overburden and topsoil which will be evenly spread over the disturbed area as well as backfilled area to finalize the rehabilitation

  - Continuous inspections to the rehabilitated area will be conducted to monitor the re-vegetation rate as well as to remove all invader/pioneer plant species that may also establish themselves in the area.

- Decommissioning

  Once the mining activities have been completed the mine will start with the decommissioning and closure phase. During such will all infrastructure and equipment be removed and the compacted ground ripped and rehabilitated. Also will all the mine roads and trampled areas be ripped, rehabilitated and inspected for vegetation re-growth.

5. Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (a description of the policy and legislative contect within which the development is proposed including an identification of all legislation, policies, plants, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process)	**REFERENCE WHERE APPLIED**	**HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLTATION AND POLICY CONTEXT.** (E.g. In terms of the National Water Act a Water Use License has / has not been applied for)
No person may … mine … for and produce any mineral … or commence with any work incidental thereto on any area without – a …. Mining permit…	Section 5 (4)(b) of Act 28 of 2002 (MPRDA, 2002 read together with Section 5A (b) of Act 49 of 2008 (MPRDA, 2008)	An application has been lodged with the Department of Mineral Resources.
No person may … mine … for and produce any mineral … or commence with any work incidental thereto on any area without – an approved environmental management programme or approved environmental management plan, …	Section 5 (4)(a) of Act 28 of 2002 (MPRDA, 2002)	This document serves as the Basic Environmental Assessment and Environmental Management Programme
An environmental impact assessment report must contain all information that is necessary for the competent authority to consider the application and to reach a decision contemplated in regulation 35, an must include - …	Regulation 31(2) of Act 107 of 1998 (NEMA, 1998)	These guidelines and provided template is used in conducting this assessment.
A person who is required or wishes to obtain a license to use water must apply to the relevant responsible authority for a license	Section 40(1) of Act 36 of 1998 (NWA, 1998)	Water use license is in the process of being applied for
Waste resulting from … Mining … and physical ... treatment of minerals	Section 18 (Category A) of Act 26 of 2014 (NEMWA, 2014)	In the process of conduction the Basic Environmental Assessment and Environmental Management Programme

6. Need and desirability of the proposed activities

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

The proposed project is situated approximately 5 km south-east of Kimberley and includes geological indicated diamondiferous alluvial gravel bodies.

The Kimberley area and surrounding farms are generally known for its diamondiferous kimberlite and alluvial bodies. Kimberley is a community with an average to high unemployment percentage and elevated crème levels. Development of a mine can and will aid in employment opportunities within the direct vicinity as well as economic growth.

7. Motivation for the overall preferred site, activities and technology alternative

The proposed project area is demarcated to include the alluvial bodies as well as enough space for the construction of the offices and processing plant. An alternative office and/or plant site will result in the transportation of dump material creating more noise disturbance and possible air quality loss.

The activities and technology used is planned and designed to create and cause the minimal disturbance possible. Working hours is also kept within standard office hours for the purpose of minimizing noise disturbance.

No to the alternatives in regard to preferred site, activities and technology is considered as the current planning is the best possible option at this stage to ensure minimal environmental disturbance and cost effected mining operations.

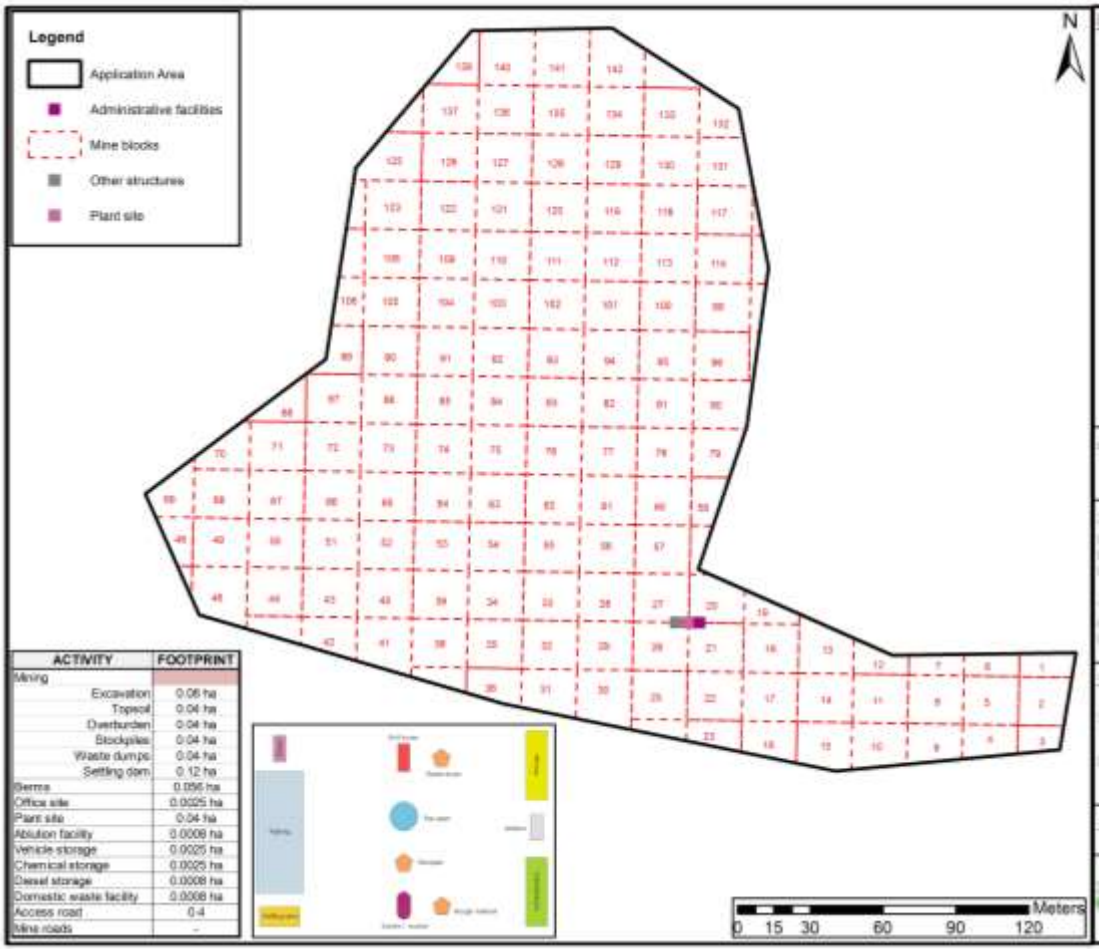
8. Full description of the process followed to reach the proposed preferred alternatives within the site

NB!! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties and the consideration of alternatives to the initially proposed site layout.

8.1 Details of the development footprint alternatives considered

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

8.1.1 the property on which or location where it is proposed to undertake the activity
8.1.2 the type of activity to be undertaken
8.1.3 the design or layout of the activity
8.1.4 the technology to be used in the activity
8.1.5 the operational aspects of the activity; and
8.1.6 the option of not implementing the activity



ACTIVITY	FOOTPRINT
Mining	
Excavation	0.06 ha
Topsoil	0.04 ha
Overburden	0.04 ha
Stockpiles	0.04 ha
Waste dumps	0.04 ha
Settling dam	0.12 ha
Berms	0.056 ha
Office site	0.0025 ha
Plant site	0.04 ha
Ablution facility	0.0008 ha
Vehicle storage	0.0025 ha
Chemical storage	0.0025 ha
Diesel storage	0.0008 ha
Domestic waste facility	0.0008 ha
Access road	0.4
Mine roads	-

All of the following mining and mining related activities will occur and have its specified footprint within the project area as applied for at the Department of Mineral Resources.

- Mining excavation
  - One block of 20 x 10 x 5 m is proposed and situated as determined during the mine planning activities during the construction phase

  - The technology used in this activity will be excavators, screens and dumper trucks to transport the excavated material from the excavation to the plant site

  - Diamondiferous gravel is excavated for mining purposes. The topsoil and overburden is removed where necessary and stored near the excavation for easier rehabilitation activities. The gravel is excavated, screened and transported to the plant site for mineral processing and diamond recovery

  - This activity is the most critical part of the proposed mining activities and therefore the option of not implementing the activity cannot be considered. Alternatives considered as a best practice is to decrease the excavation size during the mining operations.

- Topsoil and overburden dumps
  - All topsoils and overburden material removed is stored in close proximity of the excavation for rehabilitation purposes.

  - No technology will be used in this activity other than dumper trucks transporting the material from the excavation and back during rehabilitation

  - It this activity is not implemented mining activities cannot continue, loss of seed bed and/or rehabilitation activities haltered. For this reason the option of not implementing the activity cannot be considered.

- Stockpiles
  - All gravel material removed and screened will be stockpiled close to the processing plant site for optimal operations.

  - No technology will be used in this activity other than dumper trucks transporting the material to the stockpile and front-end loaders feeding the plant.

  - If this activity is not implemented mining activities cannot continue fluently affecting the cost effectiveness of the mining operations. For this reason the option of not implementing the activity cannot be considered.

- Waste dumps
  - Waste rock will be hauled from the various mining processes and stored separate from the stock dumps, but still in the same region. The specific design of this activity is dependent on the amount of waste rock generated during the activities.

  - No technology will be used within this activity and this in only the storing of waste rock material

  - The operational aspects of the activity is the storing of waste rock till the removal thereof, usage in mining related features or rehabilitation of excavated areas.

  - The option of not implementing the activity is ruled out by the fact that waste rock is a by-product of any mining operation and must be stored till usage or rehabilitation of the mining areas.

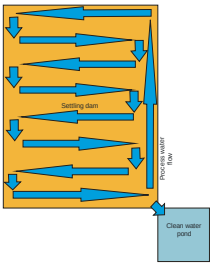
- Settling dams

  The settling dam are located near the plant site for efficient water flow and use. This dam forms a unit for water recycling to ensure relative clean water for the mineral processing activities.

  The design of the dam is engineered in such a way that water overflow and settlement of suspended materials is ensured. At the end of the dam water is released by means of a penstock into a ‘storage system’ from where it is re-used in the processing operations.

- Old dump material is used as the construction material for this dam. Water from the various activities will be pumped into the dam from where it follows a 'labyrinth' pathway.

- The primary operational aspect of the activity is to clean the waste water that resulted from the mineral processing activities. Water is pumped into the settling dam. All suspended materials settle during the course of the 'channels' within the dam delivering clean water that is related to the 'storage facility'. The channels within the settling dam will be cleaned on a regular basis and the settled material used form covering material (topsoil) where necessary.



  The ultimate result of this activity is water recycling minimizing water use from the water resource as well as minimizing the ultimate footprint of the settling dams.

- Various design alternatives to this activity exist and is implemented on diamond mining operations. The specific design of this activity is currently the best design for small scale activities and any alternative design may result on bigger activity impacts on the environment.

  Should the option of water reticulation be eliminated the recycling of water is not possible resulting in bigger slimes dams and a more difficult rehabilitation as well as a 100% use of source water. To ensure cost effective mining with minimal environmental impact the option of not implementing the activity is eliminated from the mine planning operations.

- Office site
  - The office block will be installed and have and approximate footprint of 0.0025 ha. This site will house several units including general office, mine health and safety office and first aid room

  - The office site will be mobile offices fitted with relevant equipment/furniture for its specific task.

  - All administrative activities, storing of files, mine financials and discussions will be occurring within this facility.

  - The best option is to keep the offices within the mine premises for proper managing, activity regulation, accident and damage control as well as optimizing productivity. However with Rooifontein being a wildlife club, having activities such as game culling, hunting activities and recreational, it is rather proposed that the offices site and administrative facilities are situated within the Kimberley town. This will further minimize possible impacts occurring with the mining activities.

- Plant site
  - The processing plant site (approzimately 0.04 ha in footprint) shat not be formally demarcated, but demarcated with berms to indicate the allowed area for movement. Equipment used within this site will be installed in an almost inline manner for sufficient and effective mineral processing operations.

  - The technology used for the mineral processing area: 12ft diamond rotating pan, conveyors, scrubber, dewatering screen, slurry pump and recovery plant.

  - The stock material is loaded into a feeder bin, which feeds the diamond rotating pan. A concentrate of heavy materials is obtained and tapped on specific time schedules. This concentrate is then treated / sorted within the recovery plant and the diamonds removed.

    The slurry obtained from the diamond rotating pans is treated within a dewatering screen and then further treated within the settling dams for recycled use. The solid material derived from the dewatering screens is stored on the waste dump.

  - The option of not implementing this activity is regarded as a no-go, as this activity is one of the core processes in any diamond mining operations.

- Ablution facility
  - Two chemical toilet facilities (with a total footprint of approximately 0.0008 ha) separating male and female employees, will be installed on site.

  - Contractual agreements will be made and basic flushing chemical toilets installed. Within the female facility will sanity bins be provided for their specific needs and emptied on a daily bases.

  - These facilities are to support the sanitation protocol of the mine. These facilities will be readily available for personal use as needed.

  - The implementation of this structure and related activities is absolutely compulsive and enforced by the Basic Conditions of Employment Amendment Act, 2013 (Act 20 of 2013) in conjunction with the Basic Conditions of Employment Act, 1997 (Act 75 of 1997), Basic Conditions of Employment Amendment Act, 2002 (Act 68 of 2002) and Basic Conditions of Employment Amendment Act, 2003 (Act 52 of 2003)

- Vehicle storage
  - The parking area approximately 0.0025 ha) will be situated next to the office block and storage area. The area will be also cleared of all vegetation, leveled and parking zones demarcated either with berms or waste rock.

  - Drip pans will also be readily available for vehicles during off-time. No other technologies will be used during this activity

  - The parking area will be sectioned and demarcated for the various activities. All mine vehicles, visitors' vehicles, employee vehicles and heavy vehicles will be parked in this area within their different sections. All vehicles will however be required to adhere to the reversed parking policy for the safety of all vehicles in the case of an emergency.

  - Should this activity not be implemented pollution and chemical spill control cannot be optimally managed as well as the informal parking of other normal vehicles can lead to difficult driving environment for heavy vehicles. For this reason and legislative requirements this activity cannot be excluded as a Mining related activity and thus planned to be implemented during the construction phase of the mining activities.

- Chemical storage
  - The storage facilities (approximate footprint of 0.0025 ha) are situated at the administrative portion of the mine. This is to ensure access control and regulation of chemical handling. The facility should be well ventilated construction with the ability to be locked.

  - Ventilation in this facility will be ensured through adequate roof ventilation systems. The structure itself will also be in the form of a mobile container.

  - This facility's main function is for the storing and controlling of legislative regulated and/or non-legislative regulated chemicals. The different types of chemicals must be stored separately as well as a differentiation between used and un-used chemicals should be made. Containers can also be place within this storage facility for the storage of used mechanical parts till the removal thereof.

    Once the use chemical containers are approximately 80% full the relevant agencies will be contacted for handling and correct removal of such chemicals.

  - The option of not implementing the activity is legislatively ruled out by specific regulations within the Mineral and Petroleum Resources Development Act and National Environmental Management Act regarding the storing of environmental hazardous chemicals.

- Diesel Storage
  - One diesel tank with an approximate footprint of 0.0008 ha will be installed at the vehicle parking site. This area shall be installed with all relevant danger signs.

  - The technology used shall be of the highest standards provided by the contracting diesel/fuel agency. The actual volume of the tank is currently unknown, but it is compulsive that the mine is supplied with a diesel tank already equipped with a leak-proof bay to prevent any ground contamination should the tank be leaking by fault or bursting.

  - Diesel will be kept within these container for refueling purposes during the mining activities. The contracting agency will be refilling these tanks on a regular basis and only then will the tank be inspected and maintenance procedures carried out.

    Machinery will be parked on a cement slap net to the tank for re-fueling activities. This cement slap shall be contracted at a gradient with a run-off channel leading to a sump for impact prevention should any accidental spillage occur. The sump will also be cleaned and maintained on a regular basis by the contracting agency.

  - Taking the proximity of the town into consideration the option on not implementing the activity was considered but after careful consideration regarded as a no-go option.

- Domestic waste facility
  - The domestic waste facility (approximate footprint of 0.0008 ha) will be installed at the office sites.

  - The technology used shall be of local municipal standard including a tip-proof and scavenger proof bin. Agreements with the local municipality will signed for the removal of waste on their schedule.

  - All domestic waste on site will be place within these bins to keep the area clean and litter free.

  - The option of not implementing the activity can be taken into consideration and should the activity not be implemented a greater risk of littering results.

- Access and mine roads
  - The location and amount of roads will be finalized during the final mine planning and construction phase.

  - No foreign materials will be used in the construction of these roads. The roads will be scraped to specific measures and maintained on a regular basis. During maintenance may the roads be sprayed with a non-polluting substance mixed in water to chemically bound dust particles to aid in dust reduction and even in some cases prevention.

- The roads will be mainly used for mine traffic such as hauling of materials to different sites and employee travelling.

- Should the roads not be implemented and vehicles are allowed to travel how they please trampling of vegetation is a given factor leading to greater environmental degradation that the construction of these roads. For this reason the option of not implementing activity is ruled out in order to protect the surrounding environment as far as possible.

8.2 Details of the Public Participation Process followed

(Describe the process undertaken to consult interested and affected parties including public meeting and one on one consultation. NB! the affected parties must be specifically consulted regardless of whether or not they attended public meeting. (Information to be provided to affected parties must include sufficient detail to the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.))

Letters sent to the various parties included a notification letter informing the recipient of the application for mining that has been accepted by the Department of Mineral Resources on the property. This letter further invited the receiver of the letter to register as such and provide feedback on or before a specific date. With the letter the recipient also received a feedback form as well as a background document explaining the type of mining activities to be undertaken as well as the process that will be followed.

Public individuals were also notified, though the newspaper advertisements and notice boards erected, to register as an interested and/or affected party. All documents will then be sent to the individual for feedback.

8.3 Summary of issues raised by I&AP's

(Complete the table summarizing comments and issues raised and reaction to those responses)

INTERESTED AND AFFECTED PARTIES List the names of persons consulted in this column, and mark with an **X** where those who must be consulted were in fact consulted		**DATE COMMENTS RECEIVED**	**ISSUES RAISED**	**EAP's RESPONSE TO ISSUES AS MANDATED BY THE APPLICANT**	**SECTION AND PARAGRAPH REFENCE** in this report where the issues and or response were incorporated
AFFECTED PARTIES					
Landowner/s	**X**				
De Beers Consolidated	X	5 Oct 2016	Register as an I&AP Give background	-Register as affected party -Input will be considered.	-
			-	-	-
Lawful occupiers/s of the land			-	-	-
Rooifontein Wildlife Club	X	9 Sept 2016	- Wait for the Environmental report to make comments. - Insist on a public meeting after hours	- Environmental report will be available at the consultants office after it has been submitted to DMR on 9 November 2016 - Notice of public meeting was given per letter on 9/9/2016 enough time to organize attendance. - After hours meeting is not likely to be held.	
Landowners or lawful occupiers on adjacent properties					
			-	-	-
			-	-	-

Municipal councilor					
Municipality	X		-	-	-
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA))					
South African Heritage Resources Agency	X	27/6/2016	- A First phase assessment need to be done	-An assessment was done in November 2016	Section A8.4.1.11 Section A8.9 Section A10 Section B1.6
Department Water and Sanitation	X		-	-	-
Communities					
Dept Land Affairs	X	30/11/2016	- Not aware of any land claims to date of letter.	-	-
Traditional Leaders					
Dept Environmental Affairs	X	-	-	-	-
Other Competent Authorities affected					

OTHER AFFECTED PARTIES					
Duncan & Rothman on behalf of EKAPA Mineral and Rooifontein Wildlife Club		10/10/2016	- Intention of removal of accommodation facilities next to mine area - Concerns raised: Ecology disturbance Game threatened Dust and noise pollution Vegetation destroying Water resources depletion	- The nearest accommodation is more than 1,5 km away. - Workable agreement between parties need to be reached Only 5 ha is under application Mine area will be fenced off Game will move away till used to the disturbances and return Mitigation measures will result in full rehabilitation of the vegetation Water will be obtained from the municipality.	Section A 8.4.1.3 Section A 8.4.1.2 Section A 8.8 Section A 8.4.1.1 Section A10

INTERESTED PARTIES					
H. Knoke		10 Oct 2016	- Mining will destroy environment - Historic artifacts on the farm - Farm is used for education and creational purposes. Schools visit farm on regular basis. - Object mining as the farm is too small	- Mitigation measures will be stipulated in the environmental management program. - The archaeologist did visit the area and a report is in awaiting. - Application area is small but viable for mining	Section A10 Section A 8.4.1.3 Section B1.6
M. Weenink		10 Nov 2016	- Farm is used for game farming, hunting and recreational purposes. - Disturbance of tourists - Noise will affected the animals and visitors - No mining - Vegetation will be destroyed - Impact on the underground water	- A Copy of the BEAR was supplied to Mr Weenink	Section A 8.4.1.2 Section A8.8
E vd Westhuizen		2/1/2017	- Raised concerns regarding heritage and eco environmental conservation - Want specialist studies to be done. - Have problems with the possible situation of diesel tanks. - Ask to be notified of any public meetings - Ask for a Copy of the BAER	- LW Consultants is for environmental conservation. - Specialist studies have been done. - Location of the diesel tank still to be done during final planning. - Will be notified of any public meetings. - Will be notified once the final BAER is available. -	Section A10 Section B1.6 Section A8.1 Section B1.6

8.4 The Environmental attributes associated with the alternatives

(The environmental attributed described must include socio-economic, social, heritage, cultural geographical, physical and biological aspects)

8.4.1 Baseline Environment

8.4.1.1 Type of environment affected by the proposed activity

(its current geographical, physical, biological, socio-economic and cultural character).

- Geographical environment:
  - Geographical location: The application area is situated approximately 5 km south-east of the town Kimberley within the Rooifontein Wildlife Club farm/area.

  - Climate and rainfall: The weather provides hot dry summers and cold winters. The infrequent summer rains tend to take the form of occasional severe thunderstorms rather than prolonged soft showers. Rainfall ranges from 50 to 200 mm per year. It is not unusual for winter night time temperatures to drip below freezing

  - Geology and soils: The biome is found on deep, predominantly sandy to loamy sands, underlain by calcrete.

  - Surface water and wetlands: The mine is situated between 1 200 m and 1 220 m above mean sea level. The nearest saltpans are both below 1 200 m. The saltpan south of the application area is situated between 1 160 m and 1 180 m while the further pan to the east is situated between 1 180 m and 1 200 m. The second pan is 5 km to the east of the application area.

    The nearest point of the southern pan's catchment is 1 km towards the east of the application area. The upper reaches of this catchment of the non-perennial stream is higher than the application area, which causes run-off water in the direct vicinity of the application water flowing towards the southwest, rather than in the direction of the catchment.

- Physical environment: The project area itself is relatively flat with little to no significant environmental features.

  On the surrounding landscape the most prominent topographic altering features are un-rehabilitated pits and mine dumps. Most of the mining and prospecting activities in the vicinity that has been and are currently conducted are probably De Beers, Petra and newly venture Ekapa Minerals. Any other historical mining activities are unknown.

- Biological environment:
  - Fauna: The only fauna existing within the area is from livestock and / or game farming activities.

    Signs and tracks of mammal species on the site is common and indicates a significant mammal population on the site. Burrows of a small mammal is common on the site. The inhabitant is most likely Ground Squirrel (*Xerus inauris*) or Yellow Mongoose (*Cynictis penicillata*). Excavation in termite mounds are the result of Aardvark (*Orycteropus afer*). Molerat (*Cryptomys hottentotus*) excavations are common on the site. Shallow excavations for bulbs can be either Ground Squirrel or Porcupine (*Hystrix africaeaustralis*). Dung of an unidentified carnivore was also noted on the site, the Brown Hyena (*Hyaena brunnea*) being likely although it may also be a Black Backed Jackal (*Canis mesomelas*).

    Of these species the Aardvark is listed as a protected species in the Free State Province while the Brown Hyena is listed as Near Threatened in the National Red List

    Other species which is likely to occur in the region include: South African Hedgehog (*Atelerix frontalis*), Striped Weasel (*Poecilogale albinucha*), Small-spotted Cat (*Felis negripes*), Aardwolf (*Proteles cristatus*) and Bat-eared Fox (*Orocyon magalotis*).

The area is also utilized as a game farm and the following introduced game occur in the area: Ostrich (*Struthio camelus*), Waterbuck (*Kobus ellipsiprymnus* subsp. *ellipsiprymnus*), Burchell's Zebra (*Equus quagga* subsp. *burchellii*), Blesbok (*Damaliscus pygargus* subsp. *phillipsi*), Blue Wildebeest (*Connochaetus taurinus* subsp. *taurinus*), Mountain Reedbuck (*Redunca fulvoufula* subsp. *fulvorufula*), Red Hartebeest (*Alcelaphus caama*), Eland (*Taurotragus oryx* subsp. *oryx*), Gemsbok (*Oryx gazella*), Impala (*Aepyceros melampus* subsp. *melampus*), Springbok (*Antidorcas marsupialis* subsp. *marsupialis*) and Kudu (*Tragelaphus strepsiceros* subsp. *trepsiceros*)

- Flora: According to Mucina & Rutherford (2006) the area consists of Kimberley Thornveld. The site is situated within the Savannah Biome and the vegetation structure consists of open grassland with scattered trees (Map 2). Shrubs are prominent around trees and dwarf karroid shrubs are also common especially within the grass layer.

The site has a concentration of trees within the western portion of the site. These are dominated by *Vachellia tortilis* with *Diospyros lycioides*, *Searsia lancea*, *Ziziphus mucronata*, *Lyceum hirsutum* and *Ehretia rigida* also prominent. The understorey is dominated by *Setaria verticillata*, a pioneer grass common in shade under trees. The grass layer is open and covers the majority of the site. Dominant species include *Eragrostis lehmanniana*, *E. obtusa*, *E. superba*, *Tragus berteronianus*, *Cymbopogon pospischilii*, *Themeda triandra*, *Fingerhuthia Africana*, *Heteropogon contortus* and *Aristida congesta*. Low shrubs and dwarf karroid shrubs are prominent on the site. These include *Gnidia polycephala*, *Pentzia incana*, *Chrysocoma ciliata*, *Melolobium candicans*, *Salsola rabieana*, *Vachellia hebeclada*, *Amphiglossa triflora*, *Helichrysum lucilioides* and *Rosenia humilis*. Several of these are indicators of overgrazing where they are dominant. On the site itself areas is dominated by these dwarf karroid shrubs indicating moderate levels of overgrazing. According to Anderson (2008) the site is situated within the *Acacia tortilis* Savanna vegetation unit and from the results obtained during the survey the species composition confirms this. According to this study (Anderson 2008) the vegetation unit is severely over-utilised as indicated by the dominance of the Bitterbush (*Chrysocoma ciliata*) although at the site under question this species is prominent though not dominant and overgrazing is only considered as moderate

No exotic weed species could be identified indicating the largely natural condition of the vegetation. It is possible that annual weeds may germinate after rains although these are not currently present on the site due to the ensuing drought

- Heritage environment: A field survey has been conducted by the archaeologist Lloyd Rossouw from Bloemfontein during the same time as the Ecologist. Although the report is still outstanding the archeologist did confirm that no sites of heritage significance occur within the project area. Once the First phase Heritage Assessment has been received will it be submitted to the Department of Mineral Resources and the South African Heritage Resources Agency.

- Socio-economic environment: Current socio-economic conditions are those of game culling, hunting and tourist attraction.

  Job opportunities are sparse within the town and region leaving many individuals unemployed without an income to support his/her family even a basic survival level.

- Cultural environment: On the adjacent properties farmers are farming with livestock and urban areas. The cultural heritage is mixed with various cultural habits and rituals.

8.4.1.2 Description of the current land uses

The current land uses of the project area can be best described as game farming and recreational.

8.4.1.3 Description of specific environmental features and infrastructure on the site

No specific environmental features and/or infrastructure occur on site or within close proximity.

8.4.1.4 Environmental and current land use map

(Show all environmental and current land use features)

8.5 Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts may occur

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated)

ACTIVITY	DESCRIPTION	Se	D	SP	C	P	Si
1. CONSTRUCTION PHASE IMPACTS							
Road construction	Loss of vegetation + habitat	M	L	L	M	H	L
Escom line	Loss of vegetation + habitat	NOT APPLICABLE					
Plant construction	Loss of vegetation + habitat	M	L	L	M	H	L
Pipeline installation	Loss of vegetation + habitat	L	L	L	L	L	L
Offices	Loss of vegetation + habitat	M	L	L	L	H	L
2. OPERATIONAL PHASE IMPACTS							
Mining	Geological degradation	H	L	L	H	H	H
Disposal	Topographic change - dump	M	L	L	M	H	L
Mining	Topographic change - pit	M	L	L	M	H	L
Mining	Soil pollution - accidental spills and leakages	M	L	L	H	M	M
Operation	Soil pollution (workshop, store, parking)	L	L	L	H	M	M
Operation	Loss of grazing	M	L	L	M	H	L
Operation	Loss of/ disturbance to plants	M	L	L	M	H	L
Extraction of groundwater	Depressed water table	NOT APPLICABLE					
Operation	Problem plant invasion	M	L	M	H	M	M
Operation	Effect on animals	M	L	M	L	M	L
*Waste water disposal	Water regime (regional)	M	L	L	L	M	L
Mining	Noise (earth moving equipment and crushers)	L	L	M	H	M	L
Operation	Air quality: Dust - Transport	M	L	M	L	M	L
Operation	Air quality: Dust - Crusher	NOT APPLICABLE					
Prospecting	Noise - blasting nuisance - regional	NOT APPLICABLE					
Prospecting	Noise - blasting nuisance -personnel	NOT APPLICABLE					
Prospecting, operation	Loss of archaeological items	L	L	L	L	L	L
Prospecting	Sensitive landscapes	L	L	L	L	L	L
Mining	Visual impact	H	L	L	M	H	L
3. DECOMMISSIONING PHASE IMPACTS							
Demolition	Waste disposal	POSITIVE					
Rehabilitation	Re-vegetation	POSITIVE					
4. RESIDUAL IMPACTS AFTER CLOSURE							
Vacated site	Rehabilitation of exposed areas	POSITIVE					
Vacated site	Safety risks	POSITIVE					

8.6 Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks

(Describe how the significance, probability and duration of the aforesaid identified impacts that were identified through the consultation process were determined in order to decide the extent to which the initial site layout needs revision).

The environmental evaluation is done with the assumption that all mitigatory measures and rehabilitation plans have been adhered to (Hacking, 1999).

The preceding list of identified impacts is evaluated hereunder in terms of the following criteria:

SEVERITY

- *Low negative impact* (indicates a state of 'calmness' concluding that the effect the operations may have on the environment is so insignificant that the wellbeing of the environment or any individual will not be degraded or prohibited.)

- *Medium negative impact* (describes as state of 'manageable stress', giving the idea of that the effect of the operations on the environment is significant enough to cause tolerable disturbance to the wellbeing or overall conditions of the environment or any individual.)

- *High negative impact* (indicating a state of 'high stress', meaning that the effect of the operations on the environment is so significant that the wellbeing and overall conditions of the environment or any individual will be degraded or prohibited.)

DURATION

- *Short-term* (short-term duration is rated as a period less than two years and indicated as a low impact.)

- *Medium-term* (medium-term impact is rated as the period between 2 and 5 years and indicated as a medium impact.)

- *Long-term* (long term impact is rated as the any period exceeding 5 years and indicated as a high impact.)

SPATIAL SCALE

- *Localized* (the disturbance occurs within a radius of 500 m from point of existence and indicated as low impact)

- *Fairly widespread* (the disturbance is carried over a short distance, between 500 m and 1 km radius from point of existence and indicated as medium impact)

- *Widespread* (disturbance exercise a negative affect over an area greater than 1 km radius from point of existence and indicated as high impact.)

CONSEQUENCE

- *Low consequence* (meaning that the probability of cumulative impact occurrence is minimal with little to no lasting effects and is indicated as low impact)

- *Medium consequence* (meaning that the probability of cumulative impact occurring exists with a moderate, short-term lasting effect and is indicated as medium impact.)

- *High consequence* (meaning that the probability of cumulative impact occurrence is absolute with a short to medium-term lasting effect and indicated as high impact)

SIGNIFICANCE

- *Low overall significance* (the disturbance caused by the impact is minimal with an excellent probability for total recovery after operations ceased.)

- *Medium overall significance* (the disturbance caused by the impact is moderate with a good chance for total recovery over an intermediate period after operations ceased.)

- *High overall significance* (the disturbance caused by the impact is severe with a poor to no probability for recovery after operations ceased.).

LEGEND FOR TABLES

Se	-	Severity	D	-	Duration
SP	-	Spatial Scale	P	-	Probability
Si	-	Significance	L	-	Low negative impact
H	-	High negative impact	M	-	Medium negative impact

8.7 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.

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compered to alternative layout options to accommodate concerns raised by affected parties)

The proposed mining operations and current proposed site plan shows to have an overall medium negative impact on the area. Any alterations to the site layout or mining and mining related activities may result in a lesser significant impact on the environment.

The surrounding residing communities may be minimally influence by the mining operations in regard to noise and air quality loss. After considering alternative processes and site layout, these alterations did not proof any significant minimization of the impacts affecting the communities. It is rather recommended that more strict implementation and adherence to the mitigation measures.

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

(With regard to the issues and concerns raised by affected parties proved a list of the issued raised and an assessment / discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered)

Dust upliftment, mine created noise and loss of income might be of the two major concerns throughout the concerns raise by the consulted interested and affected parties. Standard mitigation measures to be implemented are the dampening of the mine roads, stabilizing mine dumps against wind erosion and keeping activities creating undue noise to more acceptable hours will be implemented. Compensation for lost of income should be discussed and agreed upon the applicant and farm owner. Contractual agreement needs to be drafted and signed by both parties.

8.9 Motivation where no alternative sites were considered

Alteration in the mine processes and site plan were considered, but ruled out during the early stages of the planning due to the fact that they proofed not to have any lesser effect on the environment. The current site layout and mine processes proposed for this operation proof to be the best possible option and layout with the minimal negative impacts in regard to the biophysical, socio-economic and cultural environment.

8.10 Statement motivation the alternative development location within the overall site

(Provide a statement motivating the final site layout that is proposed)

As detailed in Part A Section 8.7, 8.8 and 8.9 of this document no alternative developments towards the Mining processes and site plan are considered and will be kept as originally proposed due to that any alterations proof not to significantly minimize impacts but may rather add to it.

9. 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

(Including (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures)

- Assessment of each identified potentially significant impact and risk

  (This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties.)

ACTIVITY Whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyers, etc...etc...etc.)	**POTENTIAL IMPACT** (E.g. dusts, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc.)	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated. (E.g. Construction, commissioning, operational, decommissioning, closure, post-closure.)	**SIGNIFINCANCE** If not mitigated	**MITIGATION TYPE** (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...etc. E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation....	**SIGNIFICANCE** If mitigated
Mining Excavations	Vegetation	Loss	Construction	Medium	Vegetation clearing control Rehabilitation standards	Low
	Geological	Loss	Operational	High	-	High
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Remedy through immediate rehabilitation.	Medium
	Grazing	Loss		Medium	Rehabilitation Vegetation clearing control	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Medium	-	Low

	Water quality	-		-	-	-
	Noise	Elevated levels		Medium	Operations within office hours	Low
	Air quality	Degradation		Medium	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Topsoil dumps	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Remedy through immediate rehabilitation.	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	-		-	-	-
	Water quality	-		-	-	-
	Noise	Elevated levels		-	-	-
	Air quality	Degradation		Medium	Stabilizing of dumps. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Stock piles	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Remedy through immediate rehabilitation.	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	-		-	-	-
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		Medium	Stabilization of dump Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Waste dumps	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Remedy through immediate rehabilitation.	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low

	Fauna	Migration		-	-	-
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		-	-	-
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Settling dams	Vegetation	Loss	Construction	High	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		High	Rehabilitation	Low
	Soil	Pollution		Medium	Remedy through immediate rehabilitation.	Low
	Grazing	Loss		High	Rehabilitation	Low
	Vegetation	Loss/disturbance		High	Traffic restriction to roads Vegetation clearing control Rehabilitation	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		Medium	Rehabilitation	Low
	Water quality	Loss		Medium	Water reticulation	Low
	Noise	Elevated levels		Medium	Operations during office hours	Low
	Air quality	Degradation		Low	Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Office Block	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Remedy through immediate rehabilitation.	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Medium
	Fauna	Migration		Medium	-	Medium
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Plant site	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Remedy through immediate rehabilitation.	Medium
	Grazing	Loss		Medium	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to area Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low

	Fauna	Migration		High	Operations during office hours	Medium
	Water quality	Loss		High	Water reticulation	Low
	Noise	Elevated levels		High	Operations within office hours	Medium
	Air quality	Degradation		Medium	Damping of exposed areas. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Ablution	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Low	Rehabilitation	Low
	Soil	Pollution		Medium	Regular maintenance Regular inspection Immediate rehabilitation	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		-	-	-
	Water quality	Loss		Medium	Waste management	Low
	Noise	Elevated levels		-	-	-
	Air quality	Degradation		Low	Dampening of exposed area	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Vehicle parking	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Immediate rehabilitation Drip-tray installation	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Low	-	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations within office hours	Low
	Air quality	Degradation		Low	Damping of exposed area. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Stores	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		Medium	Immediate Rehabilitation Regular inspection	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Low	Operation during office hours	Low

	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operation during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Diesel Storage	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Immediate rehabilitation Regular inspection Regular maintenance	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Low	Operation during office hours	Low
	Water quality	-		High	Spill management	Low
	Noise	Elevated levels		Low	Operations within office hours	Low
	Air quality	Degradation		Low	Damping of exposed area. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Domestic waste	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		Medium	Immediate clean-up Regular inspection Waste removal	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		Low	-	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area.	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Mine and access roads	Vegetation	Loss	Construction	High	Vegetation clearing control Minimum roads possible	Medium
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Immediate rehabilitation Regular inspections	Medium
	Grazing	Loss		High	Rehabilitation	Medium
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low

	Fauna	Migration		Medium	Traffic restriction	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Medium	Operations within office hours Traffic restriction	Low
	Air quality	Degradation		Medium	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Medium	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

10. 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	SPECIALITST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an **X** where applicable	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALITS RECOMMENDATIONS HAVE BEEN INCLUDED
Biodiversity and Ecology	• The monitoring and eradication of weeds	X	Section A8.4.1 Section A9 Section A15.2.2
	• Hunting, capturing and trapping of fauna should be prohibited	X	Section B1.4.4 Section B1.2
	• Rehabilitation of mine should be comprehensive and include: ○ Spoil and tailings should be returned to excavations to re-instate the topography	X	
	○ Any slimes dams should be demolished and material returned to excavations	X	
	○ The topography should be re-instated as far as possible ○ Eradication and monitoring of weed establishment should be extended after cessation of mining	X	

	○ Mined areas should be seeded with vegetation from surrounding area ○ Seedlings of the trees on site should be established on the site to replace those which were removed during mining ○ Topsoil should be replaced on site during rehabilitation ○ Adequate monitoring of rehabilitation success should be done and remedial actions taken where required ○ After mining has ceased all manmade materials should be removed from the site. • Topsoil should be removed prior to mining, protected from wind erosion and weed establishment.	X X X X X X	
Surface Water and Wetlands	-	-	Section A8.4.1
First phase Heritage Assessment	STILL OUTSTANDING		Section A8.4.1

Attach copies of Specialist Reports as appendices

11. Environmental impact statement

11.1 Summary of the key findings of the environmental impact assessment

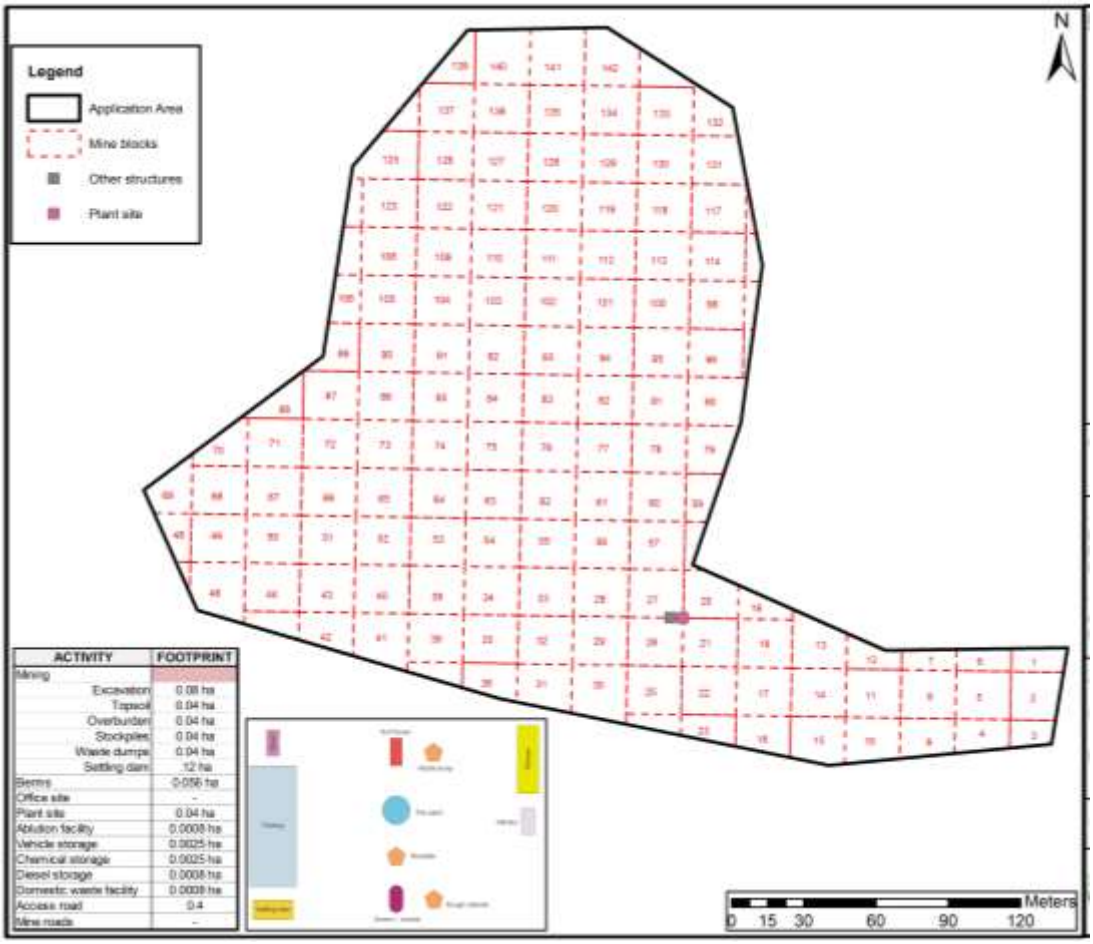
During the conduction of the Environmental Impact Assessment several key element regarding the proposed project came under attention:

- With due consideration towards the negative impact the mining activities pose on the environment with the knowledge of the current status of the environment, it can be concluded that the mining activities, with the implementation and strict adherence to all mitigation measures, will not have a detrimental negative impact.

- The residing community will aid in the mining operations through local employment and income security.

11.2 Final Site Map

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



11.3 Summary of the positive and negative impacts and risks of the proposed activity and identified alternative.

Throughout the document the focus point was to identify and assess the negative impacts the proposed operations may have on the bio-physical, socio-economic and cultural environment. The major negative influences the proposed operations may pose are noise disturbance, alleviated dust levels, possible loss of income and vegetation loss.

12. Proposed impact management objectives and the impact management outcomes of inclusion in the EMPr

(Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives and the impact management outcomes for the development for inclusion in the EMPr as well as for inclusion as conditions of authorization.)

The proposed impact management objective is to create environmental sustainable Mining operation by the management, remediation or elimination of environmental impacts through the implementation and adherence of mitigation measures as legislatively required.

The above mentioned outcomes can be achieved through the implementation of the following impact specified objectives and their outcomes:

- Minimizing of vegetation loss caused by construction and site maintenance:
  - Vegetation clearing control
  - Rip and rehabilitation of unnecessary compacted areas
  - Adherence to mine roads
  - Implementation of a no collection and no open fire policy

- Prevention of soil pollution due to chemical spillage
  - Regular maintenance of earth moving equipment and machinery.
  - Inspection on chemical containing activities against faults and leaks.
  - Immediate rehabilitation of an affected area.
  - Suitable disposal of contaminated soil.

- Reduction of noise levels caused by mine machinery, mineral processing and earth moving equipment.
  - Undue noise levels will be kept to acceptable hours.
  - Modification of earth moving equipment to reduce noise levels.
  - Aim to keep noise levels within the approved prescribed standards.

- Minimization of dust upliftment causing loss of air quality.
  - Watering of the dirt roads and vegetation cleared areas.
  - Adherence to speed limits.
  - Erosion protection of mine dumps.

- Surface and ground water quality degradation
  - Adherence to water management guidelines
  - Specific water facility construction.
  - Storm water control.
  - Measurement of water level and quality.
  - Implementation of ground water monitoring system.

- Waste disposal
  - Implementation of waste disposal facilities
  - Contractual agreements for waste removal.
  - Waste removal schedules,
  - Compliance to good housekeeping rules.

- Environmental awareness training on
  - Fauna and Flora
  - Proper waste management
  - Specific work related safety awareness,

13. Aspects for inclusion as conditions of Authorization

(Any aspects which must be made conditions of the Environmental Authorization)

At this stage all aspects that must be included into the environmental authorization are detailed in this document. Should any aspects arise that needs to be made conditions this document will be updated accordingly and will be submitted to all relevant departments.

14. Description of any assumptions, uncertainties and gaps in knowledge

(Which relate to the assessment and mitigation measures proposed)

Any assumptions, uncertainties and gaps in knowledge that could arise during the operation of the mining activities will be addressed and mitigation measures implemented to prevent any damage to the environment. Such assumptions, uncertainties and gaps in knowledge will be described, implemented and handed to the relevant departments.

To prevent any unnecessary assumptions, uncertainties and gaps in knowledge, the Basic Environmental Assessment part of this document should not be read alone, as it only contain impact assessment with summarized management options, but rather read as a whole with the Environmental Management Programme which include detailed management measures for each listed activity as described in the Basic Environmental Assessment.

15. Reasoned opinion as to whether the proposed activity should or should not be authorized

15.1 Reasons why the activity should be authorized or not

The proposed mining operations should be strongly considered for authorization as mine development will result in the upliftment of local communities, economic growth of the town, region and possibly province.

15.2 Conditions that must be included in the authorization

15.2.1 Specific conditions to be included into the compilation and approval of EMPr

Specific conditions to be included into the compilation and approval of the EMPr are the adherence to all mitigation measures as stipulated within the EMPr.

15.1.2 Rehabilitation requirements.

Rehabilitation Requirements should include, but is not limited to the following:

- The area must be rehabilitated as close as possible to its original natural state as possible.

- Rehabilitation must be done to the complete satisfaction of all relevant departments

  .

- Where necessary must a soil bed be provided and sawn with indigenous plant species to ensure re-establishment of vegetation.

- Seedlings of the trees on site should be established on the site to replace those which were removed during mining

- A two to three year monitoring programme must be implemented to ensure the success of vegetation re-establishment and the elimination of invader / pioneer plant species.

- All other rehabilitation measures as contained within the EMPr, mitigation measures, inclusive must be adhered to or a grounded reason for why any of these could not be met.

16 Period for which the Environmental Authorization is required

The period applied for during the application phase is 2 years as legislatively required and requires Environmental Authorization for the latter period.

17 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 both the Basic Assessment Report and the Environmental Management Programme report.)

The applicant, Mosito Mining (Pty) Ltd, confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic Assessment Report and the Environmental Management Report.

18 Financial Provision

(State the amount that is required to both manage and rehabilitate the environment in respect or rehabilitation.)

CALCULATION OF THE QUANTUM

Applicant: MOSITO MINING (PTY) LTD — Location: DUTOITSPAN 119 — Date: Nov-16

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	400	R 13.77	1	1	R 5 508.00
2 (A)	Demolition of steel buildings and structures	m2		R 191.77	1	1	R -
2(B)	Demolition of reinforced concrete buildings and structures	m2	8	R 282.61	1	1	R 2 260.88
3	Rehabilitation of access roads	m2	400	R 34.32	1	1	R 13 728.00
4 (A)	Demolition and rehabilitation of electrified railway lines	m		R 333.07	1	1	R -
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m		R 181.68	1	1	R -
5	Demolition of housing and/or administration facilities	m2		R 383.54	1	1	R -
6	Opencast rehabilitation including final voids and ramps	ha	0.12	R 195 202.06	1	1	R 23 424.25
7	Sealing of shafts adits and inclines	m3		R 102.95	1	1	R -
8 (A)	Rehabilitation of overburden and spoils	ha	0.12	R 134 037.40	1	1	R 16 084.49
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0.12	R 166 941.16	1	1	R 20 032.94
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha		R 484 876.26	1	1	R -
9	Rehabilitation of subsided areas	ha	0.056	R 112 236.14	1	1	R 6 285.22
10	General surface rehabilitation	ha	0.0066	R 106 180.23	1	1	R 700.79
11	River diversions	ha		R 106 180.23	1	1	R -
12	Fencing	m	1100	R 121.12	1	1	R 133 232.00
13	Water management	ha	0.12	R 40 372.71	1	1	R 4 844.73
14	2 to 3 years of maintenance and aftercare	ha	5	R 14 130.49	1	1	R 70 652.43
15 (A)	Specialist study	Sum				1	R -
15 (B)	Specialist study	Sum				1	R -
					Sub Total 1		R 296 753.72

1	Preliminary and General	R 35 610.45	weighting factor 2 / 1	R	35 610.45
2	Contingencies	R 29 675.37		R	29 675.37
			Subtotal 2	R	362 039.54
			VAT (14%)	R	50 685.54
			Grand Total	R	**412 725.07**

18.1 Explain how the aforesaid amount was derived

As seen from the above table the amount of **R 412.725.07** was calculated using the Department of Mineral Resources' approved Financial Provision Quantum Calculation table.

18.2 Confirm that this amount can be provided from operation 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 Prospecting Work Programme as the case may be)

The above stated amount can be provided from, as part of, the 1st years operating expenditure and is in the submitted Financial and Technical Ability Report anticipated as an operating cost and was provided for as such.

19 Specific Information required by the competent Authority

19.1 Compliance with the provisions of sections 24(4)(a) and (b) read with section 24(3)(a) and (7) of the National Environmental Management Act (Act 107 of 1998). The BEA report must include the:-

19.1.1 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, attached the investigation report as an **Appendix**)

The mining activities will contribute to the local economy via its impact on job creation, total disposable income and balue-added activities. The mine will support business activity in the local economy for the duration of the mine.

Five measures of economic impacts can be used to demonstrate the potential positive effect of the proposed Mining operation on the local economy:

- Employment – the extent of employment can be measured as number of jobs or in terms of full time equivalents
- Payroll income – the gross remuneration of employees in terms of salaries and wages
- Capital Expenditure (CAPEX) – the total amount spent on the purchasing of fixed assets and total spent on construction
- Operating expenditure and maintenance (OPEX) – the total amount spent locally by businesses on goods and services, excluding salaries and wages as well as rents or interest.
- Revenue – The total value of sales arising from business activity at the mine

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

(Provide the result 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.)

A field survey has been conducted by the archaeologist Lloyd Rossouw from Bloemfontein during the same time as the Ecologist. Although the report is still outstanding the archeologist did confirm that no sites of heritage significance occur within the project area.

Should any sites of archaeological, heritage and cultural significance exist they will be impacted / destroyed by the proposed Mining operations. To minimize the impact total avoidance of any heritage site must be strictly adhered to.

20 Other matter required in terms of sections 24(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 compiler of this document, also the appointed EAP, has knowledge of the area on which the proposed project is situated. A field visit for investigations was done together with the Ecologist and Archaeologist.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. Draft environmental management programme

1.1 Details of the EAP

(Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, Section 1.1 herein as required.)

The details and expertise of the Environmental Assessment Practitioner are already included in Part A Section 1.1 of this document, but also included below.

Details of the EAP

Name of the Practitioner:	Lindie Wiehahn
Tel No:	072 141 4164
Fax No:	086 606 6315
E-mail address:	lindiewiehahn@gmail.com

The qualifications of the EAP

Current qualifications in this field were obtained through short courses at the University of Potchefstroom, which is the following:

- Introduction to Environmental Management (2002)
- Environmental Impact Assessment (2002)
- The Legal Framework for Managing Water in South Africa (2002)

Summary of the EAP's past experience.

During the year 2002 Lindie assisted with two Environmental Impact Assessments for a Golf Course development in Modder Rivier (today known as the Magersfontein Memorial Golf Course) and a Cottage development on the farm Avoca in the Douglas district. Later the same year she successfully completed her first sole Environmental Impact Assessment for the development of a filling station on the N12 at Warrenton.

Lindie was employed since then as an Environmental Consultant. Experiences obtained during these years were the drafting of Environmental Management Programmes, Environmental Management Programme Reports, Environmental Monitoring and Compliance Reports and Environmental Risk Reports. She also conducted several Environmental Impact Assessments for Mining Rights on La Reysstryd 53 IO, Lichtenburg (2004), Longlands, Barkly West (2004) and Lohatlha 673, Postmasburg (2009, 2011) and on the farm Groot Derm 10, Alexanderbay (2012).

The latest EIA conducted under the new DMR and NEMA regulations is Roodepan 70 (2015).

1.2 Description of the Aspects of the Activity

(Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section 9 herein as required)

The description of the aspects of the activity are already covered in Part A Section 9 of this document, but also included below.

ACTIVITY Whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyers, etc...etc...etc.)	**POTENTIAL IMPACT** (E.g. dusts, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc.)	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated. (E.g. Construction, commissioning, operational, decommissioning, closure, post-closure.)	**SIGNIFINCANCE** If not mitigated	**MITIGATION TYPE** (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...etc. E.g. Modify through alternative method. Control through noise control. Control through management and monitoring through rehabilitation....	**SIGNIFICANCE** If mitigated
Excavations	Vegetation	Loss	Construction	Medium	Vegetation clearing control Rehabilitation standards	Low
	Geological	Loss	Operational	High	-	High
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Immediate rehabilitation	Medium
	Grazing	Loss		Medium	Rehabilitation Vegetation clearing control	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Medium	-	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Medium	Operations within office hours	Low
	Air quality	Degradation		Medium	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low

	Visual impact	Scenery loss		Medium	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Topsoil dump	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Immediate rehabilitation	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		-	-	-
	Water quality	Loss		-	-	-
	Noise	Elevated levels		-	-	-
	Air quality	Degradation		Medium	Stabilizing dumps Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	-	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Stock piles	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Immediate rehabilitation	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-

	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		-	-	-
	Water quality	Loss		-	-	-
	Noise	Elevated levels		Low	Operation during office hours	Low
	Air quality	Degradation		Medium	Stabilization of dumps Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Waste dumps	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		Medium	Immediate rehabilitation	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		-	-	-
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		-	-	-
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Settling dams	Vegetation	Loss	Construction	High	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		High	Rehabilitation	Low
	Soil	Pollution		Medium	Immediate rehabilitation	Low
	Grazing	Loss		High	Rehabilitation	Low
	Vegetation	Loss/disturbance		High	Traffic restriction to roads Vegetation clearing control Rehabilitation	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		Medium	Rehabilitation	Low
	Water quality	Loss		Medium	Water reticulation	Low
	Noise	Elevated levels		Medium	Operations during office hours	Low
	Air quality	Degradation		Low	Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Office block	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Immediate rehabilitation	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Medium
	Fauna	Migration		Medium	-	Medium
	Water quality	-		-	-	-

	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Plant site	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Immediate rehabilitation	Medium
	Grazing	Loss		Medium	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		High	Operations during office hours	Medium
	Water quality	Loss		High	Water reticulation	Low
	Noise	Elevated levels		High	Operations within office hours	Medium
	Air quality	Degradation		Medium	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Ablution	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		Low	Rehabilitation	Low
	Soil	Pollution		Medium	Regular maintenance Regular inspection Immediate rehabilitation	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low
	Fauna	Migration		-	-	-
	Water quality	Loss		Medium	Waste management	Low
	Noise	Elevated levels		-	-	-
	Air quality	Degradation		Low	Damping of exposed area Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		Medium	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Vehicle parking	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Immediate rehabilitation Drip-tray installation	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low

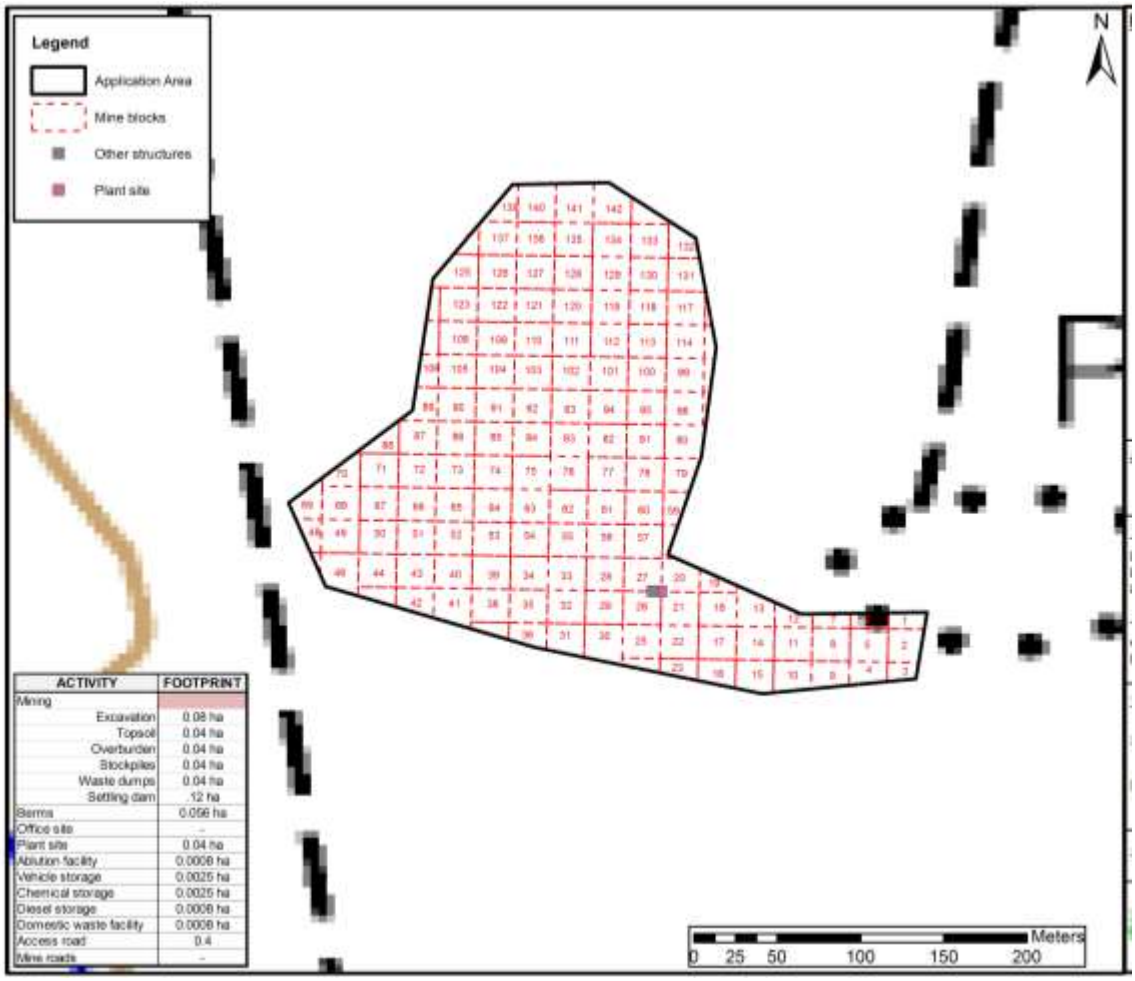
	Fauna	Migration		Low	-	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations within office hours	Low
	Air quality	Degradation		Low	Damping of exposed area. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Stores	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		Medium	Immediate rehabilitation Regular inspection	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Low	Operation during office hours	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operation during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

Diesel storage	Vegetation	Loss	Construction	Low	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		High	Immediate rehabilitation Regular inspection Regular maintenance	Medium
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Medium	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Low	Operation during office hours	Low
	Water quality	-		High	Spill management	Low
	Noise	Elevated levels		Low	Operations within office hours	Low
	Air quality	Degradation		Low	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Domestic waste	Vegetation	Loss	Construction	Medium	Vegetation clearing control	Low
	Geological	-	Operational	-	-	-
	Topographic	Change		-	-	-
	Soil	Pollution		Medium	Immediate clean-up Regular inspection Waste removal	Low
	Grazing	Loss		Low	Rehabilitation	Low
	Vegetation	Loss/disturbance		Low	Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		Medium	Remedy through removal	Low

	Fauna	Migration		Low	-	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Low	Operations during office hours	Low
	Air quality	Degradation		Low	Damping of exposed area	Low
	Archaeological items	Loss		Low	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Medium
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive
Mine and access roads	Vegetation	Loss	Construction	High	Vegetation clearing control	Medium
	Geological	-	Operational	-	-	-
	Topographic	Change		Medium	Rehabilitation	Low
	Soil	Pollution		High	Immediate rehabilitation Regular inspections	Medium
	Grazing	Loss		High	Rehabilitation	Medium
	Vegetation	Loss/disturbance		Medium	Traffic restriction to roads Vegetation clearing control	Low
	Water table	-		-	-	-
	Vegetation	Invader plants		High	Remedy through removal	Low
	Fauna	Migration		Medium	Traffic restriction	Low
	Water quality	-		-	-	-
	Noise	Elevated levels		Medium	Operations within office hours Traffic restriction	Low
	Air quality	Degradation		Medium	Damping of mine roads. Speed restriction	Low
	Archaeological items	Loss		Medium	Avoid sites of significance	Low
	Sensitive landscape	Destruction		Low	Avoid significant sensitive sites	Low
	Visual impact	Scenery loss		High	Rehabilitation	Low
	Waste	Disposal	Decommissioning	Positive	Management standards	Positive
	Re-vegetation	Re-growth		Positive	Regular inspection	Positive
	Exposed area Rehab	Re-vegetation	After closure	Positive	Regular inspection	Positive
	Safety risks	Waste disposal		Positive	Closure standards	Positive

1.3Composite 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, including buffers)



ACTIVITY	FOOTPRINT
Mining	
Excavation	0.08 ha
Topsoil	0.04 ha
Overburden	0.04 ha
Stockpiles	0.04 ha
Waste dumps	0.04 ha
Settling dam	.12 ha
Berms	0.056 ha
Office site	-
Plant site	0.04 ha
Ablution facility	0.0008 ha
Vehicle storage	0.0025 ha
Chemical storage	0.0025 ha
Diesel storage	0.0008 ha
Domestic waste facility	0.0008 ha
Access road	0.4
Mine roads	-

1.4Description of Impact management objectives including management statements

1.4.1 Determination of closure objectives

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

The sole determined objective is to rehabilitate the area during and after mining activities to such an extent that the post-mining environment is almost in the same condition as the original undisturbed environment.

When rehabilitation proofs successful the vegetation re-growth may be of such quality that this area can be used again as grazing for the game farming activities on the area.

1.4.2 Volumes and rate of water use required for the operation

The diamond recovering process as a whole requires approximately 3 600 m³ of water per a month's operational cycle. This process includes 1 x 12ft rotating pan and grease tables.

Other mining related activities such as the ablution facilities and office buildings also require the use of water, but the amount of water needed are still unknown at this stage.

1.4.3 Has a water use license has been applied for?

An application for Water Use Authorization/License still needs to be applied for at the Department of Water and Sanitation. Requirements to apply for such authorization/license include the Basic Environmental Assessment Report / Environmental Management Programme.

1.4.4 Impacts to be mitigated in their respective phases

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

ACTIVITES	PHASE	SIZE AND SCASLE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
(As listed in 2.11.1)	of operation in which activity will take place. State: Planning and design, Pre-construction, Construction, Operational, rehabilitation, Closure, Post closure	(volumes, tonnages and hectares or m^2)	(describe how each of the recommendations herein will remedy the cause of pollution or degradation and migration of pollutants)	(A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)	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 mining, bulk sampling or alluvial diamond prospecting as the case may be
Excavation	Construction	0.08 ha per site	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • All infrastructure will be equipped with appropriate signs indicating function and potential dangers	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Overburden and topsoil will be stored separately next to the excavation		
	Operational		• When working on equipment outside the workshop the appropriate measure needs to be implemented to prevent chemical spillage • No vehicle repairs and maintenance will occur within the operational area and will be restricted to the workshop. • Old diesel and related chemicals must be discarded within appropriate marked close containers and stored in the chemical storage facility till removal thereof • On accidental spillage the contaminated soil will be removed and appropriately stored till the removal there off. • Stored topsoil / tailings will be evenly spread to the recover the area • The area must be continuously inspected for spillages and remediated immediately	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• All vehicle traffic are restricted to the roads and demarcated traffic areas • Washing of equipment shall be restricted to urgent maintenance requirements only. • No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended. • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Strict adherence to the mine roads and no off-road driving to prevent trampling of vegetation and ground compaction • A site will be identified and colour coded water tanks will be erected for safe human consumption.		

			• The mine shall be responsible for compliance with the relevant legislation in respect to noise. • Hearing protection will be made available to all employees where attenuation cannot be implemented. • Every vehicle in operation will be equipped with a silencer on the exhaust system. • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers.		

			• The mine shall ensure that all vehicle and heavy vehicle drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly. • Hard hats, earplugs, safety glasses, dust masks, gloves, hard point boots, reflector vests and reflective overalls is compulsory before entering this area. • The entrance will be clearly marked will all regulatory signs, to indicate a potential dangerous zone. • Related waste/ scrap must be dispose of in the appropriate manner		
	Decommissioning		• The excavation will be filled with waste gravel and soil, with the topsoil and overburden in the correct order. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.		
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Topsoil and overburden	Construction	0.08 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations.	Upon commencement of activity.

			• Topsoil dump must be protected from wind erosion and weeds as far as possible • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document.	Further does all mitigation measures proofs successful in impact management.	
	Decommissioning		• Materials must be used to complete rehabilitation • Rip and rehabilitate all compacted areas.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations.	Upon commencement of activity.

			• Rehabilitation will be finalized by planting of indigenous species with regular inspection for the removal of invader pioneer species.	Further does all mitigation measures proofs successful in impact management.	
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Stockpiles	Construction	0.04 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Stockpiles needs to be protected against wind erosion as far as possible		
	Decommissioning		• Materials left un-processed during decommissioning and closure must be used from backfilling material in open excavations.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations.	Upon commencement of activity.

			• Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by planting of indigenous species with regular inspection for the removal of invader pioneer species.	Further does all mitigation measures proofs successful in impact management.	
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Waste Dumps	Construction	0.04 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations.	Upon commencement of activity.

			• Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document.	Further does all mitigation measures proofs successful in impact management.	
	Decommissioning		• Material must be used for continuous backfilling and rehabilitation purposes. • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Settling dams	Construction	0.12 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • It should be ensured that the dams are sealed / leak proof	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • The structure must be continuously inspected for faults • The entrance will be clearly marked will all regulatory signs, to indicate a potential dangerous zone.		

	Decommissioning		• Settled material will be used for either backfilling or as a natural topsoil where necessary. • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species. • On closure Department of Water and Sanitation will be consulted in aiding with the rehabilitation of the facility	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

Mineral Processing	Construction				
	Operational		• When working on equipment outside the workshop the appropriate measure needs to be implemented to prevent chemical spillage • No vehicle repairs and maintenance will occur within the operational area and will be restricted to the workshop. • Old diesel and related chemicals must be discarded within appropriate marked close containers and stored in the chemical storage facility till removal thereof • On accidental spillage the contaminated soil will be removed and appropriately stored till the removal there off. • Stored topsoil / tailings will be evenly spread to the recover the area • The area must be continuously inspected for spillages and remediated immediately	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• All vehicle traffic are restricted to the roads and demarcated traffic areas • Washing of equipment shall be restricted to urgent maintenance requirements only. • No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended. • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Strict adherence to the mine roads and no off-road driving to prevent trampling of vegetation and ground compaction • A site will be identified and colour coded water tanks will be erected for safe human consumption.		

			• The mine shall be responsible for compliance with the relevant legislation in respect to noise. • Hearing protection will be made available to all employees where attenuation cannot be implemented. • Every vehicle in operation will be equipped with a silencer on the exhaust system. • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers.		

			• The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly. • Hard hats, earplugs, safety glasses, dust masks, gloves, hard point boots, reflector vests and reflective overalls is compulsory before entering this area. • The entrance will be clearly marked will all regulatory signs, to indicate a potential dangerous zone. • Related waste/ scrap must be dispose of in the appropriate manner		
	Decommissioning				
	After closure				

Office Block	Construction	0.0025 ha	• All buildings will consist of appropriate signs indicating function and potential dangers • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • Soil shall be exposed for a minimum time a possible once cleared of vegetation. • The timing in clearing shall be co-ordinated as much as possible to avoid prolonged exposure to wind and water erosion • No indigenous shrubs or trees will be unnecessarily uprooted	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly.		
	Decommissioning		• All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.		
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Plant Site	Construction	0.04 ha	• All structures will consist of appropriate signs indicating function and potential dangers • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered, a local nature conservation officer shall be called to relocate the species • No indigenous shrubs or trees will be unnecessarily uprooted	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	Operational		• Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Decommissioning		• All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations.	Upon commencement of activity.

			• Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	Further does all mitigation measures proofs successful in impact management.	
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Ablution	Construction	0.0008 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • Soil shall be exposed for a minimum time as possible once cleared of vegetation. • No indigenous shrubs or trees will be unnecessarily uprooted	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Concealed septic tanks must be installed above ground, where it can be regularly inspected for leakage		
	Operational		• Ablution blocks shall be at all times be sanitized • Sanitary bins will be provided within the building, no sanitary material will be allowed within the septic tanks • All human waste and related waste will be contained within septic tanks installed for this purpose • Septic tanks and chemical toilets will be chemically treated and maintained by a contracting agency • The local municipality may be contracted on the draining of the septic tank and the removal of its contents to the sewerage plant of their choice • Sanitary material within the bins provided will be closed in colour plastics and disposed of with domestic waste	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended. • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document.		

			• The entrance will be clearly marked will all regulatory signs		
	Decommissioning		• All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species. • On closure Department of Water and Sanitation will be consulted in aiding with the rehabilitation of the facility	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

Vehicle parking	Construction	0.0025 ha	• A demarcated fenced area away from the operational sight will be cleared for vehicle storage and parking • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • Soil shall be exposed for a minimum time a possible once cleared of vegetation. • No indigenous shrubs or trees will be unnecessarily uprooted	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• Drip pans will be readily available and no parked heavy vehicle will be without a drip pan. • No vehicle repairs and maintenance will occur within the operational area and will be restricted to the workshop.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Old diesel and related chemicals must be discarded within appropriate marked close containers and stored in the chemical storage facility till removal thereof • On accidental spillage the contaminated soil will be removed and appropriately stored till the removal there off. Stored topsoil / tailings will be evenly spread to the recover the area • The area must be continuously inspected for spillages and remediated immediately • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated		

			• The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly.		
	Decommissioning		• All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Stores	Construction	0.0025 ha	• All buildings will consist of appropriate signs indicating function and potential dangers • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • Soil shall be exposed for a minimum time as possible once cleared of vegetation. • No indigenous shrubs or trees will be unnecessarily uprooted	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	Operational		• Stored chemicals must be in marked closed containers • For remediation purposes a neutralizing agent for each chemical must be available at the entrance of the room at all time • Un-used chemicals must be separated from used chemicals as well as each type of chemical will be group to prevent cross-contamination • Chemicals removed from storage will be in approved containers to minimize the possibility of spillage • Safety wear for workers will always be available for urgent situations. • Fire extinguishers for this purpose will be available at all times • Chemical and chemical containing waste will be stored in closed containers within the chemical storage room.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• All personnel handling chemical related products will follow handling procedures • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document.		

			• Once the area specified for these waste is approximately 80% full and during decommissioning of the mine shall the different agencies dealing with these specific chemicals will be contacted for the safe removal thereof.		
	Decommissioning		• With decommissioning of the mine the different agencies dealing with these specific chemicals will be contacted for the safe removal thereof. • All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Diesel storage	Construction	0.0008 ha	• Diesel tanks will stand in a leak-proof bay, supporting the tank volume plus 10% and a 1.5 m wide cement buffer will encircle the area • The floor area must be constructed at a gradient and a run-off sump to capture all contaminated water to be treated by a separator • This structure will consist of appropriate signs indicating function and potential dangers • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Soil shall be exposed for a minimum time a possible once cleared of vegetation. • No indigenous shrubs or trees will be unnecessarily uprooted		
	Operational		• Vehicles which are filled with fuel will park on a cement floor for if any spillage occurs it can be cleaned • Two fire extinguishers will be present at all times • No vehicle repairs and maintenance will occur within the operational area and will be restricted to the workshop. • Old diesel and related chemicals must be discarded within appropriate marked close containers and stored in the chemical storage facility till removal thereof • The area must be continuously inspected for spillages and remediated immediately • All vehicle traffic are restricted to the roads and demarcated traffic areas	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended. • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers.		

			• The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document. • Fire extinguishers will be kept in good order and serviced regularly.		
	Decommissioning		• All structures will be broken down and removed from site. • All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

Domestic Waste	Construction	0.0008 ha	• The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • Soil shall be exposed for a minimum time a possible once cleared of vegetation. The timing in clearing shall be co-ordinated as much as possible to avoid prolonged exposure to wind and water erosion • No indigenous shrubs or trees will be unnecessarily uprooted • Marked containers will be made available for storage of domestic waste	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	Operational		• Domestic waste will be kept in closed marked containers. • Containers will be removed on a regular basis. • Domestic waste will be dumped at a registered site for such disposal.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• Regular inspection of containers and for scattered litter must be done. • Litter need to be remediated immediately. • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated • The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers. • The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document.		

			• Once the area specified for these waste is approximately 80% full and decommissioning of the mine the different agencies dealing with these domestic waste will be contacted for the safe removal thereof.		
	Decommissioning		• With decommissioning of the mine the specific agencies dealing with domestic waste will be contacted for the safe removal thereof. • All structures will be broken down and removed from site. • All domestic waste and chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
Mine and Access roads	Construction	0.4 ha	• As far as possible will the mine make use of existing farm roads • Only when utmost necessarily will new roads be scraped. • No foreign materials will be used in the construction of roads • The only necessary vegetation will be cleared • On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species • No indigenous shrubs or trees will be unnecessarily uprooted • Roads will be marked with the appropriate signs for safety.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

	Operational		• The roads must be continuously inspected for spillages and remediated immediately • All vehicle traffic are restricted to the roads and demarcated traffic areas • No indigenous shrubs or trees will unnecessarily uprooted and used for fire wood • If any pioneer species are observed the reporting thereof to the rehabilitation site manager is highly recommended. • Employees will be advised to stay clear from any wild animals or reptiles and not to disturb or provoke them in any manner. • Suppression of dust on cleared areas will occur by the spraying of chemical bounded / fresh / recycled water. • Littering of any product, including cigarette buds, at any operational site shall be seen as an offence and will not be tolerated	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

			• The mine shall be responsible for any cleaning up resulting from the failure by his employees or suppliers.		
	Decommissioning		• All chemical spills will be rehabilitated immediately • Rip and rehabilitate all compacted areas. • Rehabilitation will be finalized by the spreading of tailing soil where necessary and planting of indigenous species with regular inspection for the removal of invader pioneer species.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.
	After closure		• A 2 – 3 year after care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation.	All mitigation measures within this document comply with the NEMA and DMR rules and regulations. Further does all mitigation measures proofs successful in impact management.	Upon commencement of activity.

OTHER MITIGATION MEASURES NOT LISTED WITH LISTED ACTIVITIES

- Vehicles will be equipped with a red flag on a long enough rod to be easily observed by the heavy vehicle drives and a roll bar
- Personnel will need to be trained on health and safety matters in line with the Health and Safety Act for mining and in the handling and remediation of chemical spills, fire and first aid
- Daily checking of oil/diesel leakages before any vehicle is operated
- Domestic waste containers will be installed and clearly marked for this purpose

- Waste storage containers shall be covered, tip-proof, weather proof and scavenger proof
- The waste storage area shall be fenced off to prevent windblown litter
- The mine shall ensure that all facilities are maintained in a neat and tidy condition and the site shall be kept fee of litter
- No burning, on site burring or dumping of waste shall occur
- Contracts with the local municipality / agencies will be signed for the removal of waste containers on an appropriate schedule of once a week, but if found necessary twice a week
- Access road maintenance throughout the entire project timeframe
- All mine roads will be cleared of foreign materials and ripped to loosen the ground for vegetation re-growth for rehabilitation purposes
- Seedlings of the trees on site should be established on the site to replace those which were removed during mining

1.5 Impact Management Outcomes

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

ACTIVITY Whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyers, etc... etc.... etc.).	**POTENTIAL IMPACT** (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc... etc... etc.	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated (e.g. Construction, commissioning, operational, decommissioning, closure, post-closure)	**MITIGATION TYPE** (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. etc) E.g. • Modify through alternative method • Control through noise control • Controlling through management and monitoring • Remedy through rehabilitation.	**STANDARDS TO BE ACHIEVED** (Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives etc.)
Excavations	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	Loss	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads Rehabilitation	Impact minimized Impact avoided Impact managed
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads Rehabilitation	Impact minimized Impact avoided Impact managed
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards

	Fauna	Migration		Noise level control	Impact minimized
	Water quality	-		-	-
	Noise	Disturbance		Operations during office hours	Impact minimized
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact managed Impact minimized
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		Rehabilitation	Impact remedied
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Impact remedied
	Safety risks	Waste Disposal		Management standards	Impact remedied
Topsoil	Vegetation	Loss	Construction	Vegetation clearing control	Impact minimized
	Geological	-	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed

	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Stockpiles	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided

	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Waste dump	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards

	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Settling dam	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	Loss		Water reticulation	Impact managed and minimized
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive

Office block	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive

Plant site	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	Migration		Noise level control	Impact minimized
	Water quality	Loss		Waste water management	Impact managed
	Noise	Disturbance		Operations during office hours	Impact minimized
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Ablution	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-

	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	Loss		Waste water management	Impact avoided
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Vehicle parking	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided

	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	Migration		Noise level control	Impact minimized
	Water quality	-		-	-
	Noise	Disturbance		Operations during office hours	Impact minimized
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Stores	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards

	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Diesel storage	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	Migration		Noise level control	Impact minimized
	Water quality	-		-	-
	Noise	Disturbance		Operations during office hours	Impact minimized

	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Domestic waste	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	-		-	-
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	-		-	-
	Water quality	-		-	-
	Noise	-		-	-
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided

	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-
	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive
Mine and access roads	Vegetation	Loss	Construction	Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Geological	-	Operational	-	-
	Topographic	Change		Rehabilitation	Impact minimized
	Soil	Pollution		Immediate rehabilitation Control through monitoring	Impact managed Impact minimized
	Grazing field	Loss		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Vegetation	Los / disturbance		Vegetation clearing control Restriction to roads	Impact minimized Impact avoided
	Water table	-		-	-
	Vegetation	Invader plants		Remedy through removal	Rehabilitation standards
	Fauna	Migration		Noise level control	Impact minimized
	Water quality	-		-	-
	Noise	Disturbance		Operations during office hours	Impact minimized
	Air quality	Degradation		Dampening of mine roads Speed restriction	Impact minimized Impact managed
	Archaeological items	Degradation		Avoid sites of significance	Impact avoided
	Sensitive landscape	Loss		Adhere to mitigation measures Avoid significant sensitive sites	Impact minimized Impact avoided
	Visual impact	Scenery loss		-	-

	Waste	Disposal	Decommissioning	Management standards	Positive
	Vegetation	Re-growth		Regular inspection	Rehabilitation standards
	Area rehabilitation	Re-Vegetation	After closure	Regular inspection Closure standards	Rehabilitation standards Positive
	Safety risks	Waste Disposal		Management standards	Positive

1.6 Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplate in paragraphs (1.3) and (1.4) will be achieved)

ACTIVITY Whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyers, etc... etc.... etc.)..	POTENTIAL IMPACT (E.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc... etc... etc.	MITIGATION TYPE (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. etc) E.g. • Modify through alternative method • Control through noise control • Controlling through management and monitoring • Remedy through rehabilitation.	TIME PERIOD FOR IMPLEMENTATION 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 mining, bulk sampling or alluvial diamond prospecting as the case may be.	COMPLIANCE WITH STANDARDS (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)
Excavations	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-

	Topographic change	Rehabilitation	Integrated into activity	This impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures as stipulated in Section A15.1. 2 of this document. E.g. rehabilitation of Mining excavations as the activity commences.
	Soil pollution	Immediate Rehabilitation Monitoring excavation areas	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control Restriction to roads	Upon commencement of activity Integrated into the activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into the activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving

	Water table level	-	-	-
	Invader plants	Regular removal	Upon commencement of activity. Integrated into the activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	Noise level control	Upon commencement of activity.	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented.
	Water quality loss	-	-	-
	Noise disturbance	Operations during office hours	Upon commencement of activity.	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented. E.g. Restrict operations to standard business hours
	Air quality degradation	Damping of cleared areas Speed restriction	Upon commencement of activity.	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.

	Archeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Upon commencement of activity Integrated into activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies.
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Upon commencement of activity. Integrated into the activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. Littering of any product will be seen as an offence and not tolerated.
	Re-vegetation	Regular inspections	Upon commencement of activity. Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.

	Area rehabilitation	Closure standards	Integrated into activity Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated and Section A15.1.2 and B1.4 of this document are the measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.
Topsoil Dump	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-
	Topographic change	Rehabilitation	Integrated into activity Decommissioning of activity	The impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures as stipulated in Section A15.1.2 of this document. E.g. Rehabilitation of topsoil dumps as the activity commences

	Soil pollution	Immediate Rehabilitation Monitoring of areas	Integrated into the activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 of this documents needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and/or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control	Upon commencement of activity Integrated into the activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity. Integrated into the activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plants	Regular removal	Upon commencement of activity. Integrated into activity Decommissioning of activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis

	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality degradation	Dampening of exposed areas Speed restriction	Upon commencement of activity. Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.
	Archeological items	Avoid sites of significance	Before commencement of activity Integrated into activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Upon commencement of activity Integrated into activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Upon commencement of activity Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. littering of any product will be seen as an offence and not tolerated.

	Re-vegetation	Regular inspections	Integrated into activity. Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place
	Area rehabilitation	Closure standards	Integrated into activity Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.
Stockpiles	Vegetation loss	Vegetation clearing control	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-
	Topographic change	Rehabilitation	Integrated into activity Decommissioning of activity	The impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures as stipulated in Section A15.1.2 of this document. E.g. rehabilitation of stock dump areas

	Soil pollution	Immediate rehabilitation Monitoring of area	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and/or remediation. E.g. immediate cleanup should any spillage occur.
	Grazing loss	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plant	Regular removal	Integrated into the activity Decommissioning of activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis

	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality loss	Dampening of exposed areas Speed restriction	Upon commencement of activity. Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity Integrated into activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Upon commencement of activity Integrated into activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-

	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. littering of any product will be seen as an offence and not tolerated.
	Re-vegetation	Regular inspections	Integrated into activity Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Integrated into activity Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.
Waste Dump	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	- .

	Topographic change	Rehabilitation	Integrated into activity Decommissioning of activity	The impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures as stipulated in section A15.1.2 of this document. E.g. Rehabilitation of mining excavations as the activity commences.
	Soil pollution	Immediate rehabilitation Monitoring of areas	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and/or remediation. E.g. immediate cleanup should any spillage occur.
	Grazing loss	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving

	Water table level	-	-	-
	Invader plant	Regular removal	Integrated into activity Decommissioning of activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality degradation	Dampening of areas Speed restriction	Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity Integrated into activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Upon commencement of activity Integrated into activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-

	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. littering of any product will be seen as an offence and not tolerated.
	Re-vegetation	Regular inspections	Integrated into activity Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Integrated into activity Decommissioning of activity	Rehabilitation of disturbed areas is crucial. Within the mitigation measures stipulated and Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.
Settling dams	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. only the necessary vegetation is cleared for the activity.
	Geological change	-	-	-

	Topographic change	Rehabilitation	Integrated into activity Decommissioning of activity	The impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures and closure standards as stipulated in Section A15.1.2 of this document. E.g. rehabilitation of settle waste material.
	Grazing loss	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plant	Regular removal	Integrated into activity Decommissioning of activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis

	Fauna migration	-	-	-
	Water Quality loss	Water reticulation Waste water management	Integrated into activity Decommissioning of activity	This impact can be minimized and/or avoided with proper operational procedures (Section A4.2) and mitigation measures stipulated in this document. E.g. Settling of solid materials and re-use of water in processing operations
	Noise disturbance	-	-	-
	Air quality degradation	Dampening of exposed areas Speed restriction	Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. water of the area with fresh/recycled water
	Archaeological items	Avoid sites of significance	Before commencement of activity Integrated into activity	Impact must be avoided as all times. Section A8.8 and B1.4 needs to be implemented and strictly adhered to in order to achieve successful impact avoidance
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Upon commencement of activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-

	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. Settling of solids from puddle to obtain clean water and ease rehabilitation
	Re-vegetation	Regular inspections	Integrated into activity Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated and Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. continuous rehabilitation of activity by using settled materials where necessary
Office block	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-

	Topographic change	-	-	-
	Soil pollution	Immediate rehabilitation Regular inspections	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and/or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control Restriction to roads	Integrated into activity Decommissioning of activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Restriction to roads	Integrated into activity Decommissioning of activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-

	Invader plants	Regular removal	Upon commencement of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality degradation	Damping of exposed areas Speed restriction	Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies.
	Visual impact	-	-	-

	Waste disposal	Waste management Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. facilitate demarcated areas with waste containers.
	Re-vegetation	Regular inspections	Integrated into activity Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rehabilitation of an area where not activity takes place.
Plant Site	Vegetation loss	Vegetation clearing control Restriction to roads	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only necessary vegetation needs to be cleared.
	Geological change	-	-	-
	Topographic change	-	-	-

	Soil pollution	Immediate Rehabilitation Monitoring of site	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Traffic restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plants	Regular removal	Integrated into activity Decommissioning of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis

	Fauna migration	Noise level control	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented.
	Water quality loss	Waste water management Water reticulation	Integrated into activity Decommissioning of activity	The installation of a settling dam as described in Section B1.4 of this document will aid in the optimal management of waste water. E.g. waste water is pumped into the settling dam for suspended materials to settle out and the water recycled.
	Noise disturbance	Operation only during office hours	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented. E.g. Restrict operations to standard business hours
	Air quality loss	Dampening of site area Speed restriction	Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Sections A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance

	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Integrated into activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. littering of any product will be seen as an offence and not tolerated
	Re-vegetation	Regular inspections	Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulation in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rip and rehabilitated the area before closure of mine

Ablution	Vegetation loss	Vegetation clearing control Restriction to roads	Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-
	Topographic change	-	-	-
	Soil pollution	Immediate Rehabilitation Regular maintenance	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. regular inspection of the chemical toilets against leakage.
	Grazing loss	Vegetation clearing control Restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.

	Vegetation disturbance	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plants	Regular removal	Integrated into activity Decommissioning of activity	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	-	-	-
	Water quality loss	Management standards	Integrated into activity Decommissioning of activity	Impact can be minimized with the adherence to the mitigation measures stipulated in Section B1.4 and operational standards (Section A4.2) of this document. E.g. chemical toilets (septic tanks) needs to be maintained on a regular basis.
	Noise disturbance	-	-	-

	Air quality degradation	Dampening of exposed areas Speed restriction	Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the areas with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. regular removal of waste material by contracting agency

	Re-vegetation	Regular inspections	Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigations measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. ripped and rehabilitate compacted area after removal of structure before closure of activity.
Vehicle parking	Vegetation loss	Vegetation clearing control	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-
	Topographic change	-	-	-

	Soil pollution	Immediate Rehabilitation Monitoring of areas Regular vehicle services Drip pan installation	Integrated into activity Decommissioning of activity.	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. Installation of drip pans
	Grazing loss	Vegetation clearing control Restriction to area	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Restriction to area	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plants	Regular removal	Integrated into activity Decommissioning of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis

	Fauna migration	Noise level control	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented
	Water quality loss	Waste water management	Integrated into activity Decommissioning phase	Impact can be minimized with the adherence to the mitigation measures, stipulated in Section B1.4, and operational standards (Section A4.2) of this document. E.g. Waste water must be captured in sump / container to be removed with chemical waste
	Noise disturbance	Operation only during office hours	Integrated into activity	This impact can only be minimized and adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented. E.g. restrict operations to standards business hours.
	Air quality degradation	Dampening of exposed areas	Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 and of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.

	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies.
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. old parts containing diesel/oil will be discarded in a container provided for this purpose.
	Re-vegetation	Regular inspections	Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rip and rehabilitated compacted areas during the decommissioning of the activity.

Stores	Vegetation loss	Vegetation clearing control	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-
	Topographic change	-	-	-
	Soil pollution	Immediate Rehabilitation Regular inspection Chemical handling control	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control Restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.

	Vegetation disturbance	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plant	Regular removal	Integrated into activity Decommissioning of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality degradation	Dampening of expose areas Speed restriction	Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. water of the area with fresh/recycles water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.

	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscape must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies.
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4 will aid in the avoidance and/or remediation when implemented and adhered to. E.g. waste containers will be removed by contractual companies once 80% full
	Re-vegetation	Regular inspections	Decommissioning of activity.	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. ripped and rehabilitated compacted areas after structures are removed.

Diesel storage	Vegetation loss	Vegetation clearing control	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. the only necessary vegetation needs to be cleared.
	Geological loss	-	-	-
	Topographic change	-	-	-
	Soil pollution	Immediate Rehabilitation Monitoring of area	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. installation of a leak-proof bunker bay for the diesel tank
	Grazing loss	Restriction to cleared areas	Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.

	Vegetation disturbance	Restriction to roads	Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-
	Invader plants	Regular removal	Integrated into activity Decommissioning of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	Noise level control	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this documents needs to be implemented.
	Water quality loss	Waste water management	Integrated into activity Decommissioning phase	Impact can be minimized with the adherence to the mitigation measures, stipulated in Section B1.4, and operational standards (Section A4.2) of this document. E.g. Waste water must be captured in sump / container to be removed with chemical waste

	Noise disturbance	Operations only during office hours	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented. E.g. restrict operations to standard business hours
	Air quality degradation	Dampening of exposed areas Speed restriction	Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done e.g. avoidance of open surface water bodies
	Visual impact	-	-	-

	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section B1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. littering of any product will be seen as an offence and not tolerated.
	Re-vegetation	Regular inspections	Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A5.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rip and rehabilitated the area during decommissioning before closure of activity
Domestic waste	Vegetation loss	Vegetation clearing control	Upon commencement of activity.	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. vegetation clearing should be co-ordinated with activities and only the necessary area cleared.
	Geological change	-	-	-

	Topographic change	-	-	-
	Soil pollution	Immediate Rehabilitation Monitoring of areas	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. immediate cleanup should any litter be seen
	Grazing loss	Restriction to cleared areas	Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Restriction to cleared areas	Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-

	Invader plants	Regular removal	Integrated into activity Decommissioning of activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	-	-	-
	Water quality loss	-	-	-
	Noise disturbance	-	-	-
	Air quality degradation	Dampening of exposed areas	Integrated into activity Decommissioning of activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in section B1.4 needs to be done. E.g. watering of the area with fresh/recycled water.
	Archaeological items	Avoid sites of significance	Before commencement of activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies.
	Visual impact	-	-	-

	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulating in Section B1.4 and A4.2 will aid in the avoidance and/or remediation when implemented and adhered to. E.g. no onsite burring or burning may occur and waste must be discarded as the municipal dump site.
	Re-vegetation	Regular inspections	Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section B1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.
	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document area measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.
Mine and access roads	Vegetation loss	Vegetation clearing control	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section 1.4 of this document. E.g. amount of mine roads needs to be kept to a minimum.
	Geological change	-	-	-

	Topographic change	Rehabilitation	Integrated into activity Decommissioning of activity	The impact that may occur cannot be avoided, but minimized through the implementation of and the strict adherence to the rehabilitation measures as stipulated in Section A15.1.2 of this document. E.g. rip and rehabilitated unnecessary mine roads.
	Soil pollution	Immediate Rehabilitation Monitoring areas	Integrated into activity Decommissioning of activity	Impact must be avoided as far as possible or remediated immediately. Section B1.4 if this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance and / or remediation. E.g. immediate cleanup should any spillage occur
	Grazing loss	Vegetation clearing control Restriction to roads	Upon commencement of activity Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Only the necessary area cleared.
	Vegetation disturbance	Vegetation clearing control Restriction to roads	Upon commencement of activity. Integrated into activity	The impact that my occur cannot be avoided, but minimized through the implementation of and strict adherence to the mitigation measures as stipulated in Section B1.4 of this document. E.g. Restriction to mine roads and no off-road driving
	Water table level	-	-	-

	Invader plants	Regular removal	Integrated into activity.	The establishment of invader plant species can be avoided. The strict adherence to the mitigation measures as stipulated in Section B1.4 of this document will result in positive results. E.g. Removal of invader plant species on a regular basis
	Fauna migration	Noise control	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented
	Water quality loss	-	-	-
	Noise disturbance	Operations only during office hours Mine safety equipment	Integrated into activity	This impact can only be minimized and the adherence to the noise control measures as stipulated in Section B1.4 of this document needs to be implemented. E.g. restrict operations to standard business hours
	Air quality loss	Dampening of mine roads Speed and road restriction	Integrated into activity	The degradation of air quality must be minimized as far as possible. Implementation and adherence to the mitigation measures as stipulated in Section B1.4 needs to be done. E.g. Watering of the area with fresh/recycled water.

	Archaeological items	Avoid sites of significance	Before commencement of activity Integrated into activity	Impact must be avoided at all times. Section A8.8 and B1.4 of this document needs to be implemented and strictly adhered to in order to achieve successful impact avoidance.
	Sensitive landscape	Adherence to all mitigation measures Avoid significant sensitive sites	Before commencement of activity Integrated into activity	The degradation of any sensitive landscapes must be minimized as far as possible. Implementation and adherence to Section A8.8 and B1.4 needs to be done. E.g. avoidance of open surface water bodies
	Visual impact	-	-	-
	Waste disposal	Rehabilitation	Integrated into activity Decommissioning of activity	Waste management procedures, as stipulated in Section 1.4, will aid in the avoidance and/or remediation when implemented and adhered to. E.g. lettering of any product will be seen as an offence and not tolerated.
	Re-vegetation	Regular inspections	Integrated into activity Decommissioning of activity	Re-vegetation of a disturbed area is crucial. Within the mitigation measures stipulated in Section 1.4 of this document are measures that when implemented will optimize this activity. E.g. watering of areas where re-vegetation needs to take place.

	Area rehabilitation	Closure standards	Decommissioning of activity	Rehabilitation of a disturbed area is crucial. Within the mitigation measures stipulated in Section A15.1.2 and B1.4 of this document are measures that when implemented will optimize this activity. E.g. rehabilitation of an area where no activity takes place.

1.7 Financial Provision

1.7.1 Determination of the amount of Financial Provision

1.7.1.1 Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation

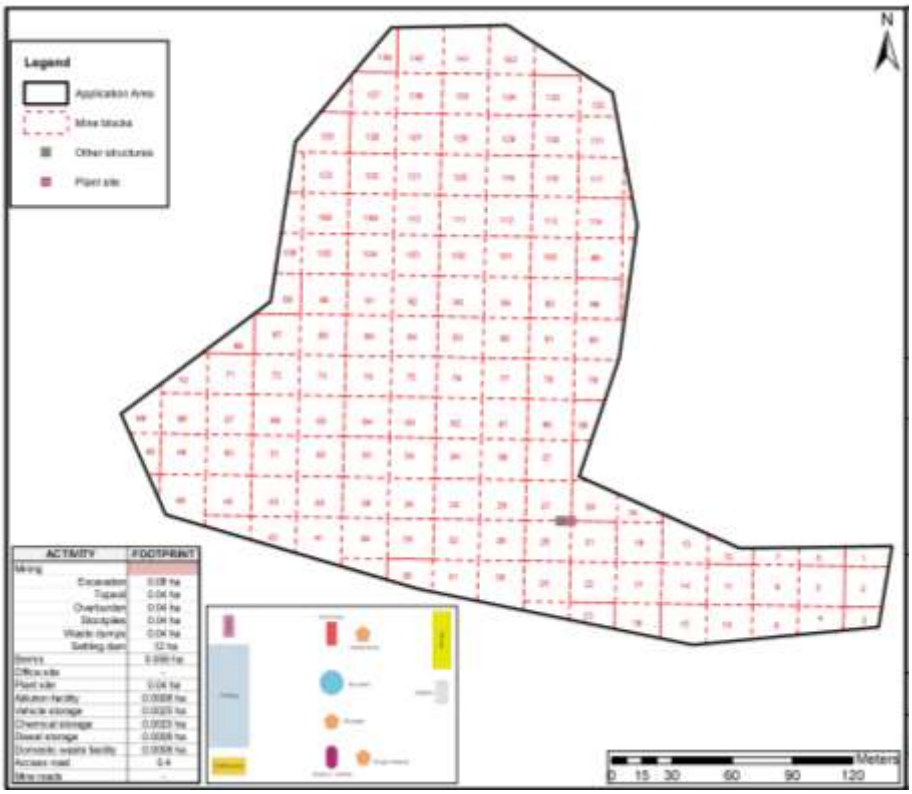
The main closure objective is to create a post-operational environment through extensive rehabilitation to such an extent that it closely represents the original undisturbed environment.

The closure objective could not be aligned with the baseline environment as the project area has disturbed sites caused by historic mining activities which caused some damage to the environment that needs to be rectified.

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

The environmental objectives in relation to closure are still in the consultation process with the landowner.

1.7.1.3 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



- Rehabilitation is planned to occur in the following manner:
  - Bulk sampling
    - The rough material from the screens will be discarded back into the open excavation to initiate the rehabilitation process.
    - The fines (‘dry waste’) from the dewatering screens is discarded with the rough material to fill any possible gaps that may occur between the rough materials.
    - The waste and coarse materials for the sand auger as well as the the surplus from the diamond sorting plant and scrubber is then discarded into the excavation.
    - Once filled the overburden and topsoil is respectively spread over the area to finalize rehabilitation.
    - The rehabilitated area will be continuously inspected against invader / pioneer plant species and to monitor the indigenous vegetation regrowth rate.

- During the decommissioning of the mine the following will be done to ensure a successful closure
  - All infrastructure will be removed for the area and the compacted ground ripped and rehabilitated.
  - Mine roads will also be ripped and rehabilitated.
  - Where necessary will the settled material from the settling dam be used as a topsoil to finalize rehabilitation
  - All rehabilitated areas will be monitored and regularly inspected against invader / pioneer species as well as monitoring the indigenous vegetation regrowth rate.

1.7.1.4 Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives

Throughout the whole document during the environmental assessment and environmental management all possible management, remediation and mitigation measures were planned toward the rehabilitation of the environment to result in an outcome compatible with the closure objectives.

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

The calculated total amount necessary for the financial provision to manage and rehabilitate the environment is **R 412 725.07**

CALCULATION OF THE QUANTUM

Applicant: MOSITO MINING (PTY) LTD Location: DITOITSPAN 119
Date: Nov-16

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	400	R 13.77	1	1	R 5 508.00
2 (A)	Demolition of steel buildings and structures	m2		R 191.77	1	1	R -
2(B)	Demolition of reinforced concrete buildings and structures	m2	8	R 282.61	1	1	R 2 260.88
3	Rehabilitation of access roads	m2	400	R 34.32	1	1	R 13 728.00
4 (A)	Demolition and rehabilitation of electrified railway lines	m		R 333.07	1	1	R -
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m		R 181.68	1	1	R -
5	Demolition of housing and/or administration facilities	m2		R 383.54	1	1	R -
6	Opencast rehabilitation including final voids and ramps	ha	0.12	R 195 202.06	1	1	R 23 424.25
7	Sealing of shafts adits and inclines	m3		R 102.95	1	1	R -
8 (A)	Rehabilitation of overburden and spoils	ha	0.12	R 134 637.40	1	1	R 16 884.49
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0.12	R 166 941.16	1	1	R 20 932.94
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha		R 404 676.26	1	1	R -
9	Rehabilitation of subsided areas	ha	0.056	R 112 236.14	1	1	R 6 285.22
10	General surface rehabilitation	ha	0.0066	R 106 180.23	1	1	R 700.79
11	River diversions	ha		R 106 180.23	1	1	R -
12	Fencing	m	1100	R 121.12	1	1	R 133 232.00
13	Water management	ha	0.12	R 40 372.71	1	1	R 4 844.73
14	2 to 3 years of maintenance and aftercare	ha	5	R 14 139.49	1	1	R 70 652.43
15 (A)	Specialist study	Sum				1	R -
15 (B)	Specialist study	Sum				1	R -
					Sub Total 1		R 296 753.72

1	Preliminary and General	R 35 610.45	weighting factor 2 1	R	35 610.45
2	Contingencies	R	29 675.37	R	29 675.37
			Subtotal 2	R	362 039.54
			VAT (14%)	R	50 685.54
			Grand Total	R	412 725.07

1.7.1.6 Confirm that the financial provision will be provided as determined.

The applicant will provide the total amount of **R 412 25.07** in the form of a bank guarantee on the granting of this Mining Permit application.

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

1.8.1 Monitoring of Impact Management Actions
1.8.2 Monitoring and reporting frequency
1.8.3 Responsible persons
1.8.4 Time period for implementing impact management actions
1.8.5 Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PEROIDS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS.
Excavations	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Topsoil Dump	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly

Stockpiles	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Waste Dump	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Settling dams	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Office block	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly

Mineral processing	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Ablution	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Vehicle parking	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Stores	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly

Diesel storage	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Domestic Waste	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly
Mine and access roads	Vegetation loss	Extent of vegetation loss	Environmental Manager	Yearly
		Vegetation re-establishment rate	Environmental Manager	Yearly
		Presence of invader species	Environmental Manager	Yearly
	Soil pollution	Visible spills on ground	Environmental Manager	6 monthly
	Noise disturbance	Monitoring of noise levels	Noise monitoring specialist	6 monthly
	Air quality loss	Monitoring of dust fall	Air monitoring specialist	6 monthly
	Waste management	Monitoring waste management	Environmental specialist	Yearly

1.9 Indicate the frequency of the submission of the performance assessment / environmental audit report

The submission of the performance assessment / environmental audit reports will be done on an annual basis as legislatively required.

1.10 Environmental awareness plan

1.10.1 Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work

Initial employee training will be done on employment of personnel, handling all issues related to General and Conservational Environmental Awareness. Follow up training workshops will be held on an annual basis and when expansion and/or implementation of new equipment are introduced to the mine.

Motivation:

- Inspections will be held on a regular basis against the do's and don'ts listed within this document. Immediate penalties can be given to offenders.

- On the discretion of the mine, motivation can be implemented

- By all-expenses paid, braai/function at the end of unbroken fixed environmental contamination hours.

1.10.2 Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment.

- Everyday Awareness
  - Littering – As wild species still roam the area from time to time, the accidental ingestion of litter is a possibility and highly dangerous as it can and will kill the animal involved. Even when not ingested smaller mammals are always at risk in getting tangled with plastics, rubber etc., this can ensure numerous suffering and eventually death of the animal.

    Plastics, rubber, some types of paper and glass are not biodegradable and release poisons into the environment when exposed to harsh weather conditions. Even when buried, they tend to resist weathering. These poisons released into the environment can be harmful to our plant species, but even if it is not harmful to the plant itself the plant tend to store all absorbed substances in their fruit, roots and root tuber and the last mentioned may be utilized by humans or animals leading to the consumption for harmful chemicals that may pose illness or even death.

    No glass, paper, plastics and cigarette duds are to be littered during the duration of the mining operations. Garbage containers will be installed and maintained to prevent litter pollution.

- Open fires – The Northern Cape is generally known as a semi-arid region with less than moderate rainfall per annum. It is however by law prohibited to start open fires.

  Due to the hot and dry conditions of the region is it very susceptible for runaway fires. No open fires will be tolerated during the mining period and as this is regarded by law as a criminal offence related penalties can be issued. The littering of self ignitable substances or objects (e.g. matches) are also not allowed as it will always pose a danger regarding field fires, and if such happen the person responsible to the littering will be charged with arson and related penalties can be issued.

- Sanitation and Personal Hygiene
  Sanitation and personal hygiene is a very important subject for environmental and social health. Improper sanitation habits can lead to intestinal parasite infestations within humans and animals, endangering the overall health of the recipients. Unfortunately these infestations do not stay only within the host and will spread rapidly throughout a community or herd.

  Human viruses like Tubercle bacillus (TB) and Herpes simplex, both are very contagious, spread vigorously throughout a community not handling good hygiene habits/practices.

  - ✓ Strict use and cleanliness of the toilette facilities will be enforced during the entire life of mine.

  - ✓ Employees will further be advised and educated on the importance of consuming clean and fresh water. Several sites will be identified and water tanks will be erected for safe human water consumption.

- Fauna – Wild animals roaming within the area is a common sight from time to time, but reptiles and smaller rodents permanently inhabit the area. Wild animals are and will always be very dangerous.

  Mine employees will be advised to stay clear from any wild animal or reptile and not to try and provoke them in any manner. They will further be educated on dangerous and poisonous reptiles and the actions to be taken when such reptiles are encountered.

- Flora

  The vegetation of the Northern Cape regions is very fragile and easily endangered by pioneer species invading the Northern Cape at an alarming rate and due to the slow growth rate of our indigenous species.

  - ✓ No indigenous shrubs of trees will be unnecessarily uprooted and utilized for firewood, the employees will rather be advised to utilize pioneer species and be educated on which plant species are indigenous, endangered or pioneer.

  - ✓ If any pioneer species are observed the reporting thereof to the rehabilitation site manager will be highly recommended.

  - ✓ Penalties will be given to individuals that damage any endangered species e.g. cutting branches/bark from a Camel/Grey Camel tree.

- Work Related Awareness
  - Work shops

    All work shop personnel will receive a basic information session regarding the threats of diesel, oil and other related chemicals impose on the environment.

    The following must be implemented or enforced:-

    - ✓ Before cleaning the work shop, make sure all spillages have been treated.

    - ✓ When handling related chemicals make sure of non-spillage procedures.

    - ✓ Make sure boots are cleaned from chemicals before leaving the workshop into the unprotected environment.

    - ✓ Vehicles must be in the workshop before removal of drip pans.

    - ✓ When working on equipment outside the workshop, the appropriate measures needs to be implemented to prevent chemical spillage.

    - ✓ Related waste/scrap must be dispose off in the appropriate manner.

- Wash bay

  Although washing of vehicles do not pose a risk to the environment several pointers need to be adhered to:-

  - ✓ Be sure that the electrical wires of the washing equipment do not make any contact with water used.
  - ✓ Plastic and domestic wastes removed from the vehicles from the vehicles need to be discarded in the appropriate manner
  - ✓ If any oil or diesel leakage is observed, immediate communication with the workshop and repair of vehicle needs to be done, before it is cleaned or can be cleaned in the workshop.
  - ✓ Make sure boots are cleaned from chemicals before leaving the bay into the unprotected environment
  - ✓ When a detergent is used it must be ensured that it is bio-degradable and allocated for this purpose.

- Heavy vehicle operators

  All heavy vehicles pose a threat to the environment in several ways. Some awareness must be initiated by the operators to minimize the treat to the environment.

  The following must be implemented or enforced:-

  - ✓ Daily checking for oil/diesel leakages before vehicle is operated
  - ✓ Drip pans must be installed during “off-time”
  - ✓ Immediate communication with the workshop when faults are observed.
  - ✓ Strict adherence to the mine roads and no off-road driving to prevent trampling of vegetation
  - ✓ Driving speed must be complied with. Beware of animals, workers and other vehicles.

- Machinery operators

  Although the operational mining equipment does not pose any environmental risk, employees still need to adhere to some measurements to prevent spillage.

- Maintenance personnel

  All maintenance personnel must receive basic training on work related environmental awareness to minimize/eliminate the possibility of environmental degradation.

  Pointers that will be looked at:-

  ✓ Electricians may not leave any cables unprotected scattered on the site – animals may get tangled up.

  ✓ During fencing/rehabilitation common fence wires may not be left scattered as these rust over time – any cuts to animals and humans (sepsis and tetanus risk) can lead to suffering or great discomfort.

  ✓ No metals may be left scattered as it pose the same threat as described directly above

  ✓ All personnel handling chemical relating products must follow handling procedures – any spillage contaminating the ground will pose risk to environmental degradation

  ✓ All chemical used must be put to storage afterwards – containers may leak and environmental contamination occurs.

1.11 Specific information required by the Competent Authority

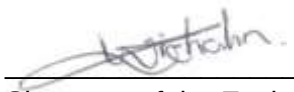
(Among others, confirm that the financial provision will be reviewed annually)

- Annually renewal of financial provision
- Annual Monitoring and Compliance Report
- Annual Progress Report
- Annual Environmental Awareness Training Report

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; and
d) that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.



Signature of the Environmental Assessment Practitioner
Name of Company: **LW Consultants (Pty) Ltd**
Date: **14 November 2016**

***** END *****