



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

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

IMPORTANT NOTICE

Kindly note that:

1. As from 8 December 2014, this document serves as the application form, and incorporates the requisite documents that are to be submitted together with the application for the necessary environmental authorisations in terms of the said Acts.
2. This application form is applicable while the Mineral and Petroleum Resources Development Amendment Act of 2008 is in effect, as the form may require amendment should the Act be further amended.
3. Applicants are required to apply for the necessary water use licence and any other authorisations nor licences to the relevant competent authorities as required by the relevant legislation. Upon acceptance of an application for a right or permit in terms of the MPRDA, applicants will be required to provide evidence to the Regional Manager that a water use licence has been applied for.
4. The Regional Manager will respond to the application and provide the reference and correspondence details of the Competent Authority, and in the event that the application for a right or permit is accepted, together with the date by which the relevant environmental reports must be submitted. Notwithstanding anything that may appear to be stated to the contrary in the acceptance letter, the timeframes are in fact aligned and the prescribed timeframes for the submission of documents as regulated by the NEMA regulations must be strictly adhered to.
5. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
6. The failure to submit complete information as required in this application form may result in the refusal of the application for an environmental authorisation and consequently of the right or permit applied for.
7. This application must be submitted through the SAMRAD online application system of the Department of Mineral Resources under "Other documents to upload".
8. Unless protected by law, all information filled in on this application form will become public information on receipt by the competent authority. Any interested and affected party should and shall be provided with the information contained in this application on request, during any stage of the application process.
9. Please note that an application fee is payable in terms of the National Environmental Management Act and the National Waste Management Act, which fees must be paid upon lodgement of the application. Should the said application fees not be paid as prescribed the application for a right or permit in terms of the Mineral and Petroleum Resources Development Act cannot be considered to have been made in the prescribed manner and the said application for a right or permit will have to be rejected. In this regard the type of applications must be identified in the table below.

PLEASE STATE TYPE OF AUTHORISATIONS BEING APPLIED FOR.

APPLICATION TYPE	APPLICABLE FEE	Mark with an X where applicable
NEMA S&EIR application on its own	R10 000.00	<input type="checkbox"/>
NEMA BAR application on its own	R 2 000.00	<input checked="" type="checkbox"/>
NEMWA S&EIR application on its own	R10 000.00	<input type="checkbox"/>
NEMWA BAR application on its own	R 2 000.00	<input type="checkbox"/>
NEMA S&EIR application combined with NEMWA S&EIR application	R 15 000.00	<input type="checkbox"/>
NEMA BAR application combined with NEMWA BAR application	R 3 000.00	<input type="checkbox"/>
NEMA S&EIR application combined with NEMWA BAR application	R 11 000.00	<input type="checkbox"/>

1. CONSULTATION BASIC ASSESSMENT AND/ OR SCOPING REPORT

CONSULTATION BASIC ASSESSMENT PROCESS

2. DETAILS OF THE APPLICANT

Project applicant:	Dirk Lochner Tip Bk (cc)		
Registration no (if any):	2005/134413/23		
Trading name (if any):	Dirk Lochner Transport		
Responsible Person, (e.g. Director, CEO, etc):	Francois Lochner		
Contact person:	Francois Lochner		
Physical address:	23 Oudepond street, Wellington Industrial Park		
Postal address:	P.O. Box 1217, Wellington		
Postal code:	7654	Cell:	083 261 8531
Telephone:	083 261 8531	Fax:	0865715559
E-mail:	lochnertransport@mweb.co.za		

3. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP:	Mr Nicolaas Hanekom		
Professional affiliation/registration:	SACNASP Pri.Sci.Nat (Ecological Science) 400274/11.		
Contact person (if different from EAP):	Nicolaas Hanekom		
Company:	Eco Impact Legal Consulting (Pty) Ltd		
Physical address:	3rd floor Mariendahl House, cnr Main and Campground Roads, Claremont		
Postal address:	P.O Box 45070, Claremont, South Africa		
Postal code:	7735	Cell:	0769636450
Telephone:	021 6711 660	Fax:	021 671 9976
E-mail:	nicolaas@ecoimpact.co.za		

If an EAP has not been appointed please ensure that an independent EAP is appointed as stipulated by the NEMA Regulations, prior to the commencement of the process.

The declaration of independence and the Curriculum Vitae (indicating the experience with environmental impact assessment and relevant application processes) of the EAP must also be attached as **Appendix 1**.

Nicolaas Hanekom is a registered Professional Natural Scientist (Ecology) with the South African Council for Natural Scientific Professions (“SACNASP”) and a qualified Environmental Assessment Practitioner (“EAP”) who holds a Masters Technologiae, Nature Conservation (“Vegetation Ecology and Biodiversity Assessment”) degree from the Cape Peninsula University of Technology. He further qualified in Environmental Management Systems ISO 14001:2004, at the Centre for Environmental Management, North-West University, as well as Environmental Management Systems ISO 14001:2004 Audit: Internal Auditors Course to ISO 19011:2003 level, from the Centre for Environmental Management, North-West University qualifying him to audit to ISO/SANS environmental compliance and EMS standards.

Nicolaas has presented lectures in two subjects at the Cape Peninsula University of Technology. He has 24 years of environmental planning experience, working for Free State and Western Cape departments of environmental affairs, where he reviewed and commented on development (EIA) and mine permit or right applications in the West Coast Region.

He has also been involved in the implementation of numerous environmental management programmes and systems, environmental auditing, environmental impacts for environmental authorizations, mine rights and permits, waste licenses, Atmospheric Emissions Licenses, applications for water use authorizations and management and rectification of environmental impacts on sites and facilities (Refer to **Appendix 1** for CV).

4. PROJECT DESCRIPTION

Farm Name:	PORTION 8 OF THE VREYEGUNST FARM NO 440 DIVISION PAARL
Application area (Ha)	5 Ha
Magisterial district:	PAARL
Distance and direction from nearest town	THE PROPERTY IS LOCATED APPROXIMATELY 15 KILOMETRES WEST OF WELLINGTON, WITHIN THE MUNICIPAL JURISDICTION OF DRAKENSTEIN MUNICIPALITY. THE PROPERTY CAN BE ACCESSED FROM SLENT ROAD (DR01123) LOCATED TO THE NORTHWEST OF THE PROPERTY.
21 digit Surveyor General Code for each farm portion	C0550000000044000008
Locality map	Attach a locality map at a scale not smaller than 1:250000 and attach as Appendix 2
Description of the overall activity. (Indicate Mining Right, Mining Permit, Prospecting right, Bulk Sampling, Production Right, Exploration Right, Reconnaissance permit, Technical co-operation permit, Additional listed activity)	Mining permit to mine building sand on a 5ha area.

5. ACTIVITIES TO BE AUTHORISED

(Please provide copies of Environmental Authorisations obtained for the same property as **Appendix 3**). **NA**

(For an application for authorisation indicated. Please ensure that involves more than one listed activity that, together, make up one development proposal, all the listed activities pertaining to this application must be included. Note that any authorisation that may result from this application will only cover activities specifically applied for). (Attach a proposed site plan, drawn to a scale acceptable to the competent Authority, showing the location of all the activities to be applied for, as **Appendix 4**)

Site plan attached under Appendix 4

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE (GNR 983, GNR 984 or GNR 985)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
(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.)				
Mining - excavation of building silica sand on an area of 5ha	5Ha	X	GNR 983, Activity no. 21	NA
Mining closure. The decommissioning of the 5ha mine area	5Ha	X	GNR 983, Activity no. 22	NA
Mining - excavation of building silica sand on an area of 5ha	5Ha	X	GNR 983, Activity no. 28	NA

6. PUBLIC PARTICIPATION

(Provide details of the public participation process proposed for the application as required by Regulation.

Details of the Public Participation process to be followed.

6.1.1. IDENTIFICATION OF INTERESTED AND AFFECTED PARTIES TO BE CONSULTED

IDENTIFICATION CRITERIA	Mark with an X where applicable	
	YES	NO
Will the landowner be specifically consulted?	X	NA
Will the lawful occupier on the property other than the Landowner be consulted?	X	NA
Will a tribal authority or host community that may be affected be consulted?	NA	X
Will recipients of land claims in respect of the area be consulted?	NA	X
Will the landowners or lawful occupiers of neighbouring properties been identified?	X	NA
Will the local municipality be consulted?	X	NA
Will the Authority responsible for power lines within 100 metres of the area be consulted?	X	NA

Will Authorities responsible for public roads or railway lines within 100 metres of the area applied for be consulted?	NA	X
Will authorities responsible for any other infrastructure within 100 metres of the area applied for be consulted? (Specify)	NA	X
Will the Provincial Department responsible for the environment be consulted?	X	NA
Will all of the parties identified above be provided with a description of the proposed mining /prospecting operation as referred above?	X	NA
Will all the parties identified above be requested in writing to provide information as to how their interests (whether it be socio-economic, cultural, heritage or environmental) will be affected by the proposed mining project?	X	NA
Other, Specify	NA	

6.1.2. DETAILS OF THE ENGAGEMENT PROCESS TO BE FOLLOWED

<p>Steps to be taken to notify interested and affected parties(Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultations. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. Photographs of notice boards, and copies of advertisements and notices notifying potentially interested and affected parties of the proposed application must be attached as Appendix)</p>	<p>PROVIDE DESCRIPTION HERE</p> <p>Potential I&APs will be notified about the project by:</p> <ul style="list-style-type: none"> ▪ Fixing a notice board at the boundary of the site in compliance with the Regulations. All relevant and required information to be displayed on the notice board. The notice board will contain the following minimum information (Size of Board 70 x 50 cm): <ul style="list-style-type: none"> ○ how to register as an interested and affected party; ○ the manner in which representations on the application may be made; ○ where further information on the application or activity can be obtained; and ○ the contact details of the person(s) to whom representations may be made. ○ The fact that the public participation process had commenced, that a basic assessment process will be followed, the dates within which they can register or send comments and what the proposed activity constituted, was displayed. ▪ Placing an advertisement in a local newspaper in compliance with the Regulations. An advert will be place in the local newspaper notifying the public of the proposed development and inviting them to register as Interested and Affected Parties within 30 days. ▪ Notices will be sent via registered mail to the owners and occupiers of land on and adjacent to the site where the activity is to be undertaken. The notice will request them to register as Interested and Affective Parties (I&APs) and invite them to provide written comments together with their name, contact details and an indication of any direct business, financial, personal or other interest which they have in the application to the contact person within 30 days from the date of the notice. <p>Registered Interested and Affected Parties and key departments are afforded a 30 day commenting period on the Draft BAR, Application, EMP and Closure/Rehabilitation Plan. The comments are recorded and the EAP (specialists) respond to the comments and compile the comments and response report where after it is submitted to DMR for a decision.</p>
<p>Information to be provided to Interested and Affected Parties.</p>	<p>Compulsory</p> <ul style="list-style-type: none"> ▪ The site plan. ▪ List of activities to be authorised

	<ul style="list-style-type: none"> ▪ Scale and extent of activities to be authorised ▪ Typical impacts of activities to be authorised (e.g.surface disturbance, dust, noise, drainage, fly rock etc.) ▪ The duration of the activity. ▪ Sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land)
	Other, specify: None
Information to be required from Interested and Affected Parties.	<p>Compulsory</p> <ul style="list-style-type: none"> ▪ To provide information on how they consider that the proposed activities will impact on them or their socio-economic conditions ▪ To provide written responses stating their suggestions to mitigate the anticipated impacts of each activity ▪ To provide information on current land uses and their location within the area under consideration ▪ To provide information on the location of environmental features on site to make proposals as to how and to what standard the impacts on site can be remedied. requested to make written proposals ▪ To mitigate the potential impacts on their socio economic conditions to make proposals as to how the potential impacts on their infrastructure can be managed, avoided or remedied).
	Other, Specify None

7. Description of the assessment process to be undertaken

ITEM	DESCRIPTION
Environmental attributes. Describe how the Environmental attributes associated with the development footprint will be determined.	The environmental attributes associated with the development footprint will be determined through review of existing information and a site visit to the property where consideration was given to the existing environment and impacts of sensitive areas. The nature, extent, duration, probability and significance of environmental impacts are ranked based according to the impact it has on the identified sensitive environment.
Identification of impacts and risks. (Describe the process that will be used to identify impacts and risks.	<p>Considering the baseline environment, all proposed activities will be evaluated against the environmental attributes (provisional list provided below but will be finalised based on above process) to identify potential impacts / risks. These impacts / risks will be subject to a screening process and classified as either insignificant, uncertain, or potentially significant impacts / risks.</p> <p>Environmental Attributes:</p> <ul style="list-style-type: none"> ▪ Aesthetics / Visual effects ▪ Sites of heritage & cultural interest ▪ Air Quality ▪ Soil ▪ Ecology / Fauna and Flora ▪ Socio-economic considerations ▪ Geological features ▪ Surface water ▪ Ground water ▪ Topography ▪ Noise / Sound levels ▪ Vibration ▪ Sensitive receptors
Consideration of alternatives. Describe how	The EIA Regulations, 2014 require that all EIA processes must identify and describe “alternatives to the proposed activity that are feasible and reasonable”. Different types or

<p>alternatives, and in particular the alternatives to the proposed site layout and possible alternative methods or technology to be applied will be determined.</p>	<p>categories of alternatives can be identified, e.g. location alternatives, type of activity, design or layout alternatives, technology alternatives and operational alternatives. The “No-Go” or “No Project” alternative must also be considered.</p> <p>A number of alternatives will be considered during preliminary mine planning. These alternatives, as well as reasons for their exclusion from further consideration, will be summarised in the reports. Mine layouts alternatives will take environmental sensitivities into account in considering the proposed mining footprint. The mine footprint will be identified using the pre-mining land capability as per the South African Chamber of Mines (1991) guidelines.</p> <p>In the case of this sand mine, the identification of feasible alternatives is severely constrained by a number of factors, including:</p> <ul style="list-style-type: none"> ▪ The location of the sand deposit on the property and the existing agriculture infrastructure and farming operations on the property ▪ The specific mining footprints within the application properties take account of environmental constraints identified during the Impact Assessment Phase described above ▪ Mining footprints will be carefully considered from a biophysical perspective, given the nature of open cast / strip mining, mine layout and phasing alternatives are not expected to have any meaningful consequence with respect to environmental impacts; ▪ The mine area will be mined using existing, accepted sand mining methods and therefore no technology or process alternatives will be considered; and ▪ Given the nature of open cast / strip mining, alternative physical mining technologies are not expected to have any meaningful implications for environmental impacts.
<p>Process to assess and rank impacts. Describe the process to be undertaken to identify, assess and rank the impacts and risks each individual activity.</p>	<p>Following the screening process described above, a ranking tool will be used to rank the significance of the effects of the impact / risk. This tool is a quantitative manner of investigating, assessing and evaluating the potential impacts of the proposed activity on the environment, socio-economic conditions and cultural heritage.</p> <p>ASSESSMENT METHODOLOGY</p> <p>For each impact, the EXTENT (spatial scale), MAGNITUDE (size or degree scale) and DURATION (time scale) are used to ascertain the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place.</p> <p>RISK MANAGEMENT</p> <p>The utilisation of materials sources is in essence about the management of assets and risk, and hence, the approach adopted for the compilation of the EMP is founded on a risk management philosophy. Risk management is best described as the process of measuring/ assessing risk and then developing strategies to address the identified risks. As such, it represents a logical and systematic approach to the identification, analysis, assessment, treatment, monitoring, and communication of the risks inherent to the use of material sources.</p> <p>The risk assessment tool that will be used is based upon the International Organisation for Standardisation (ISO), ISO 31000:2009 Risk Management – Principles and Guidelines, and represents a systematic and proven process consisting of the following key steps:</p> <ul style="list-style-type: none"> ▪ Establish the context to clarify the scope of the risk assessment process; ▪ Identify the potential risks; ▪ Evaluate the identified risks to determine the probability of a risk occurring and its consequence; ▪ Map the identified risks to compared them against criteria for treatment; and

	<ul style="list-style-type: none"> ▪ Develop appropriate risk treatments or mitigation measures. <p>In terms of the M&PRDA, the mining right/permit holder liability for a particular material source persists until such time as a Closure Certificate has been issued by DMR. An advantage of the risk assessment approach detailed here is that it links in well with the legal requirements related to closure, specifically the requirements for the completion of an Environmental Risk Report as part of closure applications.</p>												
<p>Contribution of specialist reports Describe how specialist reports, if required, will be taken into consideration and inform the impact identification, assessment and remediation process.</p>	<p>Agricultural specialist reports are anticipated as the proposed sand mine area is ploughed and planted with vegetables.</p>												
<p>Determination of impact management objectives and outcomes. Describe how impact management objectives will be determined for each activity to address the potential impact at source, and how the impact management outcomes will be aligned with standards.</p>	<p>As stated above, the significance of the effects resulting from impact / risks will be ranked using a ranking tool. The significance ranking of the impact will then determine where / for which activities management objectives are required (see table below). Management objectives and outcomes of each impact / risk will be influenced by the receptors, the receiving environment and the legal requirements. For example:</p> <ul style="list-style-type: none"> ▪ where the receptor is a residential area, legal standards applicable to inhabited areas will be applied; ▪ where the receiving environment is uninhabited and unaffected by anthropogenic activities, the objectives and outcomes set will strive to maintain the sense of place. <table border="1" data-bbox="491 1048 1433 1960"> <tr> <td colspan="2" data-bbox="491 1048 1433 1086">Significance:</td> </tr> <tr> <td data-bbox="491 1086 699 1249">Low</td> <td data-bbox="699 1086 1433 1249"> <p>Objective: To ensure the significance ranking does not increase. Outcome: To maintain a low significance ranking. Although management measures may not be necessary, in some instances they may be encouraged to ensure the outcome is achieved.</p> </td> </tr> <tr> <td data-bbox="491 1249 699 1420">Low-Medium</td> <td data-bbox="699 1249 1433 1420"> <p>Objective: To ensure the significance ranking does not increase. Outcome: To maintain a low-medium significance ranking. Although management measures may not always be necessary, in most instances they will be encouraged to ensure the outcome is achieved.</p> </td> </tr> <tr> <td data-bbox="491 1420 699 1590">Medium</td> <td data-bbox="699 1420 1433 1590"> <p>Objective: To ensure the significance ranking does not increase. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a low-medium significance ranking. Mitigation or management measures will be necessary to ensure the outcome is achieved.</p> </td> </tr> <tr> <td data-bbox="491 1590 699 1825">Medium-High</td> <td data-bbox="699 1590 1433 1825"> <p>Objective: To reduce the significance ranking. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a medium or lower significance ranking. Where possible activities causing the impact / risk will be avoided and if not possible, mitigation and / or management measures will be necessary to ensure the outcome is achieved.</p> </td> </tr> <tr> <td data-bbox="491 1825 699 1960">High</td> <td data-bbox="699 1825 1433 1960"> <p>Objective: To reduce the significance ranking. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a medium or lower significance ranking.</p> </td> </tr> </table>	Significance:		Low	<p>Objective: To ensure the significance ranking does not increase. Outcome: To maintain a low significance ranking. Although management measures may not be necessary, in some instances they may be encouraged to ensure the outcome is achieved.</p>	Low-Medium	<p>Objective: To ensure the significance ranking does not increase. Outcome: To maintain a low-medium significance ranking. Although management measures may not always be necessary, in most instances they will be encouraged to ensure the outcome is achieved.</p>	Medium	<p>Objective: To ensure the significance ranking does not increase. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a low-medium significance ranking. Mitigation or management measures will be necessary to ensure the outcome is achieved.</p>	Medium-High	<p>Objective: To reduce the significance ranking. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a medium or lower significance ranking. Where possible activities causing the impact / risk will be avoided and if not possible, mitigation and / or management measures will be necessary to ensure the outcome is achieved.</p>	High	<p>Objective: To reduce the significance ranking. Outcome: To reduce either the probability or consequence of the impact and aim for achieving a medium or lower significance ranking.</p>
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		Where possible activities causing the impact / risk will be avoided and if not possible, mitigation and / or management measures will be necessary to ensure the outcome is achieved.
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8. OTHER AUTHORISATIONS REQUIRED

LEGISLATION	Mark with an X where applicable			
	AUTHORISATION REQUIRED		APPLICATION SUBMITTED	
	YES	NO	YES	NO
SEMA's				
National Environmental Management: Air Quality Act		X		
National Environmental Management: Biodiversity Act		X		
National Environmental Management: Integrated Coastal Management Act		X		
National Environmental Management: Protected Areas Act		X		
National Environmental Management: Waste Act		X		
National legislation				
Mineral Petroleum Development Resources Act	X		X	
National Water Act		X		
National Heritage Resources Act	X		X	
Others: Please specify				

Please provide proof of submission of applications in **Appendix 5**.

In the event that an authorization in terms of the National Environmental Waste Management Act is required for any of the activities applied for please state so clearly in order for such an authorisation to be considered as part of this application.

NA

9. DRAFT EMPr

For consultation purposes, provide a high level approach to the management of the potential environmental impacts of each of the activities applied for.

ACTIVITIES	PHASE (of operation in which activity will take place).	SIZE AND SCALE (of Disturbance)	TYPICAL MITIGATION MEASURES	COMPLIANCE WITH STANDARDS
<p>(E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc</p> <p>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</p>	<p>State; Planning and design, Pre-Construction Construction, Operational, Rehabilitation, Closure, Post closure.</p>	<p>(volumes, tonnages and hectares or m²)</p>	<p>(E.g. storm water control, dust control, noise control, access control, rehabilitation etc....., etc.....)</p>	<p>(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)</p>

plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)				
Excavations; Loading, hauling and transport and roads	Operational, Rehabilitation, Closure	5 Ha	<p>Dust</p> <p>Reduce drop height of material to a minimum. Area will be mined in phases to reduce the barren areas. Temporarily halt material handling in windy conditions. A speed limit of 30km/hour will be displayed and enforced through a fining system. All vehicle drivers entering the site will be informed of the speed limit. Speed limit will be applicable when delivery trucks drive through areas where farmyard and housing is next to the road.</p>	<p>The dust generated and fallout will be monitored against the requirements described below and the activity will cease and mitigation measures implemented to ensure that the dust generated as a result of the activity meets the regulatory requirements. The National Dust Control Regulations regulates the following:</p> <p>No person may conduct any activity in such a way as to give rise to dust in such quantities and concentrations that the dust or dust fallout has a detrimental effect on the environment, including health, social, economic, ecological or cultural heritage conditions or has contributed to the degradation of the ambient air quality beyond the premises where it originates from; or that the dust remains visible in the ambient air beyond the premises where it originates from; or if the dust fall at the boundary or beyond the boundary of the premises where it originates exceeds: 1200 mg/m²/day averaged over 30 days, measured in accordance with reference method ASTM D1739 (Standard Test Method for Collection and Measurement of Dustfall (Settleable Particulate Matter)). It is important to note that people experience dust deposition as a nuisance effect, and that there are no direct human health implications because the dust does not reach the lungs. Indirect effects on human and animal health may</p>

				result from the deposition of dust containing toxicants onto edible plants. Heavy dust deposition can have detrimental effects on plants if the leaves are smothered to the extent where transpiration and photosynthesis are affected. Particulate Matter). Two dust fallout incidents that exceed the limit may occur within a year (not sequential months).
Excavations; Loading, hauling and transport and roads	Operational, Rehabilitation, Closure	5 Ha	<p>Noise</p> <p>No activities that may generate noise levels above the legal limit in terms of the Environmental Conservation Act, Western Cape Noise regulations will be conducted.</p> <p>Machinery and vehicles should be regularly maintained to prevent excessive noise.</p> <p>All machinery and work activities must adhere to the requirements of the noise regulations.</p>	The standard below will be used to measure noise levels and impacts. Table 2 of SANS 10103:2004 <i>The measurement and rating of environmental noise with respect to land use, health, annoyance and to speech communication</i> where the daytime, equivalent continuous rating level is given as 45 dBA for Rural Districts.
Excavations; Loading, hauling and transport and roads	Operational, Rehabilitation, Closure	5 Ha	<p>Emissions</p> <p>Vehicles and machinery on the site will be monitored for excessive emissions.</p> <p>Vehicles and machinery will be maintained to minimize emissions. A log book will be filled in to keep a record of all maintenance problems encountered and mitigation measures implemented to resolve the problem.</p> <p>Vehicles and machinery emitting excessive emissions will be stopped immediately and not allowed to operate until the necessary repairs have been done.</p>	Carbon monoxide (CO) is an odourless, colourless, and poisonous gas. Most CO is formed as a result of incomplete combustion of organic materials used as fuel. CO emissions are highest during incomplete combustion e.g. during idling and low speed mobile source operations, such as vehicle idle. CO enters the bloodstream and reduces oxygen delivery to the body's organs and tissues. Its most serious effects occur at high concentrations, and therefore it tends to be a localized problem. CO may produce adverse health effects such as headaches, work capacity impairment, learning ability impairment, dizziness,

				<p>weakness, nausea, vomiting, loss of muscular control, increasing and decreasing respiratory rates, collapse, unconsciousness, or death. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals also can be affected, but only at higher concentrations. It is not anticipated that the CO emissions levels that is generated will cause the above effects. The occupational exposure limit of CO is 50 parts per million for a 40 hour work week. It is highly unlikely whether this level will be reached in the general environment.</p>
Excavations	Operational	5ha	<p>Ground Water No ground water were present during the excavation of the test holes</p>	<p>No ground water will be impacted upon during the excavation of sand during the mining process. Ground water levels of 2m deep were recorded during test hole excavations and the excavation and mining of sand will not go into the ground water levels.</p>
Storm water control	Operational, Rehabilitation, Closure	5 Ha	<p>A 32m buffer area between the mine area and drainage lines is left Minimize sediment load in the water by stripping a maximum of 10 meters ahead of the mining face and only moving the material once it needs to be processed or into the intended topsoil beams on the edge of all current and future mining areas. Monitor for erosion. Should erosion be present, undertake maintenance activities such as planting of vegetation. All roads need to be maintained and monitored. Visible signs of possible erosion must</p>	<p>Conservation of Agricultural Resources Act, 43 of 1983 and regulations</p>

			<p>be immediately rehabilitated.</p> <p>All storm water falling outside the mine property must be diverted around the mine. This forms part of the Storm Water Management Plan.</p> <p>Visually inspect exposed surfaces and top soil beams for signs of erosion. If erosion channels are discovered the mine will compile and implement a plan to determine the cause of erosion, reducing erosion in the identified areas and preventing future erosion. Fix the erosion. Reinstate engineered constructed contours as soon as a phase is completed and topsoil placed on mine surface area.</p>	
Fire	Operational, Rehabilitation, Closure	5 Ha	<p>All employees will be trained on fire safety and on how to reduce the probability of a fire spreading out of control. Anyone who observes a fire must report it immediately to the fire protection agency/ fire brigade and their supervisor/ mine manager.</p> <p>Fire breaks will be maintained on the boundary of the mine site.</p> <p>Vehicles must be parked in an area with no vegetation if a fire occurs.</p>	Conservation of Agricultural Resources Act, 43 of 1983 and National Veld and Forest Fire Act, 101 of 1998; and regulations
Waste from chemical toilets and litter	Operational, Rehabilitation, Closure	5 Ha	<p>The toilet is serviced when needed and emptied when almost full.</p> <p>If a leak occurs the correct emergency</p>	National Environmental Management: Waste Act (Act No 59 of 2008) and regulations

			procedure is to be followed (see EMP). Litter will be removed from site by the operator daily.	
Hydrocarbon spill	Operational, Rehabilitation, Closure	5 Ha	Any mine vehicle which is leaking hydrocarbons (e.g. petrol, diesel or oil) will be serviced in a concreted workshop to repair the leak. If it is not possible to repair the leak immediately, a drip tray will be placed under the leak to trap any spillages. The content of the drip trays will be decanted into an old oil drum for removal from the site. Hydrocarbon spillages are to be cleaned up immediately. The mine will also maintain a store of suitable absorbent material, suitable bioremediation substance and a spill kit. All incidences/ spillages are to be recorded in an incident log book. Contaminated soil must go to Vissershok Landfill site.	Hazardous Substances Act, 15 of 1973 and National Environmental Management: Waste Act (Act No 59 of 2008); and regulations

10. CLOSURE PLAN

In the space provided under each heading below, please provide a high level description of the plan for closure and the information that will be provided in the draft EMPr accompanying draft basic assessment report or environmental impact reports going forward.	
Baseline environment Describe how the baseline environment will be determined with the input of interested and affected parties and due cognizance of the current land uses and or existing biophysical environment	The baseline environment associated with the development footprint will be determined through review of existing information and a site visit to the property where consideration will be given to the existing environment and impacts of sensitive areas. The findings will be included in the BAR and EMPr report that will form part of the information that will be sent to registered Interested and Affected Parties and key departments who would be given an opportunity to confirm the correctness of the information as well as to give additional information for further assessment.
Closure objectives Describe the closure objectives and the extent to which they will be aligned to the baseline environment	The mine must be operated so that once the mine is closed; the site can be used again for agricultural activities. Once the mining resources have been exhausted, excavation pits to be backfilled with unused excavated material. The mining process will reduce the depth of the sand but, following the recommended rehabilitation measures, will leave a minimum of 500 mm of sand and topsoil above the clay layer

	<p>after rehabilitation. This reduced depth will have little effect on the agricultural potential. Because there is sufficient slope, drainage and soil depth in the proposed mining area. Mining will not significantly change the drainage capacity of the area or lead to a significant decrease in the internal drainage of the soil. There will therefore be minimal negative impact from the mining process on agricultural potential.</p> <p>To ensure sufficient depth a minimum 200 mm of sand will be left un-mined and all topsoil must be stripped and stockpiled before mining for later re application.</p> <p>Topsoil is a valuable and essential resource for rehabilitation and it should therefore be managed carefully to conserve and maintain it throughout the stockpiling process. Topsoil stockpiles should be protected against losses by water and wind erosion. The establishment of plants (as cover crop) on the stockpiles will help to prevent erosion.</p> <p>The mining plan should be such that topsoil is stockpiled for the minimum possible time by rehabilitating different mining blocks progressively as the mining process continues. During rehabilitation, the stockpiled topsoil must be evenly spread over the mining surface. Topsoil spreading should be done just before the winter season so that a cover crop can be seeded and established during the winter rains and to control erosion on the newly spread topsoil. If topsoil is spread long before the winter, it will be subject to wind erosion before vegetation can be established on it. During seeding the soil depth must be monitored to ensure that there is a minimum of 50 cm of suitable soil for rooting throughout the mined area.</p> <p>To ensure minimum impact on drainage, it is important that no surface depressions are left after mining. In other words the surface slope must be maintained throughout, including through the edge of the mined area. Surface depressions will result in ponding of water on the surface and accumulation of excess moisture in depression areas. There is sufficient slope and elevation in the proposed mining area to avoid the creation of depressions, provided that mining depths are controlled to ensure the maintenance of a slope. No compaction in the soil should remain after rehabilitation. Compaction will impede water movement through the soil profile.</p> <p>Rehabilitation should include ripping with the slope through the rehabilitated area and immediately below it, to ensure that the soil is loose and that any compaction by mining machinery has been alleviated. A cover crop must be established immediately after spreading of topsoil and ripping, to stabilize the soil and protect it from erosion. All storm water constructed contours must be reinstated as soon as a phase is completed and reshaped at final closure.</p>
<p>Rehabilitation Plan Describe the scale and aerial extent of the prospecting or mining listed activities to be authorised, including the anticipated prospecting or mining area at the time of closure, and confirm that a site rehabilitation plan drawn to a suitable scale will be provided in the draft EMPr to be submitted together with the draft EIR or Basic Assessment Report as the case may be.</p>	<p>The mine operation area of 5ha will be divided into different mining phases. Each mine phase will be rehabilitated as per the guidelines before mining will commence in the next phase (Refer to Appendix 4). It is confirmed that a site rehabilitation plan drawn to a suitable scale will be provided in the draft EMPr to be submitted together with the draft Basic Assessment Report.</p>

<p>Rehabilitation Cost Describe how the rehabilitation cost will be determined and provide a preliminary estimate thereof</p>	<p>R 80 000. The calculation was determined using and compiling the financial and technical competence report that will be submitted with the mine permit application.</p>
<p>Decommissioning Considering that rehabilitation must take place upon cessation of an activity, describe when each of activities applied for will be rehabilitated in terms of either the cessation of the individual activity or the cessation of the overall prospecting or mining activity.</p>	<p>Each mining phase will be rehabilitated as the mine phases are completed. However, each of the activities applied for will be rehabilitated in terms of the cessation of the mining activity.</p>



Signature of the applicant / Signature on behalf of the applicant:

Dirk Lochner Tip Bk (cc)

Name of company (if applicable):

Date: 09 July 2019

APPENDIX 4
Declaration of the EAP

I, Nicolaas Willem Hanekom, declare that –

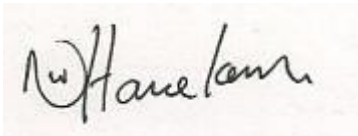
General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the Regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 of the Regulations and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~

NA _____



Signature of the environmental assessment practitioner:

Eco Impact Legal Consulting (Pty) Ltd

Name of company:

Date: **09 July 2019**