



# mineral resources

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

APPLICATION FORM FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL 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)

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## IMPORTANT NOTICE

### Kindly not 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 authorizations 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 license and any other authorizations or licenses to the relevant competent authorities as required by the relevant legislation. Upon acceptance of an application for a right of permit in terms of the MPRDA, applicants will be required to provide evidence to the Regional Manager that a water use license 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 of 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 authorization and consequently of the right of 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 lodgment 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 AUTHORIZATION BEING APPLIED FOR**

<b>APPLICATION TYPE</b>	<b>APPLICABLE FEE</b>	<b>Mark with an X where applicable</b>
NEMA S&EIR application on its own	R 10 000.00	
NEMA BAR application on its own	R 2 000.00	<b>X</b>
NEMWA S&EIR application on its own	R 10 000.00	
NEMWA BAR application on its own	R 2 000.00	
NEMA S&EIR application combined with NEMWA S&EIR application	R 15 000.00	
NEMA BAR application combined with NEMWA BAR application	R 3 000.00	
NEMA S&EIR application combined with NEMWA BAR application	R 11 000.00	

**1. CONSULTATION BASIC ASSESSMENT AND/OR SCOPING REPORT**

**2. DETAILS OF THE APPLICANT**

Project Applicant	<b>UTHANDO LWETU INVESTMENTS (PTY) LTD</b>		
Registration no (if any):	2013/004315/07		
Responsible Person, (e.g. Director, CEO, etc):	Director		
Contact Person:	Knowledge Komanisi		
Physical Address:	28 Searle Street, De Beers, Kimberley		
Postal Address:	PO Box 1539, Kimberley		
Postal Code	8300	Cell:	072 017 9973
Telephone:		Fax:	086 606 6315
E-Mail:	Komanisi.knowledge@gmail.com		

**3. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION**

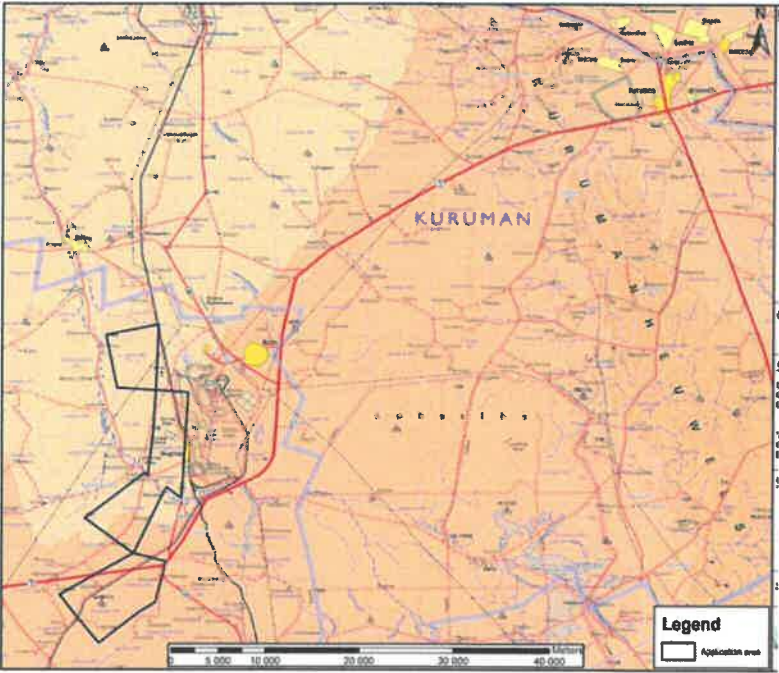
EAP:	Lindie Wiehahn		
Professional affiliation / registration			
Contact person, (if different from EAP):			
Company:	LW Consultants (Pty) Ltd		
Physical Address:	19 Park Road, Belgravia, Kimberley		
Postal Address:	PO Box 3226, Kimberley		
Postal Code	8300	Cell:	072 141 4164
Telephone:	053 831 7634	Fax:	086 606 6315
E-Mail:	lindie@liwico.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.

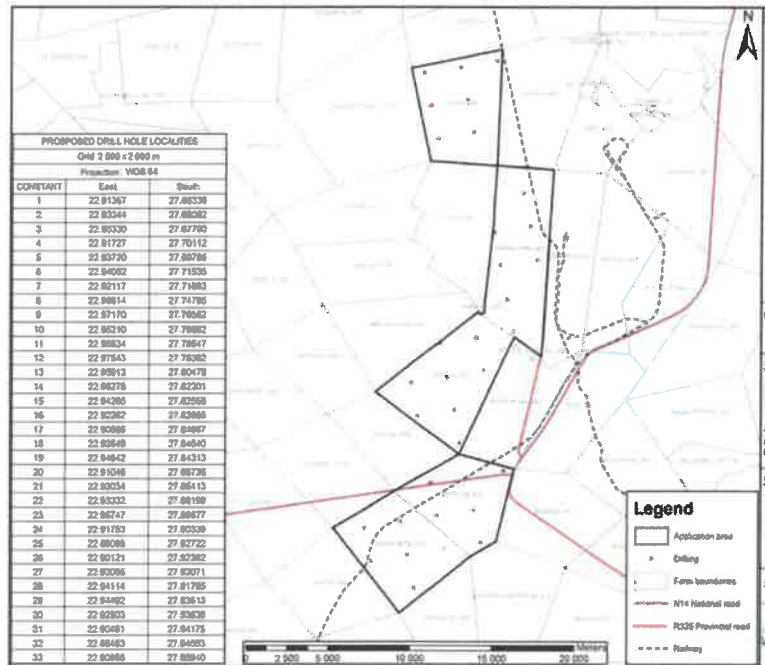
The declaration of independence and the Curriculum Vitae (indication the experience with environmental impact assessment and relevant application processes) of the EAP must also be attached as **Appendix 1**.

#### 4. PROJECT DESCRIPTION

<b>Farm name:</b>	Portions 2, 3 and the Remainder of the farm Woon 469, Portions 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and the Remainder of the farm Gamagara 541, Portions 1, 2, 3 and the Remainder of the farm Dingle 565, Portion 2, 3 and the Remainder of the farm Roscoe 563, Portions 1, 2, 3 and the Remainder of the farm Gamaliets 659
<b>Application area (Ha)</b>	13 759.7877 ha (Thirteen thousand seven hundred and fifty nine comma seven eight seven seven hectares)
<b>Magisterial district:</b>	Postmasburg
<b>Distance and direction from nearest town</b>	The application area is situated next to Kumba Iron ore mine near the town Kathu (36.4 km north north-east), with the two nearest major towns being Postmasburg (60.3 km south south-east) and Kuruman (81.4 km east north-east)
<b>21 digit Surveyor General Code for each farm portion</b>	<ul style="list-style-type: none"> <li>• Ptn 2 / Woon 469 - C04100000000046900002</li> <li>• Ptn 3 / Woon 469 - C04100000000046900003</li> <li>• Rem / Woon 469 - C04100000000046900000</li> <li>• Ptn 1 / Gamagara 541 - C04100000000054100001</li> <li>• Ptn 2 / Gamagara 541 - C04100000000054100002</li> <li>• Ptn 3 / Gamagara 541 - C04100000000054100003</li> <li>• Ptn 4 / Gamagara 541 - C04100000000054100004</li> <li>• Ptn 7 / Gamagara 541 - C04100000000054100007</li> <li>• Ptn 8 / Gamagara 541 - C04100000000054100008</li> <li>• Ptn 9 / Gamagara 541 - C04100000000054100009</li> <li>• Ptn 10 / Gamagara 541 - C04100000000054100010</li> <li>• Ptn 11 / Gamagara 541 - C04100000000054100011</li> <li>• Ptn 12 / Gamagara 541 - C04100000000054100012</li> <li>• Ptn 13 / Gamagara 541 - C04100000000054100013</li> <li>• Ptn 14 / Gamagara 541 - C04100000000054100014</li> <li>• Ptn 15 / Gamagara 541 - C04100000000054100015</li> <li>• Ptn 16 / Gamagara 541 - C04100000000054100016</li> <li>• Rem / Gamagara 541 - C04100000000054100000</li> <li>• Ptn 1 / Dingle 565 - C04100000000056500001</li> <li>• Ptn 2 / Dingle 565 - C04100000000056500002</li> <li>• Ptn 3 / Dingle 565 - C04100000000056500003</li> <li>• Rem / Dingle 565 - C04100000000056500000</li> <li>• Ptn 2 / Roscoe 563 - C04100000000056300002</li> <li>• Ptn 3 / Roscoe 563 - C04100000000056300003</li> <li>• Rem / Roscoe 563 - C04100000000056300000</li> <li>• Ptn 1 / Gamaliets 659 - C04100000000065900001</li> <li>• Ptn 2 / Gamaliets 659 - C04100000000065900002</li> <li>• Ptn 3 / Gamaliets 659 - C04100000000065900003</li> <li>• Rem / Gamaliets 659 - C04100000000065900000</li> </ul>

<p><b>Locality map</b></p>	<p>Attach a locality map at a scale not smaller than 1:250 000 as Appendix 2</p> 
<p><b>Description of the overall activity.</b> (Indicate Mining Right, Mining Permit, Prospecting Right, Bulk Sampling, Production Right, Exploration Right, Reconnaissance Permit, Technical Co-operation Permit, Additional listed activity.)</p>	<p>Prospecting Right using the following methodology</p> <ul style="list-style-type: none"> <li>• Phase 1 – Geological investigations (6 months) <ul style="list-style-type: none"> <li>○ Geological investigations (months 1 to 4) <p>Initial geological investigations will be in the form of desktop studies using existing literature, available data of the area and satellite imagery. From these information obtained the current geological maps is updated to be more area specific.</p> <p>Field visits will also be conducted for the purpose of geological surveys for determining the existence of specific trace minerals as well as outcrop evaluation. All findings will be digitally captured and geological models drafted.</p> </li> <li>○ Geological overview (month 5 to 6) <p>All results obtained during the first phase activities are communicated and explained within the geological overview. Within this report all data is summarized and final drilling positions determined and recommended.</p> </li> </ul> </li> </ul> <p style="text-align: center;">***</p>

- Phase 2 – RC Drilling (8 months)



- RC Drilling (months 7 to 11)

The initial drilling proposed is done to demarcate the ore body with its boundaries. 33 Holes is proposed to a maximum depth of 50 meters.

Drilling will be conducted by means of Reverse Circulation Percussion drilling and the sample material obtained captured within plastic tubes for logging and sampling.

- Logging and sampling (months 7 to 11)

All drill holes will be logged every meter containing information such as hole location, hole depth, ore depth and other geological structures encountered within the hole. The dust samples will be taken, stored within sealed chop trays and safeguarded for future referencing.

Portions of the drill chips representing the ore will be taken and placed in bags for sample analyses. Each sample will be marked with the hole number and the sample number. The sample number will also appear on the hole's log sheet for accuracy purposes of the programme and results to be obtained.

- Rehabilitation (months 7 to 11)

When each hole is completely drilled and does not show any ore occurrence, it will be fully rehabilitated before moving to the next drill hole locations. Rehabilitation will be done by the backfilling of the material in their respective manner.

When ore is encountered during the drilling of the hole and proves the necessity for core drilling it will be cased, sealed and marked till further drilling can commence within that specific hole.

- Sample analyses (months 8 to 12)  
All samples obtained from the drilling programme will be sent to an independent accredited, laboratory for analyses and ore grade. The certificates obtained will be safe kept together with the log sheets for future referencing.
- Data input and mapping (months 8 to 12)  
All data obtained during the proposed activities will be digitally captured and already existing maps updated to give more detailed and accurate models of the study area.
- Report writing (months 13 to 14)  
All findings and results will be drafted and explained within a geological report. The geological models created will be used for the purpose and also be included within the report. The report will further include recommendations as well as a refined drilling programme for the following phase of the proposed prospecting activities.

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- Phase 3 – Infill drilling (17 months)

- Infill drilling (months 15 to 24)  
Phase 3 is strongly dependent on the previous phases for the location of these holes as well as the grid on which these holes will be drilled. The drilling programme for this phase will include percussion and core drilling. Updated plans and programmes will be submitted to the Department of Mineral Resources before the commencement of this phase.

The Reverse Circulation Percussion drilling is the main method of drilling as it prove sufficient for obtaining accurate results. The core drilling is used as a complementary method of drilling of holes that prove the necessity for further drilling and is only done to obtain deeper seated ore and the grade thereof as well as possible ore bottom. These holes will be drilled for a further approximate depth of 50 meters.

This is done to determine the grade distribution throughout the ore body and the exact extent of the ore body.

- Logging and sampling (months 15 to 24)  
All drill holes will be logged every meter containing information such as hole location, hole depth, ore depth and other geological structures encountered within the hole. The dust samples will be taken, stored within sealed chop trays and safeguarded for future referencing.



	<p>Portions of the drill chips representing the ore will be taken and placed in bags for sample analyses. Each sample will be marked with the hole number and the sample number. The sample number will also appear on the hole's log sheet for accuracy purposes of the programme and results to be obtained.</p> <ul style="list-style-type: none"> <li>○ Rehabilitation (months 15 to 24) Rehabilitation will be done as suited for both percussion and core drilling. Sample material will be backfilled and where core drilling occurred the hole will be cased and sealed. Each hole will be fully rehabilitated before commencing to the next drill location. In this way rehabilitation is time and cost effective.</li> <li>○ Sample analyses (months 15 to 25) All samples obtained from the drilling programme will be sent to an independent accredited, laboratory for analyses and ore grade. The certificates obtained will be safe kept together with the log sheets for future referencing.</li> <li>○ Data input and mapping (months 16 to 26) All data obtained during the proposed activities will be digitally captured and already existing maps updated to give more detailed and accurate models of the study area.</li> <li>○ Report writing (months 27 to 31) All findings and results will be drafted and explained within a geological report. The geological models created will be used for the purpose and also be included within the report. The report will further include proven resources, reserve estimations, mineral economy as well as recommendations for future work to be done.</li> </ul>
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## 5. ACTIVITIES TO BE AUTHORIZED

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

(For an application for authorization that involves more than one listed activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated. Please note that any authorization that may result from this application will only cover activities specifically pertaining to this application must be indicated. Please not that any authorization that may result from this application will only cover activities specifically applied for). (Attached 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**).

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.)	Aerial extent of the Activity Ha or m <sup>2</sup>	LISTED ACTIVITY  (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE  (GNR 544, GNR 545 OR GNR 546)	WASTE MANAGEMENT AUTHORIZATION  (Indicate whether an authorization is required in terms of the Waste Management Act).  (Mark with an X)
Geological investigations	13 759.7877 ha		NEMA 2017, GNR 327, Listed 1, Activity 20	
Drilling				
RC Drilling	0.132 ha	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Sampling		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Rehabilitation	0.132 ha	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Ablution facility	0.0024 ha	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Vehicle storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Chemical storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Diesel storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Domestic waste facility		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Infill drilling				
Drilling	?	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Sampling		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Rehabilitation	?	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Ablution facility	?	X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Vehicle storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	

Chemical storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Diesel storage		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Domestic waste facility		X	NEMA 2017, GNR 327, Listed 1, Activity 20	
Access road and drill traverses	0.4 ha	X	NEMA 2017, GNR 327, Listed 1, Activity 20	

## 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	
Will the lawful occupier on the property other than the Landowner be consulted?		X	
Will a tribal authority or host community that may be affected be consulted?		N/A	
Will the landowners or lawful occupiers of neighboring properties been identified?		X	
Will the local municipality be consulted?		X	
Will the Authority responsible for power lines within 100 meters of the area be consulted?		X	
Will Authorities responsible for public roads or railway lines within 100 meters of the area applied for be consulted?		X	
Will Authorities responsible for any other infrastructure within 100 meters of the area applied for be consulted? (Specify)		X	
Will the Provincial Department responsible for the environment be consulted?		X	
Will all of the parties identified above be provided with a description of the proposed mining / prospecting operation as referred above?		X	
Will all the parties identified above be requested in writing to provide information as to how their interest (whether it be socio-economic, cultural, heritage or environmental) will be affected by the proposed mining project?		X	
Other, Specify	Consultation with the South African Heritage Resources Agency and the Land Claims Commissioner for information regarding registered heritage sites or land claims that may be involved in the project.		

### 6.1.2 DETAILS OF THE ENGAGEMENT PROCESS TO BE FOLLOWED

<p><b>Steps to be taken to notify interested and affected parties</b> (Describe the process to be undertaken to consult interested and affected parties including public meetings and on one consultations. NBI 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 an Appendix.)</p>	<p><b>PROVIDE DESCRIPTION HERE</b></p> <p>Once the application for a Prospecting Right and Environmental Authorization has been accepted and notice thereof received in terms of the MPRDA, 2002 (amended 2008) all interested and affected parties will be notified and consulted in the following order:-</p> <ul style="list-style-type: none"> <li>• Written notices with all necessary information provided</li> <li>• Newspaper advertisements (one local and one district) inviting general public to register as an interested or affected party in order to receive needed information</li> <li>• All written responses will be answered in writing</li> <li>• Notice of public meetings 14 days prior to scheduled date</li> <li>• One on One meetings with the identified farm owner, lawful occupier of land and should it be deemed necessary with the farm owner / lawful occupier of the neighboring towns.</li> </ul> <p>Attached as Appendix 5 is samples of the notices to be provided to the identified Interested and/or Affected parties.</p>
<p><b>Information to be provided to Interested and Affected Parties.</b></p>	<p><b>Compulsory</b></p> <ul style="list-style-type: none"> <li>• The site plan</li> <li>• List of activities to be authorized</li> <li>• Scale and extent of activities to be authorized</li> <li>• Typical impacts of activities to be authorized (e.g. surface disturbance, dust, noise, drainage, fly rock etc.)</li> <li>• The duration of the activity</li> <li>• 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.)</li> </ul> <p><b>Other, specify:</b></p> <ul style="list-style-type: none"> <li>• Regulation 2.2 plan as submitted with the application for a Prospecting Right at the DMR</li> </ul>
<p><b>Information to be required from Interested and Affected Parties.</b></p>	<p><b>Compulsory</b></p> <ul style="list-style-type: none"> <li>• To provide information on how they consider that the proposed activities will impact on them or their socio-economic conditions.</li> <li>• To provide written responses stating their suggestions to mitigate the anticipated impacts of each activity</li> <li>• To provide information on current land uses and their location within the area under consideration</li> <li>• 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.</li> <li>• 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 remedies.)</li> </ul>

	<p><b>Other, specify:</b></p> <ul style="list-style-type: none"> <li>• To indicate whether or not they have an objection, comment or approval in regard to the proposed project</li> <li>• To provide information on how they regard the existing status of the biophysical, socio-economic, cultural and heritage environment.</li> <li>• To provide any additional Environmental attributes which have not yet been listed or described</li> </ul>
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## 7. DESCRIPTION OF THE ASSESSMENT PROCESS TO BE UNDERTAKEN

ITEM	DESCRIPTION
<p><b>Environmental attributes.</b> Describe how the Environmental attributes associated with the development footprint will be determined.</p>	<p>Environmental attributes will be determined through the following:</p> <ul style="list-style-type: none"> <li>• Desktop studies on information already available on the database</li> <li>• Information provided by the consulted Interested and/or Affected parties during the public consultation process</li> <li>• Arranged field visit with the authorization of the land owner or lawful occupier</li> </ul>
<p><b>Identification of impacts and risks.</b> (Describe the process that will be used to identify impacts and risks.)</p>	<p>The process to be followed for identifying potential impacts and risks will be done by determining any impact that each aspect of the operations may have on the surrounding environment and studying the impacts identified by the consulted Interested and/or Affected parties.</p> <p>Considerations towards the impact identification include, but is not limited to:-</p> <ul style="list-style-type: none"> <li>• Proposed locations and footprint of the project infrastructure and components, which include a desktop evaluation with a GIS and aerial photography as well as site investigations</li> <li>• Activities associated with the project life-cycle (i.e. pre-construction, construction, operation and decommissioning)</li> <li>• Nature and profile of the receiving environment and potential sensitive environmental features and attributes</li> <li>• Input received during public participation from authorities and I&amp;APs; and</li> <li>• Legal and policy context</li> </ul>
<p><b>Consideration of alternatives.</b> Describe how 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>A draft set of alternatives will be compiled in the draft report based on past experience of the EAP and expert guidance by knowledgeable industry/applicant representatives. The alternatives will be subjected to public participation for further refinement.</p> <p>Any alternative identified and considered will be through the following:</p> <ul style="list-style-type: none"> <li>• Environmental sensitivity and current land use</li> <li>• Consultation with Affected parties</li> <li>• Determination of least vulnerable area for environmental degradation</li> </ul>

<p><b>Process to assess and rank impacts.</b> Describe the process to be undertaken to identify, assess and rank the impacts and risks each individual activity</p>	<p>Assessment and ranking of potential impacts will be done with consideration towards the following</p> <ul style="list-style-type: none"> <li>• Environmental sensitivity and location of the project area</li> <li>• Nature and size of project</li> <li>• Actual footprint of the project in relation to the project area</li> <li>• Duration of the project and individual activities</li> </ul> <p>The significance of impacts is evaluated as follows.</p> <ul style="list-style-type: none"> <li>• Severity <ul style="list-style-type: none"> <li>○ 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</li> <li>○ Medium negative impact – describes a 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 of any individual</li> <li>○ High negative impact – indication 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.</li> </ul> </li> <li>• Duration <ul style="list-style-type: none"> <li>○ Short-term –rated as a period less than 2 years and is indicated as a low impact</li> <li>○ Medium-term – rated as the period between 2 and 5 years and indicated as a medium impact.</li> <li>○ Long-term – rated as any period exceeding 5 years and indicated as a high impact.</li> </ul> </li> <li>• Spatial Scale <ul style="list-style-type: none"> <li>○ Localized – the disturbance occurs within a radius of 500m from point of existence and indicates as low impact</li> <li>○ Fairly widespread – the disturbance is carried over a short distance, between 500m and 1km radius from point of existence and indicated as medium impact.</li> <li>○ Widespread – disturbance exercise a negative effect over an area greater than 1 km radius from point of existence and indicated as high impact.</li> </ul> </li> <li>• Consequence <ul style="list-style-type: none"> <li>○ Low consequence – meaning that the probability of cumulative impact occurrence is minimal with little to no lasting effects and is indicated as low impact.</li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>○ Medium consequence – meaning that the probability of cumulative impact occurring exist with a moderate, short-term lasting effect and is indicated as medium impact.</li> <li>○ 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.</li> <li>• Significance <ul style="list-style-type: none"> <li>○ Low overall significance – the disturbance caused by the impact is minimal with an excellent probability for total recovery after operations ceased.</li> <li>○ 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.</li> <li>○ High overall significance – the disturbance cause by the impact is severe with a poor to no probability for recovery after operations ceased.</li> </ul> </li> </ul>
<b>Contribution of specialist reports.</b> Describe how specialist reports, if required, will be taken into consideration and inform the impact identification, assessment and remediation process.	<p>Most specialist studies are needed in order to investigate the potential environmental impacts associated with the prospecting activities, while other more technical specialist are needed to provide strategies and technical specifications for infrastructure that could potentially alleviate impact on the environment. Terms of reference for each of these studies are unique, but include the identification and delineation of respective environmental attributes, assessing the state of these attributes, identifying potential impacts relating to these attributes and making recommendations regarding mitigation measures and legal requirements.</p> <p>The following aspects of the environment as a whole will be considered in the baseline studies.</p> <ul style="list-style-type: none"> <li>• Surface water and groundwater</li> <li>• Fauna and flora</li> <li>• Heritage</li> </ul>
<b>Determination of impact management objectives and outcomes.</b> Describe how impact management objectives will be determined for each activity to address to potential impact as source, and how the impact management outcomes will be aligned with standards.	<p>Impact management objectives will be done through mitigation, management or avoidance measures. The determination of these measures will be done through looking at every aspect of the prospecting activities and prospecting related activities with the possible impacts that may result. Each of these identified possible impacts will then be rated in severity and probability from which the measures will be determined to which will minimize the severity of the impact per activity.</p> <p>The following will be considered (but are not limited to) for guidance in determining the impact management objectives:</p> <ul style="list-style-type: none"> <li>• The applicant's institutional objectives, policies and practice</li> <li>• Impact management objectives from specialist reports</li> <li>• The various relevant national and Provincial Acts and Regulation</li> </ul>

	<ul style="list-style-type: none"> <li>• The general objectives of integrated environmental management laid down in the NEMA, ensuring that environmental considerations are fully integrated into all stages of the development process in order to achieve a desirable balance between conservation and development</li> <li>• The sustainable development objectives of the MPRDA</li> <li>• South African National Standard</li> <li>• Industry best practice guidelines</li> <li>• Resource water quality objectives</li> <li>• Applicable environmental quality objectives.</li> <li>• Closure objectives.</li> </ul>
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## 8. OTHER AUTHORIZATIONS REQUIRED

LEGISLATION	Mark with an X where applicable			
	AUTHORIZATION REQUIRED		APPLICATION SUBMITTED	
	YES	NO	YES	NO
<b>SEMA's</b>				
National Environmental Management Act: 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		
<b>National legislation</b>				
Mineral Petroleum Resources Development Act (Act 28 of 2002) as Amended	X		X	
National Water Act.1998 (Act 36 of 1998)		X		
National Heritage Resources Act (Act 25 of 1999)		X		
Others: Please specify		X		

Please provide proof of submission of application in **Appendix 6**.

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 authorization to be considered as part of this application.



## 9. DRAFT EMPR

For consultation purposed, 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  (A description of how each of the recommendations herein will comply with any prescribe environmental management standard or practices that have been identified by competent Authorities.
<p>(E.g. for prospecting – drill site, ablation facility, accommodation, equipment storage, sample storage, sit office, access rout 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, ablation, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors etc ... etc ... etc.)</p> <p>Geological investigations</p>	<p>State; Planning and design, Pre-Construction; Construction; Operational; Rehabilitation Closure, Post closure</p> <p>Operational</p>	<p>13 759.7877 ha</p>	<p>Vegetation loss</p> <p>Dust management</p>	<p>• Littering of any product, including cigarette buds, at any operational site shall be seen as an offence, and will not be tolerated</p> <p>• Strict adherence to the mine roads and no off-road driving to prevent trampling of vegetation</p> <p>• No indigenous shrubs or trees will be uprooted</p> <p>• All vehicular traffic is restricted to the roads and to a speed of 20 km/h for heavy vehicles and 40 km/h light weight vehicles</p>

Drilling and infill drilling	Drilling	Construction	0.132 ha ?	Vegetation loss	<ul style="list-style-type: none"> <li>• Only the necessary vegetation will be cleared</li> <li>• On vegetation clearing should any nests with chicks or eggs be discovered a local nature conservation officer shall be called to relocate the species</li> <li>• Soil has be exposed for a minimum time as possible once cleared of vegetation. The timing and clearing shall be coordinated as much as possible to avoid prolonged exposure to wind and water erosion</li> <li>• No indigenous shrubs or trees will be unnecessarily uprooted</li> </ul>
				Dust Management	<ul style="list-style-type: none"> <li>• Suppression of dust on clearing of area will occur by the spraying of chemical bounded / fresh water</li> <li>• Stabilization of cleared areas to prevent and control erosion and or sedimentation shall be actively managed</li> </ul>
				Noise management	<ul style="list-style-type: none"> <li>• The mine shall restrict all operations that result in undue noise disturbance to day light hours on week days</li> <li>• The mine shall be responsible for compliance with the relevant legislation with respect to noise</li> </ul>
				Chemical management	<ul style="list-style-type: none"> <li>• All stationary vehicles used in operations will be equipped with drip pans.</li> <li>• All chemical spills will be rehabilitated immediately</li> </ul>
				Waste management	<ul style="list-style-type: none"> <li>• Littering on any product, including cigarette buds, at any operational site shall be seen as an offence, and will not be tolerated</li> <li>• The mine shall be responsible for any clean up resulting from the failure by his employees or suppliers</li> <li>• The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document</li> </ul>

Operational	Safety	<ul style="list-style-type: none"> <li>• The operation sites will be clearly marked with all regulatory signs, to indicate a potential dangerous zone</li> <li>• Hard hats, ear plugs, safety glasses, dust masks, gloves, hard point boots, reflector vests and overalls will be supplied and is compulsory before entering the mining area</li> </ul>
		<ul style="list-style-type: none"> <li>• A speed limit of 20 km/h for heavy vehicles and 40 km/h for light weight vehicles will be implemented</li> <li>• Suppression of dust on the roads will occur by the spraying of chemical bounded/fresh water</li> </ul>
		<ul style="list-style-type: none"> <li>• The mine shall restrict all operations that result in undue noise disturbance to day light hours on week days</li> <li>• The mine shall warn all residents that could be disturbed by noise generating activities well in advance and shall keep such activities to a minimum</li> <li>• The mine shall be responsible for compliance with the relevant legislation with respect to noise.</li> </ul>
		<ul style="list-style-type: none"> <li>• All stationary vehicles used in operations will be equipped with drip pans</li> <li>• All chemical spills will be rehabilitated immediately</li> </ul>
		<ul style="list-style-type: none"> <li>• Littering of any product, including cigarette buds, at any operational site shall be seen as an offence, and will not be tolerated</li> <li>• The mine shall be responsible for any clean up resulting from the failure by his employees or suppliers</li> <li>• The mine shall ensure that all suppliers and the delivery drivers are aware of procedures and restrictions in terms of this document</li> </ul>
	Safety	<ul style="list-style-type: none"> <li>• The operational sites will be clearly marked with all regulatory signs, to indicate a potential dangerous zone</li> <li>• Hard hats, ear plugs, safety glasses, dust masks, gloves, hard point boots, reflector vests and overalls will be supplied and is compulsory before entering the mining area</li> </ul>

	Rehabilitation			<ul style="list-style-type: none"> <li>Personnel 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</li> <li>Continuous rehabilitation will be done during the course of the project.</li> <li>All chemical spills will be rehabilitated immediately</li> <li>Rip and rehabilitate all unused roads and access ways</li> <li>All erosion channels developed during the project period shall be back-filled and compacted and the areas restored to a proper condition</li> <li>A 6 months after-care plan is initiated to ensure a satisfying vegetation re-growth rate and the successful establishment of indigenous vegetation</li> </ul>
	Post closure			
	Operational			<ul style="list-style-type: none"> <li>Filled sample tubes will be placed next to the drill hole</li> <li>Logging and sampling will occur as drilling commences</li> </ul>
Ablution facility	Construction	0.0024 ha ?		<ul style="list-style-type: none"> <li>Concealed septic tanks must be installed above ground, where it can be regularly inspected for leakage</li> <li>No indigenous shrubs or trees will be unnecessarily uprooted</li> </ul>
	Operational			<ul style="list-style-type: none"> <li>Ablution blocks shall be at all times be sanitized</li> <li>Sanitary bins will be provided within the building, no sanitary material will be allowed within the septic tanks</li> <li>All human waste and related waste will be contained within septic tanks installed for the purpose</li> <li>Septic tanks and chemical toilets will be chemically treated and maintained by a contracting agency</li> <li>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</li> <li>Sanitary material within the bins provided will be closed in colored plastics and disposed of with domestic waste</li> <li>Littering of any product, including cigarette buds, at this site shall be seen as an offence and will not be tolerated</li> </ul>

Vehicle storage	Construction			<ul style="list-style-type: none"> <li>• A demarcated area on the operational site will be cleared for vehicle storage and parking</li> </ul>
	Operational			<ul style="list-style-type: none"> <li>• Areas must be continuously inspected for spillages and remedied</li> <li>• Drip pans will be readily available and no parked heavy vehicle will be without a drop pan</li> <li>• Daily checking of oil / diesel leakages before vehicle is operated</li> <li>• Littering of any product, including cigarette buds, at this site shall be seen as an offence and will not be tolerated</li> </ul>
Chemical storage	Construction			<ul style="list-style-type: none"> <li>• Store chemicals must be in marked closed containers</li> </ul>
	Operational			<ul style="list-style-type: none"> <li>• For remediation purposes a neutralizing agent for each chemical must be available at all times</li> <li>• Un-used chemicals must be separated from used chemicals.</li> <li>• Fire extinguishers for this purpose will be available at all times</li> </ul>
	Rehabilitation			<ul style="list-style-type: none"> <li>• Chemical and chemical containing waste will be stored in closed containers</li> <li>• The drill contractor is responsible for removing his own chemical products</li> <li>• All chemical spills will be rehabilitated immediately</li> </ul>
Diesel storage	Construction			<ul style="list-style-type: none"> <li>• Diesel cart will be equipped with a leak-proof bay, supporting the tank volume plus 10%</li> </ul>
	Operational			<ul style="list-style-type: none"> <li>• Vehicles which are filled with fuel will park on a plastic sheet/floor for if any spillage occurs it can be cleaned</li> <li>• Two fire extinguishers will be present at all times</li> <li>• The area must be continuously inspected for spillages and remediated immediately</li> </ul>
	Rehabilitation			<ul style="list-style-type: none"> <li>• All chemical spills will be rehabilitated immediately</li> <li>•</li> </ul>

Domestic waste facility	Construction			<ul style="list-style-type: none"> <li>• The mine shall ensure that all facilities are maintained in a neat and tidy condition and the site shall be kept free of litter</li> <li>• It is preferable that people is aware of the splitting of waste into their different categories, e.g. glass, plastic, paper, tin and other waste</li> <li>• No burning, on site burying or dumping of waste shall occur</li> <li>• The drill contractor will be responsible for the removal of waste on a daily basis.</li> </ul>
	Operational			
	Rehabilitation			
Access road and drill traverses	Construction	0.4 ha		<ul style="list-style-type: none"> <li>• Roads and the amount of roads will be planned and constructed with the minimal impact on the environment</li> <li>• No indigenous shrubs or trees will be unnecessarily uprooted</li> </ul>
	Operational			<ul style="list-style-type: none"> <li>• Maintenance of the road throughout the entire project timeframe</li> <li>• All vehicular traffic is restricted to the roads and to a speed of 20 km/h for heavy vehicles and 40 km/h light weight vehicles</li> <li>• Strict adherence to the mine roads and no off-road driving to prevent trampling of vegetation</li> </ul>
	Rehabilitation			<ul style="list-style-type: none"> <li>• All mine roads will be cleared of foreign materials and ripped to loosen the ground for vegetation re-growth.</li> </ul>

## 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 will be determined through

- Desktop studies on information already available on the consultant's database
- Information provided by the consulted Interested and/or Affected parties during the public consultation process
- Arranged field visit with the authorization of the land owner or lawful occupier

### Closure objectives

Describe the closure objectives and the extent to which they will be aligned to the baseline environment

The closure objectives are to create a post-prospected state as close as possible to the pre-prospected state of the environment. The area will be rehabilitated according the procedures to be stipulated in the Environmental Management Programme and to the satisfaction of the Department Mineral Resources and the land owner.

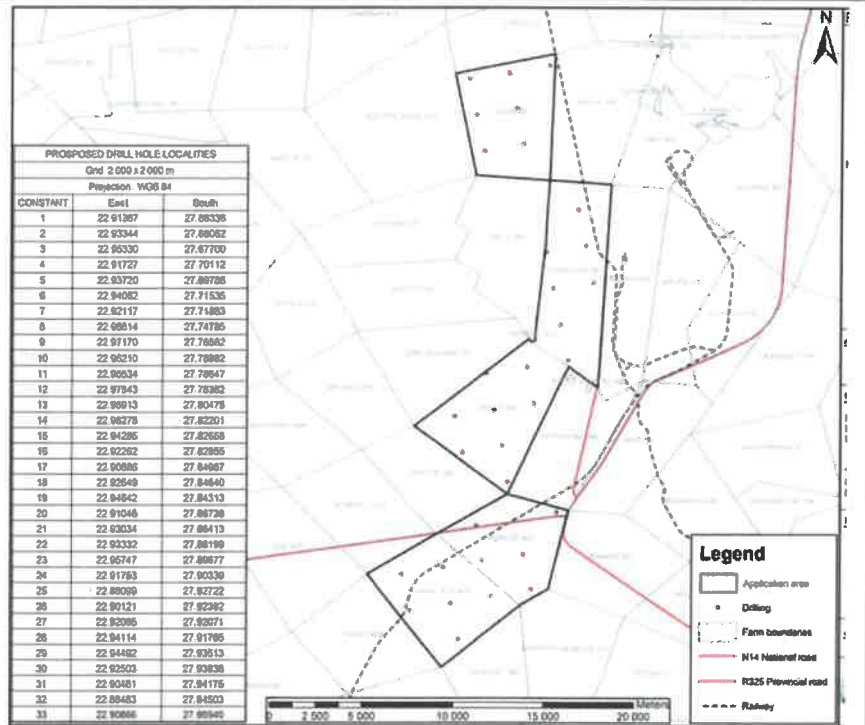
Base objectives are:

- To create a safe and healthy post-prospected environment
  - Safe prospecting areas
    - No potentially dangerous areas, secured if required.
  - Limited residual environmental impact
    - Develop a landscape that reduces the re-requirement for long term monitoring and management
    - No surface and/or groundwater contamination
    - Waste management practices not creating or leaving legacies
- To create a stable, free draining post-prospected landform, which is compatible with the surrounding landscape
  - Economically viable and sustainable land, as close as possible to its natural or pre-prospected state
    - Prepare area to promote natural re-establishment of vegetation that is self-sustaining, perpetual and provides a sustainable habitat for local fauna and successive flora species.
- To provide optimal post-prospected social opportunities
  - Optimize benefits for the social environment
  - Minimal negative aesthetic impact



## Rehabilitation Plan

Describe the scale and aerial extent of the prospecting or mining listed activities to be authorized, 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.



The total aerial extent for the prospecting activities to be authorized and rehabilitated is 0.5344 ha. As rehabilitation is planned as an integral part of the prospecting activities final rehabilitation during decommissioning of the project will be minimal and rehabilitation cost less costly.

- The drilling operations are foreseen to have a total footprint of 0.132 ha, but the actual footprint of the activity can be calculated per borehole (0.004 ha). This is due to the compulsive rehabilitation of a drilled hole before commencement to the following, thus as the end of the drilling phase only 0.004 ha needs to be rehabilitated. Rehabilitation will be done by the backfilling of the drill chips in their respective manner. The area, suffering ground compaction, will be ripped and rehabilitated.
- Ablution facilities (0.0024 ha) is installed before drilling operations start and active till the decommissioning of the mine. During the drilling operations, mobile chemical toilets (0.0004 ha) will be available to the contractors. As the drilling commences these toilets needs to be re-located from time to time for easy access when necessary. Once they are re-located the area compacted will be ripped and rehabilitated. Ablution contractors will be used to facilitate in the removal of these structures and the compacted area ripped and rehabilitated
- The vehicle storage area are included in the drilling footprint as the drill rig and associated vehicles will be left on the drill site overnight to be ready for drilling the next day. This ensures minimum environmental impact as no areas need to be cleared for vehicle storage and no time is wasted in moving the drill rig and associated vehicles ensuring minimal time spend on any of the drill locations. Rehabilitation entails the decommissioning and removing of all infrastructure, where after the area as a whole is ripped and rehabilitated.

	<ul style="list-style-type: none"> <li>• The storage of chemicals is situated on the complementary drill vehicle on the already demarcated footprint of 40 m<sup>2</sup>. The storing facilities on the vehicles is to ensure minimal environmental disturbance and handling areas. The drill contractors will be responsible for the removal of all chemicals and chemical waste during the decommissioning of the project.</li> <li>• The drill contractors must supply their own diesel in the form of a diesel cart (± 1 000 liter) with an already installed bunker bay and will be parked on an impervious sheet within the drilling footprint.</li> <li>• The domestic waste facility is a formal waste bin mounted on the drill support vehicle. Domestic waste will be removed on a daily basis by the contractor to ensure a litter free environment.</li> <li>• All access and drill traverses (totaling 0.4 ha) will be ripped and rehabilitated during the decommissioning of the project.</li> </ul>
<p><b>Rehabilitation Cost</b> Describe how the rehabilitation cost will be determined and provide a preliminary estimate thereof.</p>	<p>Method for determining financial provision</p> <ul style="list-style-type: none"> <li>• An applicant must determine the financial provision through a detailed itemization of all activities and costs, calculated based on the actual costs of implementation of the measures required for –             <ul style="list-style-type: none"> <li>○ Annual rehabilitation, as reflected in an annual rehabilitation plan</li> <li>○ Final rehabilitation, decommissioning and closure of the prospecting, exploration, mining or production operations at the end of the life of operations, as reflected in a final rehabilitation, decommissioning and mine closure plan; and</li> <li>○ Remediation of latent or residual environmental impacts which may become known in the future, including the pumping and treatment of polluted or extraneous water, as reflected in an Environmental Risk Assessment Report.</li> </ul> </li> <li>• Preparation and submission of plans and reports             <ul style="list-style-type: none"> <li>○ The annual rehabilitation plan contemplated in Regulations 6(a) and 11(1)(a) must contain all information set out in Appendix 3 of the Regulations</li> <li>○ The final rehabilitation, decommissioning and mine closure plan contemplated in Regulation 6(b) and 11(1)(b) must contain all information set out in Appendix 4 of the Regulations</li> <li>○ The Environmental Risk Assessment Report contemplated in Regulations 6(c) and 11(1)(c) must contain all information set out in Appendix 5 of the Regulations</li> <li>○ An applicant and holder of a right or permit must include the sum of the financial provision and an indication of how the sum was determined in the Environmental Management Programme</li> </ul> </li> </ul>

**DECLARATION OF THE EAP**

I, **Lindie Wiehahn**, declare that –

**General declaration:**

- I act as the independent environmental practitioner in this application
- I will perform the work relation to the application in an objective manner, even if this results in views and findings that are not favorable 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 interest 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 provide the competent authority with access to all information at my disposal regarding the application, whether such information is favorable 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 realize that a false declaration is an offence in terms of Regulation 71 of the Regulations and is punishable in terms of Section 24(f) of the Act.

**Disclosure of Vested Interests (delete whichever is not applicable)**

- I do not have and will not have an vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulation;

~~• I have a vested interest in the proposed activity proceeding, such vested interest being:~~

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Signature of the Environmental Assessment Practitioner

Name of company: **LW Consultants (Pty) Ltd**

Date: 30 November 2018