mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT

And

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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

NAME OF APPLICANT: Horomela Hole Transport Services 1228 cc t/a Horomela Mining Investments & Resources (Pty) Ltd

TEL NO: 011 333 2672

FAX NO: 011 337 9805

POSTAL ADDRESS: P. O Box 187 Johannesburg 2000
PHYSICAL ADDRESS: 85 Kerk Street Office 210, Royal Place Building Johannesburg
FILE REFERENCE NUMBER SAMRAD: NC 30/5/1/1/2/12213PR

1. IMPORTANT NOTICE

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

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

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

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

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

2. Objective of the basic assessment process

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

(a) determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives,

(d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage , and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on the these aspects to determine:

  (i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
  (ii) the degree to which these impacts—
    (aa) can be reversed;
    (bb) may cause irreplaceable loss of resources; and
    (cc) can be managed, avoided or mitigated;

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—
  (i) identify and motivate a preferred site, activity and technology alternative;
  (ii) identify suitable measures to manage, avoid or mitigate identified impacts; and
  (iii) identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSSSMENT AND BASIC ASSESSMENT REPORT

3. Contact Person and correspondence address

a) Details of

i) Details of the EAP

Name of The Practitioner: David Katemaunzanga

Tel No.: 011 333 2672

Fax No. : 011 333 9805

e-mail address: 0724908608@Vodamail.co.za

ii) Expertise of the EAP.

(1) **The qualifications of the EAP**
(with evidence). BSc, BSc (Hons) Geology, GDE, MSc,

(2) **Summary of the EAP's past experience**.
(In carrying out the Environmental Impact Assessment Procedure)

David Katemaunzanga is an earth science graduate who has worked extensively in exploration across Africa. As an exploration geologist David have compiled and submitted prospecting right applications in different African countries that include South Africa, Zimbabwe, Tanzania, Mozambique and Democratic Republic of Congo. David has not only acquired skills to compile the basic environmental impact assessments, but has also implemented their recommendations in carrying out exploration projects.

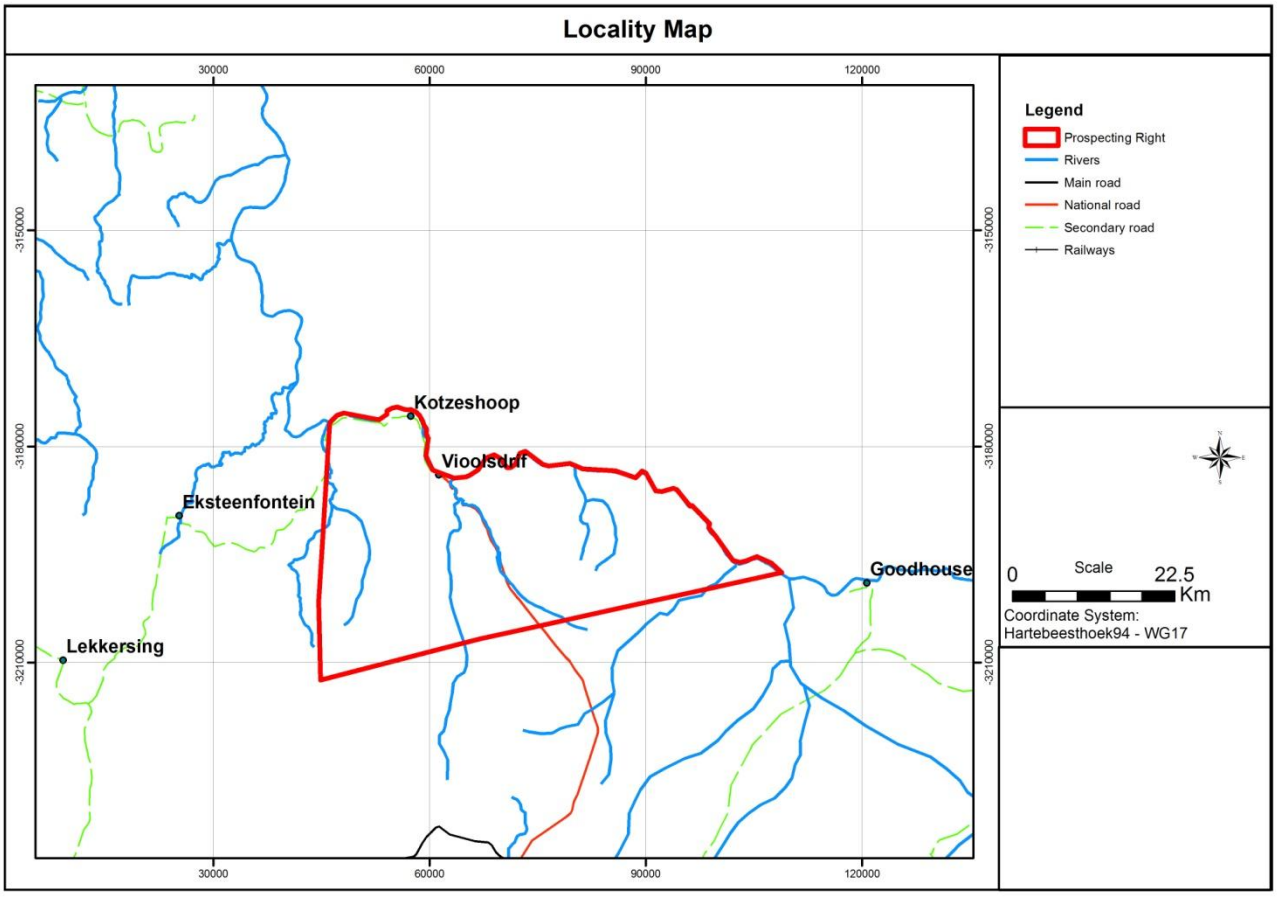
In South Africa David has compiled EMPs for prospecting right applications for coal in KZN, Mpumalanga, rare earth elements and coal in Limpopo, base metals Northern Cape and North West and phosphate rights in the Western Cape. These applications have been done for a period spanning since 2008 till present.

b) Location of the overall Activity.

Farm Names:	Vioolsdrift 226 Portion 1 & Remaining Extent
Application area (Ha)	132000 ha
Magisterial district:	Namaqualand
Distance and direction from nearest town	Centred around the Steinkopf Town which is 50km N of Springbok
21 digit Surveyor General Code for each farm portion	C0530000000002260000 C0530000000002260001

c) Locality map

(show nearest town, scale not smaller than 1:250000).



d) Description of the scope of the proposed overall activity.

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

In Phase 1 (Desktop study) there will be no activity on site apart from a few site visits. However Phases 2 to 4 will require work on site. Phase 2 (Soil geochemistry, geophysics and trenching) will require access to the farm to be able to carry out a farm wide soil geochemistry and geophysical survey where existing farm access roads will need to be used. Phases 3 and 4 will be limited to specific delineated areas. When drilling is carried out access roads will need to be created

Since exploration is temporary in nature no permanent structures will be constructed, negotiations and agreements will be made with the farm owners to use any existing infrastructure like accommodation for the explorers, access roads and other things like workshops.

Figure 1: Application 12213PR Surface Plan

(Attached as Appendix 2)

(i) Listed and specified activities

NAME OF ACTIVITY **(E.g. For prospecting -** drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route **etc…etc…etc** **E.g. for mining**,- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)	**Aerial extent of the Activity** **Ha or m²**	**LISTED ACTIVITY** **Mark with an X where applicable or affected.**	**APPLICABLE LISTING NOTICE** **(*GNR 544, GNR 545 or GNR 546)***
Desk top study	N/A	X	GNR38282
Airborne geophysics	132000Ha	X	GNR38282
Ground geophysics	20 000Ha	X	GNR38282
Soil sampling (may not be done)		X	GNR38282
Trenching	0.02Ha	X	GNR38282
Drilling (drill site 10x10m per hole. 50 holes planned)	0.5 Ha	X	GNR38282
Sample processing	N/A	X	GNR38282
Accommodation			GNR38282
Site Camp			GNR38282
Access Routes	1200 **m²**		GNR38282

(ii) Description of the activities to be undertaken

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

Phase 1 – Desktop Study - Analysis of Existing Data,

The exploration records of all previous work in the area will be re-examined, and the following studies will be carried out:

- Literature review
- Detailed aerial photograph and satellite image interpretation
- Regional airborne geophysics with main emphasis on magnetic and gravity
- Regional soil geochemistry interpretation
- Geological mapping will also be carried out.

These records will need to be captured into a GIS format for geological modelling and exploration scheduling analysis.

This work will form an initial desktop and surface fieldwork study to be continued during the period that the prospecting permit application is being assessed and, presumably, approved. A period of 12 months is estimated for this.

Phase 2 – Follow Up Ground Geophysics, Soil Geochemistry and Trenching

Once targets have been generated in the first phase there will be a need to follow up on these targets. A detailed and denser soil geochemistry exercise will need to be carried out. Coupled with this will be ground geophysics to sharpen the identified potential areas. Gravity magnetic and time domain EM will need to be done.

After soil geochemical and geophysical targets are generated a limited trenching or pitting exercise will be done on the anomalies to determine the sidewall properties, profiles and average grades and to do drillhole targeting.
It is anticipated that phase will take approximately 12 months to complete.

Phase 3 –Drilling and Resource Generation

In the event that the present application is approved and areas with possible targets for the minerals applied for, this identified prospective target will require further subsurface investigation.
Drilling (diamond, air core, or RAB or RC) of the prospective areas will commence to establish presence of mineralization. Geological borehole logging, down the hole logging and sampling will also be carried out.
Whole rock analysis of all the potential intersections will be carried out. For budgeting purposes, it is assumed that every meter of the initial holes will be analysed will be made.
It is anticipated that initially approximately 25 drill-holes will be drilled. Drill holes could vary in depth from 50 to 150m, with an average depth in the order of 100 meters. The total amount of drilling to be budgeted for at this stage is 2 500 meters. Dependent on the results of this drilling further 50 drill-holes totalling 5 000 meters may be required
The geological information generated will be used to model and estimate resource. The resources will at least be expected to be in the Indicated Category according to the appropriate reporting standard (SAMREC, JORC, or NI43 -101).

Phase 4 – Resources drilling and Pre-feasibility Study

The final phase of the prospecting programme would involve preparation of a prefeasibility study. This would include:

- Resource drilling
- Geological Modelling
- Initial conceptual Mine Planning.
- Planning the infrastructure requirements
- Environmental management planning
- Financial modelling
- Market analysis
- Analysis of transport logistics to markets
- Assessment of personal and training requirements
- Assessment of socio-economic factors

A feasibility study is multidisciplinary in nature, and requires the highest levels of expertise available. Such studies are both costly and time consuming

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process	**REFERENCE WHERE APPLIED**	**HOW DOES THIS DEVELOPMENT COMPLIY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT.** (E.g. In terms of the National Water Act a Water Use License has/ has not been applied for)
Water Use Licence	National Water Act	The applicant telephonically consulted with Mr Rendani Ramudzuli, Operations & Maintenance of Sedibeng Water about the possibility of a water pipeline through the Vioolsdrift area. Mr Ramudzuli expressed that I should send him the sketch plan but he however stated that the Namakhoi Municipality has a water pipeline that goes through Vioolsdrift 226. The applicant consulted telephonically Mr Deon Magerman of the Namakhoi Municipality to consult on the possibility of receiving a confirmation of water supply from the municipality. He expresses that they can supply Horomela with access to water on Vioolsdrift 226 on a purchase basis. All relevant documents were sent to him and I'm awaiting official comments from them. However, we would also express that a Water Use License is not required at the level of a prospecting

		right application but only at a Mining Right application. At this stage only a water supply confirmation from the municipality will surface or the applicant can truck in their own water for initial drilling activities. Mr Easau Jantjies (LED and Mining Officer) expressed on our telephone discussion that he will organise water supply through Mr. Jacques Cloete (Department of Water) contact : **027 - 7188155** and a water supply agreement will have to be executed. He expressed that this agreement will only be executed once the applicant is at granting status. **Contact : 027-7188152**

f) Need and desirability of the proposed activities.

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

Prospecting and exploration work is very important in coming up with a decision to open a mine. The planned surface work including drilling is important to be done on rocks that have potential to host the minerals to be explored. In this area copper-lead-zinc-silver deposits occur in the Precambrian metavolcanic metasedimentary Bushmanland Group which forms part of the Namaqualand Metamorphic Complex.The planned drilling positions are located on the rocks forming part of the Bushmanland Group and it is important that the drillholes are located on these sites. Detailed desktop study and geophysical surveys will refine the drillhole location thus these may be moved once work begins.

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

Geophysical surveys, trenching and drilling are the only major methods used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities.

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

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

i) Details of the development footprint alternatives considered.

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

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

a) The planned surface work including drilling is important to be done on rocks that have potential to host the minerals to be explored. In this area copper-lead-zinc-silver deposits occur in the Precambrian metavolcanic metasedimentary Bushmanland Group which forms part of the Namaqualand Metamorphic Complex.The planned drilling positions are located on the rocks forming part of the Bushmanland Group and it is important that the drillholes are located on these sites. Detailed desktop study and geophysical surveys will refine the drillhole location thus these may be moved once work begins..

b) In Phase 1 (Desktop study) there will be no activity on site apart from a few site visits. However Phases 2 to 4 will require work on site. Phase 2 (Soil geochemistry, geophysics and trenching) will require access to the farm to be able to carry out a farm wide soil geochemistry and geophysical survey where existing farm access roads will need to be used. Phases 3 and 4 will be limited to specific delineated areas. When drilling is carried out access roads will need to be created

c) Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owners to use any existing infrastructure like accommodation for the explorers, access roads and other things like workshops

d) Geophysical surveys, trenching and drilling are the only major methods used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities.

e) The applicant shall ensure that this Environmental Management Plan is provided to the Project Manager and any other person or organisation who may work on the site. Horomela Investments shall ensure that any person or organisation that works on the site complies with the requirements of this Environmental Management Plan.

f) There is no option of not implementing activities. The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used basing on looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore

the layout does not require revision. Changes in plan will be discussed with the farmers and approvals will be signed

ii) Details of the Public Participation Process Followed

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

The applicant travelled to the NamaKhoi Municipality from from 13th of August 2018 to 2018 to 20th of August 2018 and was able to drive around the sites. Meetings were held with Mr. Deon Magerman from Namakhoi representatives but registered mail letters were sent to the Municipal Manager, farmers and affected parties. A newspaper advert was put in the Gemsbok Newspaper in Upington on 28th March 2018. Notices were submitted on the registered mail documents sent to the municipality so that they can place them on the notice board of the municipality offices and public places. Phone calls and emails were also done with interested and affected parties.

iii) Summary of issues raised by I&Aps

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

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
AFFECTED PARTIES					
Landowner/s	**X**				
Namakhoi Municipality	**X**	22 October 2018	No issues rose at all. Telephone call with heads of Mining: Mr. Deon Magerman & LED & Mineral Officer: Mr Esau Jantjies (telephone discussion) Call: 027-7188152. Mr Jantjies expressed that this project is identical to our previous project (Steinkopf 22) and he is satisfied with how we want to proceed. He further expressed that the water.		
Republic of South Africa	**X**	22 October 2018 through the Namakhoi Municipality. Registered mail sent to the State	No issues rose. The Municipality has assumed control and full responsibility of the Vioolsdrift 226.		

		office in Kimberley			
Lawful occupier/s of the land					
Land is vacant. No farming and know occupiers on Vioolsdrift 226.					
Landowners or lawful occupiers on adjacent properties	**X**				
Richtersveldt Mining & Exploration (Pty) Ltd	X	26 October 2018	No issues were raised telephonically. The company not operating in that area anymore. (Registered mail was sent after the telephone discussion)		
	X				
De Vlei Verpaking CC		25 October 2018	No issues were raised. (Registered mails were sent after telephone discussion). We had to wait for the acceptance letter from the DMR first so that we can include the other parties that might be cited in the letter.		

Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					
Communities					
The Advert was placed on the newspaper	X		No comments received. Vioolsdrift 226 farm is dormant and very far from any community.		
Notices on the Municipality Notice boards	X				
Dept. Land Affairs	X				
Department of Agriculture, Land Reform and Rural Development	**X**		No comments received. Email and registered mail sent.		
Dept. Environmental Affairs	X		No comments received. Email and registered mail sent to department.		
Other Competent					

Authorities affected					
OTHER AFFECTED PARTIES					
INTERESTED PARTIES					

iv) The Environmental attributes associated with the alternatives.(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

(1) Baseline Environment

(a) Type of environment affected by the proposed activity.

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

Climate

The area generally lies in the Succulent Karoo and Nama Karoo with a small part covered in Desert conditions. The Succulent Karoo Biome is primarily determined by the presence of low winter rainfall and extreme summer aridity. Rainfall varies between 20 and 290 mm per year. Because the rains are cyclonic, and not due to thunderstorms, the erosive power is far less than of the summer rainfall biomes. During summer, temperatures in excess of 40°C are common. Fog is common nearer the coast. Frost is infrequent. Desiccating, hot, Berg Winds may occur throughout the year. The Desert climate is characterized by occasional summer rainfall, but high levels of summer aridity. Mean annual rainfall is from approximately 10mm in the west, to 70 or 80mm on the inland margin of the desert. In reality, the rainfall is highly variable from year to year.

Ecology

The vegetation is dominated by dwarf, succulent shrubs, of which the Vygies [ice-plants] (Mesembryanthemaceae) and Stonecrops (Crassulaceae) are particularly prominent. Mass flowering displays of annuals (mainly Daisies Asteraceae) occur in spring, often on degraded or fallow lands. Grasses are rare, except in some sandy areas and are of C3 type. The number of plant species mostly succulents - is very high and unparalleled elsewhere in the world for an arid area of this size.

The other portion has grassy, dwarf shrubland of the Nama-Karoo Biome. The grasses tend to be more common in depressions and on sandy soils, and less abundant on clayey soils. Grazing rapidly increases the relative abundance of shrubs.

Desert Biome is characterized by dominance of annual plants (often annual grasses). This means that after a season with rarely abundant rains, the desert plains can be covered with a sea of short annual grasses. Whereas in more normal years, the plains can appear bare with the annual plants persisting in the form of seed.

Flora and Fauna

Little data are available for the fauna of the Succulent Karoo. Of importance in the area are heuweltjies, raised mounds of calcium-rich soil, thought to have been created by termites. These support distinctive plant communities. There are a number of bird species and it is also expected that a wide variety of unique invertebrates are found in the area especially the south-facing slopes of the inselbergs and kloofs that have a much more moderated micro-climate.

Surface Water

There is no significant river that runs through the farm with the exception of dry drainage channels that flow during rainy periods. The Orange river is located to the immediate north of the application area and planned drilling work to utilise the water to be supplied by Namakhoi Municipality

Ground water

A detailed study on ground water were not done, however a windmills were observed on the farm showing that there is groundwater that is available and being utilised.

Socio-Economic

The area has little agricultural potential due to the lack of water. The paucity of grasses limits grazing and the low carrying capacity requires extensive supplementary feeds. Much soil has been lost from the biome, through sheet erosion, as a consequence of nearly 200 years of grazing. Tourism is a major industry: both the coastal scenery and the spring mass flower displays are draw cards. Mining is important, especially in the north. Some farms/portions in the Nama-Karoo are utilised for livestock farming, with animals like sheep, cows and goats being kept. Some farmers are mainly based in Poffader and Springbok. Access to some of the farms is very bad it can only be navigated by a 4 x 4 vehicle.

(b) Description of the current land uses.

Currently the farms are utilised for livestock farming, with animals like sheep and goats being kept. Bushmanland was declared a game reserve in 1892, but, due to problems in controlling the area, was deproclaimed in 1920, when open grazing by sheep was permitted. This changed the whole nature of the veld, converting the once impressive grassveld into tractable brackish veld. (This had been the only true grassveld as it had sustained itself and did not have to rely on fire for this purpose). Previously, indigenous herbivores had roamed around a large unrestricted area, following patches of good vegetation. This meant that zones which had not had sufficient rain were left alone and were able to recover. With the introduction of farming, fencing was erected and thus areas were thereafter continuously grazed, irrespective of their condition. Sheep are selective grazers, finding only certain of the available plants palatable. Continuous grazing of these palatable species suppressed flowering, severely reducing contributions to the seedbank. The position was exacerbated by over-stocking.

(c) Description of specific environmental features and infrastructure on the site.

There are no listed species on site. However, the area generally classified as an Ecological Support area. These are areas that support key biodiversity resources (e.g. water) or ecological processes (e.g. movement corridors) in the landscape. There is need to maintain near-natural landscapes with some loss of biodiversity pattern and limited loss of ecosystem processes

(d) Environmental and current land use map.

(Show all environmental, and current land use features)

The distribution of the different biomes mapped by SANBI is shown in the map below. The main area to the West is covered by the Succulent Karoo with Nama-Karoo and Desert Biomes on the East. However no cultural or heritage sites were identified on the farms

Fi

v) Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts

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

Element	Aspects and Impacts	Mitigation	Impact (post-mitigation)			
			Extent	Duration	Probability	Level of Significance
Soils	There will be minor disturbance of the soil at the proposed drill sites.	Rehabilitate each site as soon as the drilling is completed.	Low	Short Term	Definite	Low
Vegetation	The potential impact of the proposed prospecting on the vegetation would occur at proposed drilling sites and the access routes used to get to these sites. However large parts of the site have been transformed.	Environmental awareness training. Drillers to comply with all EMP procedures. Drilling sites to be located in disturbed areas wherever possible. The prospecting area including drill sites and access routes are to be rehabilitated to as near original condition as possible. No fires to be made in the prospecting area.	Low	Short Term	Definite	Low
Animal life	Animal life will be affected in the immediate vicinity of the drilling rig. It is anticipated that the noise and general activity will keep the animal life away from the site while the	Environmental awareness training for workers. If any animals are encountered they must not be killed or injured, but should rather be removed or chased away from the site. All gates will	Low	Short Term	Definite	Low

	prospecting is ongoing.	be kept closed.				
Surface Water	There are no rivers, vleis or wetlands on the site except Orange river on the north.	Water for drilling to be obtained from Sedibeng Water.	N/A	N/A	N/A	N/A
Ground water	No groundwater will be used or abstracted during the prospecting operations.	Establish EMP procedures to minimise hydrocarbon spills.	Low	Short Term	Possible	Low
Air Quality	Dust may be created during by vehicles on dirt roads and during drilling operations.	Establish EMP procedures to minimise the generation of dust. Ensure vehicles drive slowly.	Low	Short Term	Probable	Low
Noise	Noise will be created by the drilling rig and vehicles. However, this is a sparsely populated rural area.	Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Low	Short Term	Definite	Low
Cultural Heritage	There are no known important heritage resources on the site.	If any heritage resources, including fossils, graves or human remains, are encountered these must be reported to the authorities.	Low	Short Term	Possible	Low
Visual	The prospecting activity will not change the visual character of the property.	Rehabilitate drill sites and access tracks.	Low	Short Term	Definite	Low
Socio-economic	The effect of this prospecting activity for employment and socio-economic regime would be positive, but very limited in extent and duration. If a significant resource is delineated this could have a significant positive socio-economic impact, however a	Environmental awareness training will be provided to all workers. Maximise procurement of goods and services from local providers.	Low	Short Term	Definite	Low (positive)

	mining right application would be subject to a separate EIA process.					
Social Neighbours	The prospecting operations should not impact on the neighbours due to the distance and low intensity of the prospecting operation.	Ensure compliance with the EMP. Ensure workers do not trespass onto neighbours' property. Maintain communications and keep a "Complaints Register" on site.	Low	Short Term	Possible	Low
Solid Waste	All solid waste will be transported to the nearest municipal waste site. Any industrial (hazardous) waste will be transported to a suitable waste disposal facility.	Ensure compliance with the EMP. Include in environmental awareness training. Workers will not stay overnight at the site.	Low	Short Term	Definite	Low
Traffic and access	Prospecting activities will generate very limited additional traffic. Prospecting vehicles are to access the property via existing roads and tracks only.	Comply with traffic regulations. Keep to speed limits. Ensure compliance with the EMP.	Low	Short Term	Definite	Low
Cumulative Impacts	There are no significant cumulative impacts associated with this prospecting programme.	No mitigation required for prospecting.	N/A	N/A	N/A	N/A

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

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

Criteria to Consider when Determining Severity of impacts

The ranking of impacts / determination of significance is estimated using two criteria, namely Consequence and Probability. These consider the contributing factors / criteria listed in the legislation. The definitions of each are provided below.

The **Consequence** of an impact resulting from an aspect is expressed as a combination of:

- **Nature** of impact: An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).
- **Extent** of impact: A spatial indication of the area impacted (i.e. how far from activity the impact is realised).
- **Duration** of impact: A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period of time.
- **Frequency** of the impact occurring: An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the *impact* occurs. It applies only to the *aspect*. For example driving takes place daily whilst other activities takes place monthly while the resultant frequency of the impacts occurring will vary based on a number of factors.

The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used basing on looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Changes in plan will be discussed with the farmers and approvals will be signed

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

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

The positive impact of the activities is the creation of employment which is really required in the region.

The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used basing on looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Changes in plan will be discussed with the farmers and approvals will be signed

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

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

This section contains guidelines, operating procedures and rehabilitation/pollution control requirements which will be binding on the holder of the prospecting right after approval of the Environmental Management Plan. It is essential that this portion be carefully studied, understood, implemented and adhered to at all times.

The applicant shall ensure that this Environmental Management Plan is provided to the Project Manager and any other person or organisation who may work on the site. Horomela

Investments shall ensure that any person or organisation that works on the site complies with the requirements of this Environmental Management Plan.

Responsibility

- The environment affected by the prospecting operations shall be rehabilitated, as far as is practicable, to its existing state.
- The environment affected by prospecting shall be maintained in a stable condition that will not be detrimental to the safety and health of humans and animals.
- The prospecting shall not result in the pollution of the environment or lead to the degradation thereof.
- It is the responsibility of the Company to ensure that the Project Manager, employees and contractors are capable of complying with all the statutory requirements which must be met in order to prospect, which includes the implementation of this EMP.
- The Project Manager will be responsible for the practical implementation of this EMP.

Schedule
Ongoing, during the prospecting period.

Community relations
The Company shall notify the landowners two weeks before prospecting operations commence. The notice shall include contact details for any complaints about the actual prospecting activities.
The Company shall keep a "Complaints Register" on site. The Register shall contain the contact details of the person who made the complaint, and information regarding the complaint itself. The Company shall respond to all complaints within seven days. Copies of all responses should be kept together with the Register.

Schedule
Ongoing, during the prospecting period.

Layout Plan
A copy of the layout plan as provided for in Regulation 2(2) must be available at the prospecting site for scrutiny when required.

Schedule
Ongoing, during the prospecting period.

Workers
Environmental awareness training must be provided to all workers. Workers will not be allowed to trespass onto neighbouring properties.

Schedule
Ongoing, during the prospecting period.

Protection of flora and fauna
Except to the extent necessary for carrying out the prospecting activities, flora shall not be removed, damaged or disturbed nor shall any vegetation be planted.
It is anticipated that the noise and general activity will keep the animal life away from the site whilst drilling is taking place. If animals are encountered during the prospecting operations they must not be killed or injured. Trapping, poisoning and / or shooting of animals is strictly prohibited. No domestic pets are permitted on site.

Schedule
Ongoing, during the prospecting period.

Road safety and access

The access road to and routes in the prospecting area must be established in consultation with the landowner and existing roads and tracks shall be used as far as practicable. The erection of temporary gates in fence lines and the open or closed status of farm gates shall be clarified in consultation with the landowner. No new roads are to be constructed on this site.
Tracks across areas covered by natural vegetation will be kept to the absolute minimum required.
Employees must comply with all speed and traffic regulations on public roads and should not exceed 40km/hour on farm roads.

Schedule
Ongoing, during the prospecting period.

Water
Water for the drilling programme will be brought from Sedibeng in using a water bowser. No groundwater will be used or abstracted during the drilling programme. Employees will bring in their own drinking water on a daily basis.

Schedule
Ongoing, during the prospecting period.

Office / Camp Site
In order to minimise impacts in the prospecting area, no temporary office or camp site will be established. All employees will stay. The employees will drive to the site every day when drilling operations are in progress.
A security company may be contracted to protect the drilling equipment overnight or over weekends if the drill contractors have a weekend off.

Schedule
Ongoing, during the prospecting period.

Vehicles and Fuel
Vehicles will be kept to the absolute minimum required to complete the prospecting tasks. This will consist of 4WD vehicles (bakkies), a drilling rig, a water bowser and a fuel bowser. All servicing and refuelling of the support vehicles will take place in town (i.e. outside of the prospecting area).
If emergency maintenance is required in the field, the Company must ensure that no pollution occurs. When servicing equipment, drip trays shall be used to collect the waste oil, hydraulic fluid and other lubricants. Drip trays shall be provided in the prospecting area for stationary plant (such as the drill rig).
Vehicles and equipment used in the prospecting operation must be adequately maintained so that no spillage of oil, diesel, petrol or hydraulic fluid occurs.
Only the drilling rig will need to be refuelled in the prospecting area. The surface under the refuelling point shall be protected against pollution by means of carefully placed drip trays.
If any hazardous substances such as fuels and oils etc. are brought to the site and left overnight then they shall be securely stored in an open area with temporary fencing in a previously disturbed area. This area should be located on a facility with a PVC lining in order to prevent soil and groundwater pollution.

The Company shall ensure that there is always a supply of absorbent material available to absorb / breakdown / encapsulate minor hydrocarbon spills. The quantity of such materials shall be able to handle a minimum of a 200 litre hydrocarbon spill.
Used oil should be collected in a suitable container and this should then be removed from the site, either for resale or for recycling.

Any effluents or waste containing oil, grease or other industrial substances must be collected in a suitable container and removed from the site, either for resale, recycling or for appropriate disposal at a recognised facility.

Schedule
Ongoing, during the prospecting period.

Toilet facilities
Portable chemical toilets must be brought to the site during the Invasive Prospecting Phases (i.e. Drilling). These toilets must be serviced regularly.

Schedule
Ongoing, during the prospecting period.

Waste management
Suitably covered containers shall be available at the drilling rig at all times and conveniently placed for the disposal of waste.
Biodegradable waste and non-biodegradable waste (e.g. glass bottles, plastic bags, metal scrap, etc.) shall be disposed of in different containers. All waste must be removed from the site on a daily basis and disposed of at a recognised waste disposal facility (e.g. nearest municipal waste site). Specific precautions shall be taken to prevent waste from being dumped on or in the vicinity of the prospecting site.
If any hazardous waste is generated, then this must be transported to a recognised waste disposal facility.

Schedule
Ongoing, during the prospecting period.

Effluents
Any effluents or waste containing oil, grease or other industrial substances must be collected in a suitable container and removed from the site, either for resale, recycling or for appropriate disposal at a recognised facility.

Schedule
Ongoing, during the prospecting period.

Access to drill sites
The project manager will flag the most appropriate access route to each drill site.
Drill site access tracks shall be rehabilitated, as far as is practicable, to their original state.
A map showing the proposed sites for the second phase of) must be submitted to the DMR for approval before the second phase of drilling commences.

Schedule
Peg positions of borehole sites prior to commencement of drilling operations. Vehicle access requirements are ongoing, during each drilling phase.

Drilling
The following procedures at each drilling site must be complied with:
- Every effort must be made to minimise the area needed at each drilling site.
- Vegetation should not be cut or trimmed unless absolutely essential.
- The area that was disturbed by the drilling operation at each site shall be rehabilitated, as far as is practicable, to its original state as soon as the drilling is completed.
- Photographs, for monitoring purposes, should be taken before drilling commences and after each drilling site has been rehabilitated. These photographs should be included in the required Performance Assessment Reports.

Schedule
Ongoing, during the prospecting period.

Heritage Resources

If any heritage resources, including graves or human remains, are encountered these should be reported to responsible authorities immediately.

Windblown sand and dust
During prospecting operations all reasonable measures must be taken to minimise the generation of dust and to prevent windblown sand. These measures include:

- Removal or cutting of vegetation shall be avoided unless absolutely essential.
- Vehicles should not exceed 40 km/hour along farm roads.

Schedule
Ongoing, during the prospecting period.

Noise
The noise levels on the site should be limited by taking the following measures:

- Vehicles and equipment should be regularly maintained.
- Silencers should be installed and maintained on machinery, trucks and prospecting equipment.
- No loud music should be played in the prospecting area.

Schedule
Ongoing, during the prospecting period.

Rehabilitation
If the access tracks to the drill sites and the drill sites themselves result in new patches of exposed earth, then it will be necessary to re-establish a protective vegetative cover over these areas. This can be achieved by contracting labour to manually cut and prune branches from the local shrubs and spread these over the area to be rehabilitated. Seeds from these branches will fall onto the ground. The spread cut branches will hold the topsoil and sand in place (i.e. protect it from erosion), help to retain moisture in the soil and also initially protect the seedlings of germinating plants.

Schedule
Rehabilitation of the drilling sites - immediately after each drilling phase.

Environmental Related Emergencies and Remediation
The Company will operate on the principle that “prevention is better than cure” and so will institute procedures to reduce the risk of emergencies taking place. These will include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMP, environmental awareness training, on-going risk assessment and emergency preparedness.

Emergency telephone numbers
All employees shall have the telephone numbers of emergency services, including the local ambulance and fire fighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.

Fire
The Company shall ensure that there is basic fire fighting equipment available on Site at all times. This shall include at least two rubber beaters and at least one fire extinguisher.
The Company shall advise the relevant authority of a fire as soon as one starts and shall not wait until the fire is out of control.

Hydrocarbon spills
The Company shall ensure that all employees are aware of the procedures to be followed for dealing with hydrocarbon spills. The Company shall ensure that the necessary materials and equipment for dealing with hydrocarbon spills and leaks is available on Site at all times.

The Company shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible is designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 l of hydrocarbon liquid spill.
There are a number of different products on the market, which can be used as absorbents and encapsulators of hydrocarbons. The following are examples of these products:

- Spill-Sorb
- Drizzit
- Enretech
- Peat Moss

In the event of a significant hydrocarbon spill, the following procedure is required:

- The source of the spillage shall be isolated
- The spillage must be contained using sand berms, sandbags, pre-made booms, sawdust or absorbent materials.
- The area shall be cordoned off, secured and made safe.
- If a serious spill has occurred in a sensitive environment, then the Department of Environmental Affairs and Development Planning: Directorate Pollution & Waste Management must be notified.

Treatment and remediation of spill areas shall be undertaken to the satisfaction of the Project Manager. Remediation may include in-situ bioremediation using appropriate products (e.g. Enretech-1 and / or the removal of the spillage together with the contaminated soil and the disposal at a recognised facility

ix) Motivation where no alternative sites were considered.

Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owners to use any existing infrastructure like accommodation for the explorers, access roads and other things like workshops.

x) Statement motivating the alternative development location within the overall site. **(Provide a statement motivating the final site layout that is proposed)**

Since exploration is temporary in nature no permanent structures will be constructed, Negotiations and agreements will be made with the farm owners to use any existing infrastructure like accommodation for the explorers, access roads and other things like workshops.

i) Full description of the process undertaken to identify, assess and rank the impacts and risks the activity will impose on the preferred site (In respect of the final site layout plan) through the life of the activity. **(Including (i) a description of all environmental issues and risks that erer identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.)**

Criteria to Consider when Determining Severity of impacts

The ranking of impacts / determination of significance is estimated using two criteria, namely Consequence and Probability. These consider the contributing factors / criteria listed in the legislation. The definitions of each are provided below.
The **Consequence** of an impact resulting from an aspect is expressed as a combination of:

- **Nature** of impact: An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).
- **Extent** of impact: A spatial indication of the area impacted (i.e. how far from activity the impact is realised).

- **Duration** of impact: A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period of time.
- **Frequency** of the impact occurring: An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the *impact* occurs. It applies only to the *aspect*. For example driving takes place daily whilst other activities takes place monthly while the resultant frequency of the impacts occurring will vary based on a number of factors.

j) Assessment of each identified potentially significant impact and risk

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

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.)	**POTENTIAL IMPACT** (Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)	**SIGNIFICANCE** if not mitigated	**MITIGATION TYPE** (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation..	**SIGNIFICANCE** if mitigated
Drilling	Noise	Animals and people	Prospecting Phase 3	Medium	Noise Control. Ensure vehicles and equipment and maintained. Silencers should be fitted on all engines.	Low
Drilling, Trenching, Soil Sampling	Surface Disturbance	Animals, Environment	Prospecting Phase 3	High	Rehabilitate each site as soon as the drilling, trenching is completed.	Low
Driving, trenching	Air pollution	Animals, people, Environment	Prospecting Phase 3	Low	Establish EMP procedures to minimise the generation of dust. Ensure vehicles drive slowly. Comply with traffic regulations. Keep to speed limits. Ensure compliance with the EMP.	Low
Drilling	Ground water pollution	Animals, people	Prospecting Phase 3	Medium	Establish EMP procedures to minimise hydrocarbon spills.	Low
Accommodation and Site camp	Solid Waste	Animals, people and	Prospecting Phase 3	Low	Ensure compliance with the EMP. Include in	Low

		environment			environmental awareness training. Workers will not stay overnight at the site.	

The supporting impact assessment conducted by the EAP must be attached as an appendix, marked **Appendix 3**

k) Summary of specialist reports.

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

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
NO SPECIALIST REPORTS DONE	N/A Specialist reports will be done when applying for mining right.		

Attach copies of Specialist Reports as appendices

I) Environmental impact statement

(i) Summary of the key findings of the environmental impact assessment;

The proposed prospecting operation will not affect any existing alternative land uses on the property or on adjacent property or non-adjacent property. The following actions are subject to the proposed mitigation measures and require monitoring:

- The clearing of vegetation
- The storage of hydrocarbon based materials on site
- On-site waste management
- The creation of roads/tracks
- The removal of storage and soil
- The traversing of vehicles through populated areas within the prospecting area
- Groundwater: Monitor the water quality of the boreholes
- Surface Water: Monitor water quality of the stream and stream flow

Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR.

(ii) Final Site Map

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers .Attached as **Appendix 5**

(iii)Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;

Proposed Activity	**Potential Impacts**
Desktop Study	No impacts on site
Ground Geophysics, soil geochemistry and trenching	• Low impacts from short-term staff and • vehicle access to the site, • interfering with the animal grazing paddocks • managing fences and gates • Livestock falling into dug trenches • Creation of employment
Drilling	• Access tracks • Disturbance of vegetation and topsoil • Oil & fuel spills • Dust & noise • Labour issues • Litter • Possible discovery of fossils • Creation of employment
Sample processing / evaluation / decision making	No impacts on site.
Rehabilitation	Replacing topsoil, covering with brushwood etc

The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. Generally prospecting activities have low impact on the environment. The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Mitigation measures will be used to control any potential impact.

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

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

Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR.

The Company will operate on the principle that "prevention is better than cure" and so will institute procedures to reduce the risk of emergencies taking place. These will include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMP, environmental awareness training, on-going risk assessment and emergency preparedness.

All employees shall have the telephone numbers of emergency services, including the local ambulance and fire fighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.

n) Aspects for inclusion as conditions of Authorisation.

Any aspects which must be made conditions of the Environmental Authorisation

No aspect to be included as conditions of Authorisation.. The company should comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include; National Environmental Management Act, Act 107 of 1998 (NEMA), Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), National Water Act, Act36 of 1998 (NWA) and Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA)

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

(Which relate to the assessment and mitigation measures proposed)

No assumptions, uncertainties and gaps in knowledge. All mitigation measures are possible and practical.

p) Reasoned opinion as to whether the proposed activity should or should not be authorised

i) Reasons why the activity should be authorized or not.

All activities should be authorized. Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DME.

ii) Conditions that must be included in the authorisation

No aspect to be included as conditions of Authorisation.. The company should comply with all environmental legislation. Specific aspects to be adhered to from environmental

legislation include; National Environmental Management Act, Act 107 of 1998 (NEMA), Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), National Water Act, Act36 of 1998 (NWA) and Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA)

q) Period for which the Environmental Authorisation is required.

N/A

r) Undertaking

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

Confirmed.

s) Financial Provision

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

R96 772.39

i) Explain how the aforesaid amount was derived.

TABLE ATTACHED.

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

(Confirm that the amount, is anticipated to be an operating cost and is provided for as such in the Mining work programme, Financial and Technical Competence Report or Prospecting Work Programme as the case may be).

The amount is anticipated to be an operating cost and provided for in the Prospecting Work Programme. The financial provision has been added on to the initial amount quoted in the Prospecting Work Programme.

t) Specific Information required by the competent Authority

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

(1) Impact on the socio-economic conditions of any directly affected person. (Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as an **Appendix**

Current land uses inside the prospecting area, such as grazing, may be temporarily impacted through the presence of the fenced areas that drill rigs will operate within. These are however, small areas, approximately 10m x10m in total. These areas will be rehabilitated post drilling activities and the areas will once again become available for grazing. The farmers raised issues like leaving the gates open and opening of many access roads. **Results of consultation attached as Appendix 3.**

(2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act. (Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(*i*)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

Whilst no heritage resources have been identified within the proposed prospecting area care will be taken to avoid any sensitive heritage resources that may otherwise be identified during the prospecting. Where graves or fossils are identified proposed boreholes will be moved to avoid features of this type. If fossils or graves are discovered, the relevant authorities will be immediately notified and drilling will be stopped in this area. The area does not have any protected areas, threatened ecosystems or critical biodiversity, owing to the small scale of the prospecting activity, the only potential negative impact is related to the proposed borehole sites that will need to be cleared and possibly access roads to some of these sites. These should be placed on previously disturbed land or tracks. Any natural vegetation should be avoided. The location of the boreholes must be done in consultation with a botanist. The only issues of concern are graveyards.which will be avoided during prospocting activities.

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

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

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Draft environmental management programme.

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

Details of EAP are included in PART A section 1(a).

b) **Description of the Aspects of the Activity** (Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1)(h) herein as required).

COVERED IN PART A SECTION (1)(h).

c) Composite Map

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

MAP ATTACHED.

d) **Description of Impact management objectives including management statements**

i) **Determination of closure objectives.** (ensure that the closure objectives are informed by the type of environment described)

The following section details the goals and objectives that Horomela will aim to achieve. It includes both a commitment to ensure legal compliance and then highlights the goals and objective for those impacts which are deemed most significant for exploration.

Environmental Legislation

To comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include;

National Environmental Management Act, Act 107 of 1998 (NEMA)

As the NEMA is the cornerstone of all environmental legislation, the management measures implemented by the Horomela will strive to adhere to the principles of NEMA:

- That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that the disturbance of landscapes and sites that constitute the nations cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
- that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;

- that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.

ii) **Volumes and rate of water use required for the operation.**

10 000litres per day and 1 000 000 litres required for drilling purposes for the licence.

iii) **Has a water use licence has been applied for?**

Same as description in the water table

iv) Impacts to be mitigated in their respective phases

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

ACTIVITIES **(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.)	**PHASE** (of operation in which activity will take place. State; Planning and design, Pre-Construction' Construction, Operational, Rehabilitation, Closure, Post closure).	**SIZE AND SCALE of disturbance** (volumes, tonnages and hectares or m²)	**MITIGATION MEASURES** (describe how each of the recommendations in herein will remedy the cause of pollution or degradation and migration of pollutants)	**COMPLIANCE WITH STANDARDS** (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)	**TIME PERIOD FOR IMPLEMENTATION** Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:- .. Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Site Office and core shed	Prospecting	N/A	Arrangements may be done with farmers to use existing structures for offices and coreshed.	N/A	N/A
Accommodation	Prospecting	N/A	In order to minimise impacts in the prospecting area, no camp site will be established. All employees will stay outside prospecting area. The employees will drive to the site every day when drilling operations are in progress. A security company may be contracted to protect the drilling equipment overnight or over weekends if the drill contractors have a weekend off.	N/A	N/A
Trenching	Prospecting	0.02Ha	The area that was disturbed by the drilling operation at each site shall be rehabilitated, as far as is	Horomela will ensure that all employees, contractors, visitors comply with the EMP	Rehabilitate upon cessation of the individual activity that is as soon as a trench is completed.

			practicable, to its original state as soon as the drilling is completed. Photographs, for monitoring purposes, should be taken before drilling commences and after each drilling site has been rehabilitated. These photographs should be included in the required Performance Assessment Reports.		No trench shall be left open overnight unless if guarded.
Drill site	Prospecting	0.5Ha	Every effort must be made to minimise the area needed at each drilling site. Vegetation should not be cut or trimmed unless absolutely essential. The area that was disturbed by the drilling operation at each site shall be rehabilitated, as far as is practicable, to its original state as soon as the drilling is completed. Photographs, for monitoring purposes, should be taken before drilling commences and after each drilling site has been rehabilitated. These photographs should be included in the required Performance Assessment Reports.	Horomela will ensure that all employees, contractors, visitors comply with the EMP	Rehabilitate upon cessation of the individual activity that is as soon as a drillhole is completed.
Access routes	Prospecting	1200m	No new roads are to be constructed on this site. Tracks across areas covered by natural vegetation will be kept to the absolute minimum required. Employees must comply with all speed and traffic regulations on public roads and should not exceed 40km/hour on farm roads	Horomela will ensure that all employees, contractors, visitors comply with the EMP	Rehabilitate immediately

e) Impact Management Outcomes

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

ACTIVITY (whether listed or not listed). **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.).**	**POTENTIAL IMPACT** **(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated **(e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)**	**MITIGATION TYPE** **(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g.** • **Modify through alternative method.** • **Control through noise control** • **Control through management and monitoring** • **Remedy through rehabilitation..**	**STANDARD TO BE ACHIEVED** **(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.**
Site Office and core shed	Physical surface disturbance	Visual	Post Closure	No construction on site. If need be to utilise existing building and agreement to be done with farmer	Impact avoided
Accommodation	Physical surface disturbance	Visual	Post Closure	No construction on site. If need be to utilise existing building and agreement to be done with farmer	Impact avoided
Site Establishment	Dust and Noise from Vehicles driving in veld to access the proposed drill site	Air	Operation	Noise control, Reduce dust by driving slow. Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Impact controlled
Site Establishment	Carbon emissions due to internal combustion of	Air	Operation	Ensure vehicles and equipment are maintained..	Impact controlled

	fuel				
Trenching	Topsoil loss and destruction of vegetation	Biodiversity Loss	Operations and Post closure	Trenching sites to be located in disturbed areas wherever possible. The prospecting area including trench sites and access routes are to be rehabilitated to as near original condition as possible. No fires to be made in the prospecting area.	Impact controlled
Trenching	Dust	Air	Operation	Dust control measures	Impact controlled
Trenching/ Drilling	Noise	Environmental nuisance	Operation	Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Impact controlled
Drill site	Removal of top soil for sump. Drainage surface disturbance	Biodiversity loss	Operations and Post Closure	Revegetation needs to take place with topsoil that has the surrounding vegetation seedbanks. Badly damaged areas shall be fenced in to enhance rehabilitation. Areas to be rehabilitated must be planted with a mixture of local pioneer species indigenous to the area, as soon as the new growing season starts. To get the best results in a specific area, it is a good idea to consult with a vegetation specialist or the local extension officer of the Dept of Agriculture. Seed distributors can also give valuable advice as to the mixtures and amount of seed necessary to seed a certain area.	Impact controlled

				Re-seeding, as well as fencing in of badly damaged areas, will always be at the discretion of the Environmental Control Officer and in compliance with EMP.	
Drill Site	Dust	Air pollution	Operation	Put dust control measures	Impact controlled
Drilling	Use of drilling mud during drilling operations	Ground water contamination	Operation and Post Closure	Put control measures	Impact controlled
Drilling	Failure of drill sludge control system	Surrounding environment, Ground water contamination	Operation	Establish EMP procedures to minimise hydrocarbon spills.	Impact controlled
Drilling	Breakdown of machinery, oil spillages	Surrounding environment and water contamination	Operation	Establish EMP procedures to minimise hydrocarbon spills.	Impact controlled

f) Impact Management Actions

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

ACTIVITY whether listed or not listed. **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)**.	**POTENTIAL IMPACT** **(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**MITIGATION TYPE** **(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g.** • **Modify through alternative method.** • **Control through noise control** • **Control through management and monitoring** **Remedy through rehabilitation..**	**TIME PERIOD FOR IMPLEMENTATION** Describe the time period when the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:-.. Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.	**COMPLIANCE WITH STANDARDS** (A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)
Site Office and core shed	Physical surface disturbance	No construction on site. If need be to utilise existing building and agreement to be done with farmer	N/A	N/A
Accommodation	Physical surface disturbance	No construction on site. If need be to utilise existing building and agreement to be done with farmer	N/A	N/A
Site Establishment	Dust and Noise from Vehicles driving in veld to access the proposed drill site	Noise control, Reduce dust by driving slow. Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP

Site Establishment	Carbon emissions due to internal combustion of fuel	Ensure vehicles and equipment are maintained..	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Trenching	Topsoil loss and destruction of vegetation	Trenching sites to be located in disturbed areas wherever possible. The prospecting area including trench sites and access routes are to be rehabilitated to as near original condition as possible. No fires to be made in the prospecting area.	Upon cessation of individual activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Trenching	Dust	Dust control measures	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Trenching/ Drilling	Noise	Ensure vehicles and equipment are maintained. Silencers should be fitted on all engines.	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Drill site	Removal of top soil for sump. Drainage surface disturbance	Rehabilitate ground soon after drilling.	Upon cessation of individual activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Drill Site	Dust	Put dust control measures	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Use of drilling mud during drilling operations	Put control measures	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Failure of drill sludge control system	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP
Drilling	Breakdown of machinery, oil spillages	Establish EMP procedures to minimise hydrocarbon spills.	Ongoing during activity	Horomela will ensure that all employees, contractors, visitors comply with the EMP

i) Financial Provision

(1) Determination of the amount of Financial Provision.

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

For a prospecting operation such as this, the primary closure and environmental objectives are to:

- Minimise the area to be disturbed and to ensure that the areas disturbed during the prospecting activities are rehabilitated and stable, as per the commitments made in the EMP.
- Sustain the pre-prospecting land use.
- To record and communicate the results of the monitoring programme during decommissioning to the participating stakeholders.
- To receive an effective closure certificate (should the prospect indicate that the resource(s) would not support a sustainable mining operation).

(b) Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.

The environmental objectives in relation to closure were consulted with the farmers and affected parties (see attached consultation minutes). It was explained that should the prospecting yield negative results, then the end use for area will revert to its pre-prospecting land use. The end-use of the area will therefore not be changed by the prospecting operations.

However, should the prospecting operation yield positive results, then the farm could be subject to a mining rights application and another more comprehensive Public Participation, Scoping, EIA and EMP process.

If a mining right is granted then the area will be rehabilitated according to the requirements of the approved Environmental Management Programme that would apply throughout the life of the mine.

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

The activities involved are for prospecting and will involve no permanent removal of soil and rock.

Should the prospecting yield negative results, then the end use for area will revert to its pre-prospecting land use. The end-use of the area will therefore not be changed by the prospecting operations.

However, should the prospecting operation yield positive results, then the farm could be subject to a mining rights application and another more comprehensive Public Participation, Scoping, EIA and EMP process.
If a mining right is granted then the area will be rehabilitated according to the requirements of the approved Environmental Management Programme that would apply throughout the life of the mine.

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

The amount for rehabilitation is anticipated to be an operating cost and provided for in the Prospecting Work Programme
Drill site rehabilitation will be undertaken by the contract drilling company on completion of every borehole. This will include:

- The removal of all wastes generated on-site by the drilling activity.
- Backfilling of sumps, where applicable
- The ripping of cleared and compacted soils where this may have occurred; and
- The re-contouring of drill sites to resemble the topography similar to that prior to the commencement of drilling activities
- Take photos of the site before prospecting commences and after prospecting

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

The quantum of the financial provision required is therefore: **R96 772.39**. The Company must annually update and review the quantum of the financial provision *(Regulation 54 (2))*.TABLE FOR CALCULATIONS ATTACHED BELOW

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

Horomela undertakes to provide financial provision and a Bank Guarantee will be the method of providing for the financial provision. The amount is anticipated to be an operating cost and provided for in the Prospecting Work Programme

Table 1: Application 12213PR Quantum Calculation

No	Description	Unit	A	B	C	D	E
			Quantity	Master Rate	Multiplication Fa	Weighting factor 1	Amount (Rands)
			Step 4.5	Step 4.3	Step 4.3	Step 4.4	
1	Dismantling of processing plant and related structures(including overland conveyors and power lines)	m3		ZAR 10,15	1,00	1,00	ZAR 0,00
2(A)	Demolition of steel buildings and structures	m2		ZAR 141,50	1,00	1,00	ZAR 0,00
2(B)	Demolition of reinforced concrete buildings and structures	m2		ZAR 208,52	1,00	1,00	ZAR 0,00
3	Rehabilitation of access roads	m2	1200	ZAR 25,32	1,00	1,00	ZAR 30 384,00
4 (A)	Demolition and rehabilitation of electrified railway lines	m		ZAR 245,76	1,00	1,00	ZAR 0,00
4 (B)	Demolitiion and rehabilitation of non-electrical railway lines	m		ZAR 134,05	1,00	1,00	ZAR 0,00
5	Demolition of housing and/or administration offices	m2		ZAR 283,00	1,00	1,00	ZAR 0,00
6	Opencast rehabilitation including final voids and ramps	ha		ZAR 148 348,73	1,00	1,00	ZAR 0,00
7	Sealing of shafts,adits and inlines	m3		ZAR 75,96	1,00	1,00	ZAR 0,00
8(A)	Rehabilitation of overburden and spoils	ha	0,08	ZAR 98 899,15	1,00	1,00	ZAR 7 911,93
8(B)	Rehabilitation of processing waste deposits and evaporation ponds(basic,salt-producing waste)	ha	0,0046	ZAR 123 177,11	1,00	1,00	ZAR 566,61
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds(acidic,metal-rich waste)	ha		ZAR 357 764,70	1,00	1,00	ZAR 0,00
9	Rehabilitation of subsided areas	ha		ZAR 82 813,14	1,00	1,00	ZAR 0,00
10	General surface rehabilitation	ha	0,4	ZAR 78 344,82	1,00	1,00	ZAR 31 337,93
11	River Diversions	ha		ZAR 78 344,82	1,00	1,00	ZAR 0,00
12	Fencing	m		ZAR 89,37	1,00	1,00	ZAR 0,00
13	Water Management	ha	0,1	ZAR 29 788,90	1,00	1,00	ZAR 2 978,89
14	2 to 3 yearsof maintenance and aftercare	ha		ZAR 10 426,11	1,00	1,00	ZAR 0,00
15 (A)	Specialist Study	Sum		ZAR 500 000,00	1,00	1,00	ZAR 0,00
						Sum of items 1 to 15 Above	ZAR 73 179,36
Multiply sum* of 1 - 15 by weighting factor 2 (Step 4.4)		WF2		1,00		Subtotal 1	ZAR 73 179,36
1	Preliminary and general	Add 6 % to subtotal 1					ZAR 4 390,76
2	Contigencies	Add 10% to subtotal 1					ZAR 7 317,94
		(Subtotal 1 plus sum of management and contigency)					ZAR 84 888,06
		Vat @ 14 % of Subtotal 2					ZAR 11 884,33
		(Subtotal 2 plus VAT)					**ZAR 96 772,39**

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

g) Monitoring of Impact Management Actions
h) Monitoring and reporting frequency
i) Responsible persons
j) Time period for implementing impact management actions
k) Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Drilling and Trenching (Site Establishment)	The clearing of vegetation	Monitor daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	The storage of hydrocarbon based materials on site	Monitor daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Trenching, Drilling	On-site waste management	Monitor Daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Trenching and Drilling	The creation of roads/tracks	Monitor daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual

				environmental compliance report required by the DMR
Trenching and Drilling	The removal of storage and soil	Monitor Daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Trenching and Drilling	Driving activities	Monitor Daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	Groundwater: Monitor the water quality of the boreholes	Monitor Daily	Geologist/ EAP	Daily by Geologist, Annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR

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

Environmental audit report will be submitted annually.

m) Environmental Awareness Plan

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

All employees must be provided with environmental awareness training to inform them of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution or the degradation of the environment.

Employees should be provided with environmental awareness training before prospecting operations start. All new employees should be provided with environmental awareness training Induction courses will be provided to all employees by a reputable trainer.

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

No risks have been identified other than those that have been identified within this document, these are to be communicated to all contractors and all contractors are to be provided with a copy of the approved EMP. Environmental training needs for each section should to be identified and addressed to ensure environmental management is part of day to day operations. The environmental risk responsibilities guide the training requirements of each individual. The responsibility for each level of management according to the Integrated Risk Management and ISO14001 role descriptions are. Environmental training recommended for the different levels of management guide the training needs identification process. This is a minimum guideline and any additional training can be added where section specific issues or high risk items require training and awareness It is the responsibility of the line manager to ensure environmental training needs for individual staff members are identified, agreed to, facilitated and tracked.

n) Specific information required by the Competent Authority

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

The financial provision will be reviewed annually indicating work that would have been completed and money used for rehabilitation as required by the law.

2) UNDERTAKING

The EAP herewith confirms

a) the correctness of the information provided in the reports ☒

b) the inclusion of comments and inputs from stakeholders and I&APs ; ☒

c) the inclusion of inputs and recommendations from the specialist reports where relevant; ☒and

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

Signature of the environmental assessment practitioner:

NIEVENDA RESOURCES (PTY) LTD

Name of company:

09 November 2018

Date:

-END-