

SUMMARY OF THE PROPOSED PROSPECTING OPERATION
PROJECT REFERENCE: NC 30/5/1/1/2/13178 PR

1. List of activities applied for

All prospecting and prospecting related activities for occurrence determination for Diamonds by means of geological investigations and Reverse Circulation drilling:

NAME OF ACTIVITY	ARIAL EXTENT OF THE ACTIVITY HA OR M ²	APPLICABLE LISTING NOTICE
Geological investigations		NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ...
Field surveys		
Geophysical surveys	19 302.4594 ha	NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ...
Ablution facility	Total: 0.0008 ha Per site: 0.0004 ha	NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ... NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...
Drilling		
Initial Drilling	Total: 0.3 ha Per hole: 0.004ha	NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ... NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...
Infill Drilling	?	
Sampling		NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...
Rehabilitation	0.3 ha ?	NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...

Ablution facility	Total: 0.004 ha Per site: 0.0004 ha ?	<p>NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...</p> <p>NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...</p>
Vehicle storage		<p>NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...</p> <p>NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...</p>
Chemical storage		<p>NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...</p> <p>NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...</p>
Diesel storage		<p>NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...</p> <p>NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA ...</p>
Domestic waste		<p>NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ...</p>

Access road and drill traverses	0.4 ha	NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ... (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource ... NEMA 2017, GNR 327, Listed 1, Activity 22: The decommissioning of any activity ... (i) a closure certificate in terms of section 43 of the MPRDA
Geological modeling		NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ...
Feasibility study		NEMA 2017, GNR 327, Listed 1, Activity 20: Any activity including the operation of that activity which requires a prospecting right ...

2. Typical impacts of activities

- Vegetation loss – a total area of ±7 048 m² will be cleared for the prospecting activities and related structures during the course of operations. The impact can be regarded as low to medium, with no long term effects. If rehabilitation of these areas is done correctly full recovery of the environment is possible.
- Noise disturbance – during the drilling operations is noise generated by the machinery. Again the noise will be much localized and should have no impact on the surrounding environment.
- Air quality loss – dust will be generated during the drilling activities. The dust generated may have an impact on the air quality, but with localized effects and should not have an effect on the surrounding environment. For this the impact can be regarded as low.
- Soil pollution – chemical soil pollution is always a possibility during mechanical operations. Working machinery and storage facilities bears a risk for chemical spillage and the impact thereof may be very severe.
- Soil compaction – heavy vehicles driving off-road bears a great risk to the trampling of vegetation and the compaction of the soil. The drill site areas will also become compacted during the duration of the prospecting activities. If not rehabilitated vegetation re-growth will be halted and poses a low to medium risk to the environment.
- Littering pollution – littering during the prospecting activities can happen and may have a low to medium impact on the environment depending on the type of littering and the remediation thereof.

- Water pollution – chemical contaminated water from the storage facilities bears a risk to the environment. This impact should always be regarded as high and proper mitigation and/or remediation measures should be in place.

3. Duration of each activity

All of the listed activities will be occurring in phases and the time frame applied for at the Department of Mineral Resources is 5 years, which is the duration right being applied for.

Per listed activity:

- Geological investigations - ± 10 months
- Geophysical surveys - ± 8 months
- Drilling - ± 10 months
- Sampling - concurrent with drilling
- Rehabilitation - concurrent with drilling
- Ablution facility - concurrent with geophysical survey and drilling
- Vehicle storage - concurrent with drilling
- Chemical storing - concurrent with drilling
- Diesel storage - concurrent with drilling
- Domestic waste facility - concurrent with drilling
- Roads and traverses - concurrent with drilling
- Geological modelling - ± 5 months
- Feasibility study - ± 11 months

4. Details regarding intended operation

The exploration activities on the proposed project area will be done in various phases, which will include a detailed desktop study, geophysical and surface sampling as well as Reverse Circulation Percussion and Diamond Core drilling to delineate the various commodity zones possibly underlying the property to determine minable resources.

- Phase 1
 - Geological investigation
 - Literature research

Initial Geological investigations will be to extract all relative information on the subject in the form of desktop studies using existing literature and available data on the area. From this information obtained the current geological maps is updated to be more area specific.

Field visits will also be conducted for the purpose of geological surveys for determining the existence of specific trace minerals as well as outcrop evaluation. All findings will be digitally captured and geological models drafted.
 - Arial photography

Obtain the relevant photos from Mobray and/or the Council for Geo-Science of the area and by studying it, mark all the recognized outcrops for field investigations

- Visit surrounding mines
Try to obtain permission to visit the surrounding farms and/or mines to obtain more knowledge of what can be expected at depth regarding the geological formations and ore characteristics.
 - Geological overview
All results obtained during the previous phases and activities are communicated and explained within the geological overview. Within this report all data is summarized with recommendations on future work planned.
 - Detailed exploration planning
Based on the information obtained during the previous work done an action plan will be drafted, which will include the preferred geophysical methods to be implemented and suggested surveyed grids.

- Phase 2
 - Geophysical survey
The methods decided upon will be based on knowledge obtained during the desktop study and will be applied on pre-defined surveyed grids to demarcate the outcrops and sub-outcrops of the ore bodies.
 - Geological overview
Geological mapping will be done along the gridlines and the geological interpretations updated to confirm possible outcrops not delineated during the aerial and the geophysical survey studies as it was not recognized earlier.
 - Progress Report
A comprehensive report will be drafted as part of the annual report for the DMR&E and possible early investor.
- Phase 3
 - Drilling
A total of 75 drill holes are envisaged but is not foreseen to be more than 33 holes initially, as it can only be determined once the area underlain by the Critical Zone is known. The drill hole spacing and depth (for calculation purposes an estimation of 60 m is used) are also dependent on the geometry of the underlying commodity band/s, as well as the underlying geological structure/s.

Drill will be as follows:- RC drilling will be done from surface to penetrate through the overburden where after the hole will be cased and the formations containing the commodity layers will be core drilled. The drilling will be done according to the procedures as stipulated by ISO for ore resource determination.
 - Logging and sampling
All drill holes will be logged every meter containing information such as hole locations, hole depth, ore depth and other geological structures encountered

within the hole. The drill chips/core samples will be taken and stored within the appropriate containers and safeguarded for future referencing.

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

- Rehabilitation
Rehabilitation will be done as suited for both percussion and core drilling. Each hole will be cased and sealed, before the drilled overburden is backfilled into the hole. Each hole will be fully rehabilitated before commencing to the next drill location. In this way rehabilitation is time and cost effective.
- Sample analyses
The samples emanated from the drilling exercise will be analysed for the ore mineral to be used during resource calculations. The certificates obtained from the independent and accredited laboratory will safe kept together with the log sheets for future referencing.
- Data input and mapping
All data obtained during the proposed activities will be digitally captured and placed in a structured database and existing maps updated to give more detailed and accurate models of the study area.
- Geological Report
All findings and results will be drafted and explained within a geological report. Geological models will be created and used for the determination of preliminary resources, which will be included within the report. The report will further include recommendations as well as a refined drilling programme for the follow up phase of the proposed prospecting activities. It will also be used during the 3rd year as part of the yearly report to the DMR&E.
- Phase 4
 - Geological modelling
A 3-D geological model will be created of the ore body/s, using all borehole information, to illustrate the geometry of the various ore body layers in relation to each other and the surface for later planning of mining activities.
 - Ore resources
The grades of the minerals sought after as analysed by the laboratory will be interpreted into the 3-D grade distribution and volumes of the ore, also called in in-situ grade. Cut-off values will be applied to obtain mineable resources.
- Phase 5
 - Feasibility study including:-
 - a. Geological and mineable resources

Geological resources will be divided into indicated resources and proven reserves. The minable resources will be determined by applying various cut-off criteria such as grade, depth below surface and thickness.

b. Financial models

Various cost models will be generated by interpreting cost structures into the geological model to determine payable mining zones. The latter will also be used to refine the mining model/s

c. Business plan

A business plan will be drafted that will include all geological information, proposed mining plans and the various financial models to either generate further financial support by means of listing on a stock exchange or private investment.