PROPOSED PROSPECTING RIGHT ON PORTION 5 OF THE FARM KLOPPERSBOS 128 JR AND PORTIONS 1, 7 AND 8 OF THE FARM EKUPHUMULENI 716 JR (409.7979 HA), WHICH FALLS IN MAGISTERIAL DISTRICT OF CULLINAN (NOKENG TSA TAEMANE LOCAL MUNICIPALITY), CITY OF TSHWANE, GAUTENG PROVINCE

FINAL BASIC ASSESSMENT REPORT

NOVEMBER 2020

AMENDED APRIL 2021

REFERENCE NUMBER: *GP30/5/1/1/2/10650PR*

PREPARED FOR:	**PREPARED BY:**
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EXECUTIVE SUMMARY

Lomeza Opencast Operations (Pty) Ltd (“hereinafter referred to as “the Applicant”), applied for environmental authorisation (EA) and a prospecting right for coal on portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR (409.7979 ha), which falls in Magisterial District of Cullinan (Nokeng Tsa Taemane Local Municipality), City of Tshwane, Gauteng Province.

All documentation, to date, was based on preliminary data, surrounding information and desktop studies. Access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain.

A desktop study indicating areas of possible ecological importance was undertaken by JG Afrika (Pty) Ltd, a map of all these areas is included as appendix C

The plan includes the following:

- Location of drainage lines and wetland areas. The drainage lines are based on freely available Department of Water and Sanitation (DWS) drainage line shapefiles.
- Wetlands are based on those housed in the NFEPA wetlands database.
- Buffer areas of 100 metres were drawn along the drainage lines and 500 metres for wetland areas.
- The location of critical biodiversity and ecologically sensitive areas. This was based on freely available databases of the sensitive areas. A buffer area of 100 m will be given to the sensitive areas

The result of this study indicated that none of the proposed boreholes was found in any of the sensitive areas.

As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time.

Based on the above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document and specialist findings as well as in consultation with the landowner / landowners.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

The proposed project triggers listed activities in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (as amended 2017) and therefore requires an environmental impact assessment (basic assessment process) that assess project specific environmental impacts and alternatives, consider public input, and propose mitigation measures, to ultimately culminate in an environmental management programme that informs the competent authority (Department of Mineral Resources and Energy) when considering the environmental authorisation. This report, the Draft Basic Assessment Report, forms part of the departmental requirements, and presents the first report of the EIA process.

Site Alternative 1 (Preferred and Only Site Alternative):

Site Alternative 1, which entails the prospecting area in which drilling sites can be moved to various positions in consultation with the land owners depending on sensitivity and accessibility. However, the proposed prospecting area was identified as the preferred and only viable site alternative. In light of this, S1 was identified during the assessment phase of the environmental impact assessment, by the Applicant and project team due to the following:

- The geological setting of the area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top.
- Availability of the coal resource will only be determined should prospecting the prospecting right be granted and drilling can take place.

No-go Alternative:

The no-go alternative was not deemed to be the preferred alternative as:

- The applicant will not be able to prospect for any possible coal resource;
- The application, if approved, would allow the applicant to determine the available coal as well as provide employment opportunities to local employees. Should the no-go alternative be followed these opportunities will be lost to the applicant, potential employees and clients; and
- The applicant will not be able to diversify the income of the property.

Not proceeding with the proposed operation will entail that a mineral which if found will contribute towards the local and provincial social and economic structures of the area, will not be mined, and that this opportunity will be lost.

Public Participation Process:

During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent directly to the contact persons. An advertisement that was placed in The Beeld on the 8th July 2020, and two on-site notices were placed one at the entrance to the farm and one at the Spaza shop at D327 (Kwamahlanga and Klopperbos Pyramid Crossing) on the 7th July 2020. A 30-days commenting period in terms of the initial public participation was provided which expired on 11th August 2020. Please refer to the comments and responses report Appendix G1 for a complete list of all comments received. In accordance with the timeframes stipulated in the EIA Regulations, 2014 (as amended by GNR 326 effective 7 April 2017) the Draft Basic Assessment Report (DBAR) was compiled and distributed for comment and perusal to the I&AP's and stakeholders. Another 30-day commenting period, ending 05 October 2020, was provided for perusal of the DBAR and submission of comments. A meeting was held with the

landowners on the 29th of September 2021. The comments received on the DBAR was incorporated into the Final Basic Assessment Report (FBAR) to be submitted for decision making to DMRE. Most of the comments and/or objections received were from landowners and based on specialist studies that were not conducted. Although the landowners denied the applicant and its specialists access to the application areas, for the purpose of specialist studies to be conducted, the landowners are the same parties demanding specialist studies to be conducted, which is a total contradiction. In light hereof, a condition in the FBAR is hereby proposed that specialist studies will have to be conducted prior to commencement of any prospecting activities. Comments were also received that the applicant should only drill boreholes for water on the properties in order to ascertain whether there are any coal deposits. This will however result in unauthorised prospecting activities, in the event that there are coal deposits in the water samples, which cannot be recommended. It should also be noted that the prospecting activities will not differ from activities associated with drilling for water, save for the bulk sampling of mineral deposits, therefore it is clear the landowners have contrasting views, as they will approve the drilling for water but not drilling for coal.

Basic Assessment Report:

The Basic Assessment Report identifies the potential positive and negative impacts that the proposed activity will have on the environment and the community as well as the aspects that may impact on the socio-economic conditions of directly affected persons, and proposes possible mitigation measure that could be applied to modify / remedy / control / stop the identified impacts.

The key finding of the environmental impact assessment entail the following:

Topography:

The study area consist of undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. A generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Modimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte. The altitude varies between 1100–1 217 m.

Visual Characteristics:

The viewshed analysis showed that the visual impact of the proposed prospecting operation will be of low significance. The small scale of the proposed operation contributes to the low visual

significance. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

Air and Noise Quality:

The proposed activity will contribute the emissions of a drilling rig and a field vehicle to the receiving environment for the duration of the operational phase. Should the prospecting holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use. The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property.

Geology and Soil:

The large southern and eastern parts of this area are underlain by granite of the Lebowa Granite Suite and some granophyre of the Rashoop Granophyre Suite (both Bushveld Complex, Vaalian). In the north, the sedimentary rocks of the Waterberg Group (Mokolian Erathem) are most important. specifically, sandstone, conglomerate and siltstone of the Alma Formation and sandstone, siltstone and shale of the Vaalwater Formation. Well-drained, deep Hutton or Clovelly soils often with a catenary sequence from Hutton at the top to Clovelly on the lower slopes; shallow, skeletal Glenrosa soils also occur. Land types mainly Bb, Fa, Ba, Bd and Ac

Soils vary from planted grassland previously improved grassland, to cultivated, temporary/permanent, commercial/subsistence irrigated/dryland. Soil fall within the following patterns:

LP1 – soils with minimal development, usually shallow or hard or weathered rock, with or without intermitted diverse soils. Lime rate to absent in in the landscape.

Hydrology:

The proposed site falls within the Crocodile (West) and Marico Water Management Area, in the A23B quaternary catchment area. There are various streams and small farm dams in the area. The Pienaars River is located approximately 3 km south west of the site and the Boekenhoutspruit located approximately 3 km to the east of the site area.

Mining, Biodiversity and Groundcover:

The prospecting activities does not require the removal of any large trees or vegetation of significance. Due to the small footprint of a borehole, the drill position can be manipulated to drill between the trees.

In light of this, the impact of the prospecting operation on the vegetation cover of the receiving environment is deemed to be of Low significance.

Fauna:

Various small mammals and reptiles occur are likely to on the property. The fauna at the site will not be impacted by the proposed prospecting activity as they will be able to move away or through the site, without being harmed. Workers should be educated and managed to ensure that no fauna at the site is harmed. As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

As mentioned above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

Cultural and Heritage Environment:

The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the planning and design / site establishment, operational- and decommissioning phase.

Site Specific Infrastructure:

The prospecting site will contain the following:

- Surveying Equipment;
- Drilling equipment;
- Geophysical logging equipment;
- Field Vehicles;
- Sample Analysis equipment; and

- Other relevant field equipment.

During the Environmental Impact Assessment process the feasibility of the proposed site was assessed to identify fatal flaws that are deemed as severe as to prevent the activity continuing, or warrant a site or project alternative. The outcome of the assessment showed that should the mitigation measures and monitoring programmes proposed in this document be implemented, no fatal flaws could be identified that prevents the activity continuing.

Environmental Management Programme (EMPR)

The EMPR provides a description of the impact management outcomes and closure objectives. It presents the impacts to be mitigated in their respective phases as well as stipulates the mitigation measures to be applied on site.

The financial provision amount that will be necessary for the rehabilitation of damages caused by the operation, both sudden closures during the normal operation of the project and at final, planned closure gives a **sum total of R 84 828.63**.

LIST OF ABBREVIATIONS

BID	Background Information Document
BGIS	Biodiversity GIS
CARA	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)
CBA	Critical Biodiversity Area
DBAR	Draft Basic Assessment Report
DMRE	Department of Mineral and Resources and Energy
DoT	Department of Transport
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EIA Regulations	Environmental Impact Assessment Regulations, 2014 (as amended 2017)
EISC	Ecological Importance and Sensitivity Category
EMPR	Environmental Management Programme
FBAR	Final Basic Assessment Report
GDARD	Gauteng Department of Agricultural and Rural Development
GDP	Gross Domestic Product
GPBP	Gauteng Biodiversity Plan
GNR	Government Notice
I&AP's	Interested and Affected Parties
MHSA	Mine Health and Safety Act, 1996 (Act No. 29 of 1996)
MPRDA	Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Control Act, 2004 (Act No. 39 of 2004)
NEM:BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NFEPA	National Freshwater Ecosystem Priority Areas
NHRA	National Heritage Resources Act, 1999 (Act No 25 of 1999)
NRTA	National Road Traffic Act, 1996 (Act No. 93 of 1996)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PCB's	Polychlorinated Biphenyl

PCO	Pest Control Officer
PES	Present Ecological State
PPE	Personal Protective Equipment
PR	Prospecting Right
PSM	Palaeontological Sensitivity Map
RA	Risk Assessment
REC	Recommended Ecological Category
S1	Site Alternative 1
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
SAMBF	South African Mining and Biodiversity Forum
USBM	US Bureau of Mines
WMA	Water Management Area
WULA	Water Use Licence Application

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mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT

And

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATION IN TERMS OF THE NATIONAL ENVIRONMENTAL 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:	Lomeza Opencast Operations (Pty) Ltd
TEL NO:	012 665 2261/2
FAX NO:	N/A
POSTAL ADDRESS:	Postnet Suite 398, Private Bag x 7297, Witbank, 1035
FILE REFERENCE NUMBER SAMRAD:	GP30/5/1/1/2/10650PR

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 29 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 can 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.

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 these aspects to determine:

  (i) the nature, signification, 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 ASSESSMENT AND BASIC ASSESSMENT REPORT

1. CONTACT PERSON AND CORRESPONDENCE ADDRESS

a) Details of: Greenmined Environmental

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) the proponent must appoint an independent Environmental Assessment Practitioner (EAP) to undertake the environmental impact assessment (EIA) of any activities regulated in terms of the aforementioned Act. Lomeza Opencast Operations (Pty) Ltd appointed Greenmined Environmental to undertake the study needed. Greenmined Environmental has no vested interest in Lomeza Opencast Operations (Pty) Ltd or the proposed project and declares its independence as required by the Environmental Impact Assessment Regulations, 2014 (as amended April 2017) (EIA Regulations).

i) Details of the EAP

Name of the Practitioner:	Mrs Sonette Smit (Senior Environmental Specialist)
Tel No.:	021 851 2673
Fax No.:	086 546 0579
E-mail address:	sonette.s@greenmined.co.za

ii) Expertise of the EAP.

(1) The qualifications of the EAP
(with evidence).

Mrs. S Smit has fourteen years of experience in environmental legal compliance audits, (GIS) geographic information system, mining right and permit applications and applications for environmental authorisations & Water use applications.. Please find full CV attached in Appendix M.

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

Sonette Smit is an Environmental Consultant with 14 years' experience in the environmental sector. She specialized the last 8 years in the mining sector where she conducted the mining related report and programs. She has also been involved in a number of other environmental and water use application projects

where she compiled environmental management plans, environmental impact assessments, environmental audits, IWULA's/IWWMP's.

b) Location of the overall Activity.

Table 1: Location of the proposed project.

Farm Name:	Portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR
Application area (Ha)	409.7979 ha
Magisterial district:	Cullinan
Distance and direction from the nearest town	The farms portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR is situated approximately 15.63 km North-West of Cullinan.
21 digit Surveyor General Code for each farm portion	T0JR00000000012800005 T0JR00000000071600001 T0JR00000000071600007 T0JR00000000071600008

c) Locality map

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

The requested map is attached as Appendix F.

Figure 1: Satellite view of the proposed prospecting right area of Lomeza Opencast Operations (image obtained from Google Earth).

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 aforesaid main and listed activities, and infrastructure to be placed on site

Lomeza Opencast Operations (Pty) Ltd ("hereinafter referred to as "the Applicant") applied for a prospecting right on portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR (409.7979 ha), which falls in Magisterial District of Cullinan (Nokeng Tsa Taemane Local Municipality), City of Tshwane, Gauteng Province. The proposed prospecting area is a natural area. The planned activities for the proposed site's is detailed below under point ii.

All activities will be contained within the boundaries of the site.

i) Listed and specified activities

Table 2: Listed and specified activities triggered by the associated prospecting activities

NAME OF ACTIVITY (E.g. For prospecting – drill site, site camp, ablution facilities, accommodation, equipment storage, sample storage, site office, access route etc... etc... etc E.g. for mining – excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	**Aerial extent of the activity** Ha or m^2	**LISTED ACTIVITY** Mark with an X where applicable or affected	**APPLICABLE LISTING NOTICE** (GNR 324, GNR 325, GNR 326 OR GNR 327)
SITE VISISTS BY VARIOUS SPECIALIST	409.7979 ha	N/A	Not Listed
DEMARCATION OF SITE WITH VISIBLE BEACONS.	409.7979 ha	N/A	Not Listed
STRIPPING AND STOCKPILING OF TOPSOIL	0.04 ha	X	GNR 327 Listing Notice 1: Activity 20 GNR 324 Listing Notice 3 of 2017 Activity 12
DRILLING	0.04 ha	X	GNR 327 Listing Notice 1: Activity 20 GNR 324 Listing Notice 3 of 2017 Activity 12
GENERAL	0.04 ha	X	GNR 327 Listing Notice 1: Activity 20 GNR 324 Listing Notice 3 of 2017 Activity 12
OVERALL FINAL REHABILITATION ACTIVITITES	409.7979 ha	X	GNR 327 Listing Notice 1: Activity 20 GNR 327 Listing Notice 1: Activity 22

ii) Description of the activities to be undertaken

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

DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

(These activities do not disturb the land where prospecting will take place, e.g. aerial photography, desktop studies, aeromagnetic surveys, etc.)

Phase 1 (months 1 to 2), phase 3 (months 6 to 9) and phase 4 (months 10 to 12)

Desktop studies form a very important preparatory step in a new coal exploration project, and as the name suggests, this task is executed mainly from an office environment. Desktop studies will be conducted by the project geologist as part of preliminary investigations into the prospecting area by looking at all relevant published literature, geological maps, mining maps and any available evidence or records of coal findings. The outcome of the desktop studies will be a geological report of the prospecting area with a particular emphasis on the prospectivity of the area. This report will also inform other subsequent prospecting steps.

Field geological studies will follow after the desktop studies, and they typically include walking over the prospecting area making general observations of the geology and topography. Geological mapping activities, if terrain is suitable, may include detailed outcrop mapping, identification of coal hosting strata, coal seam outcrop mapping and sampling of exposed coal seams where available.

The 3D geological modelling and resource estimation step will follow after favourable exploration drilling results. This geological modelling step mainly entails geological interpretation of collected log sheet data and the subsequent geological domain. The geological model, which shows the physical continuity of the coal seams and the distribution of the coal qualities, is a critical input in coal resource estimation. The coal resource statement, which is an outcome of the resource estimation process, gives an indication of the amount of available coal resources in tonnage and associated qualities.

DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

(These activities result in land disturbances e.g. sampling, drilling, bulk sampling, etc.)

Phase 2 (months 3 to 5)

The objective of the exploration drilling is to confirm the presence of coal measures, delineate the vertical and lateral extents of the coal measures and through suitable tests the quality of the coal. Percussion and diamond coring are the preferred drilling methods. The resultant drill holes will be cased and capped to make it safe for people and animals, and also allow for future access by the exploration team.

DESCRIPTION OF PRE-/FEASIBILITY STUDIES:

(Activities in this section include but are not limited to: initial geological modelling, resource determination, possible future funding models, etc.)

The pre-/feasibility studies team will comprise of a diverse team of technical expertise in the field of mineral projects, including, geologists, mining engineers, metallurgical engineers, civil engineers, mechanical engineers, environmental scientists, marketing professionals and mineral project finance professionals. The list of activities under pre-/feasibility studies includes the following:

- Geological modelling and coal resource estimation;
- Coal reserve estimation;
- Mine design and scheduling;
- Metallurgical processing;
- Market development;
- Infrastructure design
- Engineering development
- Human resourcing
- Project development and operational costing

The prospecting site will contain the following:

- Surveying Equipment;
- Drilling equipment;
- Geophysical logging equipment;
- Field Vehicles;
- Sample Analysis equipment; and
- Other relevant field equipment.

MAIN PROSPECTING ACTIVITIES:

Drill site establishment:

- A drill site of approximately 200 m² will be established that will require:
- Clearing of vegetation for sumps and the drill entrance point – a maximum of three sumps, with each sump not measuring more than 1 m² will be operation at a time, a total of 3 m² will be cleared per site.
- Laydown area for drill rods,
- Fuel and chemical will be stored in a field vehicle;
- Chemical toilets will be placed in the vicinity of the site.

Drilling and removal of geological cores:

- Drilling a hole of approximately 67 mm in diameter and removing of rock core. Number of boreholes will be finalised once non-invasive prospecting is completed.

See attached as Appendix C a copy of the site activities map for the proposed project.

The table below lists the GPS coordinates of the proposed prospecting area as shown on the Regulation 2(2) Mine Plan attached as Appendix A.

Table 3: GPS Coordinates of the proposed prospecting footprint.

Name	DEC DEGREES	
	LAT	LONG
A	-25.493619831	28.381092381
B	-25.497155124	28.387415755
C	-25.500204797	28.393007643
D	-25.503179312	28.391373813
E	-25.51496320	28.413069678
F	-25.526847987	28.409158355
G	-25.523968817	28.402242076
H	-25.512392208	28.394590841
J	-25.511548660	28.394936059
K	-25.508341210	28.387014650
L	-25.505521377	28.380050866
M	-25.499793584	28.380818082
N	-25.498606615	28.378577787
A	-25.493619831	28.381092381

Should the PR be issued and the prospecting for coal will be allowed, the proposed project will comprise of activities that can be divided into four key phases (discussed in more detail below) namely the:

Phase	**Activity** (what are the activities that are planned to achieve optimal prospecting)	**Skill(s) required** (refers to the competent personnel that will be employed to achieve the required results)	**Timeframe** (in months) for the activity)	**Outcome** (what is the expected deliverable, e.g. geological report, analytical results, feasibility study, etc)	**Timeframe for outcome** (deadline for the expected outcome to be delivered)	**What technical expert will sign off on the outcome?** (e.g. geologist, mining engineer, surveyor, economist, etc)
1	Non-Invasive prospecting - Desktop study	Geologist	1 month	Geological report based on literature survey of records or evidence of coal findings in the prospecting area.	Month 1	Geologist
1	Non-invasive prospecting - Geological mapping	Geologist	1 month	Geological map of the prospecting area	Month 2	Geologist
2	Invasive prospecting - First phase drilling on a widely spaced grid using percussion and geophysical logging of boreholes	Geologist, surveyor, geophysicist and drilling contractor	1 month	First phase exploration drilling report	Month 3	Geologist
2	Invasive prospecting - Second phase drilling using diamond coring. Laboratory test work on recovered core samples	Geologist, surveyor, geophysicist, drilling contractor and laboratory contractor	1 – 2 months	Second phase exploration drilling report	Month 5	Geologist
3	Non-invasive prospecting - 3D geological modelling and resource estimation	Geologist	1 – 2 months	3D geological model and coal resource statement	Month 7	Geologist
3	Non-invasive prospecting - Prefeasibility study	Geologist, Mining Engineer, Environmental practitioner, Metallurgist, Marketing specialist, Accountant	1 – 2 months	Prefeasibility report	Month 9	Geologist and Mining Engineer
4	Non-invasive prospecting - Bankable feasibility study	Geologist, Mining Engineer, Environmental practitioner, Metallurgist, Marketing specialist, Accountant	2 – 3 months	Bankable feasibility report	Month 12	Geologist and Mining Engineer

e) Policy and Legislative Context

Table 4: 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 COMPLY 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)
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983).	Part A(1)(h)(iv)(1)(a) Type of environment affected by the proposed activity: *Physical Environment – Geology and Soil.* Part A(1)(h)(viii) The possible mitigation measures that could be applied on the level of risk – *Management of invader plant species*.	The mitigation measures proposed for the site includes specifications of the CARA, 1983.
Mine Health and Safety Act, 1996 (Act No 29 of 1996) read together with applicable amendments and regulations thereto including relevant OHSA regulations.	Part A(1)(h)(viii) The possible mitigation measures that could be applied on the level of risk – *Management of Health and Safety Risks.*	The mitigation measures proposed for the site includes specifications of the MHSA, 1996
Mineral and Petroleum Resources Development Act, 2002, (Act No. 28 of 2002) read together with applicable amendments and regulations thereto. • Section 16	Part A(1)(d) Description of the scope of the proposed overall activity	Application for a prospecting right submitted to DMRE-GP. Ref No: GP30/5/1/1/2/10650PR
National Environmental Management Act,1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended by GNR 326 effective 7 April 2017) • GNR 324 Listing Notice 3 Activity 12 • GNR 327 Listing Notice 1 Activity 20 • GNR 327 Listing Notice 1 Activity 22	Part A(1)(d)(i) Listed and specified activities.	Application for environmental authorisation submitted to DMRE-GP Ref No: GP30/5/1/1/2/10650PR
National Environmental Management: Air Quality Control Act, 2004 (Act No 39 of 2004) read together with applicable amendments and regulations thereto specifically the National Dust Control Regulations, GN No R827.	Part A(1)(h)(iv)(1)(a) Type of environment affected by the proposed activity – *Air and Noise Quality.* Part A(1)(h)(viii) The possible mitigation measures that could be applied on the level of risk – *Dust Handling*.	The mitigation measures proposed for the site take into account the NEM:AQA, 2004 and the National Dust Control Regulations.

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 COMPLY 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)
National Environmental Management Act: Biodiversity Act, 2004 (Act No. 10 of 2004) read together with applicable amendments and regulations thereto.	Part A(1)(h)(iv)(1)(a) Type of environment affected by the proposed activity - *Biological Environment* Part A(1)(h)(viii) The possible mitigation measures that could be applied on the level of risk – *Management of invader plant species*.	The mitigation measures proposed for the site includes specifications of the NEM:BA, 2004.
National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) read together with applicable amendments and regulations thereto. NEM:WA, 2008: National norms and standards for the storage of waste (GN 926)	Part A(1)(d)(ii) Description of the activities to be undertaken	The mitigation measures proposed for the site take into account the NEM:WA.
National Heritage Resources Act. 1999 (Act No 25 of 1999).	Part A(1)(h)(iv)(1)(a) Type of environment affected by the proposed activity – *Human Environment*	The mitigation measures proposed for the site includes specifications of the NHRA, 1999.
Guideline on Need and Desirability	Part A(1)(f) Need and desirability of the proposed activities.	The need and desirability of the project was assessed in accordance with these guidelines.
The South African Constitution	Implied throughout the document	To be upheld throughout the EIA assessment, planning-, construction-, operational- and decommissioning phases.
Public Participation Guideline in terms of the NEMA EIA Regulations	Part A(1)(h)(ii) Details of the Public Participation Process Followed	Public participation was conducted in accordance with the guidelines published in terms of the NEMA EIA Regulations

f) Need and desirability of the proposed activities.

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

Table 5: Need and desirability determination.

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
How were ecological integrity considerations taken into account?	As discussed under *Part A(1)(g)(iv)(1)(a) Type of environment affected by the proposed activity*, the prospecting activities does not require the removal of any large trees or vegetation of significance. Due to the small footprint of a borehole, the drill position can be manipulated to drill between the trees. In light of this, the impact of the prospecting operation on the vegetation cover of the receiving environment is deemed to be of Low significance. Also refer to: • Part A(1)(g)(i) Details of the development footprint alternatives considered; • Part A(1)(g)(iv)(1)(c) Description of specific environmental features and infrastructure on the site – Site Specific Vegetation; • Part A(1)(g)(viii) The possible mitigation measures that could be applied and the level of risk.	Desirable
How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity?		
How will this development pollute and/or degrade the biophysical environment?	Due to the small scale and nature of the prospecting activities the pollution potential is of low significance. The project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners., thereby keeping the impact on the receiving environment as low as possible.	
What waste will be generated by this development?	The general waste generated by the prospecting activities mainly consist of items such as food wrappers of the drilling operators. This is kept within the site vehicles and daily removed from site. As mentioned earlier, hazardous waste is mainly the result of accidental spillages/breakdowns. Such contaminated areas are immediately (within first hour of the occurrence) cleaned and the contaminated soil is contained in a designated hazardous waste container that is daily (when applicable)	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
	removed, from where it is disposed of as hazardous waste at the nearest hazardous waste disposal site. The chemical toilet will be serviced by an accredited contractor. No waste is/will be disposed of or treated on site.	
How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage?	The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the planning and design / site establishment, operational- and decommissioning phase"	Could not be determined
How will this development use and/or impact on non-renewable natural resources?	As per the prospecting work programme (PWP) The area of interest is situated just north of the Witbank Coalfield, which extends about 190 km west-east between the towns of Springs and Belfast and about 60 km in a north-south direction between the towns of Middelburg and Ermelo. The area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top. For over a century the Witbank Coalfield has been the major coal producing area in South Africa and continues to be so; it is estimated that since the first commercial exploitation of coal in 1870, over 50% of the coal produced in South Africa has come from the Witbank Coalfield. Therefore, only should this prospecting right be approved the applicant will be able to, prospect for any possible coal resource; Only should the prospecting right be approved a reserve of coal will be determined.	Could not be determined
How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part?	The prospecting activities does not make use of electricity and no water is needed to allow the operation of the activity.	Highly Desirable
How were a risk-averse and cautious approach applied in terms of ecological impacts?	If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that ecological impacts should be fully mitigated.	Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
How will the ecological impacts resulting from this development impact on people's environmental right?	Should the prospecting activities be approved the potential visual-, dust-, and noise impacts associated with the proposed activity will be of very low significance. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that no environmental rights of the surrounding residents/public will be affected by the ecological impacts associated with the proposed activity.	Highly Desirable
Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts. Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area? Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified, resulted in the selection of the "best practicable environmental option" in terms of ecological considerations	As access to the site was denied at this stage no resident protected or red data species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. Based on the above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.	Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
2. PROMOTING JUSTIFIABLE ECONOMIC AND SOCIAL DEVELOPMENT		
What is the socio-economic context of the area?		
Question	**Response**	**Level of Desirability**
What is the socio-economic context of the area?	Please refer to Heading 2(h)(iv)(1)(a) Socio-economic Environment.	Highly Desirable
Considering the socio-economic context, what will the socio-economic impacts be of the development, and specifically also on the socio-economic objectives of the area?	As mentioned earlier, should this prospecting right be approved the applicant will be able to, • Prospect for any possible coal resource; • Determine the available coal as well as provide employment opportunities to local employees. • It will also diversify the income of the property as well as potential employees and clients.	
How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that the prospecting activities will not affect the physical, psychological, cultural or social needs of the community in a negative manner. nor will the it impact negatively on the socio-economic status of the area.	Highly Desirable
Will the development result in equitable impact distribution, in the short- and long-term?	The prospecting activities proposes to operate in a socially and economically sustainable manner during both the short- and long term.	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
In terms of location, describe how the placement of the proposed development will contribute to the area.	As per the prospecting work programme (PWP) The area of interest is situated just north of the Witbank Coalfield, which extends about 190 km west-east between the towns of Springs and Belfast and about 60 km in a north-south direction between the towns of Middelburg and Ermelo. The area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top. For over a century the Witbank Coalfield has been the major coal producing area in South Africa and continues to be so; it is estimated that since the first commercial exploitation of coal in 1870, over 50% of the coal produced in South Africa has come from the Witbank Coalfield. Therefore only should this prospecting right be approved the applicant will be able to, prospect for any possible coal resource;	Highly Desirable
How were a risk-averse and cautious approach applied in terms of socio-economic impacts?	No negative socio-economic impacts could, at this stage, be identified that cannot be managed through the implementation of mitigation measures.	Highly Desirable
How will the socio-economic impacts resulting from this development impact on people's environmental right?	As mentioned in Heading *3(j)(1) Impact on the socio-economic condition of any directly affected person*, the activity may have an impact on the visual characteristics of the surrounding environment, and may potentially affect air quality and possibly the noise ambiance of the study area. However, should the prospecting activities be approved the potential visual-, dust-, and noise impacts associated with the proposed activity will be of very low significance. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that no environmental rights of the surrounding residents/public will be affected by the socio-economic impacts associated with the proposed activity	Highly Desirable
Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question	As mentioned above should the prospecting activities be approved the potential visual-, dust-, and noise impacts associated with the proposed activity will be of very low significance. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that no environmental rights of the surrounding residents/public will be affected by the socio-economic impacts associated with the proposed activity.	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
and how the development's socio-economic impacts will result in ecological impacts?		
What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	Please refer to: • Part A(1)(g)(vii) The positive and negative impacts that the proposed activity and alternatives will have on the environmental and the community that may be affected.	Highly Desirable
What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons?		
What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	The prospecting site will (if approved) operate in accordance with, amongst others, the following: • CARA, 1983 – to ensure agriculture related compliance; • Financial Provision Regulations, 2015 – to ensure compliance in terms of rehabilitation; • Mine Health and Safety Act, 1996 (as amended) – to ensure employee safety; • MPRDA, 2002 (as amended) – to ensure prospecting related compliance; • NEM:AQA, 2004 – to ensure air quality related compliance;	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	• NEM:BA, 2004 – to ensure biodiversity related compliance; • NEM:WA, 2008 – to ensure waste related compliance; • NEMA, 1998 (as amended) – to ensure environmental related compliance;	
Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community that is consistent with the priority needs of the local area.	The proposed prospecting will also contribute to the diversification of activities on the property, extending it from agriculture to include small scale mining. The need is to find coal, qualify and quantify the coal to develop a business model.	Highly Desirable
What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected.	The prospecting right activities will be in accordance with the specifications of the Mine Health and Safety Act, 1996. Site management will have daily discussions with the drill rig operators regarding the work to be performed and the environment in which the work will take place. Grievances/concerns can be lodged during the daily site meetings.	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
Describe how the development will impact on job creation in terms of, amongst other aspects?	As mentioned earlier, should this prospecting right be approved the applicant will be able to, • Prospect for any possible coal resource; • Determine the available coal as well as provide employment opportunities to local employees. • It will also diversify the income of the property as well as potential employees and clients.	Highly Desirable
What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage.	Should the prospecting right be approved the activities will operate under a valid prospecting right issued by the DMRE. Compliance of the mine with the approval conditions can be reported on as per the departmental specifications and also be managed in accordance with all the mining and environmental related legislations.	Highly Desirable
Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left.	It is believed that the mitigation measures proposed in this document is realistic and can be implemented (when needed) by the proposed activities. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, the residual impact on the environment is of low significance.	Highly Desirable
What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution environmental	In terms of Section 41 of the MPRDA, 2002 a prospecting right holder must submit a financial provision to the DMRE that is sufficient to rehabilitate or manage the negative environmental impacts related to the prospecting activity.	Highly Desirable

1. SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES		
How will this development impact on the ecological integrity of the area?		
Question	**Response**	**Level of Desirability**
damage or adverse health effects will be paid for by those responsible for harming the environment.		
Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified, resulted in the selection of the best practicable environmental option in terms of socio-economic considerations	Please refer to: - Part A(1)(g)(i) Details of the development footprint alternatives considered; - Part A(1)(g)(iv)(1)(c) Description of specific environmental features and infrastructure on the site – Site Specific Socio-Economic Environment; - Part A(1)(g)(vii) The positive and negative impacts that the proposed activity and alternatives will have on the environmental and the community that may be affected.	Highly Desirable
Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area.	If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that the prospecting activities will not cause a cumulative socio-economic impact should the prospecting right application be approved, seeing that there is no other rated activities in the vicinity.	Highly Desirable

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

Due to the remote location of the study area, the potential impacts on the surrounding environment associated with prospecting is deemed of low significance. It is proposed that all prospecting related temporary infrastructure will be contained within the boundary of the prospecting area. As no permanent buildings will be established on site the layout/position of the temporary infrastructure will be determined by the prospecting progress and available space within the 409.7979 ha of prospecting area.

The Environmental Impact Assessment process assessed the feasibility of the proposed site alternative to identify fatal flaws that are deemed as severe as to prevent the activity continuing, or warrant another site or project alternative. The outcome of the assessment showed that should the mitigation measures and monitoring programmes proposed in this document be implemented, no fatal flaws could be identified that prevents the activity continuing. In light of the above, the prospecting proposal was updated to incorporate the project related mitigation measures and monitoring programmes identified during the assessment process. The preferred development footprint was subsequently finalized and is depicted on the attached site activities plan (Appendix C).

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 C 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.

The proposed prospecting area is a natural area. The planned activities for the proposed site's is detailed below.

All activities will be contained within the boundaries of the site.

DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

(These activities do not disturb the land where prospecting will take place, e.g. aerial photography, desktop studies, aeromagnetic surveys, etc)

Phase 1 (months 1 to 2), phase 3 (months 6 to 9) and phase 4 (months 10 to 12)

Desktop studies form a very important preparatory step in a new coal exploration project, and as the name suggests, this task is executed mainly from an office environment. Desktop studies will be conducted by the project geologist as part of preliminary investigations into the prospecting area by looking at all relevant published literature, geological maps, mining maps and any available evidence or records of coal findings. The outcome of the desktop studies will be a geological report of the prospecting area with a particular emphasis on the prospectivity of the area. This report will also inform other subsequent prospecting steps.

Field geological studies will follow after the desktop studies, and they typically include walking over the prospecting area making general observations of the geology and topography. Geological mapping activities, if terrain is suitable, may include detailed outcrop mapping, identification of coal hosting strata, coal seam outcrop mapping and sampling of exposed coal seams where available.

The 3D geological modelling and resource estimation step will follow after favourable exploration drilling results. This geological modelling step mainly entails geological interpretation of collected log sheet data and the subsequent geological domain. The geological model, which shows the physical continuity of the coal seams and the distribution of the coal qualities, is a critical input in coal resource estimation. The coal resource statement, which is an outcome of the resource estimation process, gives an indication of the amount of available coal resources in tonnage and associated qualities.

DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

(These activities result in land disturbances e.g. sampling, drilling, bulk sampling, etc.)

Phase 2 (months 3 to 5)

The objective of the exploration drilling is to confirm the presence of coal measures, delineate the vertical and lateral extents of the coal measures, and, through suitable tests, the quality of the coal. Percussion and diamond coring are the preferred drilling

methods. The resultant drill holes will be cased and capped to make it safe for people and animals, and also allow for future access by the exploration team.

DESCRIPTION OF PRE-/FEASIBILITY STUDIES:

(Activities in this section include but are not limited to: initial geological modelling, resource determination, possible future funding models, etc.)

The pre-/feasibility studies team will comprise of a diverse team of technical expertise in the field of mineral projects, including, geologists, mining engineers, metallurgical engineers, civil engineers, mechanical engineers, environmental scientists, marketing professionals and mineral project finance professionals. The list of activities under pre-/feasibility studies includes the following:

- Geological modelling and coal resource estimation;
- Coal reserve estimation;
- Mine design and scheduling;
- Metallurgical processing;
- Market development;
- Infrastructure design
- Engineering development
- Human resourcing
- Project development and operational costing

The prospecting site will contain the following:

- Surveying Equipment;
- Drilling equipment;
- Geophysical logging equipment;
- Field Vehicles;
- Sample Analysis equipment; and
- Other relevant field equipment.

Site Alternative 1 (S1) (Preferred and Only Site Alternative): Site Alternative 1 entails the prospecting area for coal within the GPS coordinates as listed in the table below.

Name	DEC DEGREES	
	LAT	LONG
A	-25.493619831	28.381092381
B	-25.497155124	28.387415755
C	-25.500204797	28.393007643
D	-25.503179312	28.391373813
E	-25.51496320	28.413069678
F	-25.526847987	28.409158355
G	-25.523968817	28.402242076
H	-25.512392208	28.394590841
J	-25.511548660	28.394936059
K	-25.508341210	28.387014650
L	-25.505521377	28.380050866
M	-25.499793584	28.380818082
N	-25.498606615	28.378577787
A	-25.493619831	28.381092381

Table 6: GPS Coordinates of Site Alternative 1 (preferred and only site alternative)

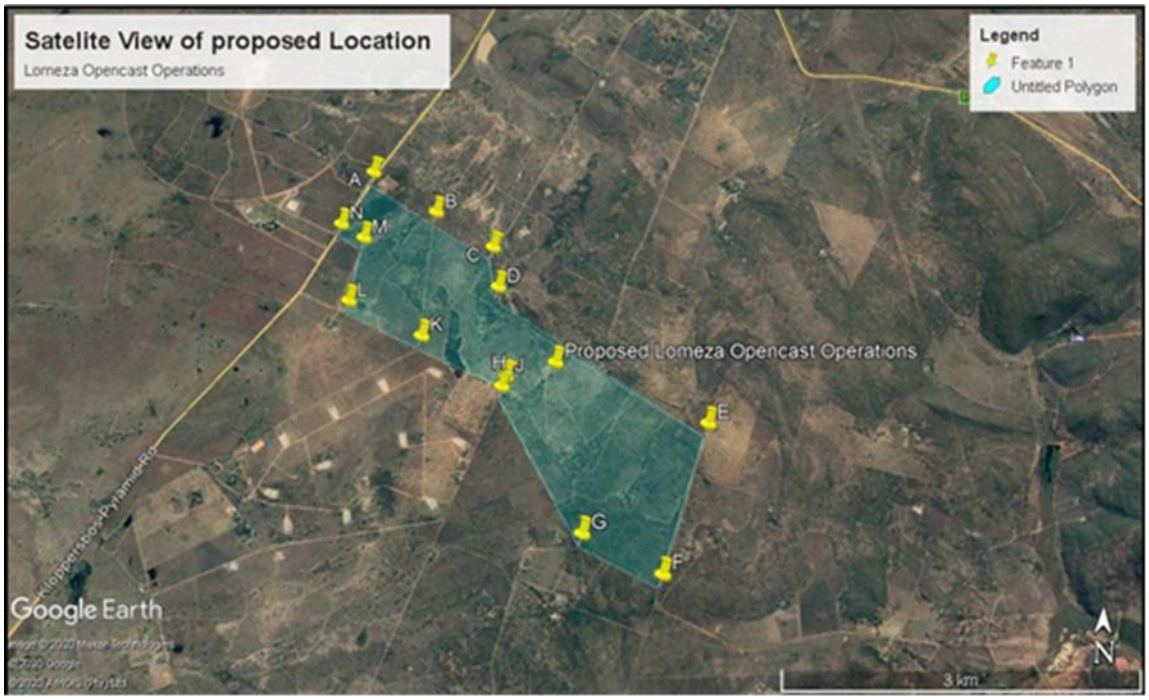

Figure 2: Satellite view showing the position of Site Alternative 1 (white polygon) within the surrounding landscape.

No-go Alternative: The no-go alternative entails no change to the *status quo* and is therefore a real alternative that must be considered.

- The applicant will not be able to prospect for any possible coal resource;
- The application, if approved, would allow the applicant to determine the available coal as well as provide employment opportunities to local employees.
- Should the no-go alternative be followed these opportunities will be lost to the applicant, potential employees and clients; and the applicant will not be able to diversify the income of the property.

Not proceeding with the proposed operation will entail that a mineral which if found will contribute towards the local and provincial social and economic structures of the area, will not be mined, and that this opportunity will be lost.

In light of this, the no-go alternative was no deemed to be the preferred alternative.

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.

During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent or hand delivered directly to the contact persons. A 30-days commenting period was allowed which expired on 11th August 2020. The following I&AP's and stakeholders were informed of the project:

Table 7: List of the I&AP's and stakeholders that were notified of the proposed prospecting right project.

SURROUNDING LANDOWNERS & INTERESTED AND AFFECTED PARTIES	STAKEHOLDERS
Surrounding landowners & lawful occupiers: • Joubert Trust (Portion 1 of Ekuphumuleni 716) • Brandon Familie Trust (Portion 16 of Ekuphumuleni 716) • Jardim Joelwin Domingos Sardinha • (Portion 8 of Ekuphumuleni 716) • Mr JC Grobler (Portion 5 of Klopperbos 128) • Jardim Joelwin Domingos Sardinha (Portion 79 of Klopperbos 128) • Full Swing Trading 351 CC (Mr J Gelderblom) (Portion 10 of Ekuphumuleni 716) • Republic of South Africa (Portion 1 and 6 of Klopperbos 128) • Joubert Trust (Portion 23 of Paardefontein 282) • Eksderde Trust (Portion 26 of Paardefontein 284) • Mr MJ Bezuidenhout (Portion 26 of Paardefontein 282) • Pioneer Foods (Me Jay Ann Jacobs) (Portion 32 of Paardefontein 282) • Sanpatfontein Pty Ltd (Portion 46 of Paardefontein 282) • HC Loubser Testamentere Trust (Mr T Loubser) (Portion 13 of Boekenhoetskloof 284) • CSIR Klopperbos & Paardefontein Research Centre (Mr I Mthombeni, Ms B Ntsoelengoe, Prof T Majozi, Dr T Dlamini) • La Estancia (Mr J Grobler) • Nulaid Farms Paardefontein	• City of Tshwane Region 5 • City of Tshwane Region 5 – Ward Councillor • Department of Environmental Affairs (National) • Department of Infrastructure Development; • Department of Labour; • Department of Roads and Transport; • Department of Rural Development and Land Reform; • Department of Social Development; • Department of Public Works • Department of Water and Sanitation; • Department of Economic Development and Tourism • Gauteng Department of Agricultural and Rural Development • Nokeng Tsa Taemane Local Municipality • Nokeng Tsa Taemane Local Municipality – Ward 49 • Provincial Heritage Resource Authority Gauteng • South African Heritage Resources Agency;
I&AP'S AND STAKEHOLDERS THAT REGISTERED/COMMENTED DURING THE INITIAL NOTIFICATION PERIOD	
Response received from Glynnis Cohen Attorney on 23 July 2020 acting on behalf of • Branron Familie Trust • Joubert Trust • Jardim Familie Trust • Mr Johan Grobler	

Letter received from Jordaan and Smit Attorneys on 6 August 2020
Letter received from Ivan Pauw and Partners on 11 August 2020 on behalf of the Manyane Lodge Sanctury Area • Dean Francois de Kock and Riani de Kock • Domingos Sardinha Jardim • Joelwin Domingos Sardinha Jardim • Ubusika Umlimi (Pty) Ltd

During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent directly to the contact persons. An advertisement that was placed in The Beeld on the 8th July 2020, and two on-site notices were placed one at the entrance to the farm and one at the Spaza shop at D327 (Kwamahlanga and Klopperbos Pyramid Crossing) on the 7th July 2020. A 30-days commenting period in terms of the initial public participation was provided which expired on 11th August 2020. Please refer to the comments and responses report Appendix G1 for a complete list of all comments received. In accordance with the timeframes stipulated in the EIA Regulations, 2014 (as amended by GNR 326 effective 7 April 2017) the Draft Basic Assessment Report (DBAR) was compiled and distributed for comment and perusal to the I&AP's and stakeholders. Another 30-day commenting period, ending 05 October 2020, was provided for perusal of the DBAR and submission of comments. A meeting was held with the landowners on the 29th of September 2021.

The comments received on the DBAR was incorporated into the Final Basic Assessment Report (FBAR) to be submitted for decision making to DMRE. Most of the comments and/or objections received were from landowners and based on specialist studies that were not conducted. Although the landowners denied the applicant and its specialists access to the application areas, for the purpose of specialist studies to be conducted, the landowners are the same parties demanding specialist studies to be conducted, which is a total contradiction. In light hereof, a condition in the FBAR is hereby proposed that specialist studies will have to be conducted prior to commencement of any prospecting activities. Comments were also received that the applicant should only drill boreholes for water on the properties in order to ascertain whether there are any coal deposits. This will however result in unauthorised prospecting activities, in the event that there are coal deposits in the water samples, which cannot be recommended. It should also be noted that the prospecting activities will not differ from activities associated with drilling for water, save for the bulk sampling of mineral deposits, therefore it is clear the landowners have contrasting views, as they will approve the drilling for water but not drilling for coal.

iii) Summary of issues raised by I&APs

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

Table 8: Summary of issues raised by IAPs during BID PPP

Interested and Affected Parties **List the name 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	**X**				
Landowner/s					
Branron Familie Trust – Landowner Mr Chico Martins	X	23 July 2020			Comments and Response Report – Appendix G
Mr Johan Corneluis Grobler – Landowner	X	23 July 2020			Comments and Response Report – Appendix G
Jardim Familie Trust – Landowner Mr Joelwin Jardim	X	23 July 2020			Comments and Response Report – Appendix G
Joubert Trust – Landowner Mr Joubert	X	23 July 2020			Comments and Response Report – Appendix G
Lawful occupier/s of the land					
As above		N/A	N/A	N/A	
Landowners or lawful occupiers on adjacent properties	**X**	-	-	-	-
CSIR Kloppersbos & Paardefontein Research Center - Mr Isaac Mthombeni	X	23 July 2020	Request to include Ms Bongi Ntsoelengoe, Executive Manager for CSIR Future production in correspondence.	Acknowledgement of receipt send to CSIR Kloppersbos & Paardefontein Research Center	Comments and Response Report – Appendix G
Ivan Pauw and Partners on behalf of the Manyane Lodge Sanctury Area • Dean Francois de Kock and Riani de Kock • Domingos Sardinha Jardim • Joelwin Domingos Sardinha Jardim • Ubusika Umlimi (Pty) Ltd • Mantaray Trading 101 (Pty) Ltd • Gev Property Trust • Armanda Investments 001 CC	X	11 August 2020			

Interested and Affected Parties **List the name 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.**
V D S Property Trust					
Municipal councillor					
Nokeng Tsa Taemane Local Municipality Ward 49	X	No comments received	N/A	N/A	N/A
City of Tshwane Region 2 Section 49	X	No comments received	N/A	N/A	N/A
Municipality					
Nokeng Tsa Taemane Local Municipality	X	No comments received	N/A	N/A	N/A
City of Tshwane Region 2	X	No comments received	N/A	N/A	N/A
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					
Department of Infrastructure Development	X	No comments received	N/A	N/A	N/A
Communities	No community were identified within the study area.				
Dept. Land Affairs					
Department of Rural Development and Land Reform	X	No comments received	N/A	N/A	N/A
Traditional Leaders	N/A				

Interested and Affected Parties **List the name 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.**
Dept. Environmental Affairs		No comments received	N/A	N/A	N/A
Gauteng Department of Agricultural and Rural Development	X	No comments received	Your notice dated 18 November regarding Portion 5 of the farm Kloppersbos No 128 JR and Portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR refers. Kindly note that the property is defined as agricultural land in terms of section 1 of the Subdivision of Agricultural Land Act, Act 70 of 1970. As such, the Department is an affected party. Kindly provide the following documents for the Department to provide the formal comments in terms of the aforementioned Act. Covering letter highlighting the background and the future land use. Copy Deeds of Transfer 1:50 000 Locality map Power of attorney Inclusive is your notice dated 18 November 2020 for easy of reference.	We refer to your comments received 7 December 2020. Please note that the comment period for the DBAR ended on 5 October 2020, however, your comments as well as our response will be forwarded to DMRE for their perusal. Please see responses to your comments listed below: Covering letter highlighting the background and the future land use. All documentation, to date, was based on preliminary data, surrounding information and desktop studies. Access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. As access to the site was denied at this stage no specific land use could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. These activities will be of short duration and will not result in a permanent change of the current land use.	Comments and Response Report – Appendix G

Interested and Affected Parties **List the name 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.**
				The current surrounding land uses can be classified as agricultural land, chicken farming, grazing, game farming and tourism. The Kloppersbos Explosion Research facility is located to the west of the property. It was noted that there were plantations on the property Copy Deeds of Transfer Please find attached to this response the title deed documents for the properties involved 1:50 000 Locality map Please find attached to this response the 1:50 000 Locality map Power of attorney To date land owner consent has not yet been obtained. The applicant is still in consultation with the land owners. All comments received for you as well as our response will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration. We trust you will find this in order. Please do not hesitate to contact us in the event of any uncertainties.	
Department of Environmental Affairs	X	No comments received	N/A	N/A	N/A
Other Competent Authorities affected					
Department of Labour	X	No comments received	N/A	N/A	N/A
Department of Public Works	X	No comments received	N/A	N/A	N/A

Interested and Affected Parties **List the name 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.**
Department of Rural Development and Agrarian Reform	X	No comments received	N/A	N/A	N/A
Department of Economic Development and Tourism	X	No comments received			
Department of Water and Sanitation	X	No comments received	N/A	N/A	N/A
South African Heritage Resources Agency	X	No comments received	N/A	N/A	N/A
Provincial Heritage Resource Authority Gauteng	X	No comments received	N/A	N/A	N/A
OTHER AFFECTED PARTIES					
NSELE MINING (PTY) LTD		No comments received	N/A	N/A	N/A
INTERESTED PARTIES					

Table 9: Summary of issues raised by IAPs during DBAR PPP

Interested and Affected Parties **List the name 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	**X**				
Landowner/s					
Ackermann Attorneys inc. on behalf of: **Jardim Family Trust - Authorised trustee Mr Jacques Quintin**	X	08 October 2020	1. We_ refer to the abovementioned matter, the correspondence between yourselves and Glynnis Cohen Attorneys (specifically your letter dated 07 September 2020) and confirm that we act on behalf of the Jardim Family Trust ("our client") who has instructed us to address this letter to you. 2. We draw your attention to the following documents contained in Appendix G1 and G2 of the Ekuphumuleni public participation process uploaded on your website Your Section 102 notification to stakeholders and interested and affected persons during the public participation phase (specifically appendix G1, page 5); The notification of owners and neighbours included under your proof that the bid was loaded onto the Sahris website of the South African Heritage Resource Agency on 08 July 2020 (specifically appendix G2, page 79); and The email correspondence from your M. Lingenfelder to "iardimi777@gmailcom" dated 08 July 2020 (specifically appendix G2, page 88). 3. It is our instruction that the aforementioned documents cited in paragraph 2 supra reflect the incorrect details of our client. 4. We delineate the aforementioned point hereunder: 4.1. Mr Joelwin Domingos Sardinha Jardim ("Mr JDS Jardim") is cited as the contact	The above matter as well as your correspondence dated 08 October 2020, of which we note the content, refers. We note that you act on behalf of the Jardim Family Trust in this regard. Herewith we would like to acknowledge your client's correct contact details and noted such, once again, in the Final Basic Assessment Report (FBAR). We would like to confirm that your client has been duly registered as an Interested and Affected Party (I&AP) and will be notified of the progress of this application. We are however unsure as to the Section 102 notification on appendix G1 you refer to in your clauses 2.1 and 4.5 of your letter under reply, as we are unable to locate same on our documentation. Please note that this application is an application for a prospecting right and not a Section 102 amendment application. Furthermore, we note your client's objections to our client's prospecting right application, which objections have been incorporated into the Final Basic Assessment Report (FBAR) to be submitted to the DMRE for evaluation. We would like to reiterate that on numerous occasions we have, on behalf of our client, requested access to the application areas, to enable our client's specialists to conduct the required specialist studies. Unfortunately, our	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
			person for our client, with email address "iardimconstruction@gma1lcom" being recorded as the contact details of our client. 4.2. Mr JDS Jardim is the registered owner of Portion 51 and Portion 79 of the Farm Kloppersbos 128 JR, which property forms part of the Manyane Lodge Sanctuary Area. Save to admit that Mr JDS Jardim has also been recorded as an interested and affected party, Mr JDS Jardim is not affiliated with our client in any manner and has therefore been confused as the contact person for our client. 4.3. The authorised trustee of our client is Mr Jacques Quintin Jardim, his correct contacted details being "jardimi777@gmailcom". Our client is the registered owner of Portion 8 of the Farm Ekuphumuleni, No 716, Registration Division JR, Gauteng Province, held under deed of title number T164968/2003. 4.4. With reference to the aforementioned distinction drawn between the two parties, your correspondence addressed to our clien't dated 08 July 2020 contained the incorrect subject line, since you erroneously refer to Mr JDS Jardim who, as aforesaid, is not affiliated with our client. 4.5. Further to the above, your Section 102 notification contained on page 5 of appendix G1 incorrectly cites Mr JDS Jardim as the contact person of our client, further citing the incorrect email address. Same holds true with regards to page 79 of appendix G2. 5. We have therefore been instructed to request that you amend our client's details to reflect the correct contact details of our client as stipulated in paragraph 4.3	client has been denied access to the application areas by the landowners and therefore no specialists were able to conduct site-specific studies, which studies would have been able address most of your client's concerns. As access to the application areas have been denied by the landowners and with only the desktop studies conducted to date, no resident protected or red data faunal species could be identified within the earmarked footprint. The project is expected to have an insignificant impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising an area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the FBAR and specialist findings, including continuous consultation with the landowner/s. The study area falls over properties that is noted to be operational game farms. Should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. Based on the above a site walk through will have to be conducted by the relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Areas that should be regarded as no-go areas will be identified in consultation with the specialists and landowner/s in order to prevent any negative impact that might be of concern.	

Interested and Affected Parties List the name 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.
			above, in order to ensure that our client receives any/all future correspondence from your office. 6. Regarding your client's application for a prospecting right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 28 of 2002, which was accepted by the Regional Manager of the Department of Mineral Resources per their letter transmitted on 20 August 2020, we have been instructed by our client to object to the granting of a right to commence with prospecting activities. Our client's objection is recorded as follows: 7.1. Our client permanently resides on the property with his family and further manages various business operations from the premises involving apiculture, goat breeding, electrical services and hunting. Should the right to commence with prospecting activities be granted, our client's privacy and/or freedom with regards to his familial and business affairs will be impeded, since our client will be obliged to restructure his affairs in order to give priority to the prospecting activities of your client; 7.2. Our client is in the process of developing and/or upgrading accommodation facilities in order to accommodate more guests on the property. Any prospecting activities by your client will therefore have an adverse effect on our client's ability to accommodate guests, since the tranquility and serenity will be lost. Furthermore, our client would have to plan all accommodation arrangements according to your client's operations;	Please note that the FBAR, including all comments and objections from all I&AP's, will be submitted to the DMRE during this week, for its consideration and determination, after which the DMRE has 107 days to evaluate and make a decision on this application. We trust you will find the above in order and we will keep you informed of the progress on this application.	

Interested and Affected Parties List the name 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.
			7.3. Our client's property forms part of an operational game farm on which hunting activities are permitted. The prospecting operations of your client will not only adversely affect the wildlife and the ·quality of the environment, but will· expose your client's staff and related persons to safety hazards, since the prospecting operations would be conducted amidst uncontained wildlife. Your client will further risk damage to equipment left on the premises during the course of hunting activities; 7.4. The economic and social prejudice to our client therefore does not justify the potential economic benefit to your client. Our client's freedom with regards to his property, familial life and business affairs will be impeded by your client's prospecting activities, in the sense that our client will have to adjust his personal and business affairs to the benefit of your client; 7.5. Of pertinent concern is the fact that a shortage of rainfall in the area has contributed greatly to the drought on the property, to the extent that the main dam has dried up. Although no water will be required for the proposed prospecting activities as mentioned in the Draft Basic Assessment Report, the drought has negatively affected the fauna and flora which could potentially worsen should prospecting activities commence; 7.6. Further to the above, our client's property falls within the buffer zone of the Dinokeng Game Reserve, which is home to the Big 5 animals as well as numerous bird species, including the endangered blue crane. The commencement of prospecting activities could therefore have far-reaching		

Interested and Affected Parties List the name 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.
			effects, resulting in pollution not only to the immediate environment of our client, but to the environment of the Dinokeng Game Reserve as well. We kindly request that you record our client's objection accordingly and to include same in the final Basic Assessment Report to be submitted to the Department of Mineral Resources.		
GLYNNIS COHEN ATTORNEY on behalf of: **Branron Familie Trust – Landowner** **ON B HALF OF THE OBJECTOR** **BEi G BRANRON FAMILIES TRUST DULY AUTHORISED THERETO** **DULY AUTHORISED BY ITS TRUSTEES, REPRESENTED BY ITS ATTORNEY, GLYNNIS CHARL COHEN** **DULY AUTHORISED THERETO** **TO:** **MINERAL RESOURCES REPUBLIC OF SOUTH AFRICA** **CARE OF REGIONAL MANAGER GAUTENG REGION** **BRAAMFONTEIN** **Shirley.matiomane@dmr.gov.za** **REF:GP30/5/1/1/2(10650)PR** **ATTENTION: S MAT JOMANE** **AND TO:** **THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS** **ATTENTION: THE MINISTER** **AND TO:** **THE REGIONAL MANAGER**	X	1 October 2020	FORMAL OBJECTION BY BRANRON FAMILIE TRUST (113207/1997) TO THE ENVIRONMENTAL IMPACT ASSESSMENT AND FOR THE PROSPECTING RIGHT APPLICATION 1. This is a formal objection to the proposed prospecting right application by Lomeza Opencast Operations Pty Ltd ("Lomeza" alternatively "the Applicanf'), on Portion 5 of Farm Klopperdbos 128 JR and Portions 1, 7 and 8 of Farm Ekuphumuleni 716 JR (409.7979 ha), which falls in magisterial district of Cullinan (Nokeng Tsa Taemane Local Municipality), City of Tshwane, Gauteng Province ("the prospecting rights application"). 2.The objection opposes two administrative processes currently underway, and will be submitted to the relevant authorities: - 2.1 It objects to the environmental impact assessment and opposes that an environmental authorisation ("RoD") should be issued, which would be in terms of Section 24 of the National Environmental Management Act 107 of 1998 ("the NEMA") read against the EIA Regulations Government Notice R982 in Government Gazette 38282 dated 4 December 2014 (as amended);	APPLICANT'S RESPONSE TO OBJECTIONS BY THE BRANRON FAMILIE TRUST (IT3207/1997) TO THE PROSPECTING RIGHT APPLICATION AND APPLICATION FOR ENVIRONMENTAL AUTHORISATION SUBMITTED BY THE APPLICANT FOR THE PROSPECTING OF COAL ON A PORTION OF PORTION 5 OF THE FARM KLOPPERSBOS 128 JR AND PORTIONS 1, 7 AND 8 OF THE FARM EKUPHUMULENI 716 JR, MAGISTERIAL DISTRICT OF CULLINAN, CITY OF TSHWANE, GAUTENG PROVINCE 1.The formal objection of the objector is hereby noted by the applicant. 2.Failure by the applicant to respond to each and every objection and/or allegation made by the objector should not be construed as confirmation thereof, but rather repudiation thereof. The applicant reserves its rights and also its right to fully respond, or supplement this response, at a later stage and at the appropriate forum should the need arise. PUBLIC PARTICIPATION – NOT ALL INTERESTED AND AFFECTED PARTIES HAVE BEEN GIVEN ACCESS TO THE APPLICATION Ad Paragraph 6 – 7 3.Prior to commencing with the Public Participation Process (hereinafter referred to as "PPP") the applicant's consultant contacted all	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
			2.2It objects to the prospecting right application in terms of Section 16 of the Mineral and Petroleum Resources Development Act, Act 28 of 2002 ("the MPRDA"). 3. The objection seeks for: - 3.1 The RoD to be refused; 3.2 The prospecting right application, to be refused. 4.The formal objection is made by the Branron Familie Trust (IT3207/1997) ("the Objector"), 5. The objection will be submitted to both the Provincial Environmental Authority, the Department of Environmental Affairs for the attention of the Minister as well as to the Department of Mineral Resources, for the attention of the Regional Manager and Minister. PUBLIC PARTICIPATION -NOT ALL INTERESTED AND AFFECTED PARTIES HAVE BEEN GIVEN ACCESS TO THE APPLICATION: 6. All interested and affected parties as contemplated by the MPRDA who are entitled by sections 10(1) and 22(4) thereof have not been furnished with a copy of the application as contemplated by section 22. 7. In the DBAR the Applicant asserts that the stakeholders and interested and affected parties were informed by sending the background information documents directly to the contact persons. The Applicant asserts that one advertisement was placed in Die Beeld on 8 July 2020 (being an Afrikaans medium newspaper) and two on-site notices were placed, one at the entrance to the farm and one at the Spaza Shop at 0327. The farms to whom	landowners and Interested and Affected Parties (hereinafter referred to as I&AP's) known at the time to procure relevant contact details as well as additional details should the I&AP's wish the consultant to contact additional I&AP's. No additional information was received from any of the landowners nor the I&AP's. 4.The objector's averment that Provincial Government was not contacted as part of the public participation process is incorrect. All relevant Provincial Government Departments were contacted, which is evident from the Comments and Response Report annexed to the Draft Basic Assessment Report (hereinafter referred to "DBAR"), which DBAR availability was made known to all I&AP's. In the event that the objector was of the opinion that additional I&AP's need to be contacted as part of the PPP the objector, or its representative, should have provided the consultant with the information. Ad Paragraph 8 - 17 5. The applicant notes the objector's quotes in terms of the National Environmental Management Act, 1998 (as amended) (hereinafter referred to as "NEMA") and the Environmental Impact Assessment Regulations. However, it seems that the objector quoted and based its grounds for objections on the Environmental Impact Assessment Regulations, 2010 published under Government Notice No. R.543 in Government Gazette No. 33306 dated 18 June 2010, which Regulations were repealed by the Environmental Impact Assessment Regulations, 2014 published under Government Notice No. 986 in Gazette No. 3822 of 04 December 2014, as amended under Government Notice No. 326 in Gazette No. 40772 of 07 April 2017 (hereinafter referred to as the "EIA Regulations"). Therefore, the	

Interested and Affected Parties List the name 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.
			notice was given is the Objector's property is Portions 5 of the Farm Kloppersbos 128 JR and Portions 1, 7 (the Objector's land) and 8 of the Farm Ekuphumuleni 716 JR.. The locality map (page 18) shows the land in issue which forms part of a conglomerate of at least 170 farms which together with the Provincial Government have formed a conservation area known as Dinokeng Game Reserve, which inter alia supports the upliflment of the community and protection of wild animals. The website of Dinokeng Game Reserve establishes that the area employs 800 permanent employees who support and sustain their families. There is no evidence that notice has been given to the surrounding communities, or the other land owners in the area, or to the Provincial Government who has formed the wildlife reserve. INTRODUCTION 8.The preamble to NEMA reads as follows: "To provide for cooperative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of State; to provide for certain aspects of the administration and enforcement of other environmental management laws; and to provide for matters connected therewith." 9. The purpose of NEMA is to protect the rights: "To an environment that is not harmful to his or her health or well-being" and to "respect, protect and promote co-operative governance and procedure."	regulations quoted by the objector is not applicable to this application, nor can it be enforced as grounds for objection. 6.It is correct that the applicant applied for authorisation in terms of the EIA Regulations and Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (as amended) (hereinafter referred to as the "MPRDA") to prospect for coal on the application areas. 7.The objector's statement that the usage of coal for power production emits GHG's is also not disputed. However, it should be noted that this application is an application for a prospecting right to enable the applicant to ascertain whether there are any coal deposits within the application area. It is clear that the objector confuses this prospecting right application with a Mining Right application in terms of Section 22 of the MPRDA, or an application for an Atmospheric Emissions License in terms of the National Environmental Management: Air Quality Act, 2004 (as amended). No atmospheric emissions will be released through the proposed prospecting right activities. 8. The objector fails to clarify as to what extent the applicant "fails to substantially comply with the requirements of Regulation 31(2)" and the objector also fails to clarify what relevant information of the application is missing. It should again be noted that no Regulation 31(2) exist under the EIA Regulations. Regulation 31 of the EIA Regulations refers to the amendment of an environmental authorisation where a change of scope occurs, which is not applicable to the circumstances of this application. Ad Paragraph 19 – 21	

Interested and Affected Parties List the name 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.
			10.Section 24 of NEMA provides that any activities which are listed or specified by the Minister of Environmental Affairs must obtain an environmental authorization ("RoD") before they may commence. The mining of coal is one such listed activity. 11. Section 240(1) of NEMA imposes peremptory requirements. The decision makers who grant such authorization must consider all relevant factors stated in that section. 12.Section 240(1) of NEMA is to be read with the relevant provisions of the Regulations, which prescribe what must be contained in an Environmental Impact Assessment Report. Regulation 31 (2) provides that the Environmental Impact Assessment Report must contain all information that is necessary for the competent authority to consider the application made by the Applicant and to reach a decision. 13.The relevant information includes a description of the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity and a description of identified potential alternatives to the proposed activity, with regard to the activities advantages and disadvantages.1 14.Regulation 31 (2)(k) requires the report also to include a description of all environmental issues identified during the assessment process and an indication of the extent to which the issues could be addressed by the adoption of mitigation measures. The report furthermore must	9. It is correct that no water will be used by the holder for the prospecting right activities, which phases of operation is more fully set out in the DBAR. The objector once again infers that "should a mining right be granted, if the applicant is successful, volumes of water will be used." Once again it should be noted that this application is not for a mining right, but for a prospecting right. 10. The Background Information Document was sent to all known I&AP's on 08 July 2020 to inform the I&AP's of the proposed project, which application was at that stage yet to be submitted to the DMRE. The DBAR was subsequently provided to all I&AP's, which report contained all relevant and available aspects of the project. The Final Basic Assessment Report will be submitted to the DMRE, for their evaluation and consideration, once all the comments and/or objections from all the landowners, stakeholders and I&AP's have been incorporated into the report. DBAR fails to comply with prescribed minimum legislated requirements Ad Paragraph 22 – 30 11.The landowners were consulted with regards to access to the properties to enable the specialists to conduct the required and/or necessary studies on the application areas. These requests for access were denied and up to date hereof no specialists were able to conduct comprehensive studies on the application area. 12.As access to the site has been denied by the landowners and with only the desktop studies conducted to date, no resident protected or red data faunal species could be identified within the earmarked footprint. The project is expected to have an insignificant impact in this regard as	

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			address each identified potentially significant impact, including: (i)Cumulative impacts; (ii)The nature of the impact; (iii)The extent and duration of the impact; (iv)The probability of impact occurring; (v)The degree to which the impact can be reversed; (vi)The degree to which the impact may cause irreplaceable loss of resources; and (vii)The degree to which the impact can be mitigated.2 15.Regulation 34(2)(b) obliges the competent authority to reject the Environmental Impact Assessments Report if it does not substantially comply with the requirements in regulation 31 (2). 16.The Applicant makes application for a RoD to prospect for coal. Coal is an emissions -intensive energy carrier. The usage of coal for power and that it emits significant volumes of greenhouse gas emissions ("GHGs") which causes climate change is a factor to be considered. 17.The Applicant's application fails to substantially comply with the requirements in regulation 31 (2) and as relevant information is missing, the Environmental Impact Report must be rejected under regulation 34(2)(b) and environmental authorization should be refused. 18.Further, the Applicant's description of its overall activity are stated to be non-invasive activities and planned invasive activities. In its description of planned invasive activities, which results in land disturbances, such as sampling, drilling, bulk sampling, etc. in respect of all phases	prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising an area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the Basic Assessment Report, as well as in consultation with the landowners. The study area falls over properties that is noted to be operational game farms. Should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. 13.Based on the above a site walk through will have to be conducted by the specialists prior to the commencement of prospecting activities, in order to eliminate any impacts, the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the DBAR, including specialist findings, as well as in consultation with the landowner /landowners. 14.Section 10(2) of the MPRDA provides for objections to be referred by the Regional Manager to the Regional Mining Development and Environmental Committee to consider the objections and to advise the Minister thereon. It is quite absurd that the objector would include this section as part of the mechanisms allegedly not utilised by the applicant, as the applicant is not objecting to its own prospecting right application, nor does the applicant wish to object to its own application. 15. The objector's averment that the MPRDA mechanisms available to the applicant	

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			over 30 months. The Applicant states the following: "The objective of the exploration drilling is to confirm the presence of cold measures, delineates the vertical and lateral extents of the coal measures, and, through suitable tests, the quality of the coal." 19.Phase 2 (months 3 to 5) (months 6 to 15) and phase 4 (months 27 to 30) continue with the same objective. As such, from months 3 to 30 (being 27 months) there will be an involvement of an invasive activity being exploration drilling, by usage of percussion and diamond coring. The Applicant in its draft Basic Assessment Report (DBR) (page 120) states that no water will be used for all during such operation. However, should a mining right be granted, if the Applicant is successful, volumes of water will be used. This will take place in a water stressed area on agricultural land on which a wildlife reserve exists. 20. 20.1The Closure Plan in section 10 of the application provides that: "Prospecting activities are to be undertaken in a manner which facilitates site rehabilitation and the restoration of existing land capabilities. The primary objectives for rehabilitation include: (a)The facilitation of the reestablishment of the land use and capability to as close as is reasonably to the original conditions, (b)Removal of all infrastructure and material introduced to site; (c)Removal of all wastes and their related disposal,	for disputes with landowners, which allegedly have not been followed by the applicant, is false. Section 54(1) of the MPRDA provides as follows: "The holder of a prospecting right must notify the relevant Regional Manager if the holder is prevented from commencing or conducting any prospecting operations because the owner or the lawful occupier of the land in question- (a) Refuses to allow such holder to enter the land; …." It should be noted that the applicant is not yet the holder of a prospecting right, as only once the right has been granted and executed the applicant becomes the holder. Therefore, this option is not available to the applicant, hence its requests directly addressed to the landowners for access to the properties. 16. The applicant notes the objectors reference to the Dinokeng Game Reserve Draft Environmental Management Framework dated October 2009. However, the Dinokeng Game Reserve has not yet been proclaimed as such and therefore the objector's reference to clause 5.5.5.4 in that prospecting is an incompatible land use should be disregarded, until such time of proclamation. 17. The objector's reference to the zoning of the application area is noted. The applicant is already in the process of liaising with the applicable municipality with regards to the temporary rezoning of the application areas. APPLICANT'S CONCLUSION TO THE OBJECTOR'S OBJECTIONS 18.The objector based its grounds for objections on repealed legislation; and 19.Therefore, the objector's objections should be disregarded.	

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			(d)and promotion of the rapid reestablishment of natural vegetation and the restoration of site ecology." 20.2 The Applicant refers to a Rehabilitation Plan but does not attach it to its application. Instead, they state that: "A site specific rehabilitation plan drawn to a suitable scale will be provided in the draft EMPr to be submitted together with the BAR." 20.3 The application does not refer to "BAR", but refers to "DBAR" being the draft basic assessment report. The "DBAR" (as set out below) does not provide for a rehabilitation plan. Appendix E, being the rehabilitation map is not disclosed. 21.The application does not have attached to it the following documents referred to therein, namely: (a)The curriculum vitae (CV) of the Applicant (b)The Applicant's Memorandum of Understanding with Imbila GEO Consultants (Appendix B); (c)The curriculum vitae of the geologists being Imbila GEO Consultants (Appendix C); (d)The required documentary proof of the budget and Applicant's financial ability (Appendix 0). (e)The details regarding the financing arrangements in terms of Appendix E. (f)Evidence of available funding and/or financing arrangements referred to as Appendix F. GROUNDS OF OBJECTION DBAR fails to comply with prescribed minimum legislated requirements		

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			22.The appointed environmental impact assessment practitioner, Greenmined ("the EAP"), has uploaded several documents online, under the heading EKUPHUMULENI. 23.These documents include the Draft Basic Assessment Report ("DBAR") and various Appendices. 24.The DBAR has the following fatal flaws: 24.1 At page 2, the EAP makes the following concession: - "All documentation, to date, was based on preliminary data, surrounding information and desktop studies. Access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the Applicant was all in vain. Greenmined is unable to provide the I&AP's and stakeholders with material information with regards to this prospecting right application and it is therefore clear that the relevant authorities will not be able to provide informed comments, irrespective should it be positive or negative. However, due to the landowners' refusal to grant access to the properties. the proper studies could not be conducted." (emphasis added) 24.2 This approach offends Regulation GNR982. The DBAR fails to address Regulation 19 and 20 as against Schedules 1, 4, 5 and 6. 24.3 A "desktop study" is wholly under inclusive for an assessment of this nature. 24.4 At a minimum, the assessment should include the following specialised studies:		

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			24.4.1 Hydrogeologist and hydropedology study: to assess wetland flows and boreholes, particularly in light of a neighbouring nature reserve; 24.4.2 Biodiversity and Surface Water study: to assess the vegetation, habitats, mammal and faunal composition of the area, particularly in light of a neighbouring nature reserve; 24.4.3 Agricultural Potential. Soil and Land Capability study: to conduct soil samples; 24.4.4 Wetland specialist study: to assess wetlands and rivers, particularly in light of a neighbouring nature reserve; 24.4.5 Paleontological study: to assess surface geology and outcrops; 24.4.6 Noise specialist study: 24.4. 7 Blasting and vibration specialist study. in particular, as against legislated minimum buffer zones. 24.5 None of these studies have been conducted, and the bald, vague, unsupported and unsubstantiated conclusions drawn by the EAP are not underpinned by any fact or evidence. 24.6 It is insufficient for the EAP to merely rely on the lack consent of landowners. The MPRDA and the NEMA provides specific legislated mechanisms and the EAP, and Lomeza have failed to exhaust these mechanisms. These include inter a/ia Section 10, specifically Section 10(2) and a referral to the Regional Mining Development and Environmental Committee. 24.7 Since there are no relevant specialist studies, at all, considered and attached to the DBAR, the DBAR further fails to meet		

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			the thresholds of Government Notice R982 in Government Gazette 38282: - 24.7.1 Regulations 19(2), 19(3), 19(6), 19(7), 19(7A) and 19(8) have not been complied with, by the EAP and Applicant; 24.7.2 Appendix 1 has not been considered, since there are no specialist studies. This includes a factual, considered analysis of: - a) the need and desirability of the proposed alternatives; and b) the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects; c)the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and the degree to which these impacts can be reversed and may cause irreplaceable loss of resources; and can be avoided, managed or mitigated (Appendix 1 (Regs 2, 3)) and hence the DBAR has failed to comply with the scope of assessment and content of basic assessment reports and the objective of the basic assessment process. 24.7.3 Appendix 4 has not been properly considered, since there are no specialist studies, including: a)a map 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 should be avoided, including buffers. Environmentally sensitive sites have not been identified, because there are no		

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			specialist studies, nor have buffers been employed. The maps attached to the DBAR are entirely unhelpful (Appendix 4 (Reg 1), thus the DBAR has failed to comply with the minimum requirements for the content of environmental management programme (EMPr). 24.7.4 Appendix 6 has not been complied with in its entirety, since there are no specialist studies. 24.8 The descriptions of topology, visual characteristics, air and noise quality, geology and soil, biodiversity and ground cover, fauna, cultural and heritage at pages 4 to 5 of the DBAR are based entirely on the EAP's subjective view and a "desktop study". These bald, vague assertions are not underpinned by any fact or evidence. 24.9 The financial provision for closure, is woefully low as at R 84 828.63. This is described at page 6 of the DBAR. This figure is also, not grounded in reality since the figure has been determined without specialist studies and/or expert evidence. 24.10 The EAP lists the following triggered activities at page 19: GNR 327 Listing Notice 1: Activity 20, GNR 324 Listing Notice 3 of 2017 Activity 12, GNR 327 Listing Notice 1: Activity 20, GNR 324 Listing Notice 3 of 2017 Activity 12, GNR 327 Listing Notice 1: Activity 20 GNR 324 Listing Notice 3 of 2017 Activity 12. These Listed Activities would require the specialist studies set out above, in particular, a biodiversity study. 24.11 The planned invasive activities (page 20) and main prospecting activities (page 21) are uninformed by any physical, scientific study linked to the actual property. It is		

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			emphasised that the Applicant wishes to mine for coal, which is a notoriously dirty, polluting resource, particularly open cast coal. The tenure of a prospecting right inevitably leads to mining. It is exceptionally detrimental to economic, social and environmental concerns and interests that physical studies have not been conducted. 24.12 The table listing the impacts, need and desirability from page 27 of the DBAR is also, wholly lacking. The ecological integrity of the site has not been determined. The EAP has relied solely on a superficial, remote "desktop study". Hence the conclusions of "desirable and highly desirable" are once again, uninformed by factual, scientific data and are the EAP's own subjective conclusion. 24.13 The wholesale lack of scientific data culminates in the following bald, vague and sketchy motivation, provided by the EAP at page 36: "Due to the remote location of the study area, the potential impacts on the surrounding environment associated with prospecting is deemed of low significance. It is proposed that all prospecting related temporary infrastructure will be contained within the boundary of the prospecting area." With respect, it is impossible for the EAP to draw such a conclusion on an independent, objective basis because on the EAP's own submission no scientific studies have taken place at all on site. The conclusion of the activities being of "low significance" are directly linked to the EAP's opening statement that the study has been done remotely. 24.14 The description of the "site specific" factors from page 4 7 to 7 4 of the DBAR is		

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			with respect, a fiction. The conclusions drawn in these paragraphs are not based on "site specific" data. Rather, they are the EAP's own conclusions drawn from various desktop studies. Not a single conclusion is grafted from a physical site inspection and report. The conclusions drawn in these paragraphs are unhelpful and meaningless without scientific studies. 24.15 The positive and negative impacts from page 82 to 99 of the DBAR are also, based on the EAP's own subjective views and are not underpinned by any scientific and specialist study and data. The EAP is not qualified in these broad areas to provide blanket conclusions which are not supported by scientific studies and neither do they state that they are experts. 24.16 The lack of scientific study is highlighted again, at page 100 of the DBAR where the EAP concedes "All documentation, to date, was based on preliminary data, surrounding information and desktop studies. Access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the Applicant was all in vain. Greenmined is unable to provide the I&AP's and stakeholders with material information with regards to this prospecting right application and it is therefore clear that the relevant authorities will not be able to provide informed comments, irrespective should it be positive or negative. However, due to the landowners' refusal to grant access to the properties the proper studies could not be		

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			conducted. No specialist studies were conducted as a result hereof." 24.17 It is wholly insufficient for the Applicant and its appointed EAP to rely on bald conclusions against this concession. The MPROA makes specific mechanisms available for disputes with landowners, and these mechanisms have not been followed by the Applicant and its EAP. 24.18 At page 120, the EAP concludes: "Has a water use licence has been applied for? The Applicant will not require water use authorisation in terms of the NWA, 1998." There is no justification for such a statement. No wetland or hydrological specialist study has been done. There is no physical or scientific data, whatsoever as to the impact of prospecting on wetlands, rivers, streams and boreholes on site. It is the objectors view that a water use authorisation may well need to be required, particularly for dust suppression and/or reducing the heat of the diamond core drill. 24.19 The EMPR is riddled with bald, vague, unsupported and very broad comment and speculation in relation to the manner in which risk will be dealt with in order to avoid pollution or the degradation of the environment. This is as from page 165 to 167 of the EMPR. There is no detail or specificity at all given. By way of example only, there is no detail or specificity on risk to biodiversity. The EAP makes the following extremely vague comment in relation to animals: " Do not remove any plants or trees without approval of the site manager. Do not collect fire wood. Do not catch, kill, harm, sell or play with any animal, reptile, bird or		

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			amphibian on site. Report any animal trapped in the work area. Do not set snares or raid nests for eggs or young." 24.20 The EAP has not identified a single fauna, flora or biodiversity component on site because there is no biodiversity study. Hence, there is no input, clarity or information as to what types of "plants and trees" may be removed, what types of "animals, reptiles, birds and amphibians" are on site. There is no information as to whether such would constitute RED DATA species. There exists a very rare species of frog known as the Red-Banded Rubber Frog (Phrynomantis bifasciatus). This in endemic to the area and there is likely to be irreversible and permanent ecological damage and possible extinction of that species. 24.21 The Applicant has not undertaken a Climate Change Impact Assessment, more particularly, under circumstances when coal is an emission - intensive energy carrier which produces GHGs and the effect on the environment from coal mining and its possible contribution to GHGs emissions from the usage of such mined coal is a matter which must be contained in the DBAR. 24.22 The EAP has not addressed adequately and sufficiently the impact on biodiversity, habitat destruction and the associated loss of species, fauna and flora more particularly under circumstances when the Objector's land falls within the Dinokeng Wildlife Area. 25. The applicable area is zoned Agricultural. The area however is used as a game farm and falls within the Dinokeng		

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			Game Reserve which has not yet been proclaimed as a protected wildlife area, although application has been made for such area to be so proclaimed. The Dinokeng Game Reserve was formed under the initiative under the Gauteng Provincial Government and 170 land owners, as a conservation area, supporting the upliftment of the community through eco-tourism; providing rural communities in the area with sustainable employment and protecting wild animals. It is anticipated that the area will be proclaimed as a wildlife area by the Provincial Government. The area presently employs 800 permanent employees who support and sustain their families. 26. Reference is made to the final draft (October 2009) published by the Department of Economic Development in respect of Environmental Management Framework and Environment Management Plan for the Dinokeng Project Area. The executive summary reads as follows: "The Dinokeng Project aims to create a self-sustaining local economy in the North-Eastern reaches of the Gauteng Province. Core to the project is the establishment of a Big-5 collaborative game reserve, with a mix of land uses in the surrounding area ranging from high density urban development to diverse tourism establishments." Clause 5.5.5.4 thereof provides that mining and prospecting is an incompatible land use. Clause 5.5.6.3 thereof provides that a compatible land use includes inter alia conservancies; tourism and recreational		

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			facilities; grazing farms; private nature reserves and protected areas. Contraventions with the relevant town planning legislation 27. The area of jurisdiction is Tshwane and the City of Tshwane Land Use Management By-Law, 2016 will apply in conjunction with the City of Tshwane Planning Scheme 2008 (revised 2014)("the Scheme"). 28. According to the Scheme, Agriculture is defined as: AGRICULTURE Means land and buildings used for any bona fide farming activities such as inter alia market gardens, game farming, cattle and sheep farming, bee farming, bird breeding, plant nursery, plantations, aquaculture and orchards and activities normally regarded as incidental thereto, but excludes abattoirs, cattle feeding lots, poultry farming and pig farming. 28.1 Mining does not form part of this definition. 28.2 The uses of such zoning are described as follows in the Scheme: 29. The prospecting right application cannot be granted until the Applicant has obtained the correct zoning on the respective properties. 30. The EAP indicates in the DBAR that zoning and town planning should fall within the ambit of another Department. Town planning may be a municipal concern. However, the town planning provisions cannot be looked at in isolation. They are an important factor to consider in terms of the Section 2 principles of the		

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			NEMA and no prospecting or mining can take place without municipal approval. CONCLUSION 31. The application for a prospecting right as well as the DBAR for an environmental approval are: 31.1 Problematic; and 31.2 Do not meet the minimum legislated thresholds. 31.3 Do not comply substantially with the requirements in Regulation 31 (2) promulgated under NEMA. 32. The Environmental Impact Assessment Report must be rejected under regulation 34(2)(b). 33. The environmental authorization (RoD) should be refused. 34. Neither administrative action should be decided in favour of the Applicant.		
GLYNNIS COHEN ATTORNEY on behalf of: Branron Familie Trust – Landowner Mr Chico Martins Mr Johan Corneluis Grobler – Landowner Jardim Familie Trust – Landowner Mr Joelwin Jardim	X	14 October 2020	1. In response to your client's application for a prospecting rights licence, I confirm that my client's objection was served on you by email on 6 October 2020. Please will you confirm per return your acknowledgment of receipt of my client's objection. 2. As I do not have the contact details of the regional manager of the Department: Mineral Resources so that my client's objection can be served on him/her as well please can you furnish these to me, thank you. 3. My client's objection was served on the Department: Mineral Resources at their dedicated address being corner De Kort and De Beer Street, 78	The above matter as well as your correspondence dated 06 October 2020 and 14 October 2020 respectively refers. Herewith we confirm receipt of your client's objections, which objections will be addressed in due course. The Regional Manager's details are as follows: Mr Sunday Mabaso 011 358 9700/9758 sunday.mabaso@dmre.gov.za P/A Ms C Khanyile Carol.Khanyile@dmre.gov.za	Comments and Response Report – Appendix G

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			Mineralia Building, Braamfontein on 8 October 2020.		
			4.		
Joubert Trust – Landowner Mr Joubert	X	28 October 2020	We refer to the abovementioned matter as well as our meeting held on Tuesday, 29Th September 2020 @ 9:00. We hereby provide you with the information as per our meeting in order to reach an agreement: 1) We are not able to reach an agreement with our neighbours as they are going to oppose the application. 2) We realize that the prospecting may only take place with a prospecting license. 3) The whole process of getting the license in view of the opposition is going to cost time and money 4) We are however still willing to assist Lomeza so that they do not waste too much money. 5) We are also convinced that here is no or little (not enough to mine) coal in the area.	The above matter, as well as your letter which was received on 28 October 2020 refers. We would also like to refer to the objection to the prospecting right application, dated 06 October 2020, received from Jordaan Smit Inc., on your behalf. Please clarify whether Mr. Johan Jordaan from Jordaan Smit Inc. is still your legal representative or whether you will attend to this matter in your personal capacity. Please also clarify whether the objection which was submitted on your behalf, dated 06 October 2020, is still valid or whether said objection should be disregarded. From your letter under reply it seems that you do not wish to object to this prospecting right application, which is contradictory to the objection from Jordaan Smit Inc., and that you are willing to assist the applicant by providing access to your properties for the prospecting right activities.	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
			6) We each would like a borehole or boreholes for additional water. We did not intend to do this immediately but would allow Lomeza to drill a borehole for each of US for water. They can then use information they get from the boreholes to determine whether they want to proceed with the application. 7) We will negotiate with Lomeza about the exact location of the boreholes. 8) We also want to confirm that the drilling contractors will have to operate according to our rules. We look forward to your response herein.	We understand that you liaised with your neighbors in this regard and that they are not willing to reach an agreement with regards to this application and/or access to their properties, which application they intent to oppose. We take note that you are willing to negotiate with the applicant with regards to the location of the boreholes, once the prospecting right application has been granted, on the condition that only water boreholes be drilled. We have been advised by our client that the drilling for water boreholes alone will not render sufficient prospecting samples to enable the applicant to fully determine the mineral deposits in the area, and therefore this will not be an option for our client. However, our client is amenable to drill water boreholes for you, once prospecting activities commence on site. The location of the boreholes will be discussed on site when such time arrives. We take note that you will strongly oppose a mining right application, but please keep in mind that the current application is a prospecting right application, not a mining right application. We trust you will find the above in order and please do not hesitate to contact writer should you require any additional information.	

Interested and Affected Parties **List the name 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.**
Jordaan Smit Attorneys on behalf of Mr Johan Cornelis Grabler and the Joubert Family Trust	X	8 October 2020	We are acting on behalf of Mr Johan Cornelis Grabler and the Joubert Family Trust. Mr Grabler is the registered owner of the property known as portion 5, Kloppersbos 128 JR ("Mr Grobler's Property"). The Joubert Family Trust is the registered owner of the property known as portion 1, Ekuphumuleni 716 JR ("Trust's Property"). On or about 7 September 2020 Mr Grobler and the Joubert Family Trust was notified by e-mail, received from Greenmined Environmental ("Greenmined"), of a decision ("Acceptance Decision") taken by the Regional Manager: Gauteng Province on 20 August 2020, to accept an application for a prospecting right lodged by Lomeza Opencast Operations (Pty) Ltd ("the Applicant"), duly assisted by Greenmined, as the appointed Environmental Assessment Practitioner, in accordance with the provisions of section 16 of the MPRDA, bearing DMR reference number: GP30/5/I /1/2/10650PR ("Prospecting Right Application"), for the minerals Bituminous coal and Torbanite coal. Mr Grobler and the Joubert Family Trust only became aware of the Acceptance Decision on 7 September 2020. In this regard, we attach hereto the letter received from Greenmined, marked as Annexure "A". Furthermore, this objection is lodged timeously, inter alia, for the following reason: In Annexure "A" the Interested and Affected Parties are, amongst others, invited to provide comments pertaining to the	The above matter as well as your clients' objections dated 06 October 2020, and submitted to the Department of Mineral Resources and Energy ("DMRE") on 08 October 2020 refers. We herewith make use of this opportunity to respond to your clients' objections, on behalf of our client, Lomeza Opencast Operations (Pty) Ltd, as follows: Ad Paragraph 1.4 Although the acceptance letter dated 20 August 2020 was only provided to you on 07 September 2020, you should note that the acceptance letter was received by us from the DMRE on 02 September 2020. Ad Paragraph 1.5 – 1.6 The content hereof is noted. Ad Paragraph 2.1 The site notices were placed in accordance to Regulation (2)(a) of the EIA Regulations, in that a notice board was placed on the fence of the site boundary as well as an alternative public site (the Spaza Shop). Ad Paragraph 2.2 The advertisement placed in the Beeld contains all relevant contact information of both the Environmental Assessment Practitioner ("EAP") and our client. Regulation 3(4)(c)(i) as quoted in your letter under reply relates to the Regional Manager or designated agency, not the applicant. As provided for in terms of Regulation 3A (1) of the Amendments to the MPRD Regulations, 2004 an application for a	

Interested and Affected Parties List the name 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.
			proposed activity (probably a reference to the proposed mining activity of the Applicant) until 8 October 2020. 2 INITIAL GROUNDS OF OBJECTION, INTER ALIA, COMPLIANCE AND IMPACT 2.1 he "Site Notices" placed at the entrance to the farm and at the Spaza Shop on 7 July 2020 is not "conspicuous" as per Regulation 41(2)(a) of the Environmental Impact Assessment Regulations, and therefore does not constitute adequate notice. There are three entrances from national roads to the properties proposed to be prospected on. No "Site Notices" were placed at any of these three entrances to the properties. The advertisement placed in the Beeld is defective, in that it does not comply with Regulation 3 of the MPRDA. Regulation 3(4) (c) (i) The advertisement placed in the Beeld only contains a postal address and no work and street address, as is required. Further, no documentary proof of the Applicant's financial ability or access thereto, was provided, as per Regulation 5(1)(j) of the MP RDA. On or about 8 July 2020 Mr Grobler and the Joubert Family Trust received an e-mail from Greenmined Environmental, containing a "Background Information Document". Said document did not contain sufficient detail to answer to. On or about 5 August 2020 our office requested, inter a/ia, the complete application, as submitted to the Department of Mineral Resources and Energy, in order for Mr Grobler and the Joubert Family Trust to lodge an objection.	Prospecting Right and Environmental Authorisation falls within the ambit of the National Environmental Management Act, 1998 (NEMA), the EIA Regulations and the published Guidelines in this regard. In terms of Regulation 41(3) of the EIA Regulations “a notice, notice board or advertisement referred to in subregulation (2) must- (a) Give details of the application or proposed application which is subjected to public participation; and (b) State – (i) Whether basic assessment or S&EIR procedures are being applied to the application; (ii) The nature and location of the activity to which the application relates; (iii) Where further information on the application or proposed application can be obtained; and (iv) The manner in which and the person to whom representations in respect of the application or proposed application may be made….” 7. Ad Paragraph 2.3 Regulation 5(1)(j) of the MPRD Regulations refers to the application for a prospecting right that must be submitted to the relevant Regional Manager, in terms of Section 16 of the MPRDA. The documents to be submitted in terms hereof does not refer to Interested and Affected Parties, but to the Regional Manager in whose region the land is situated. 8. Ad Paragraph 2.4 The Background Information Document was sent on 08 July 2020 to inform the Interested and Affected Parties of the proposed project, which application was yet to be submitted to the	

Interested and Affected Parties List the name 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.
			Said complete application was not provided to our office, to the prejudice of our clients. In consequence, it is impossible to ascertain exactly what the impact of the proposed prospecting will be on the inhabitants of the Properties and, in particular, what impact the proposed prospecting will have on the environment. This statement is made having regard to the following: It is stated by the Applicant that the existence of coal in the area applied for is deduced from "All documentation, to date, was based on preliminary data, surrounding information and desktop studies" (ad page 2 of the Draft Basic Assessment Report). This is wholly insufficient. The closest coal mining operations are more than 50 kilometres away from the Property. Clearly the existence of coal in the proposed prospecting area is purely speculation, having no factual basis. 3.AD MR GROBLER'S PROPERTY Mr Grabler conducts mushroom farming activities on his Property, which provides gainful and sustainable employment to members of the local community. The proposed mining operations will make it impossible to continue with the aforesaid farming activities. Mushroom farming, by nature, is delicate, and the farming activities will undoubtedly be negatively affected by any prospecting on the Property. (See, in this regard, "Listed and specified Activities" ad page 19 of the Draft Basic Assessment Report,	DMRE. The Draft Basic Assessment Report was subsequently provided to all Interested and Affected Parties, which report contained all relevant and available aspects of the project. The Final Basic Assessment Report will be submitted to the DMRE, for their evaluation, once all the comments and/or objections have been incorporated into the report. 9. Ad Paragraph 2.5.1. All documentation to date, was based on preliminary data, surrounding information and desktop studies. Access to the study areas were denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was denied and/or refused by the landowners. Greenmined is therefore unable to provide the I&AP's and stakeholders with material information with regards to this prospecting right application. 10. Ad Paragraph 2.5.2. and 2.5.3 The content hereof is noted. It should be noted that the availability of the coal resource will only be determined should the prospecting right be granted and subsequent prospecting activities can take place under the granted right. 11. Ad Paragraph 3 and 4 11.1. Your clients' nature of its farming activities are noted. 11.2. As access to the site has been denied and with the desktop studies conducted to date, no resident protected or red data faunal species could be identified within the earmarked footprint. The project is expected to have an	

Interested and Affected Parties List the name 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.
			being inter alia, stripping and stockpiling of topsoil, and drilling). It is submitted that prospecting for which the Applicant have applied, will only create short term employment, as prospecting is, by nature, of short term. However, the mushroom farm activities, on Mr Grobler's Property, is creating long term, sustainable and gainful employment to his employees. These employees' employment, and their means to support their families, will be negatively affected by the proposed prospecting. The proposed prospecting will therefore affect not only Mr Grobler, but also his employees and their extended families. It follows, that same will infringe on Mr Grobler's and his employees' Constitutional Rights. 5. AD THE JOUBERT FAMILY TRUST'S PROPERTY There is a Game Farm situated on the Trust's Property. The proposed mining operations will negatively affect the wildlife and flora on said Property, also, under circumstances where the drastic, and potential negative, impact on the area (and wildlife and flora) have not been duly assessed. It is also submitted, as concerning Mr Grobler, that prospecting, for which the Applicant have applied, will only create short term employment, as prospecting is, by nature, of short term. However, the Game Farm on The Joubert Family Trust's Property, is creating long term, sustainable and gainful employment to its employees. These employees' employment, and their means to support	insignificant impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising an area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the Basic Assessment Report, as well as in consultation with the landowners. The study area falls over properties that is noted to be operational game farms. Should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. 11.3. Prospecting activities will have no impact on the current farming activities, nor will it influence employment on the farm. 11.4. As the prospecting activities, in the event that the right is granted, will have no effect on employment of your clients' employees nor its farming activities it is unclear on what grounds you base your allegations that your clients' (and its employees) rights will be infringed upon. Our client's rights remain reserved and failure to address each and every objection and/or allegation contained in your letter under reply should not be seen as acceptance thereof, but rather repudiation thereof.	

Interested and Affected Parties List the name 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.
			their families, will be negatively affected by the proposed prospecting. It also follows that same infringes on various rights (legal and other) of the Joubert Family Trust, and its employees. 5 RESERVATION OF RIGHTS AND RIGHT TO SUPPLEMENT All of Mr Grobler's and the Joubert Family Trust's rights are reserved, including the right to supplement the content of this objection, should same be necessary.		
Mr Johan Corneluis Grobler – Landowner	X	11 November 2020	I refer to your letter dated 03 November 2020. 1 We are still represented by Jordaan Smit Inc. 2 Our objection is still valid. 3 We do object to the prospecting right application. We are however willing to assist your client to determine whether there is any possibility of coal in the area by drilling some water boreholes before proceeding with the application. We are confident that no coal reserve that could be mined exists. We are of opinion that your client could save himself a lot of trouble and money if he determines with one or two boreholes that there is no coal. It would then not be in his interest to further pursue the matter. If your client however wants to proceed with the prospecting application without the knowledge that he could gain from such boreholes we definitely object to the application. 6. Our neighbours decided to oppose the application through their own lawyers.	Good day Mr Grobler, Your comments received in the email dated 11 November 2020 refers. All comments received from you as well as our response will be incorporated in the Final Basic Assessment Report. Please note that the final BAR, including all comments and objections from all I&AP's, will be submitted to the DMRE during this week, for its consideration and determination, after which the DMRE has 107 days to evaluate and make a decision on this application.	

Interested and Affected Parties **List the name 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.**
			5 We are willing to negotiate with your client prior to a prospecting right being granted about water boreholes. If the application is ever granted, we will at that stage decide on how to proceed. 6 It is obvious that a determination about the viability of a resource can never be determined from water boreholes only. It is however also clear that the absence of coal could be proven by water boreholes. This is what we are suggesting as we think that there is no coal on the properties. 7 We can discuss what happens after a prospecting license is granted, if it is granted. 8 We are aware of what we are busy with.		
Lawful occupier/s of the land					
As above		N/A	N/A	N/A	
Landowners or lawful occupiers on adjacent properties	**X**	-	-	-	-
CSIR Kloppersbos & Paardefontein Research Center - Mr Isaac Mthombeni	X	No comments received	N/A	N/A	N/A
• Johannes Nicolaas Bezuidenhout • Susara Johanna Dorothea Bezuidenhout Landowners (Portion 47 (a portion of portion 22) of the farm Paardefontein 282-JR)	X	4 October 2020	We are neighbors of: The farm Ekuphumuleni 716 JR.	The above matter as well as email received from you dated 4 October 2020 refer. Please see responses to your comments listed below: • Noted	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
			None of the neighboring landowners were contacted. Notices were placed at locations where we do not pass during the national lock down period. Corner Shop:	• Please refer to the comment and responses report as well as appendix A for a list of neighbours and landowners contacted. Please also refer to page 15 of the Background information document that was distributed to all landowners informing them of the application requesting contact details of any other organisations or individuals that needs to be added to the contact list: **Are there any other organisations or individuals that you feel should be invited to comment? If so, please provide their contact details:** Contact name: Organisation (if applicable): Address: Tel: Fax E-mail • Comment noted. Please note that the Public Participation Process was done in accordance with regulation 39 - 44 of the EIA Regulations, 2014 (as amended).	

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				Not all the landowners have access to internet, they should be able to meet with the parties involved to know more of what is planned. In this way neighbor's can participate in the public participation process. • During the initial public participation process the stakeholders and I&AP's were informed of the project by means of background information documents that were sent directly to the contact persons. An advertisement that was placed in The Beeld on the 8th July 2020, and two on-site notices were placed one at the entrance to the farm and one at the Spaza shop at D327 (Kwamahlanga and Klopperbos Pyramid Crossing) on the 7th July 2020. • Direct neighbours were all contacted by telephone and were informed of the project, as well as given an opportunity to informed us on addition persons or organisations that needed to be contacted. Different options of communication were provided should a party not have access to the internet	
			Multiple families are living on these farms and can't just be relocated. Mining activities will have a major impact on on the environment as it is a small farm that will be mined.	We are against the mining activities on The farm Ekuphumuleni 716 JR. • Comment noted and will be included in the comments and responses report which will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration. • Please note that this is an application for a prospecting right. No mining may take place with a prospecting right.	

Interested and Affected Parties List the name 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.
			There is no need to mine for coal as even a big company as ESCOM are moving over to renewable energy sources to phase out the fossil energy	• No relocation of any families will be required as result of a prospecting right. The amount and profitability of the coal at stake needs to be determined to make sure that the environment will not be disturbed for a small amount of coal. • This is only a prospecting right application which may allow Lomeza Opencast Operations (Pty) Ltd to survey or investigate the application area for the purpose of identifying an actual or probable coal deposit. No mining may be conducted prior to a mining right / permit which is a complete new application with its own public participation process should that be required in future. The amount and profitability cannot legally be determined without a prospecting right. • Comment noted and will be included in the comments and responses report which will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration. All comments received for you as well as our response will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration. We trust you will find this in order. Please do not hesitate to contact us in the event of any uncertainties.	
Municipal councillor					

Interested and Affected Parties **List the name 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.**
Nokeng Tsa Taemane Local Municipality Ward 49	X	No comments received	N/A	N/A	N/A
City of Tshwane Region 2 Section 49	X	No comments received	N/A	N/A	N/A
Municipality					
Nokeng Tsa Taemane Local Municipality	X	No comments received	N/A	N/A	N/A
City of Tshwane Region 2	X	No comments received	N/A	N/A	N/A
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					
Department of Infrastructure Development	X	No comments received	N/A	N/A	N/A
Communities	No community were identified within the study area.				
Dept. Land Affairs					
Department of Rural Development and Land Reform	X	No comments received	N/A	N/A	N/A
Traditional Leaders	N/A				
Dept. Environmental Affairs		No comments received	N/A	N/A	N/A

Interested and Affected Parties **List the name 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.**
Gauteng Department of Agricultural and Rural Development	X	7 December 2020	Dear Sonnette Your notice dated 18 November regarding Portion 5 of the farm Kloppersbos No 128 JR and Portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR refers. Kindly note that the property is defined as agricultural land in terms of section 1 of the Subdivision of Agricultural Land Act, Act 70 of 1970. As such, the Department is an affected party. Kindly provide the following documents for the Department to provide the formal comments in terms of the aforementioned Act. Covering letter highlighting the background and the future land use. Copy Deeds of Transfer 1:50 000 Locality map Power of attorney	We refer to your comments received 7 December 2020. Please note that the comment period for the DBAR ended on 5 October 2020, however, your comments as well as our response will be forwarded to DMRE for their perusal. - Covering letter highlighting the background and the future land use. All documentation, to date, was based on preliminary data, surrounding information and desktop studies. Access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. As access to the site was denied at this stage no specific land use could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. These activities will be of short duration and will not result in a permanent change of the current land use. The current surrounding land uses can be classified as agricultural land, chicken farming, grazing, game farming and tourism. The Kloppersbos Explosion Research facility is located to the west of the property. It was noted that there were plantations on the property	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
				• Copy Deeds of Transfer Please find attached to this response the title deed documents for the properties involved • 1:50 000 Locality map Please find attached to this response the 1:50 000 Locality map • Power of attorney To date land owner consent has not yet been obtained. The applicant is still in consultation with the land owners.	
Department of Environmental Affairs	X	No comments received	N/A	N/A	N/A
Other Competent Authorities affected					
Department of Labour	X	No comments received	N/A	N/A	N/A
Department of Public Works	X	No comments received	N/A	N/A	N/A
Department of Rural Development and Agrarian Reform	X	No comments received	N/A	N/A	N/A
Department of Economic Development and Tourism	X	No comments received			
Department of Water and Sanitation	X	No comments received	N/A	N/A	N/A
South African Heritage Resources Agency	X	No comments received	N/A	N/A	N/A
OTHER AFFECTED PARTIES					
NSELE MINING (PTY) LTD		No comments received	N/A	N/A	N/A
INTERESTED PARTIES					
Ivan Pauw and Partners on behalf of the Manyane Lodge Sanctuary Area		8 October 2020	As you are aware, we act in this matter on behalf of the following property owners:	1. The above matter as well as your correspondence dated 08 October	Comments and Response Report – Appendix G

Interested and Affected Parties **List the name 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.**
• Dean Francois de Kock and Riani de Kock • Domingos Sardinha Jardim • Joelwin Domingos Sardinha Jardim • Ubusika Umlimi (Pty) Ltd • Mantaray Trading 101 (Pty) Ltd • Gev Property Trust • Armanda Investments 001 CC • V D S Property Trust		(a) Dean Francois de Kock and Riani de Kock, the registered co-owners of Portion 70 of the Farm Kloppersbos 128 JR; (b) Domingos Sardinha Jardim, the registered owner of Portion 52 and 82 of the Farm Kloppersbos 128 JR; (c) Joelwin Domingos Sardinha Jardim, the registered owner of Portion 51 and 79 of the Farm Kloppersbos 128 JR; (d) Ubusika Umlimi (Pty) Ltd, the registered owner of Portion 71 of the Farm Kloppersbos 128 JR; (e) Mantaray Trading 101 (Pty) Ltd, the registered owner of Portion 77 Kloppersbos 128 JR; (f) The trustees for the time being of the GEV Property Trust, the registered owner of Portion 69 of the Farm Kloppersbos 128 JR; (g) Armada Investments 001 CC, the registered owner of Portion 53 Kloppersbos 128 JR, and (h) The trustees for the time being of the V D S Property Trust, Martha Magdalena van der Schyff, Venter Francois Marthinus and Jan Hendrik van der Walt, the registered	2020, of which the content is noted, refers. 2. Herewith we would like to confirm that your clients have been registered as Interested and Affected Parties (I&AP's) to this application and that all comments and/or objections received will form part of the Final Basic Assessment Report to be submitted to the Department of Mineral Resources and Energy ("DMRE") for consideration. 3. With regards to the Public Participation Process ("PPP") all landowners and I&AP's known at the time were contacted prior to commencing with the application process to procure relevant contact details as well as additional details should the I&AP's wish us to contact additional I&AP's. No additional information was received from any of the landowners nor the I&AP's.	

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		co-owners of the Remaining Extent of Portion 75 of the Farm Kloppersbos 128 JR. COMMENTS ON THE DBAR: From the application documentation, it is stated that the applicant has applied for environmental authorisation ("EA") and a prospecting right for coal on Portion 5 of the Farm Kloppersbos 128 JR and Portions 1, 7 and 8 of the Farm Ekuphumuleni 716 JR. The activities that will be triggered are as follows: Listing Notice 1 Activity 20 Listing Notice 1 Activity 22 Listing Notice 3 Activity 12 We must make it clear that, on face value, it appears that substantially more activities than only those quoted above will be triggered, but due to the rather skimpy nature of the information and, more specifically, the actual impacts of the prospecting operations that will be undertaken, it is not possible to identify those at this point in time. Our clients' rights in the aforesaid regard are nevertheless reserved. Hereunder, are our clients' comments: Need and Desirability – Poorly addressed:	4. Our client does not dispute the fact that specialist studies is required for the DMRE to make an informed decision with regards to this application. It is however unreasonable for your clients to demand specialist studies to be conducted, and then refuse our client and/or its appointed specialists access to the properties for the purpose of these specialist studies to be conducted. Not only will these specialist studies benefit your clients but it will also ensure that the DMRE make the appropriate decision under the circumstances. 5. As access to the site has been denied by the landowners and with only the desktop studies conducted to date, no resident protected or red data faunal species could be identified within the earmarked footprint. The project is expected to have an insignificant impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising an	

Interested and Affected Parties List the name 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.
		Specialist studies not conducted at all and/or conducted poorly Environmental Management Programme: The proposed management, mitigation, protection and/or remedial measures as proposed in the applicant's EMPr are insufficient because the specified activities were not properly considered, investigated, assessed and reported. Public participation: Flawed In conclusion and further to the above, it is our respectful submission that the application for EA should be refused on the bases as set out above, alternatively, the Controlling Authority should refuse to accept the BA and instruct the EAP to recommence with the process and remedy the defects in the current process, referred to above. Our clients' rights to consider any additional submissions received, elaborate upon these submissions and raise any additional issues, are reserved. **<u>This is a summary of the submitted comments Please refer to the Comments and Response Report – Appendix G for the full document</u>**	area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the Basic Assessment Report ("BAR"), as well as in consultation with the landowners. The study area falls over properties that is noted to be operational game farms. Should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. 6. Based on the above a site walk through will have to be conducted by the specialists prior to the commencement of prospecting activities, in order to eliminate any impacts, the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the BAR, including specialist findings, as well as in consultation with the landowner / landowners. 7. Throughout your letter under reply you aver that our client will be conducting	

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			mining activities. It should once again be noted that this application is for a prospecting right and not a mining right. 8. Your statement in clause 2.3.7 that legal mechanisms were at the applicant's disposal, which could have been utilized in order for detailed studies and assessments to be conducted, is not accurate. Section 54(1) of the MPRDA provides as follows: "*The **holder** of a prospecting right must notify the relevant Regional Manager if the **holder** is prevented from commencing or conducting any prospecting operations because the owner or the lawful occupier of the land in question-* *(a) Refuses to allow such **holder** to enter the land; …."* It should be noted that the applicant only becomes the holder of the prospecting right once the right has been granted and executed. Therefore, this option is not available to the applicant at this stage, hence its requests directly addressed to the landowners for access to the properties. However, the relevant Regional Manager has been notified of the refusal by the landowners to grant access to the properties to the specialists.	

Interested and Affected Parties **List the name 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.**
			9. Please note that the final BAR, including all comments and objections from all I&AP's, will be submitted to the DMRE during this week, for its consideration and determination, after which the DMRE has 107 days to evaluate and make a decision on this application. Please note that our client's rights remain reserved at all times. 10. We trust you will find the above in order and we will keep you informed of the progress on this application.	
Monateng Safari Lodge		1.We refer you to the above mentioned and confirm we have received information that you are busy with a BAR in relation to the prospecting right as referred to above. 2.We wish to place the following on record: 2.1. As far as we are aware there is a pending prospecting application for Coal over portions in your application, which are under reference: GP30/5/1/1/2 (10336) PR as well as GP30/5/1/1/2 (10255) PR. As this is currently the case, the department of minerals (DMR) erred in granting your client acceptance and as such has no choice but to withdraw your client's approval as it has erred in its administration and the legislation to which it is bound. As	The above matter as well as your correspondence dated 06 October 2020 refers. In the meantime, we have liaised with the DMRE regarding the alleged pending prospecting right applications, with reference numbers GP30/5/1/1/2 (10336) PR and GP30/5/1/1/2 (10255) PR over certain portions of our client's application. However, the DMRE informed us that there are no other applications over our client's application area. Will you kindly provide us with the property descriptions of the abovementioned prospecting right applications, to enable us to fully investigate this matter. In the event that you have copies of the application documentation and/or granted rights please provide us with same.	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
		you are aware the DMR cannot grant a PR if someone else has been granted one, as is the current scenario. 2.2. As a responsible Environmental consultant as set out in your mission and vision, you should notify the DMR of the pending applications as brought to your attention, which should first be handled/finalized before your client can continue with their application. Alternatively, we will have no choice but to appeal the application should it be approved after submitted the BAR and the entire process will have to restart with public participation again. 3. As we can at this stage not effetely partake in the public participation as we do not know if your application is valid, we have to reserve our right to partake once clarity has been obtained from the DMR on who currently holds the valid PR application and who we as interest and affected party should consult with. 4. However, despite the flaw, we request that you provide us with the date, time and full name of the person that conducted your assessment on the properties to identify the Fauna and various species that may be found: 4.1. Portion 5 of the farm Klopperbos 128 JR;	Kindly note that your concerns regarding our client's application will be addressed in due course. The above matter as well as your correspondence dated 06 October 2020, of which the content is noted, refers. 1. In response to your concerns regarding the following please see clause 2 to 7 below: 2. Assessments done on properties as per 4.1 - 4.4 2.1. Request that you confirm that in terms of GDARD Conservation Plan that the area is not an irreplaceable area for as per 5.1 – 5.5: 2.1.1. listed plant habitat; 2.1.2. listed mammal habitat; 2.1.3. listed bird habitat; 2.1.4. primary vegetation; and/or	

Interested and Affected Parties List the name 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.
		4.2. Portion 1 of the farm Ekuphumleni 716 JR; 4.3. Portion 7 of the farm 716 JR; and 4.4. Portion 8 of the farm 716 JR. 5. We request that you confirm that in terms of GDARD Conservation Plan that the area is not an irreplaceable area for: 5.1. listed plant habitat; 5.2. listed mammal habitat; 5.3. listed bird habitat; 5.4. primary vegetation; and/or 5.5. any other listed animals etc. 6.We also understand that there are various boreholes on the properties in question and the surrounding properties that could be affected by the drilling of the holes. As such a geohydrological study should be undertaken before any decisions can be taken on drilling holes and the impact these holes will have on the current supply of water in these boreholes, as the drilling can drastically change the flow of water and water pockets for agriculture and domestic use.	2.1.5. any other listed animals etc. 2.2. Various boreholes on the properties in question and the surrounding properties that could be affected by the drilling of the holes. As such a geohydrological study should be undertaken before any decisions can be taken on drilling holes and the impact these holes will have on the current supply of water in these boreholes, as the drilling can drastically change the flow of water and water pockets for agriculture and domestic use. 2.3. The proposed drilling should not have any impact on any existing trees whether on servitudes or the property and any existing trees should be taken into consideration and integrated in the planning of the drilling. 2.4. If an engineer would not be required to be appointed to supervise soil conditions prevalent on the site to ensure structural integrity when drilling the holes.	

Interested and Affected Parties List the name 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.
		7.In addition, the proposed drilling should not have any impact on any existing trees whether on servitudes or the property and any existing trees should be taken into consideration and integrated in the planning of the drilling. 8. Would an engineer not be required to be appointed to supervise soil conditions prevalent on the site to ensure structural integrity when drilling the holes. 9.It is also our understanding that although notice was placed, it was strategically placed at only once entrance which is not used by the majority of the public and should have been placed at all entrances and on each property entrance which the prospecting right is being applied for. Should this have been the case, we would have received notice earlier and have been able to partake. 10.On receipt of the above information, we will be able to partake in the public participation as required in legislation. 11.We request that you forward your reply and information to the below email addresses. 12.All our rights remain strictly reserved.	2.5. It is also our understanding that although notice was placed, it was strategically placed at only once entrance which is not used by the majority of the public and should have been placed at all entrances and on each property entrance which the prospecting right is being applied for. Should this have been the case, we would have received notice earlier and have been able to partake. 3. We do not dispute the fact that specialist studies are required for the DMRE to make an informed decision with regards to this application. It is however unreasonable to demand specialist studies to be conducted, and then refuse our client and/or its appointed specialists access to the properties for the purpose of these specialist studies to be conducted. Not only will these specialist studies benefit to all the participants involved but it will also ensure that the DMRE make the appropriate decision under the circumstances. 4. As access to the site has been denied by the landowners and with only the desktop studies conducted to date, no resident protected or red data faunal	

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			species could be identified within the earmarked footprint. The project is expected to have an insignificant impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising an area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the Basic Assessment Report ("BAR"), as well as in consultation with the landowners. The study area falls over properties that is noted to be operational game farms. Should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. 5. Based on the above a site walk through will have to be conducted by the specialists prior to the commencement of prospecting activities, in order to eliminate any impacts, the prospecting activities might have on the proposed drilling	

Interested and Affected Parties List the name 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.
			sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the BAR, including specialist findings, as well as in consultation with the landowner / landowners. 6. Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern. 7. Please note that the final BAR, including all comments and objections from all I&AP's, will be submitted to the DMRE during this week, for its consideration and determination, after which the DMRE has 107 days to evaluate and make a decision on this application. 8. We trust you will find the above in order and we will keep you informed of the progress on this application.	
• Kobus van der schyff • Vania van Wyk • Jan Smith	1 October 2020	I would like to raise my concerns and disapproval regarding the prospecting permit for coal.	All comments received from you as well as our response will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration. We take note of the following concerns:	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
		It is understood that this may be just a permit, but with this comes the same problems as a mine. Noise pollution / Air pollution	• "It is understood that this may be just a permit, but with this comes the same problems as a mine." • Noise pollution • Air pollution • Water pollution • Security concerns – form myself and that of my animals on both properties. • The negative effect this will have on our property value • And the deterioration of an already deteriorated road. **Mining Permit:** Please note that this is an application for a prospecting right. NO mining may take place with a prospecting right. This is only a prospecting right application which may allow Lomeza Opencast Operations (Pty) Ltd to survey or investigate the application area for the purpose of identifying an actual or probable coal deposit. No mining may be conducted prior to a mining right / permit which is a complete new application with its own public participation process should that be required in future. **Noise pollution / Air pollution** Should the prospecting activities be approved the potential dust and noise impacts associated with the proposed activity will be of very low	

Interested and Affected Parties List the name 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.
		Water pollution	significance. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that no environmental rights of the surrounding residents/public will be affected by the ecological impacts associated with the proposed activity. **Water pollution:** • The proposed project does not require a Water Use Authorisation in terms of Section 39 of the National Water Act, 1998 (Act No 36 of 1998). As mentioned in the draft basic assessment report, the prospecting activities will be done by drilling prospecting boreholes in phases. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners, and no activity will take place in any water bodies. • Potable water will daily be transported to site. The solid waste produced during the operational phase of the project will be transported from site to the nearest recognised landfill site. • Prospecting will be conducted only in accordance with the Best Practice Guideline for small scale	

Interested and Affected Parties List the name 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.
		Security concerns – form myself and that of my animals on both properties.	prospecting that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose: ▪ Clean water (e.g. rainwater) must be kept clean and be routed to a natural watercourse by a system separate from the dirty water system. You must prevent clean water from running or spilling into dirty water systems. ▪ Dirty water must be collected and contained in a system separate from the clean water system. ▪ Dirty water must be prevented from spilling or seeping into clean water systems. ▪ A storm water management plan must apply for the entire life cycle of the prospecting activity and over different hydrological cycles (rainfall patterns). **Security concerns:** The following mitigation measures are proposed to minimise the potential health and safety impacts: ▪ Adequate ablution facilities and water for human consumption must daily be available on site.	

Interested and Affected Parties List the name 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.
		The negative effect this will have on our property value.	• Workers must have access to the correct personal protection equipment (PPE) as required by law. • All operations must comply with the Mine Health and Safety Act, 1996 (Act No 29 of 1996). • No trespassing on private property outside the approved area will be allowed **Property value:** As per previously mentioned this is an application for a prospecting right. Prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in the Draft Basic Assessment as well as in consultation with the landowner / landowners. Should a coal source be found it will only diversify the income of the property and not negatively impact the property value. **Deterioration of roads:** As per previously mentioned this is an application for a prospecting right no trucks / increased traffic will be	

Interested and Affected Parties List the name 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.
		And the deterioration of an already deteriorated road.	associated with this activities. Site vehicles (LDV) will access the site, this will be similar traffic along roads in the vicinity, currently operational in the area. Site vehicles will use the existing gravel farm roads in consultation with the land owners The prospecting site will contain the following: • Surveying Equipment; • Drilling equipment; • Geophysical logging equipment; • Field Vehicles (LDV); • Sample Analysis equipment; and • Other relevant field equipment. We trust that the response will address your concerns, please do not hesitate to contact me should you have any further questions.	
• Riana van Wyk - 6112170081084 • Kobus van Wyk - 6210085036084 • Ricard van Wyk - 8810045053083 • Vania van Wyk - 8610030060089	8 October 2020	Plot 33 Kloppersbos Would like to enter our grievance regarding the prospecting for coal in our area. This will definitely destroy our water table and disturb the natural wildlife in this area, and also the wildlife on our farms. And let's not forget the pollution of our clean air!	Good day Van Wyk Family, The comments received from you in email dated 8th October 2020 refers. All comments received from you as well as our response will be incorporated in the Final Basic Assessment Report to be submitted to DMRE for consideration this week. We take note of the following concerns:	Comments and Response Report – Appendix G

Interested and Affected Parties List the name 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.
			• This will definitely destroy our water table and disturb the natural wildlife in this area, and also the wildlife on our farms. • And let's not forget the pollution of our clean air! As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Based on the above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document and specialist findings as well as in consultation with the landowner / landowners. Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.	

Interested and Affected Parties List the name 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.
			Noise pollution / Air pollution Should the prospecting activities be approved the potential dust and noise impacts associated with the proposed activity will be of very low significance. If the proposed mitigation measures and monitoring programs, as proposed in this document, is implemented, it is believed that no environmental rights of the surrounding residents/public will be affected by the ecological impacts associated with the proposed activity. **Water pollution:** - The proposed project does not require a Water Use Authorisation in terms of Section 39 of the National Water Act, 1998 (Act No 36 of 1998). As mentioned in the draft basic assessment report, the prospecting activities will be done by drilling prospecting boreholes in phases. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners, and no activity will take place in any water bodies. - Potable water will daily be transported to site. The solid waste	

Interested and Affected Parties List the name 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.
			produced during the operational phase of the project will be transported from site to the nearest recognised landfill site. Prospecting will be conducted only in accordance with the Best Practice Guideline for small scale prospecting that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose: ▪ Clean water (e.g. rainwater) must be kept clean and be routed to a natural watercourse by a system separate from the dirty water system. You must prevent clean water from running or spilling into dirty water systems. ▪ Dirty water must be collected and contained in a system separate from the clean water system. ▪ Dirty water must be prevented from spilling or seeping into clean water systems.	

Interested and Affected Parties List the name 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.
			▪ A storm water management plan must apply for the entire life cycle of the prospecting activity and over different hydrological cycles (rainfall patterns). We trust that the response will address your concerns, please do not hesitate to contact me should you have any further questions.	
Norman Landman - SunEden Share Block (PTY) Ltd	1 October 2020	Please tell me what is the expected life of the mine and how do we register as an interested and affected party?	Good day Mr Landman, Thank you for taking part in the public participation process for the proposed prospecting right application. You will be registered as an interested and affected party. A register of interested and affected parties (I&AP's) was opened and is maintained containing the names, contact details and address of all persons who have submitted written comments, attended meetings or have in writing requested to be registered. You a welcome to use the table below to should you need more information, have concerns or comments that need to be considered or if you want to be registered as an interested and / or affected party.	Comments and Response Report – Appendix G

<table>
<tr><th>Interested and Affected Parties

List the name of persons consulted in this column, and

Mark with an X where those who must be consulted were in fact consulted</th><th>Date Comments Received</th><th>Issues raised</th><th>EAPs response to issues as mandated by the applicant</th><th>Section and paragraph reference in this report where the issues and or response were incorporated.</th></tr>
<tr><td></td><td></td><td></td><td>Contact details:
<table><tr><td>Name/Naam</td><td></td></tr><tr><td>Organisation/Instansie</td><td></td></tr><tr><td>Interest/Belange</td><td></td></tr><tr><td>Postal Address/Pos Adres</td><td></td></tr><tr><td>Tel</td><td></td></tr><tr><td>Fax/Faks</td><td></td></tr><tr><td>E-mail/E-pos</td><td></td></tr></table>
Comments/ Opmerkings:
<table><tr><td>No Objection:</td><td></td></tr><tr><td>Request additional information:</td><td></td></tr><tr><td>Concerns:</td><td></td></tr></table></td><td></td></tr>
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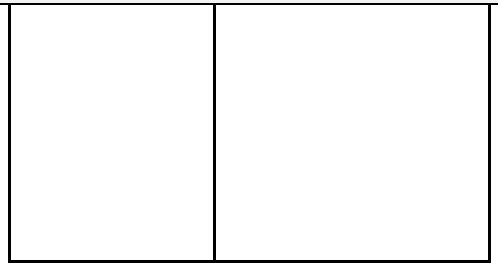
			 Please do not hesitate to contact us should you require any additional information	
		Thank you for that info. Please explain to me, is this application for the right to explore the property for potential coal and only then they will apply for a mining right, am I correct? Therefore, this is not a mining rights application?	This is correct. This is only a prospecting right application which may allow Lomeza Opencast Operations (Pty) Ltd to survey or investigate the application area for the purpose of identifying an actual or probable coal deposit. No mining may be conducted prior to a mining right / permit which is a complete new application with its own public participation process should that be required in future. **MAIN PROSPECTING ACTIVITIES:** Drill site establishment:	

Interested and Affected Parties List the name 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.
			A drill site of approximately 200 m² (per site) will be established that will require: • Clearing of vegetation for sumps and the drill entrance point – a maximum of three sumps, with each sump not measuring more than 1 m² will be operation at a time, a total of 3 m² will be cleared per site. • Laydown area for drill rods, • Fuel and chemical will be stored in a field vehicle; • Chemical toilets will be placed in the vicinity of the site. • Drilling and removal of geological cores: • Drilling a hole of approximately 67 mm in diameter and removing of rock core. Number of boreholes will be finalised once non-invasive prospecting is completed in consultation with the landowners. Please do not hesitate to contact us should you require any additional information or clarity.	

Interested and Affected Parties List the name 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.

iv) The Environmental attributes associated with the alternatives.

(The environmental attributes 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.

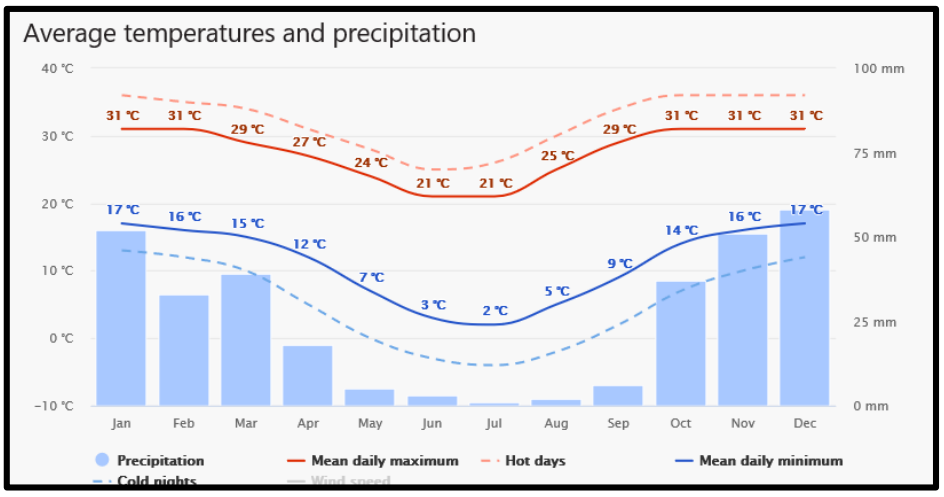
(Its current geographical, physical, biological, socio-economic, and cultural character)

This section describes the biophysical, cultural and socio-economic environment that may be affected and the baseline conditions, which are likely to be affected by the proposed prospecting activity.

PHYSICAL ENVIRONMENT

CLIMATE

According to the meteoblue website, Hammanskraal area normally receives about 697 mm of rain per year, with most rainfall occurring mainly during summer. The chart below (middle) shows the average rainfall values for Hammanskraal area per month. It receives the lowest rainfall (5 mm) in July - August and the highest (55 mm) in December / January. The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Hammanskraal area range from >10.0°C in June to > 35°C in January. The region is the coldest during July when the mercury drops to 2°C on average during the night. Consult the chart below (lower right) for an indication of the monthly variation of average minimum daily temperatures.



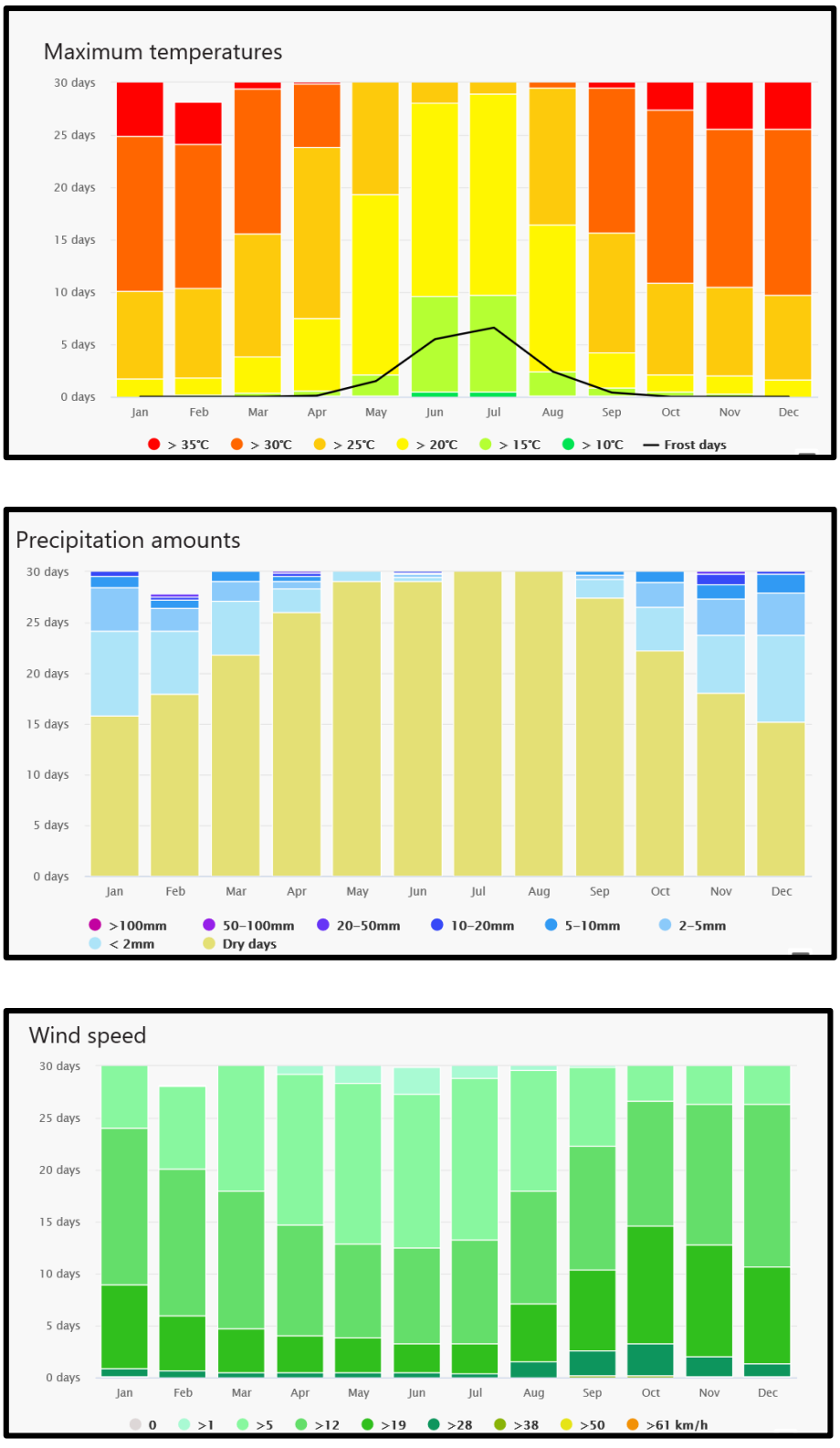


Figure 3: Statistical representation of the average rainfall, maximum temperatures and wind speed for the Hammanskraal region (Chart obtained from meteoblue).

The dominant wind direction of Hammanskraal is fairly constant ranging from east -north-east to north- east for most of the year. The figures below present the wind direction distribution in % for the greater Hammanskraal area.

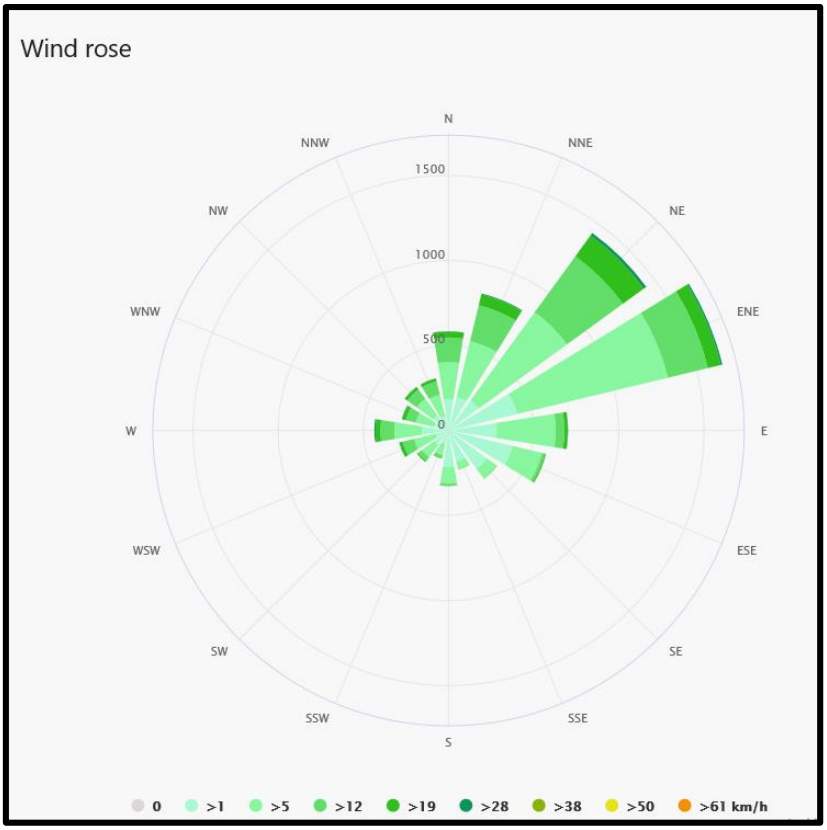


Figure 4: Annual wind direction distribution in % for the Hammanskraal area, (Image obtained from www.meteoblue.com)

TOPOGRAPHY

The study area consist of undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. A generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Modimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte. The altitude varies between 1100–1 217 m.

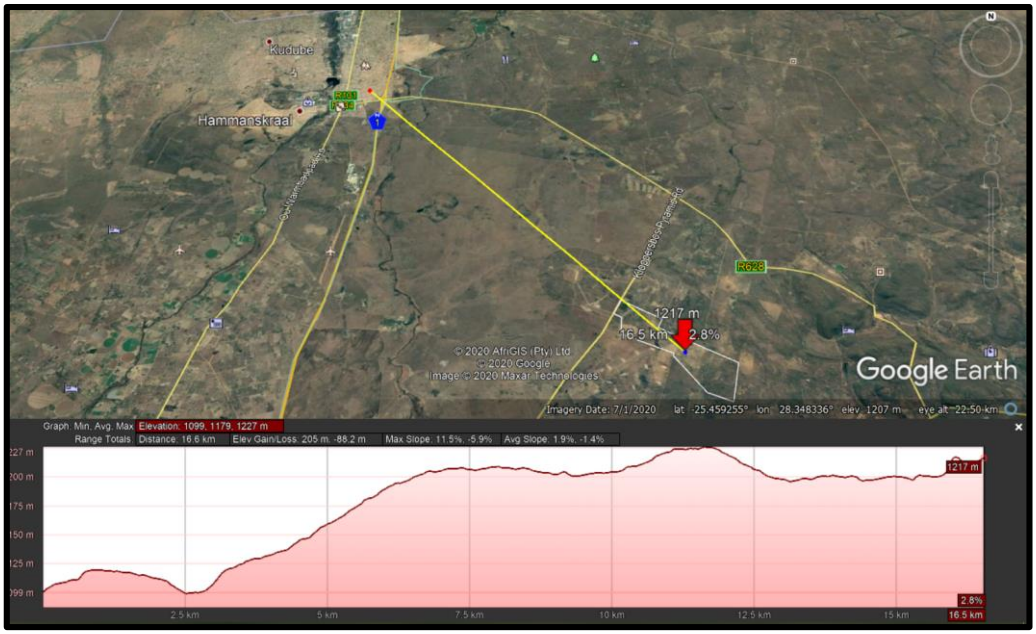


Figure 5: Elevation profile of the proposed prospecting footprint (Image obtained from Google Earth).

VISUAL CHARACTERISTICS

The viewshed analysis showed that the visual impact of the proposed prospecting operation will be of low significance. The small scale of the proposed operation contributes to the low visual significance. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

AIR AND NOISE QUALITY

The air quality of the study area is generally very good given the area's predominant agricultural use and rural character. Likewise, the noise ambiance is very low (classified as ambient rural / pastoral) with noise levels mainly affected by traffic along roads in the vicinity, and the farming equipment operational in the area.

GEOLOGY AND SOIL

The large southern and eastern parts of this area are underlain by granite of the Lebowa Granite Suite and some granophyre of the Rashoop Granophyre Suite (both Bushveld Complex, Vaalian). In the north, the sedimentary rocks of the Waterberg Group (Mokolian Erathem) are most important. Specifically, sandstone, conglomerate and siltstone of the Alma Formation and sandstone, siltstone and shale of the Vaalwater Formation. Well-drained, deep Hutton or

Clovelly soils often with a catenary sequence from Hutton at the top to Clovelly on the lower slopes; shallow, skeletal Glenrosa soils also occur. Land types mainly Bb, Fa, Ba, Bd and Ac

Soils vary from planted grassland previously improved grassland, to cultivated, temporary/permanent, commercial/subsistence irrigated/dryland. Soil fall within the following patterns:

LP1 – soils with minimal development, usually shallow or hard or weathered rock, with or without intermitted diverse soils. Lime rate to absent in in the landscape

The area of interest is situated just north of the Witbank Coalfield (figure 6), which extends about 190 km west-east between the towns of Springs and Belfast and about 60 km in a north-south direction between the towns of Middelburg and Ermelo. The area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top. For over a century the Witbank Coalfield has been the major coal producing area in South Africa and continues to be so; it is estimated that since the first commercial exploitation of coal in 1870, over 50% of the coal produced in South Africa has come from the Witbank Coalfield.

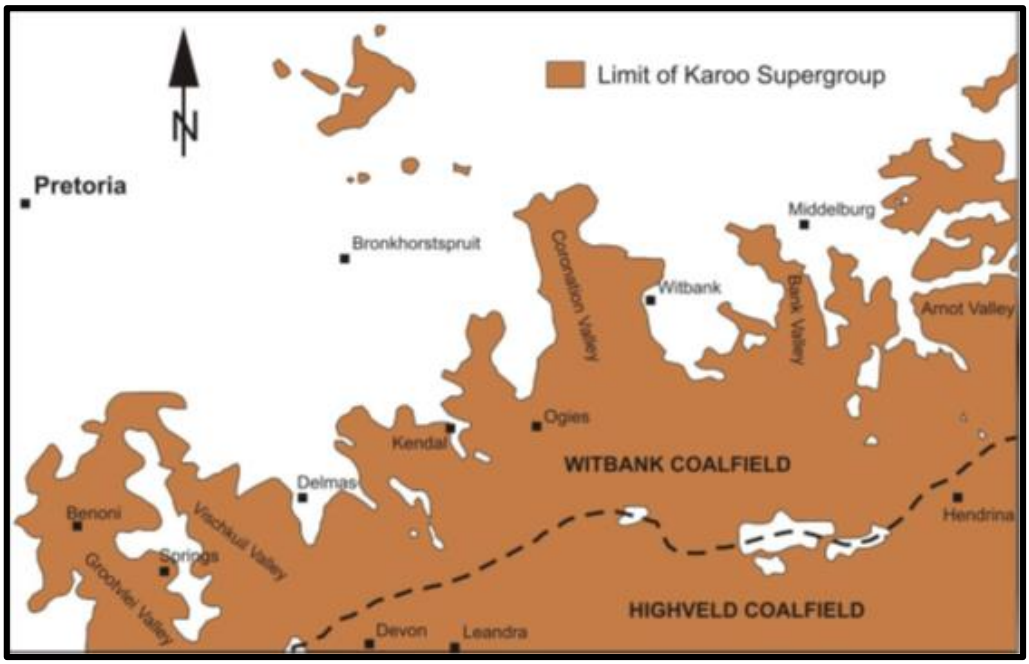


Figure 6: Geological map of the area concerned. (Image obtained from the Prospecting Work Programme (PWP) for the proposed prospecting right)

Five coal seams are contained in a 70 m thick succession of sandstone with subordinate siltstone and mudstone and are distinguished numerically in ascending order from the bottom upwards.

The distribution and attitudes of the No. 1 and 2 seams are largely determined by the pre-Karoo topography, whilst the present distribution of the No. 4 and No. 5 seams is controlled by the present day land surface; in areas the No. 5 seam is either completely eroded or is patchily distributed, while the top part of the No. 4 seam is eroded or affected by weathering in places. The No. 3 seam is generally uneconomic, usually having a thickness of less than 0.5 m. At the Glisa colliery, on the most eastern edge of the Witbank Coalfield, 5 km south west of the town of Belfast, the No. 3 seam has an average thickness of 1.5 m and is exploited. Five typical stratigraphic columns from five different areas in the Witbank Coalfield are shown on figure 7.

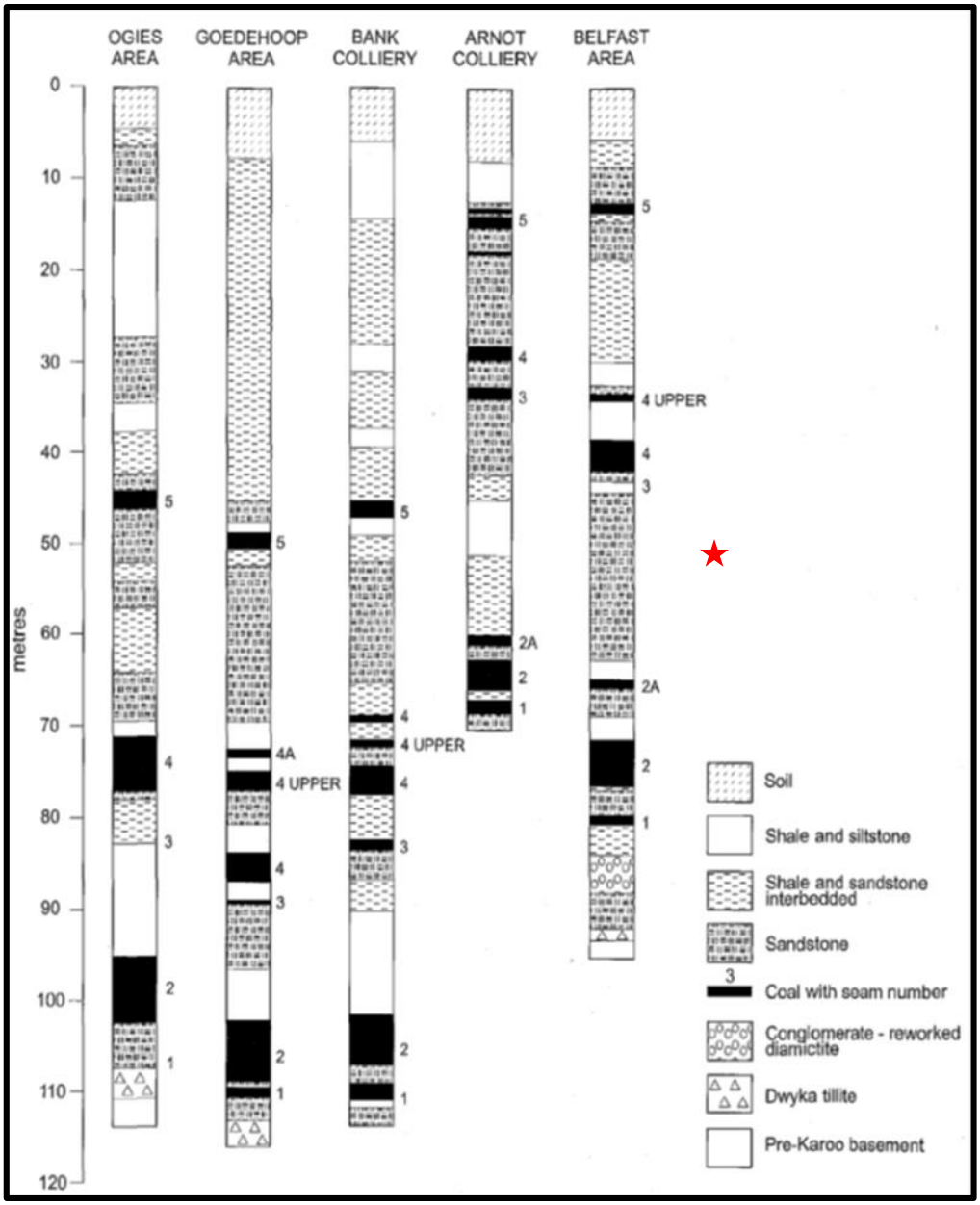


Figure 7: Typical stratigraphic column in the Witbank Coalfield. (Image obtained from the Prospecting Work Programme (PWP) for the proposed prospecting right)

HYDROLOGY

The proposed site falls within the Crocodile (West) and Marico Water Management Area, in the A23B quaternary catchment area. There are various streams and small farm dams in the area. The Pienaars River is located approximately 3 km south west of the site and the Boekenhoutspruit located approximately 3 km to the east of the site area.

Table 10: Aquatic characteristics of the greater study area

Water Management Area	Crocodile (West) and Marico Water Management Area
Quaternary Catchment	A23B

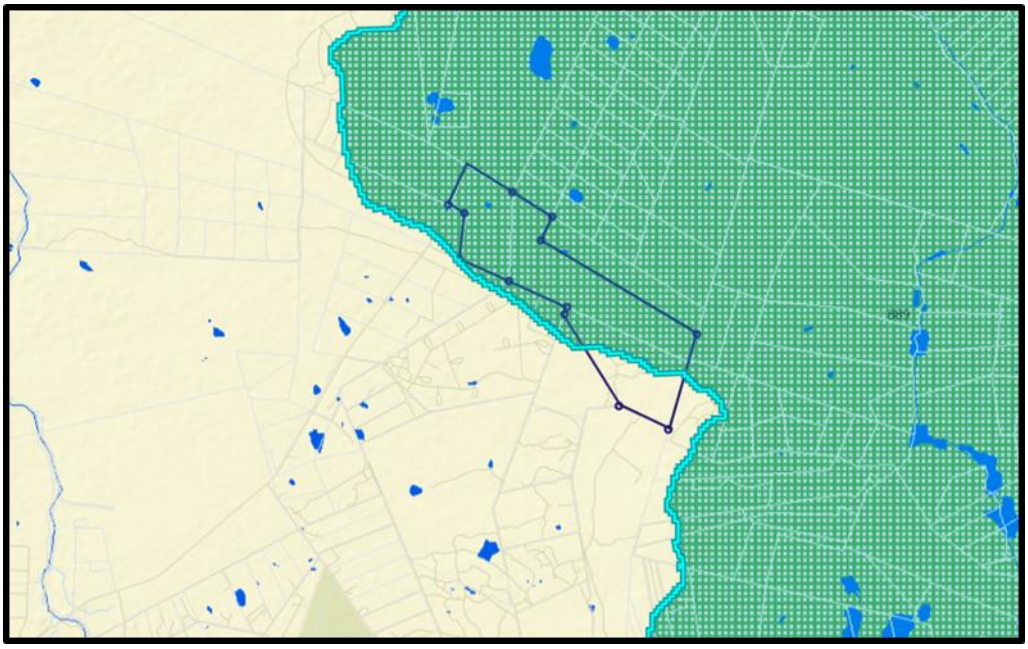


Figure 8: Map showing the proposed prospecting footprint (blue polygon). The dark green area represents a River phase 2 FEPA. (Image obtained from the BGIS Map Viewer – National Wetlands and NFEPA)

BIOLOGICAL ENVIRONMENT

MINING AND BIODIVERSITY

(Information extracted from the Mining and Biodiversity Guideline: Mainstreaming Biodiversity into the Mining Sector, Department of Environmental Affairs, Department of Mineral Resources, Chamber of Mines, 2013)

The Mining and Biodiversity Guideline, compiled by the South African Mining and Biodiversity Forum (SAMBF) provides the mining sector with a practical, user-friendly manual for integrating biodiversity considerations into planning processes and managing biodiversity during the developmental and operational phases of a mine, from exploration through to closure.

When the prospecting footprint is layered over the Mining and Biodiversity Map, as shown in the figure below, it does not fall over and area of biodiversity importance with a corresponding rating of highest risk for mining. The Mining and Biodiversity Guideline's describes areas of highest biodiversity importance

as: "*these areas are viewed as necessary to ensure protection of biodiversity, environmental sustainability, and human well-being."* The guideline notes that environmental screening, the EIA and specialists should focus on confirming the presence and significance of biodiversity features, and provide a site-specific basis on which to apply the mitigation hierarchy to inform regulatory decision-making.

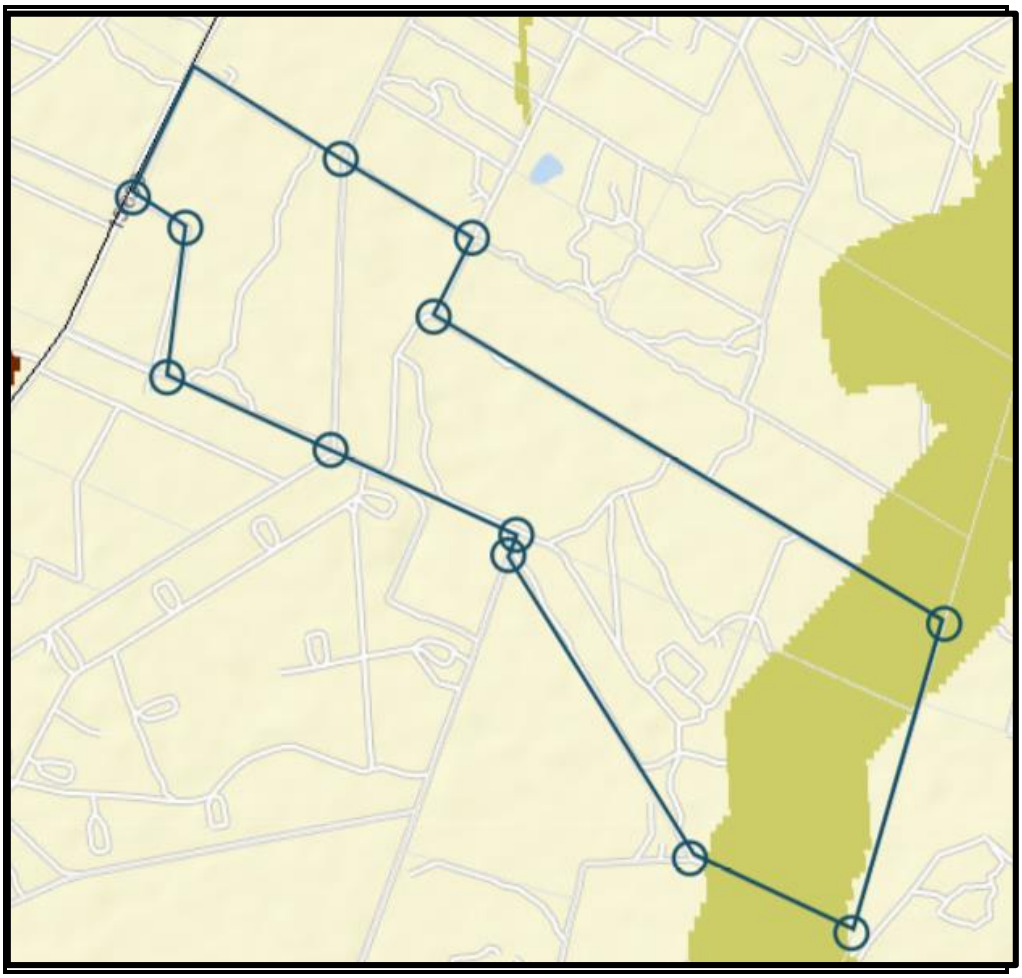


Figure 9: The Mining and Biodiversity importance map with the proposed mining footprint indicated by the blue polygon. light brown – moderate biodiversity importance, (image obtained from the BGIS Map Viewer – Mining Guidelines).

BIODIVERSITY CONSERVATION AREAS

According to the Gauteng C-Plan 3.3 terrestrial Critical Biodiversity Areas (CBAs), sections of the proposed site falls within an Ecological Support Area. This area will be excluded from prospecting activities."

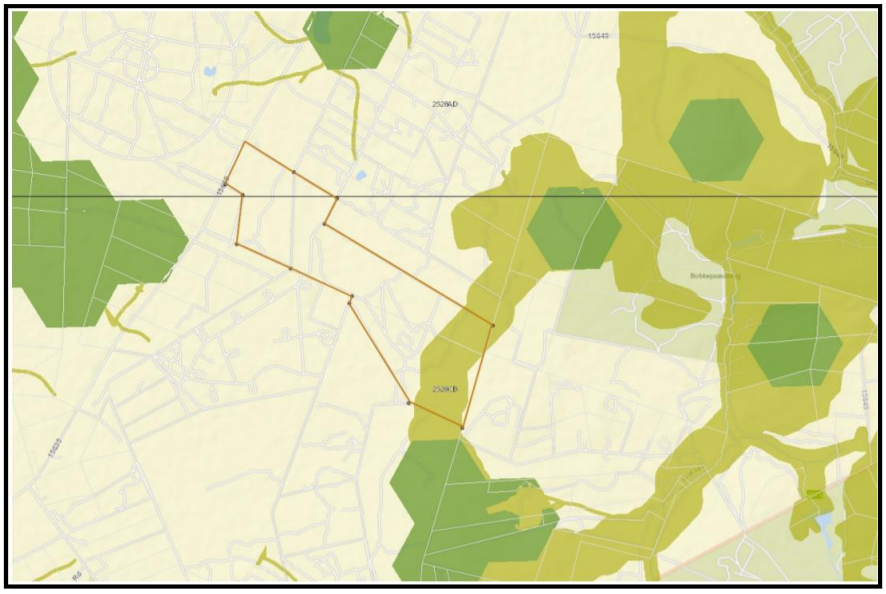


Figure 10: View of the proposed prospecting right area of Lomeza Opencast Operations - Gauteng C-Plan 3.3 terrestrial Critical Biodiversity Areas (CBAs).

GROUNDCOVER

According to Mucina and Rutherford (2012) the vegetation type of the surrounding natural areas are known as the SVcb 12 Central Sandy Bushveld which is listed as a vulnerable ecosystem. The vegetation type of the surrounding natural areas consists of low undulating areas, sometimes between mountains, and sandy plains and catenas supporting tall, deciduous *Terminalia sericea* and *Burkea africana* woodland on deep sandy soils (with the former often dominant on the lower slopes of sandy catenas) and low, broad-leaved *Combretum* woodland on shallow rocky or gravelly soils. Species of *Acacia, Ziziphus* and *Euclea* are found on flats and lower slopes on eutrophic sands and some less sandy soils. *A. tortilis* may dominate some areas along valleys. Grass-dominated herbaceous layer with relatively low basal cover on dystrophic sands. The study area consists of leve plains with some relief, irregular plains with high hills or ridges can be noted in the area. The vegetation of the area is classified as Savanah Biome, specifically the Central Sandy Bushveld.

FAUNA

Various small mammals and reptiles occur are likely to on the property. The fauna at the site will not be impacted by the proposed prospecting activity as they will be able to move away or through the site, without being harmed. Workers should be educated and managed to ensure that no fauna at the site

is harmed. As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

As mentioned above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

HUMAN ENVIRONMENT:

CULTURAL AND HERITAGE ENVIRONMENT

The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the site establishment, operational- and decommissioning phase.

The South African Heritage Resources Agency (SAHRA) compiled the Palaeontological (fossil) Sensitivity Map (PSM) to guide developers, heritage officers and practitioners in screening paleontologically sensitive areas at the onset of a project. When the footprint of the earmarked mining area is placed on the PSM, it shows the study area to extend over an area of insignificant/zero (grey) concern as presented in the figure below.

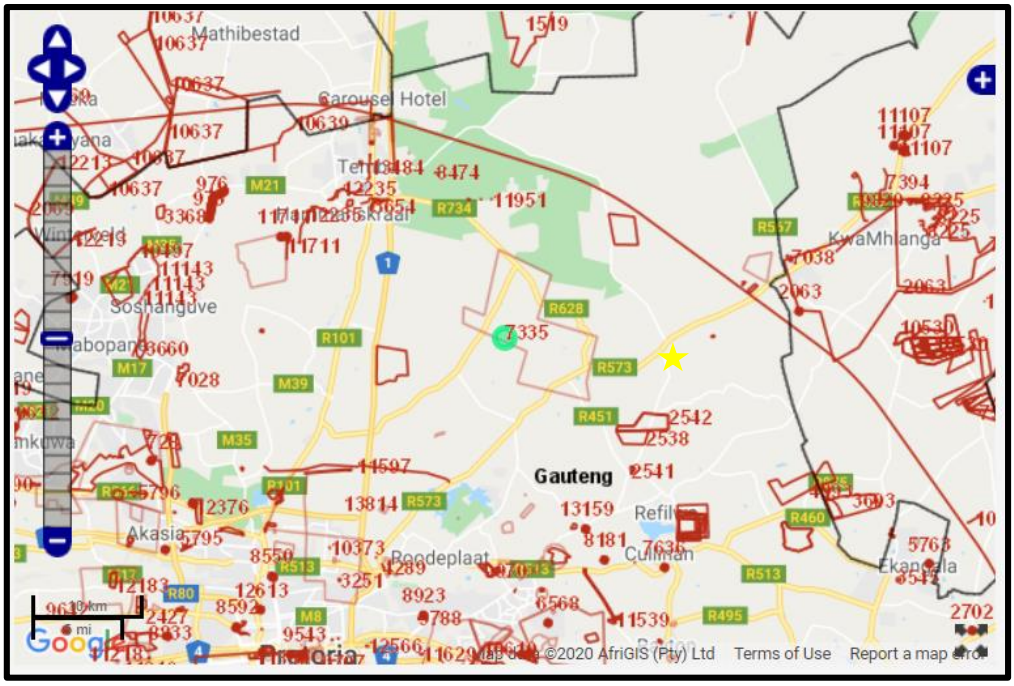


Figure 11: The SAHRA palaeontological sensitivity map shows the proposed prospecting footprint (green circle) falls in an area of insignificant/zero (grey) concern.

SOCIO-ECONOMIC ENVIRONMENT

(Information extracted from the City of Tshwane Integrated Development Plan 2017/21)

The proposed prospecting area is located within ward 49 of region 2 of City of Tshwane. City of Tshwane is classified as a Category A municipality by the Municipal Demarcation Board in terms of section 4 of the Local Government Municipal Structures Act, 1998 (Act 117 of 1998). The Municipality was established on 5 December 2000 through the integration of various municipalities and councils that had previously served the greater Pretoria regime and surrounding areas. The boundary of the city was further amended on 28 May 2008 through a proclamation in the Government Gazette which incorporated the former Metsweding District Municipality, including Nokeng tsa Taemane (Cullinan) and Kungwini (Bronkhorstspruit), into the borders of the city of Tshwane. The incorporation, which gave birth to the new City of Tshwane in May 2011 after the local government elections, was in line with the Gauteng Global City Region Strategy to reduce the number of municipalities in Gauteng by the year 2016.

The City of Tshwane has a Mayoral Executive System combined with a ward participatory system in accordance with Section 8(g) of the Municipal Structures Act, Act 117 of 1998. It consists of 107 geographically demarcated wards, 214 elected councillors (107 ward councillors and 107 proportional representative councillors) and has just over 3,3 million1 residents. For administrative purposes and to enhance service delivery, it is divided into seven regions. As the administrative seat of Government and host to a number of Embassies, City of Tshwane has proven to be a leader on the African continent in providing affordable industrial sites, various industries, office space, education and research facilities. An estimated 90% of all research and development in South Africa is conducted in Tshwane by institutions such as Armscor, the Medical Research Council, the Council for Scientific and Industrial Research, the Human Sciences Research Council and educational institutions such as the University of South Africa, the University of Pretoria and the Tshwane University of Technology.

Population and Gender Profile

In 2017, the City of Tshwane's population comprised of: 78.94% of the African population (2.61 million); 17.11% of the White population (566 000); 2.07% of

the Coloured (68 500); and 1.88% of the Asian (62 100). Though the Asian population contributes the least in population shares in the City of Tshwane, it should be noted that it has recorded the highest average annual population growth rate over the 2007-2017 period. The largest share of population in Tshwane is within the young working age (25-44 years) age category, with 1.21 million or 36.5% of the total population. The age category with the second largest population share is the (0-14 years) age category, with 24.5%; then followed by the older working age population (i.e. 45-64-year age category), with 592 000 people. The age category with the lowest number of people is the elderly population (i.e. 65 years and older age category), with only 207 000 people.

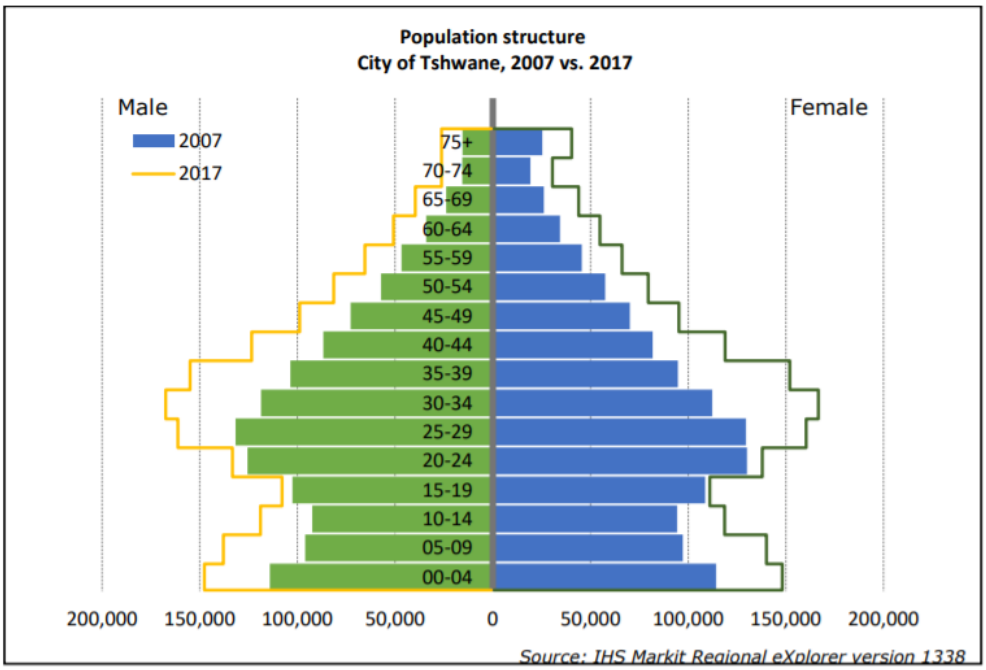


Figure 12: Population Pyramid – City of Tshwane Metropolitan Municipality, 2007 VS. 2017.

A population pyramid is a graphic representation of the population, categorised by gender and age, for a specific year and region. The horizontal axis depicts the share of people; the male population is charted on the left-hand side; the female population is charted on the right-hand side of the vertical axis. The vertical axis is divided into 5-year age categories.

Economic Profile

The WSLM had the highest average annual economic growth, averaging 3.55% between 2006 and 2016, when compared to the rest of the municipalities within

the Joe Gqabi District Municipality. The greatest contributor to the Joe Gqabi District Municipality economy is the Walter Sisulu local municipality with a share of 50.48% or R 5.27 billion, increasing from R 1.84 billion in 2006.

Education Levels

7.4% of the population above the age of 20 has no schooling, 24.8% has obtained matric and 7.9% obtained higher education. The matric rate increased from 19.2% in 2011 to 24.8% in 2016, the no schooling rate decreased from 12.5% to 7.4% and the Higher Education decreased slightly from 8.5% to 7.9%.

Employment Profile

In the City of Tshwane, the economic sector that recorded the highest employment figures in 2017 was the community services sector, with 290 000 employed people or 23.7% of total employment in the metropolitan municipality. The finance sector employs 269 000 people (22.0% of total employment in Tshwane), which is the sector with the second highest contribution to employment in the City. The electricity sector employs 5 570 people or 0.5% of total employment in Tshwane whilst the agriculture sector employs 12 300 people or 1.0% people employed in Tshwane, these sectors contribute the least to total employment in Tshwane.

Total employment can be broken down into formal and informal sector employment. Formal sector employment is measured from the formal business side, and informal employment is measured from the household side, as formal businesses have not been established. Formal employment is much more stable than informal employment. Informal employment is much harder to measure and manage, simply because it cannot be tracked through the formal business side of the economy. Informal employment is, however, a reality in South Africa and cannot be ignored. The number of people formally employed in City of Tshwane Metropolitan Municipality was 1.06 million in 2017, which was about 86.43% of total employment. The number of people employed in the informal sector was 166 000 or 13.57% of total employment. Informal employment in City of Tshwane increased from 144 000 in 2007 to an estimated 166 000 in 2017. In 2017, the trade sector recorded the highest number of informally employed people, with a total of 67 400 employees or 40.59% of total informal employment. This can be expected, as the barriers to enter the trade

sector in terms of capital and skills required is lower than with most of the other sectors. The manufacturing sector has the lowest informal employment - 11 000 - and only contributes 6.65% to total informal employment.

	Formal employment	Informal employment
Agriculture	12,300	N/A
Mining	47,600	N/A
Manufacturing	108,000	11,000
Electricity	5,570	N/A
Construction	55,700	25,900
Trade	172,000	67,400
Transport	59,700	15,400
Finance	253,000	16,000
Community services	260,000	30,200
Households	83,000	N/A

Figure 13: Formal and informal employment by broad economic sector – City of Tshwane Metropolitan Municipality,

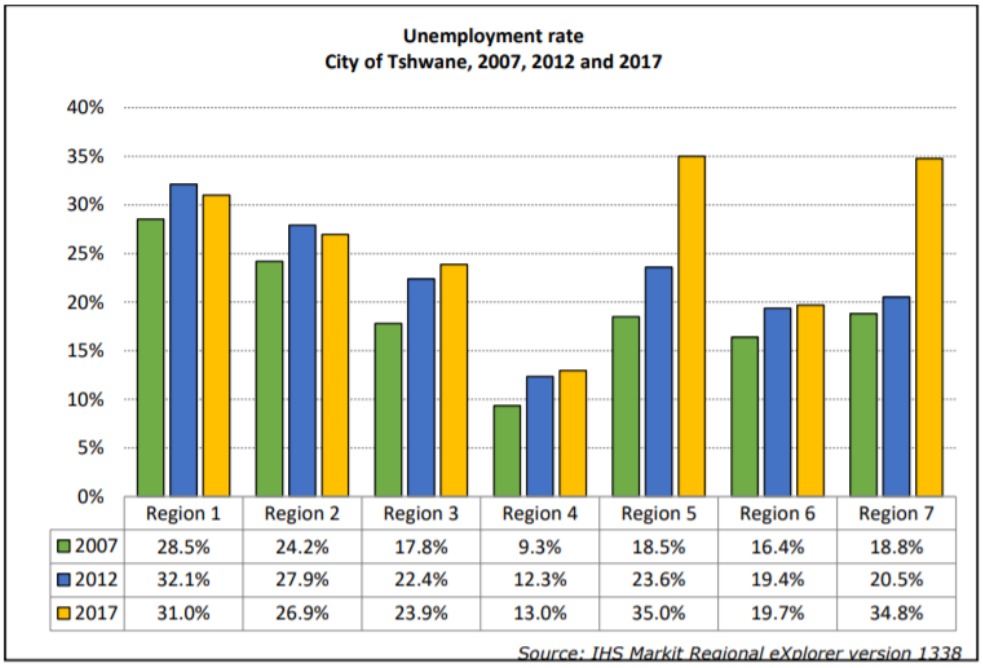


Figure 14: Unemployment rate per region – City of Tshwane Metropolitan Municipality,

Income Profile

The City of Tshwane is the fourth biggest municipality in South Africa and second biggest in Gauteng in terms of gross value added by region with gross value add of R313 billion. In 2017, City of Tshwane contributed 28.4 percent to the provincial economy. Moreover, Tshwane accounted for 10.0 percent of the

Country's economic compared as compared to 15.7 percent for the City of Johannesburg. The City of Tshwane has emerged as a diversified and vibrant economy with significant community services, finance and transport. Tshwane has a large government sector (community services), reflecting the presence of national and provincial departments and parastatals. The sector recorded 30.2 percent contribution to Tshwane's GVA in 2017. The five main sectors in 2017 were community services (30.2 percent), finance (24.9 percent), trade (13.1 percent), manufacturing (11.7 percent) and transport (11.6 percent). Overall, the significant sectors of growth in Tshwane include construction, trade, transport and finance with the green economy and research and innovation and development representing crucial multi-dimensional and dynamic sectors of growth.

(b) Description of the current land uses

The current surrounding land uses can be classified as agricultural land, chicken farming, grazing, game farming and tourism. The Kloppersbos Explosion Research facility is located to the west of the property. It was noted that there were plantations on the property:

Table 11: Land uses and/or prominent features that occur within 500 m radius of S1

LAND USE CHARACTER	YES	NO	DESCRIPTION
Natural area	**YES**	-	The study area is surrounded by natural areas used for agricultural purposes.
Low density residential	-	**NO**	
Medium density residential	-	**NO**	
High density residential	-	**NO**	
Informal residential	-	**NO**	
Retail commercial & warehousing	-	**NO**	
Light industrial	-	**NO**	
Medium industrial	-	**NO**	
Heavy industrial	-	**NO**	
Power station	-	**NO**	
High voltage power line	-	**NO**	
Office/consulting room	-	**NO**	
Military or police base / station / compound	-	**NO**	
Spoil heap or slimes dam	-	**NO**	
Quarry, sand or borrow pit		**NO**	
Dam or reservoir		**NO**	
Hospital/medical centre	-	**NO**	
School/ crèche	-	**NO**	
Tertiary education facility	-	**NO**	
Church	-	**NO**	
Old age home	-	**NO**	
Sewage treatment plant	-	**NO**	

LAND USE CHARACTER	YES	NO	DESCRIPTION
Train station or shunting yard	-	**NO**	
Railway line	-	**NO**	
Major road (4 lanes or more)	-	**NO**	
Airport	-	**NO**	
Harbour	-	**NO**	
Sport facilities	-	**NO**	
Golf course	-	**NO**	
Polo fields	-	**NO**	
Filling station	-	**NO**	
Landfill or waste treatment site	-	**NO**	
Plantation	**YES-**		It was indicated that there were plantations on the property. This was also clear during the site inspections as the area close to the Klopperbos/Pyramid Road (D327) has thick vegetation. It could not be determined what type of plantations existed in the area
Agriculture	**YES**	-	The proposed footprint forms part of an active game farm. Nulaid/ Paardefontein Pullet Rearing farm
River, stream or wetland		**NO**	
Nature conservation area	-	**NO**	
Mountain, hill or ridge		**NO**	
Museum	-	**NO**	
Historical building	-	**NO**	
Protected Area	**YES** -		The area adjacent to the application property is protected
Graveyard	-	**NO**	
Archaeological site	**YES** -		Komjekejeke Heritage site
Other land uses (describe)	**YES**-		The Klopperbos Explosion Research facility CSIR Paardefontein Paardefontein Explosives Facility

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

SPECIFIC ENVIRONMENTAL FEATURES

Please note all the information below is based on preliminary data, surrounding information and desktop studies as access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. Greenmined is unable to provide the I&AP's and stakeholders with material information with regards to this prospecting right application and it is therefore clear that the relevant authorities will not be able to provide informed comments based on the outcome of specialist studies, irrespective should it be positive or negative. However, due to the landowners' refusal to grant access to the properties that proper studies could not be conducted.

As mentioned above a site walk through will have to be conducted by relevant specialist/s in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document and specialist findings as well as in consultation with the landowner / landowners.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

SITE SPECIFIC TOPOGRAPHY

The study area consist of undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. A generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Modimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte. The altitude varies between 1100–1 217 m.

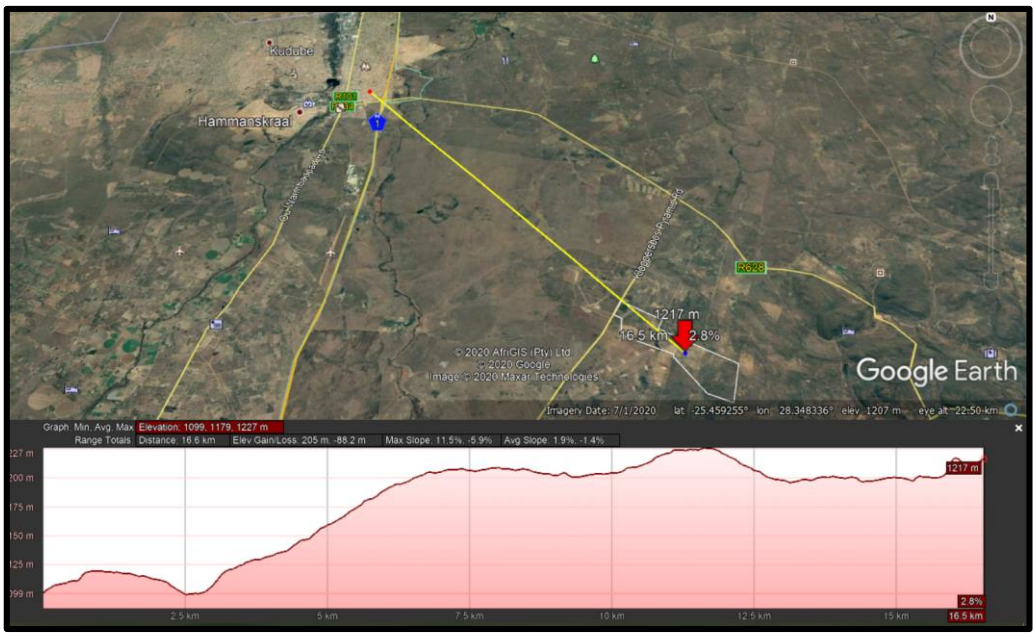


Figure 15: Elevation profile of the proposed prospecting footprint (Image obtained from Google Earth).

SITE SPECIFIC VISUAL CHARACTERISTICS

The figure below shows the viewshed analysis for the footprint within a ±10 km radius. The green shaded areas show the positions from where the prospecting area will be visible. From this analysis it is proposed that the visual impact of the proposed prospecting right operation will be of low significance, especially as no permanent structures. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

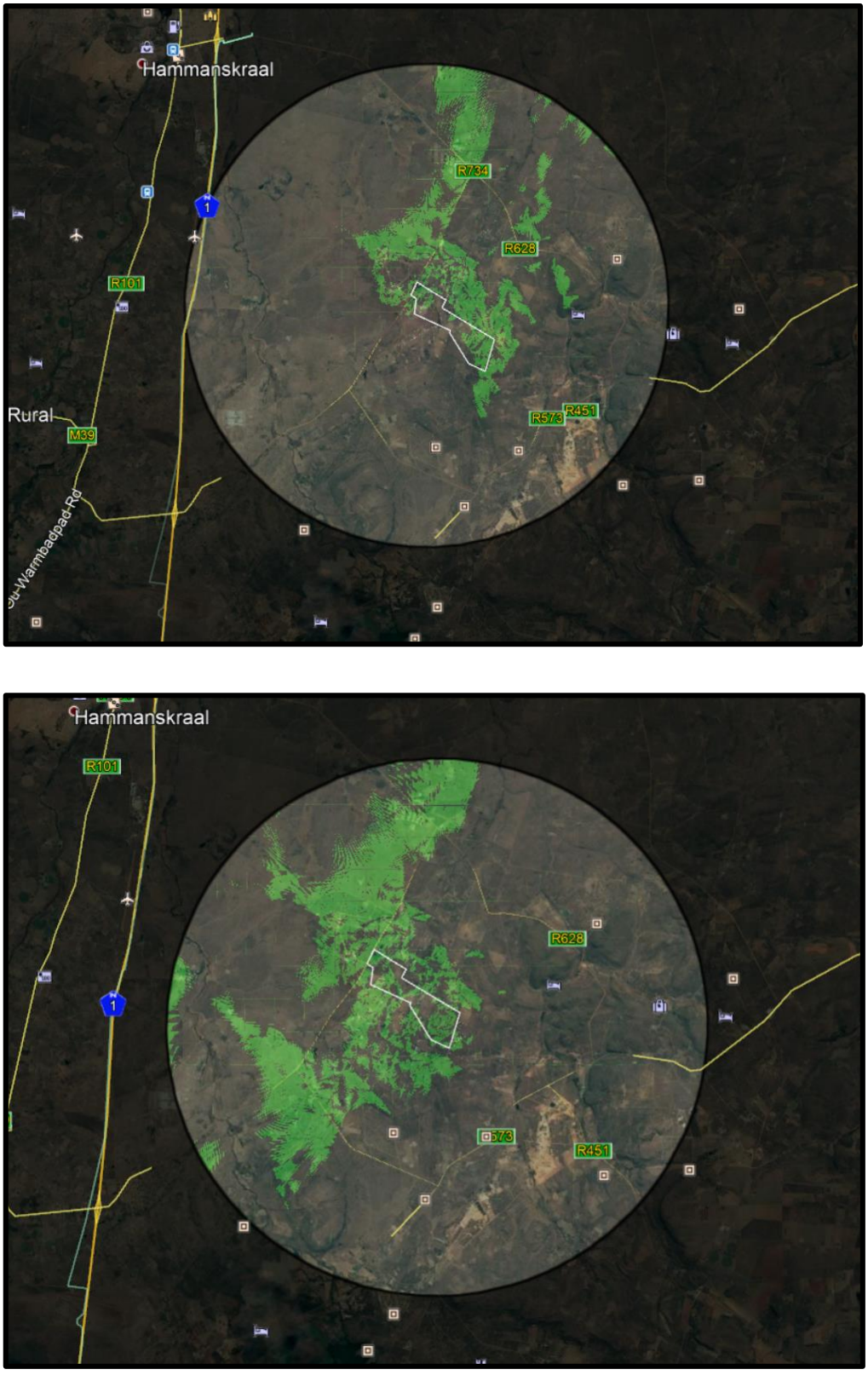


Figure 16.1-2: Viewshed of the proposed prospecting footprint where the green shaded areas shows the positions from where the prospecting area (white polygon) will be visible. (Image obtained from Google Earth).

SITE SPECIFIC AIR AND NOISE QUALITY

The proposed activity will contribute the emissions of drilling equipment and field vehicles the receiving environment for the duration of the operational phase. Should the prospecting right holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use. The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property.

Emission into the atmosphere is controlled by the National Environmental Management: Air Quality Act, 2004. The proposed prospecting activity does not trigger an application in terms of the said act. The proposed activity will contribute the emissions of one excavator, one front-end-loader and two tippers to the receiving environment for the duration of the operational phase. Should the prospecting right holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use.

SITE SPECIFIC GEOLOGY AND SOIL

(Information extracted from the Prospecting Work Programme (PWP) for the proposed prospecting right)

The area of interest is situated just north of the Witbank Coalfield (figure 18), which extends about 190 km west-east between the towns of Springs and Belfast and about 60 km in a north-south direction between the towns of Middelburg and Ermelo. The area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top. For over a century the Witbank Coalfield has been the major coal producing area in South Africa and continues to be so; it is estimated that since the first commercial exploitation of coal in 1870, over 50% of the coal produced in South Africa has come from the Witbank Coalfield.

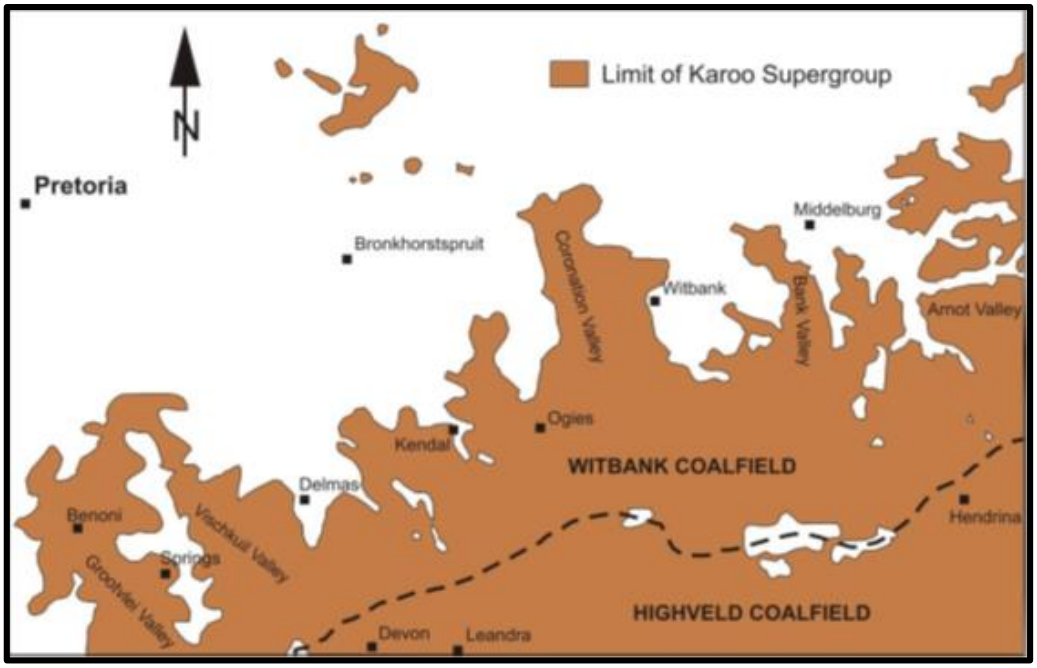


Figure 17: Geological map of the area concerned. (Image obtained from the Prospecting Work Programme (PWP) for the proposed prospecting right)

Five coal seams are contained in a 70 m thick succession of sandstone with subordinate siltstone and mudstone and are distinguished numerically in ascending order from the bottom upwards.

The distribution and attitudes of the No. 1 and 2 seams are largely determined by the pre-Karoo topography, whilst the present distribution of the No. 4 and No. 5 seams is controlled by the present day land surface; in areas the No. 5 seam is either completely eroded or is patchily distributed, while the top part of the No. 4 seam is eroded or affected by weathering in places. The No. 3 seam is generally uneconomic, usually having a thickness of less than 0.5 m. At the Glisa colliery, on the most eastern edge of the Witbank Coalfield, 5 km south west of the town of Belfast, the No. 3 seam has an average thickness of 1.5 m and is exploited. Five typical stratigraphic columns from five different areas in the Witbank Coalfield are shown on figure 19.

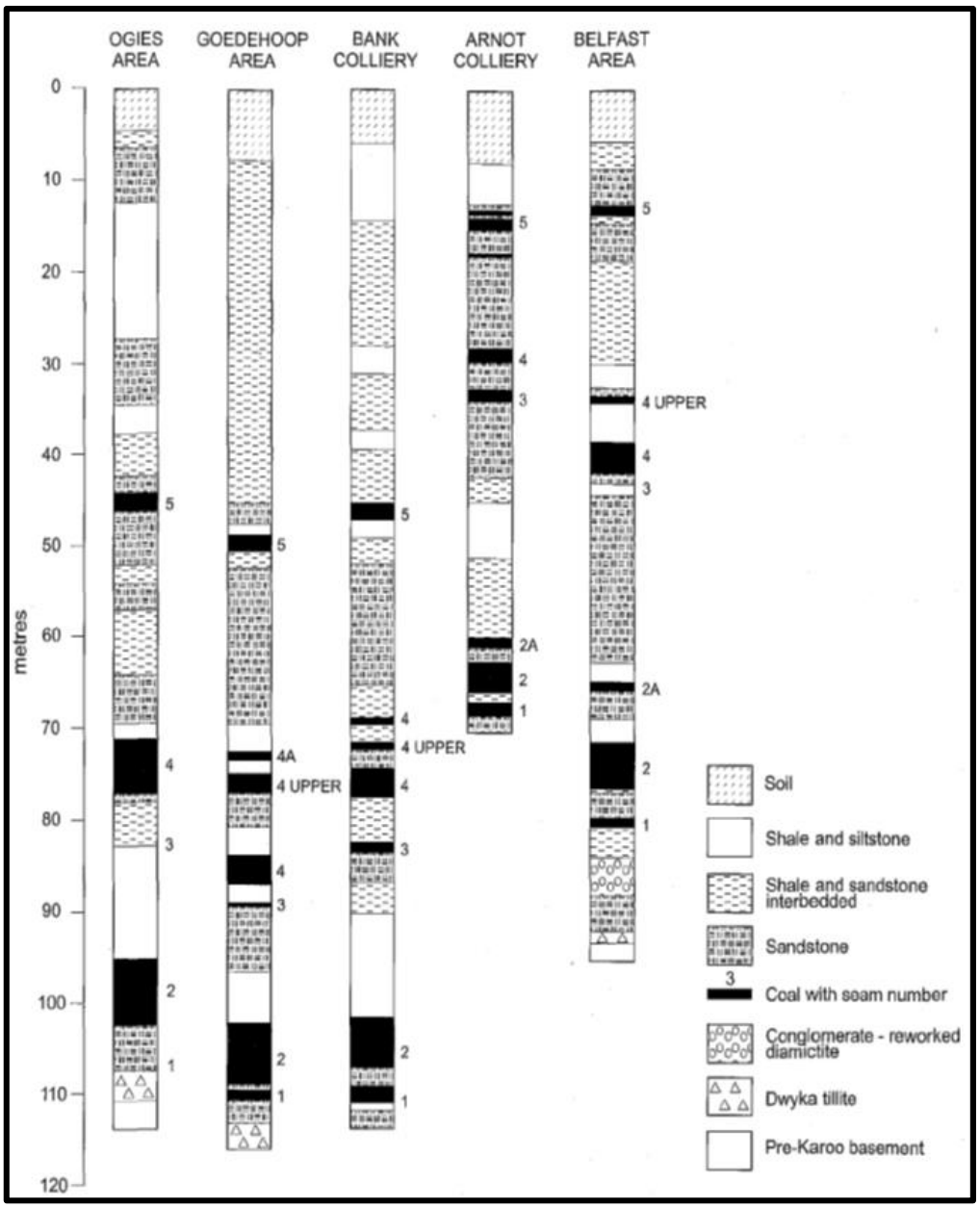


Figure 18: Typical stratigraphic column in the Witbank Coalfield.. (Image obtained from the Prospecting Work Programme (PWP) for the proposed prospecting right)

The area concerned is covered by rocks of the Vryheid Formation, which are well known for their coal measures. A geological map of the area is shown in figure 4 below.

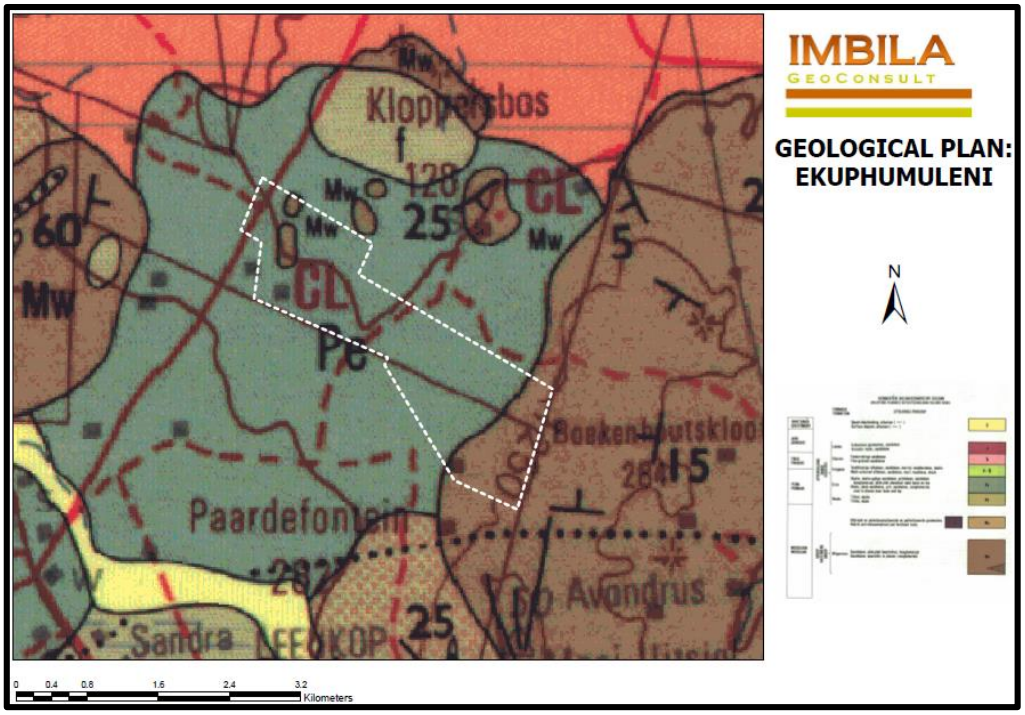


Figure 19: Geological map of the area concerned. (Image obtained from the Prospecting Work Programme (PWP) for the proposed prospecting right)

SITE SPECIFIC HYDROLOGY

The proposed site falls within the Crocodile (West) and Marico Water Management Area, in the A23B quaternary catchment area. There are various streams and small farm dams in the area. The Pienaars River is located approximately 3 km south west of the site and the Boekenhoutspruit located approximately 3 km to the east of the site area.

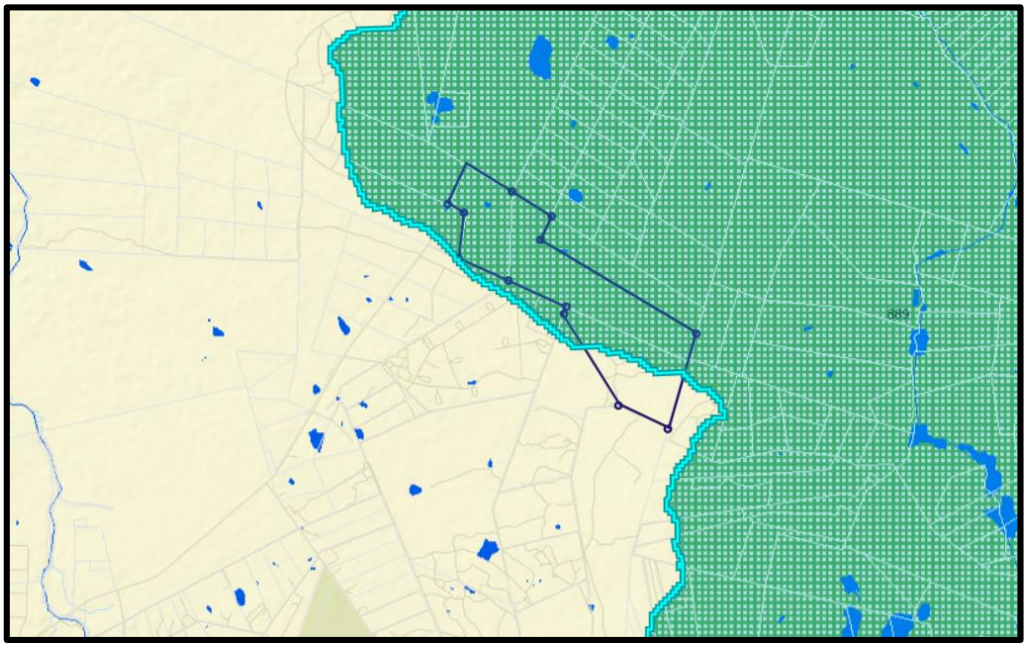


Figure 20: Map showing the proposed prospecting footprint (blue polygon) in the. The dark green area represents a River phase 2 FEPA (Image obtained from the BGIS Map Viewer – National Wetlands and NFEPA)

SITE SPECIFIC MINING AND BIODIVERSITY CONSERVATION AREAS

The prospecting activities does not require the removal of any large trees or vegetation of significance. Due to the small footprint of a borehole, the drill position can be manipulated to drill between the trees. In light of this, the impact of the prospecting operation on the vegetation cover of the receiving environment is deemed to be of Low significance. The Applicant will make use of the existing access roads. It is proposed that should the Applicant implement the mitigation measures proposed in the EMPr the impact of the proposed activity on the vegetation and groundcover in general is deemed to be of low significance.

SITE SPECIFIC GROUNDCOVER

As indicated below all the information below is based on preliminary data, surrounding information and desktop studies as access to the study area was denied by the landowners.

The proposed area has a grazing capacity of between 4-7 Livestock per Ha

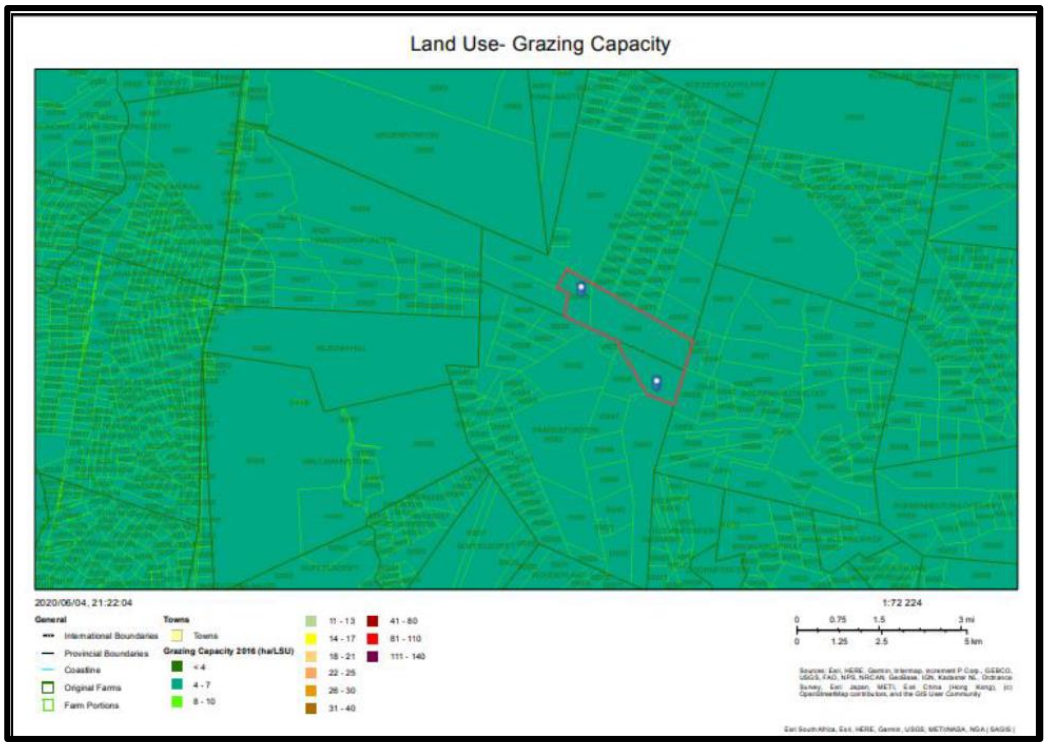


Figure 21: Grazing Capacity

It was indicated that there were plantations on the property. This was also clear during the site inspections as the area close to the Klopperbos/Pyramid Road (D327) has thick vegetation. It could not be determined what type of plantations existed in the area.

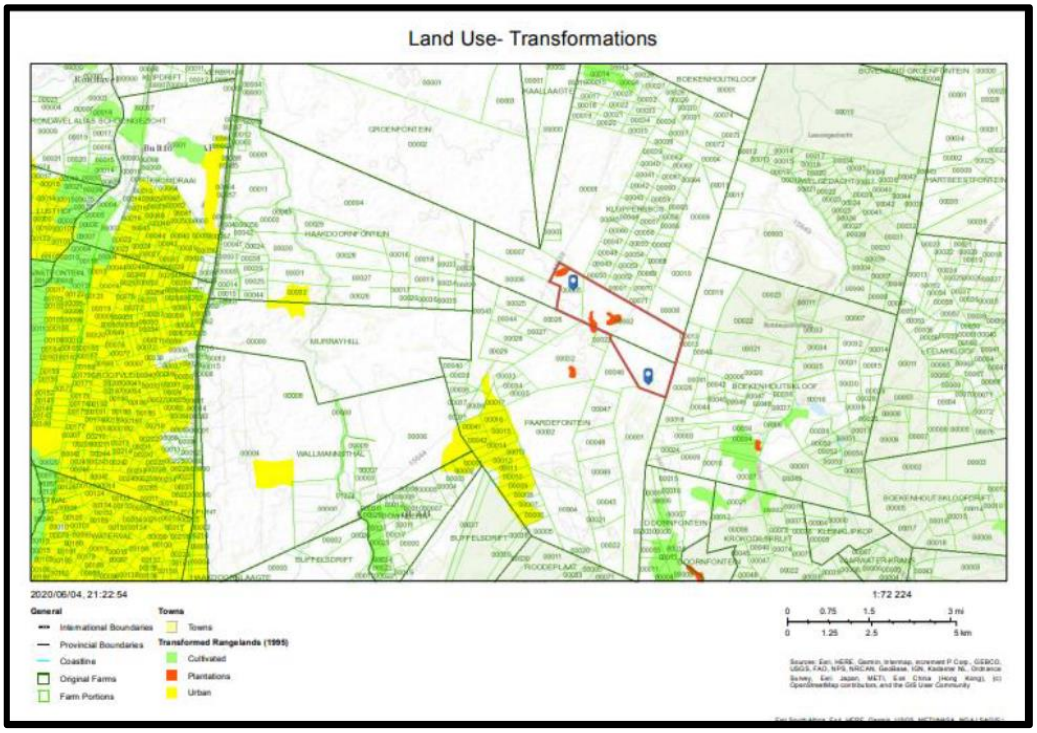


Figure 22: Transformations

From the figure below it is indicated that the area is widely used for hunting of game. Game fencing and security cameras were also noted in the area.

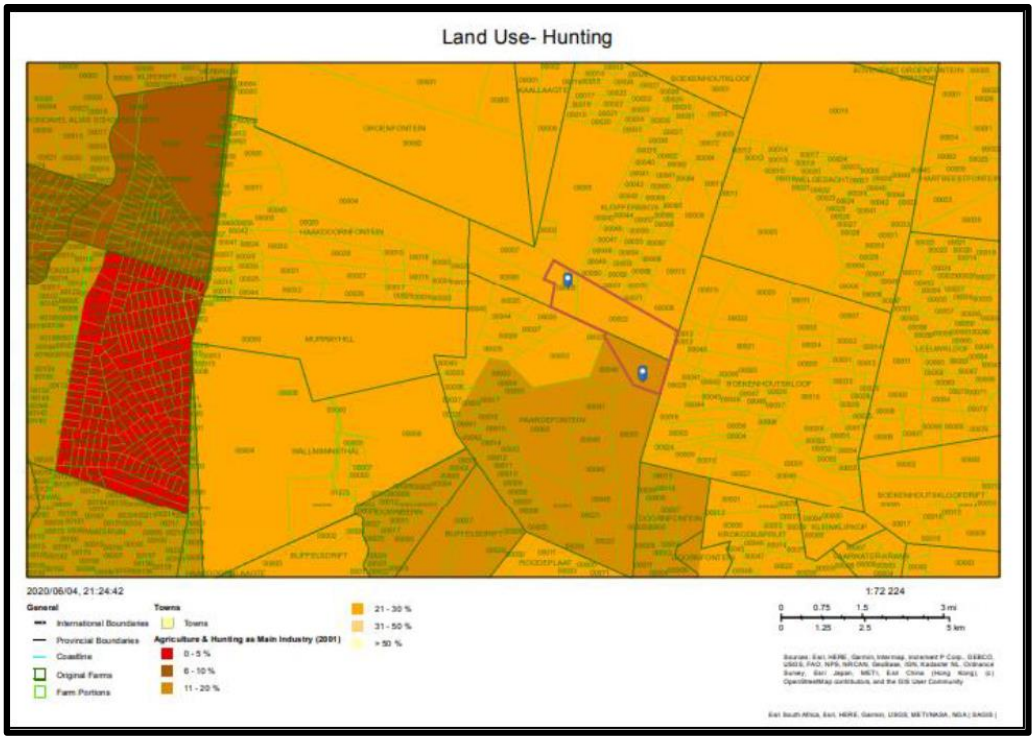


Figure 23: Hunting in the area

The land has a capability of v vi vii, viii which indicted it is non arable, and recommended for livestock grazing.

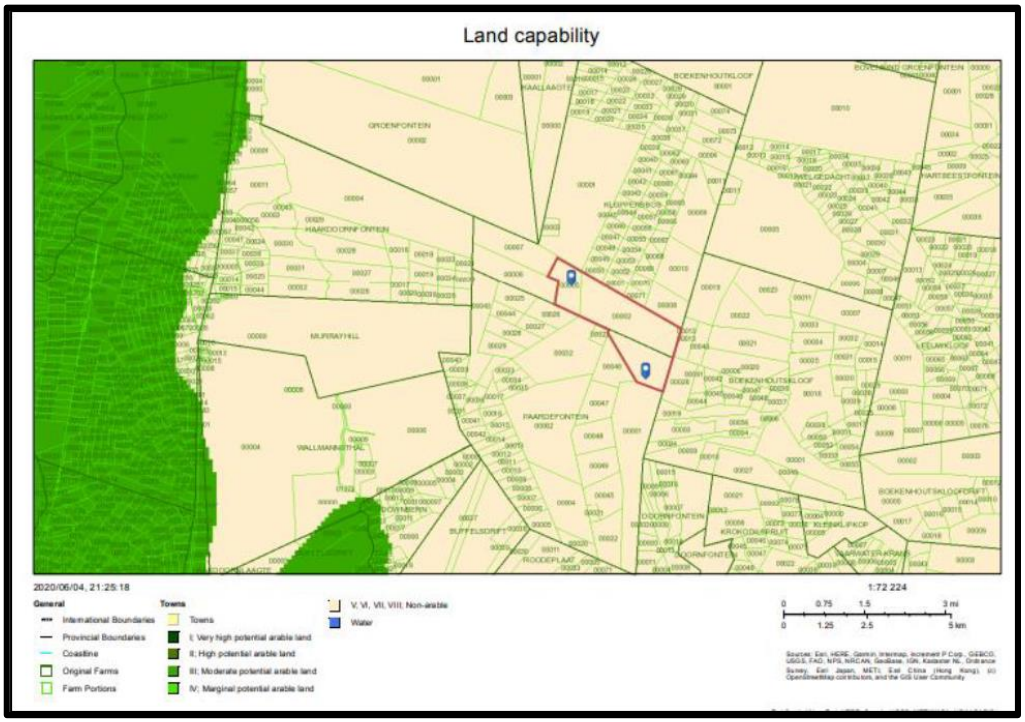


Figure 24: Land Capability

SITE SPECIFIC FAUNA

Various small mammals and reptiles occur are likely to on the property. The fauna at the site will not be impacted by the proposed prospecting activity as they will be able to move away or through the site, without being harmed. Workers should be educated and managed to ensure that no fauna at the site is harmed. As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

As mentioned above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites.

The study area falls over some properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

SITE SPECIFIC CULTURAL AND HERITAGE ENVIRONMENT

The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the site establishment, operational- and decommissioning phase.

The South African Heritage Resources Agency (SAHRA) compiled the Palaeontological (fossil) Sensitivity Map (PSM) to guide developers, heritage officers and practitioners in screening paleontologically sensitive areas at the onset of a project. When the footprint of the earmarked prospecting area is placed on the PSM, it shows the study area to extend over an area of insignificant/zero concern.

(d) Environmental and current land use map.

(Show all environmental and current land use features)

The environmental and current land use map is attached as Appendix D.

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.)

The following potential impacts were identified of each main activity in each phase of the proposed project. The significance rating was determined using the methodology as explained under *vi) Methodology Used in Determining and Ranking the Significance*. The impact rating listed below was determined for each impact **prior** to bringing the proposed mitigation measures into consideration. The degree of mitigation indicates the possibility of partial, full or no mitigation of the identified impact.

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.)

Methodology for the assessment of the potential environmental, social and cultural impacts

DEFINITIONS AND CONCEPTS:

Environmental significance:

The concept of significance is at the core of impact identification, evaluation and decision-making. The concept remains largely undefined and there is no international consensus on a single definition. The following common elements are recognised from the various interpretations:

- Environmental significance is a value judgement
- The degree of environmental significance depends on the nature of the impact
- The importance is rated in terms of both biophysical and socio-economic values
- Determining significance involves the amount of change to the environment perceived to be acceptable to affected communities.

Significance can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. level of acceptability) (DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series 5).

The concept of risk has two dimensions, namely the consequence of an event or set of circumstances, and the likelihood of particular consequences being realised (Environment Australia (1999) Environmental Risk Management).

Impact

The positive or negative effects on human well-being and / or the environment.

Consequence

The intermediate or final outcome of an event or situation OR it is the result, on the environment, of an event.

Likelihood

A qualitative term covering both probability and frequency.

Frequency

The number of occurrences of a defined event in a given time or rate.

Probability

The likelihood of a specific outcome measured by the ratio of a specific outcome to the total number of possible outcomes.

Environment

Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation (ISO 14004, 1996).

Methodology that will be used

The environmental significance assessment methodology is based on the following determination:

Environmental Significance = Overall Consequence X Overall Likelihood

Determination of Overall Consequence

Consequence analysis is a mixture of quantitative and qualitative information and the outcome can be positive or negative. Several factors can be used to determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: ***Severity/Intensity, Duration and Extent/Spatial Scale***. Each factor is assigned a rating of 1 to 5, as described in the tables below.

Determination of Severity / Intensity

Severity relates to the nature of the event, aspect or impact to the environment and describes how severe the aspects impact on the biophysical and socio-economic environment.

The table below will be used to obtain an overall rating for severity, taking into consideration the various criteria.

Table 12: Table to be used to obtain an overall rating of severity, taking into consideration the various criteria.

Type of criteria	Rating				
	1	2	3	4	5
Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%
Qualitative	Insignificant / Non-harmful	Small / Potentially harmful	Significant/ Harmful	Great/ Very harmful	Disastrous Extremely harmful
Social/ Community response	Acceptable / I&AP satisfied	Slightly tolerable / Possible objections	Intolerable/ Sporadic complaints	Unacceptable / Widespread complaints	Totally unacceptable / Possible legal action
Irreversibility	Very low cost to mitigate/ High potential to mitigate impacts to level of insignificance/ Easily reversible	Low cost to mitigate	Substantial cost to mitigate/ Potential to mitigate impacts/ Potential to reverse impact	High cost to mitigate	Prohibitive cost to mitigate/ Little or no mechanism to mitigate impact Irreversible
Biophysical (Air quality, water quantity and quality, waste production, fauna and flora)	Insignificant change / deterioration or disturbance	Moderate change / deterioration or disturbance	Significant change / deterioration or disturbance	Very significant change / deterioration or disturbance	Disastrous change / deterioration or disturbance

Determination of Duration

Duration refers to the amount of time that the environment will be affected by the event, risk or impact, if no intervention e.g. remedial action takes place.

Table 13: Criteria for the rating of duration.

Rating	Description
1	Up to ONE MONTH
2	ONE MONTH to THREE MONTHS (QUARTER)
3	THREE MONTHS to ONE YEAR
4	ONE to TEN YEARS
5	Beyond TEN YEARS

Determination of Extent/Spatial Scale

Extent or spatial scale is the area affected by the event, aspect or impact.

Table 14: Criteria for the rating of extent / spatial scale.

Rating	Description
1	Immediate, fully contained area
2	Surrounding area
3	Within Business Unit area of responsibility
4	Within the farm/neighbouring farm area
5	Regional, National, International

Determination of Overall Consequence

Overall consequence is determined by adding the factors determined above and summarized below, and then dividing the sum by 3.

Table 15: Example of calculating overall consequence.

Consequence	Rating
Severity	Example 4
Duration	Example 2
Extent	Example 4
SUBTOTAL	**10**
TOTAL CONSEQUENCE: (Subtotal divided by 3)	**3.3**

Determination of Likelihood:

The determination of likelihood is a combination of Frequency and Probability. Each factor is assigned a rating of 1 to 5, as described below and in tables 6 and 7.

Determination of Frequency

Frequency refers to how often the specific activity, related to the event, aspect or impact, is undertaken.

Table 16: Criteria for the rating of frequency.

Rating	Description
1	Once a year or once/more during operation
2	Once/more in 6 Months
3	Once/more a Month
4	Once/more a Week
5	Daily

Determination of Probability

Probability refers to how often the activity or aspect has an impact on the environment.

Table 17: Criteria for the rating of probability.

Rating	Description
1	Almost never / almost impossible
2	Very seldom / highly unlikely
3	Infrequent / unlikely / seldom
4	Often / regularly / likely / possible
5	Daily / highly likely / definitely

Overall Likelihood

Overall likelihood is calculated by adding the factors determined above and summarised below, and then dividing the sum by 2.

Table 18: Example of calculating overall likelihood.

Consequence	Rating
Frequency	Example 4
Probability	Example 2
SUBTOTAL	**6**
TOTAL LIKELIHOOD (Subtotal divided by 2)	**3**

Determination of Overall Environmental Significance:

The multiplication of overall consequence with overall likelihood will provide the environmental significance, which is a number that will then fall into a range of **LOW**, **LOW-MEDIUM**, **MEDIUM**, **MEDIUM-HIGH** or **HIGH**, as shown in the table below.

Table 19: Determination of overall environmental significance.

Significance or Risk	Low	Low-Medium	Medium	Medium-High	High
Overall Consequence X Overall Likelihood	1 – 4.9	5 – 9.9	10 – 14.9	15 – 19.9	20 – 25

Qualitative description or magnitude of Environmental Significance

This description is qualitative and is an indication of the nature or magnitude of the Environmental Significance. It also guides the prioritisations and decision making process associated with this event, aspect or impact.

Table 20: Description of environmental significance and related action required.

Significance	Low	Low-Medium	Medium	Medium-High	High
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect. Acceptable.	Impact is of low order and therefore likely to have little real effect. Acceptable.	Impact is real, and potentially substantial in relation to other impacts. Can pose a risk to company	Impact is real and substantial in relation to other impacts. Pose a risk to the company. Unacceptable	Impact is of the highest order possible. Unacceptable. Fatal flaw.
Action Required	Maintain current management measures. Where possible improve.	Maintain current management measures. Implement monitoring and evaluate to determine potential increase in risk. Where possible improve	Implement monitoring. Investigate mitigation measures and improve management measures to reduce risk, where possible.	Improve management measures to reduce risk.	Implement significant mitigation measures or implement alternatives.

Based on the above, the significance rating scale has been determined as follows:

High	Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and / or remedial activity to offset the impact at the spatial or time scale for which it was predicted. In the case of positive impacts, there is no real alternative to achieving the benefit.
Medium-High	Impacts of a substantial order. In the case of negative impacts, mitigation and / or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.
Medium	Impact would be real but not substantial within the bounds of those, which could occur. In the case of negative impacts, mitigation and / or remedial activity would be both feasible and fairly easily possible, In case of positive impacts; other means of achieving these benefits would be about equal in time, cost and effort.
Low-Medium	Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and / or remedial activity would be either easily achieved of little would be required, or both. In case of positive impacts alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.
Low	Impact would be negligible. In the case of negative impacts, almost no mitigation and or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely be better, in one or a number of ways, than this means of achieving the benefit
Insignificant	There would be a no impact at all – not even a very low impact on the system or any of its parts.

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 prospecting area in which drilling sites can be moved to various positions in consultation with the land owners depending on sensitivity and accessibility.

However, the proposed prospecting area was identified as the preferred and only viable site alternative. In light of this, S1 was identified during the assessment phase of the environmental impact assessment, by the Applicant and project team due to the following:

- The geological setting of the area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top.

- Availability of the coal resource will only be determined should prospecting the prospecting right be granted and drilling can take place.

PROJECT ASSOCIATED POSITIVE IMPACTS:

- Work opportunities to local residents should prospecting be successful contributing to the socio-economic status of the area;
- Easy movement of infrastructure as processing progress
- Complete removal of infrastructure at closure of the mine.
- Return of the prospecting area to agricultural use upon closure of the project; and
- Diversification of the land use of the property.

POTENTIAL NEGATIVE IMPACTS:

PLANNING AND DESIGN PHASE

- Air quality and emissions as a result of planning and design phase,
- Visual intrusion as a result of planning and design phase;
- Potential hydrocarbon contamination from leaks or spills leeching into the water table;
- Potential impact on fauna within the footprint area;
- Dust nuisance as a result of the result of planning and design phase;
- Noise nuisance as a result of the result of planning and design phase;
- Safety and security on properties due to trespassing of contractors / workers;

OPERATIONAL PHASE (DRILLING)

- Visual intrusion as a result of prospecting activities;
- Potential impact associated with littering and hydrocarbon spills;
- Disturbance to fauna within the footprint area;
- Noise nuisance as a result of the prospecting activities;

- Dust nuisance as a result of the prospecting activities;
- Loss of topsoil a result of the prospecting activities;
- Infestation of denuded areas with invader plant species;
- Deterioration of the access road to the prospecting area;
- Safety and security on properties due to trespassing of contractors / workers;

SLOPING AND LANDSCAPING UPON CLOSURE OF THE PROSPECTING AREA

- Visual intrusion as a result of the decommissioning activities;
- Erosion of returned topsoil after rehabilitation;
- Infestation of denuded areas with invader plant species;
- Noise nuisance as a result of the decommissioning activities;
- Dust nuisance as a result of the decommissioning activities
- Potential impact associated with litter/hydrocarbon spills left at the decommissioning activities;
- Disturbance to fauna within the footprint area;
- Safety and security on properties due to trespassing of contractors / workers;
- Deterioration of the access road to the decommissioning activities.

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 mitigation 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)

The following mitigation measures are proposed to address/minimize the impact of the proposed activity on the surrounding environment:

VISUAL CHARACTERISTICS

Visual Mitigation:

The risk of the proposed prospecting activities having a negative impact on the aesthetic quality of the surrounding environment can be reduced to a low-medium risk through the implementation of the mitigation measures listed below.

- The applicant should however ensure that housekeeping is managed to standard, as this will mitigate the visual impacts during the operational phase of the prospecting activities.
- Upon closure the site will be rehabilitated and sloped to insure that the visual impact on the aesthetic value of the area is kept to a minimum.
- The site will have a neat appearance and be kept in good condition at all times.

AIR AND NOISE QUALITY

Fugitive Dust Emission Mitigation:

The risk of dust, generated from the proposed prospecting activities, having a negative impact on the surrounding environment can be reduced to being low through the implementation of the following mitigation measures:

- The liberation of dust into the surrounding environment must be effectively controlled by the use of, inter alia, straw, water spraying and/or environmentally friendly dust-allaying agents that contains no PCB's (e.g. DAS products).
- The site manager must ensure continuous assessment of the dust suppression equipment to confirm its effectiveness in addressing dust suppression.
- Speed on the access road must be limited to 40 km/h to prevent the generation of excess dust.
- Areas devoid of vegetation, which could act as a dust source, must be minimized.
- Weather conditions must be taken into consideration upon commencement of daily operations. Limiting operations during very windy periods would reduce airborne dust and resulting impacts.
- All dust generating activities shall comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA (Act 39 of 2004) and ASTM D1739 (SANS 1137:2012).
- Best practice measures shall be implemented during the stripping of topsoil (if required), drilling, and decommissioning and landscaping to minimize potential dust impacts.

Noise Handling:

The risk of noise, generated as a result of the proposed prospecting activity, having a negative impact on the surrounding environment can be reduced to being low through the implementation of the mitigation measures listed below:

- The prospecting right holder must ensure that employees and staff conduct themselves in an acceptable manner while on site.
- No loud music may be permitted at the prospecting area.
- All prospecting vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996).

- Best practice measures shall be implemented in order to minimize potential noise impacts.
- A qualified occupational hygienist must be contracted to quarterly monitor and report on the personal noise exposure of the employees working at the mine. The monitoring must be done in accordance with the SANS 10083:2004 (Edition 5) sampling method as well as NEM:AQA, 2004, SANS 10103:2008.

GEOLOGY AND SOIL

Topsoil Management:

The following topsoil management mitigation measures are proposed (stockpile area):

- The upper 300 mm of the soil must be stripped and stockpiled.
- Topsoil is a valuable and essential resource for rehabilitation and it must therefore be managed carefully to conserve and maintain it throughout the stockpiling and rehabilitation processes.
- Topsoil stripping, stockpiling and re-spreading must be done in a systematic way. The prospecting plan have to be such that topsoil is stockpiled for the minimum possible time.
- The topsoil must be placed on a levelled area, within the prospecting footprint. no topsoil may be stockpiled in undisturbed areas.
- Topsoil stockpiles must be protected against losses by water and wind erosion. Stockpiles must be positioned so as not to be vulnerable to erosion by wind and water.
- Topsoil heaps may not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen.
- The temporary topsoil stockpiles must be kept free of invasive plant species.
- Storm- and runoff water must be diverted around the stockpile area to prevent erosion.
- The stockpiled topsoil must be evenly spread, to a depth of 300 mm, over the rehabilitated area upon closure of the site.
- The prospecting right holder must strive to re-instate topsoil at a time of year when vegetation cover can be established as quickly as possible afterwards, so that erosion of returned topsoil by both rain and wind, before vegetation is established, is minimized. The best time of year is at the end of the rainy season, when there is moisture in the soil for vegetation establishment and the risk of heavy rainfall events is minimal.

- The rehabilitated area must be monitored for erosion, and appropriately stabilized if any erosion occurs for at least 12 months after reinstatement.

MINING AND BIODIVERSITY & GROUNDCOVER

Management of Invasive Plant Species:

The risk of weeds or invader plants invading the disturbed area can be reduced to being Low through the implementation of the mitigation measures listed below:

- An invasive plant species management plan (Appendix J) must be implemented at the site to ensure the management and control of all species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto). Weed/alien clearing must be done on an ongoing basis throughout the life of the prospecting activities.
- All stockpiles (topsoil) must be kept free of invasive plant species.
- Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used:
  - The plants can be uprooted, felled or cut off and can be destroyed completely.
  - The plants can be treated chemically by a registered pest control officer (PCO) through the use of an herbicide recommended for use by the PCO in accordance with the directions for the use of such an herbicide.

FAUNA

Protection of Fauna:

The risk resulting from the proposed prospecting activity on terrestrial fauna of the footprint area as well as the surrounding environment, can be reduced to Low through the implementation of the mitigation measures listed below:

- The site manager must ensure no fauna is caught, killed, harmed, sold or played with.
- Workers must be instructed to report any animals that may be trapped in the working area.
- No snares may be set or nests raided for eggs or young.

GENERAL

Waste Management:

The risk of uncontrolled waste generation having a negative impact on the surrounding environment can be reduced to being Low through the implementation of the mitigation measures listed below:

- Regular vehicle maintenance, repairs and services may only take place at the off-site workshop and service area of the prospecting right holder, and none of the above may be allowed on site. When a breakdown occurs in on site, the prospecting right holder must arrange for the removal of the machine, within 6 hours, to a recognised workshop where it can be mended.
- Ablution facilities must be provided in the form of a chemical toilet. The chemical toilet must be placed outside the 1:100 year floodline of any open water source, and must be serviced at least once every two weeks for the duration of the prospecting activities.
- The use of any temporary, chemical toilet facilities may not cause any pollution to water sources or pose a health hazard. In addition, no form of secondary pollution should arise from the disposal of refuse or sewage from the temporary, chemical toilets. Any pollution problems arising from the above are to be addressed immediately by the prospecting right holder.
- If a diesel bowser is used on site, it must be equipped with a drip tray at all times. Drip trays must be used during each and every refuelling event. The nozzle of the bowser needs to rest in a sleeve to prevent dripping after refuelling.
- Site management must ensure drip trays are cleaned after each use. No dirty drip trays may be used on site.
- A spill kit must be available on-site which can be operated by trained employees for the *adhoc* remediation of minor chemical and hydrocarbon spillages.
- Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility.
- Should spillage occur, such as oil or diesel leaking from a burst pipe, the contaminated soil must, within the first hour of occurrence, be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. Proof must be filed.

- General waste must be contained in marked, sealable, refuse bins placed at a designated area, to be removed when filled to capacity to a recognised general waste landfill site.
- No waste may be buried or burned on the site.
- No chemicals or hazardous materials may be stored at the prospecting area.
- It is important that any significant spillage of chemicals, fuels etc. during the lifespan of the prospecting activities is reported to the Department of Water and Sanitation and other relevant authorities.
- All machinery must be parked at the stockpile area with drip trays placed underneath stationary vehicles.

Management of Health and Safety Risks:

The following mitigation measures are proposed to minimise the potential health and safety impacts:

- Adequate ablution facilities and water for human consumption must daily be available on site.
- Workers must have access to the correct personal protection equipment (PPE) as required by law.
- All operations must comply with the Mine Health and Safety Act, 1996 (Act No 29 of 1996).
- No trespassing on private property outside the approved area will be allowed

ix) Motivation where no alternative sites were considered.

As mentioned previously, the prospecting area in which drilling sites can be moved to various positions in consultation with the land owners depending on sensitivity and accessibility. However, the proposed prospecting area was identified as the preferred and only viable site alternative. In light of this, S1 was identified during the assessment phase of the environmental impact assessment, by the Applicant and project team due to the following:

- The geological setting of the area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top.
- Availability of the coal resource will only be determined should prospecting the prospecting right be granted and drilling can take place.

x) Statement motivating the alternative development location within the overall site.

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

Site Alternative 1 was identified during the assessment phase of the environmental impact assessment as the preferred and only site alternative. The following matters contributed to the identification of the preferred development footprint:

1. **Topography** – The study area consist of undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. A generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Modimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte. The altitude varies between 1100–1 217 m.

2. **Visual Characteristics** – The viewshed analysis showed that the visual impact of the proposed prospecting operation will be of low significance. The small scale of the proposed operation contributes to the low visual significance. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

3. **Air and Noise Quality** – The proposed activity will contribute the emissions of one excavator, one front-end-loader and two tippers to the receiving environment for the duration of the operational phase. Should the prospecting right holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use. The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property.

4. **Geology and Soil –** The large southern and eastern parts of this area are underlain by granite of the Lebowa Granite Suite and some granophyre of the Rashoop Granophyre Suite (both Bushveld Complex, Vaalian). In the north, the sedimentary rocks of the Waterberg Group (Mokolian Erathem) are most important. Specifically, sandstone, conglomerate and siltstone of the Alma Formation and sandstone, siltstone and shale of the Vaalwater Formation. Well-drained, deep Hutton or

Clovelly soils often with a catenary sequence from Hutton at the top to Clovelly on the lower slopes; shallow, skeletal Glenrosa soils also occur. Land types mainly Bb, Fa, Ba, Bd and Ac

Soils vary from planted grassland previously improved grassland, to cultivated, temporary/permanent, commercial/subsistence irrigated/dryland. Soil fall within the following patterns:

LP1 – soils with minimal development, usually shallow or hard or weathered rock, with or without intermitted diverse soils. Lime rate to absent in in the landscape.

5. **Hydrology –** The proposed project does not require a Water Use Authorisation in terms of Section 39 of the National Water Act, 1998 (Act No 36 of 1998). As mentioned earlier, the prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners, and no activity will take place in any water bodies.

6. **Mining, Biodiversity and Groundcover –** The prospecting activities does not require the removal of any large trees or vegetation of significance. Due to the small footprint of a borehole, the drill position can be manipulated to drill between the trees. In light of this, the impact of the prospecting operation on the vegetation cover of the receiving environment is deemed to be of Low significance. The Applicant will make use of the existing access roads. It is proposed that should the Applicant implement the mitigation measures proposed in the EMPr the impact of the proposed activity on the vegetation and groundcover in general is deemed to be of low significance.

7. **Fauna -** Various mammals and reptiles are likely to occur on the property. The fauna at the site will not be impacted by the proposed prospecting activity as they will be able to move away or through the site, without being harmed. Workers should be educated and managed to ensure that no fauna at the site is harmed. As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be

done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

As mentioned above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites.

The study area falls over some properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

8. **Cultural and Heritage Environment** - The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the site establishment, operational- and decommissioning phase. The South African Heritage Resources Agency (SAHRA) compiled the Palaeontological (fossil) Sensitivity Map (PSM) to guide developers, heritage officers and practitioners in screening paleontologically sensitive areas at the onset of a project. When the footprint of the earmarked mining area is placed on the PSM, it shows the study area to extend over an area of insignificant/zero concern.

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 were identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures)

During the impact assessment process the following potential impacts were identified of each main activity in each phase. An initial significance rating (listed under *v) Impacts and Risks Identified*) was determined for each potential impact should the mitigation measures proposed in this document not be implemented on-site. The impact assessment process then continued in identifying mitigation measures to address the impact that the proposed prospecting activity may have on the surrounding environment.

The significance rating was again determined for each impact using the methodology as explained under *vi) Methodology Used in Determining and Ranking the Significance*. The impact ratings listed below was determined for each impact **after** bringing the proposed mitigation measures into consideration and therefore represents the final layout/activity proposal.

PLANNING AND DESIGN PHASE

Air quality and emissions as a result of planning and design phase

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Partial**		
1	1	1	1	1	4	2.5	**2.5**

Visual intrusion as a result of planning and design phase

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Partial**		
2	1	1	1.3	1	4	2.5	**3.25**

Potential hydrocarbon contamination from leaks or spills leeching into the water table

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Full**		
3	1	1	1.6	3	2	2.5	**4**

Potential impact on fauna within the footprint area

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low-					**Degree of Mitigation: Full**		
3	1	1	1.6	1	1	1.6	**1.6**

Dust nuisance as a result of the result of planning and design phase

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Full**		

1	1	1	1	1	5	3	**3**

Noise nuisance as a result of the result of planning and design phase

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Partial**		
1	1	1	1	1	5	3	**3**

Safety and security on properties due to trespassing of contractors / workers.

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Full**		
1	1	1	1	2	5	3.5	**3.5**

OPERATIONAL PHASE

Visual intrusion as a result of prospecting activities

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Partial**		
2	1	1	1.3	1	4	2.5	**3.25**

Potential impact associated with littering and hydrocarbon spills

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low -Medium					**Degree of Mitigation: Full**		
3	4	1	2.6	3	2	2	**5.2**

Disturbance to fauna within the footprint area

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low					**Degree of Mitigation: Full**		
3	4	1	2.6	1	1	1	**2.6**

Noise nuisance as a result of the prospecting activities

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		
Rating: Low-Medium					**Degree of Mitigation: Partial**		
1	4	1	2	4	5	4.5	**9**

Dust nuisance as a result of the prospecting activities

			Consequence			Likelihood	**Significance**
Severity	Duration	Extent		Probability	Frequency		

Rating: Low						Degree of Mitigation: Full	
1	4	1	2	2	2	2	**4**

Loss of topsoil a result of the prospecting activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low-Medium						**Degree of Mitigation: Full**	
3	4	1	2.6	2	2	2	**5.2**

Infestation of denuded areas with invader plant species

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low -Medium						**Degree of Mitigation: Full**	
1	4	1	2	2	2	2	**4**

Deterioration of the access road to the prospecting area

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low						**Degree of Mitigation: Full**	
1	4	1	2	1	1	1	**2**

Safety and security on properties due to trespassing of contractors / workers.

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low						**Degree of Mitigation: Full**	
1	4	1	2	1	1	1	**2**

SLOPING AND LANDSCAPING UPON CLOSURE OF THE PROSPECTING AREA

Visual intrusion as a result of the decommissioning activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low						**Degree of Mitigation: Partial**	
2	1	1	1.3	1	4	2.5	**3.25**

Erosion of returned topsoil after rehabilitation

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low-Medium						**Degree of Mitigation: Full**	
3	5	1	3	2	2	2	**6**

Infestation of denuded areas with invader plant species

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low -Medium					**Degree of Mitigation: Full**		
2	5	1	2.6	2	2	2	**5.2**

Noise nuisance as a result of the decommissioning activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low-Medium					**Degree of Mitigation: Partial**		
1	4	1	2	4	5	4.5	**9**

Dust nuisance as a result of the decommissioning activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low					**Degree of Mitigation: Full**		
1	4	1	2	2	2	2	**4**

Potential impact associated with litter/hydrocarbon spills left at the decommissioning activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low Medium					**Degree of Mitigation: Full**		
3	4	1	2.6	3	2	2.5	**6.5**

Disturbance to fauna within the footprint area

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low					**Degree of Mitigation: Full**		
3	4	1	2.6	1	1	1	**2.6**

Safety and security on properties due to trespassing of contractors / workers.

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low					**Degree of Mitigation: Full**		
1	4	1	2	1	1	1	**2**

Deterioration of the access road to the decommissioning activities

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Low					**Degree of Mitigation: Full**		
1	4	1	2	1	1	1	**2**

Return of the prospecting area to agricultural use **(Positive Impact)**

Severity	Duration	Extent	Consequence	Probability	Frequency	Likelihood	**Significance**
Rating: Medium-High					**Degree of Mitigation: N/A**		
1	5	5	3.7	5	5	5	**18.5**

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).

Table 21: Assessment of each identified potentially significant impact and risk

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, air pollution, etc…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.) E.g. Modify through alternative method Control through noise control Control through management and monitoring through rehabilitation.	SIGNIFICANCE If mitigated.
• Demarcation of site with visible beacons.	• No impact could be identified other than the beacons being outside the boundaries of the approved prospecting area.	N/A	Planning and design phase	N/A	Control through management and monitoring.	N/A
• Planning and design phase • Prospecting activities • Sloping and landscaping upon closure of the prospecting area	• Visual intrusion as a result of planning and design phase • Visual intrusion as a result of prospecting activities • Visual intrusion as a result of sloping and landscaping upon closure of the prospecting area	The visual impact may affect the aesthetics of the landscape.	Planning and design, Operational and Decommissioning Phase	• Low • Low • Low	<u>Control:</u> Implementing proper housekeeping.	• Low- • Low • Low

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
• Prospecting activities • Sloping and landscaping upon closure of the prospecting area.	• Loss of topsoil and fertility during prospecting activities • Erosion of returned topsoil after rehabilitation	Loss of topsoil will affect the rehabilitation success upon closure of the prospecting area.	Operational and Decommissioning Phase	• Low-Medium • Low-Medium	Control & Remedy: Proper housekeeping.	• Low • Low
• Prospecting activities • Sloping and landscaping upon closure of prospecting area.	• Infestation of the topsoil heaps and prospecting area with invader plant species. • Infestation of denuded areas with invader plant species	This will impact on the biodiversity of the receiving environment.	Operational and Decommissioning Phase	• Low - Medium • Low -Medium	Control: Implementing good management practices.	• Low - Medium • Low - Medium
• Planning and design phase • Prospecting activities • Sloping and landscaping upon closure of the prospecting area.	• Potential impact on fauna within the footprint area. • Disturbance to fauna within the footprint area	This will impact on the biodiversity of the receiving environment.	Planning and design, Operational and Decommissioning Phase	• Low - Medium • Medium • Medium	Control & Stop: Implementing good management practices.	• Low • Low • Low
• Planning and design phase • Prospecting activities • Sloping and landscaping upon closure of the prospecting area.	• Dust nuisance as a result of the prospecting activities. • Dust nuisance as a result of the prospecting activities.	Increased dust generation will impact on the air quality of the receiving environment.	Planning and design, Operational and Decommissioning Phase	• Low • Low - Medium • Low - Medium	Control: Dust suppression methods and proper housekeeping.	• Low • Low • Low
• Planning and design phase	• Noise nuisance as a result of the prospecting activities.	Should noise levels become excessive it	Planning and design,	• Low-Medium	Control: Noise suppression methods and proper housekeeping.	• Low

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
• Prospecting activities • Sloping and landscaping upon closure of the prospecting area	• Noise nuisance as a result of the decomissiononig activities.	may have an impact on the noise ambiance of the receiving environment.	Operational and Decommissioning Phase	• Low - Medium • Low - Medium		• Low • Low
• Planning and design phase • Prospecting activities • Sloping and landscaping upon closure of the prospecting area	• Soil contamination from hydrocarbon spills. • Potential impact assocaited with littering and hydrocarbon spills. • Potential impact associated with litter left at the prospecting area.	Contamination of the footprint area will negatively impact the soil, surface runoff and potentially the groundwater. It will also incur additional costs to the prospecting right holder.	Planning and design, Operational and Decommissioning Phase	• Low -Medium • Medium • Medium	<u>Control & Remedy:</u> Proper housekeeping and implementation of an emergency response plan and waste management plan.	• Low • Low - Medium • Low - Medium
• Prospecting activities • Sloping and landscaping upon closure of the prospecting area	• Deterioration of the access road to the prospecting area.	Collapse of the road infrastructure will affect the landowner.	Operational and Decommissioning Phase	• Low-Medium • Low-Medium	<u>Control & Remedy:</u> Maintaining the access road for the duration of the operational phase, as well as leaving it in a representative or better condition than prior to prospecting.	• Low • Low
• Planning and design phase • Prospecting activities • Sloping and landscaping upon closure of the prospecting area.	• Safety and security on properties due to trespassing of contractors / workers.	Trespassing will negatively affect the landowner due to possible loss of fauna.	Planning and design, Operational and Decommissioning Phase	• Low • Low • Low	<u>Control:</u> Proper site management.	• Low • Low • Low

The supporting Impact Assessment conducted by the EAP must be attached as an appendix, marked Appendix H

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):

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORISATION AS REQUIRED BY THE 2014 EIA REGULATIONS:

The report identified the following list of specialist assessment for inclusion in the assessment report:

- Agricultural Impact Assessment;
- Archaeological and Cultural Heritage Impact Assessment;
- Palaeontology Impact Assessment;
- Terrestrial Biodiversity Impact Assessment;
- Aquatic Biodiversity Impact Assessment;
- Hydrology Assessment;
- Noise Impact Assessment;
- Radioactivity Impact Assessment;
- Plant Species Assessment;
- Animal Species Assessment.

Table 22: Summary of specialist reports

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with X if applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED

Please note: all the information below is based on preliminary data, surrounding information and desktop studies as access to the study area was denied by the landowners, resulting in limited information being provided to all commenting parties. Numerous attempts and letters requesting access to the properties by the applicant was all in vain. Greenmined is unable to provide the I&AP's and stakeholders with material information with regards to this prospecting right application and it is therefore clear that the relevant authorities will not be able to provide informed comments based on the outcome of specialist studies, irrespective should it be positive or negative. However, due to the landowners' refusal to grant access to the properties that proper studies could not be conducted.

A desktop study indicating areas of possible ecological importance was undertaken by JG Afrika (Pty) Ltd, a map of all these areas is included as appendix C

The plan includes the following:

- Location of drainage lines and wetland areas. The drainage lines are based on freely available Department of Water and Sanitation (DWS) drainage line shapefiles.
- Wetlands are based on those housed in the NFEPA wetlands database.
- Buffer areas of 100 metres were drawn along the drainage lines and 500 metres for wetland areas.
- The location of critical biodiversity and ecologically sensitive areas. This was based on freely available databases of the sensitive areas. A buffer area of 100 m will be given to the sensitive areas

The result of this study indicated that none of the proposed boreholes was found in any of the sensitive areas.

As mentioned above a site walk through will have to be conducted by relevant specialist/s in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document and specialist findings as well as in consultation with the landowner / landowners.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with X if applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED
Archaeological and Cultural Heritage Impact Assessment (HIA) & Palaeontology Impact Assessment (PIA)	The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site is granted by the landowners. This report will be made available for public comments.		

- Agricultural Impact Assessment (AIA):

  The potential impact that the prospecting activity may have on the agricultural potential of the farms should have been assessed as part of the Draft Basic Assessment Report (DBAR). As access to the site was denied at this actual agricultural potential could not be identified within the earmarked footprint by

  means of field assessment, however as the proposed project will not necessitate the loss of any agricultural field and the project is expected to have a negligible impact in this regard as prospecting activities Greenmined is of the opinion that a specialist AIA is not needed. The prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. Areas that landowner/s that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

- Terrestrial Biodiversity Impact Assessment (TBIA) & Plant Species Assessment (PSA) & Animal Species Assessment (ASA):

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with X if applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED

As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners. The study area falls over properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers. It is proposed that should the Applicant implement the mitigation measures proposed in the EMPr the impact of the proposed activity on the riparian vegetation, groundcover and/or fauna is deemed to be of low significance. Therefore, in light of the site-specific state of the earmarked area there is no need for a TBIA, PSA or ASA.

- Aquatic Biodiversity Impact Assessment (ABIA) & Hydrology Assessment (HA):

  The proposed project does not require a Water Use Authorisation in terms of Section 39 of the National Water Act, 1998 (Act No 36 of 1998). As mentioned earlier, the prospecting activities will be done by drilling prospecting boreholes in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners, and no activity will take place in any water bodies.

- Noise Impact Assessment (NIA):

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with X if applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED

The proposed operation will contribute the noise emission of one drill rig, and field vehicles to the receiving environment for the duration of the operational phase. The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property. Due to the small scale of the operation a NIA is not deemed applicable.

- Radioactivity Impact Assessment

A Radioactivity Impact assessment is not deemed necessary for the proposed prospecting operation that will not store any chemicals on site, perform activities of radioactive nature or generate hazardous waste of radioactive nature.

In light of the above mentioned, we propose that the Heritage Impact Assessment will be the only specialist study currently deemed applicable to the proposed prospecting right application.

l) Environmental impact statement

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

The key findings of the environmental impact assessment entail the following:

Project Proposal

Lomeza Opencast Operations (Pty) Ltd applied for a prospecting right on portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR (409.7979 ha), which falls in Magisterial District of Cullinan (Nokeng Tsa Taemane Local Municipality), City of Tshwane, Gauteng Province.

The farms portion 5 of the farm Kloppersbos 128 JR and portions 1, 7 and 8 of the farm Ekuphumuleni 716 JR is situated approximately 15.63 km North-West of Cullinan. The commodity of interest is Coal. Potable water will daily be transported to site. The solid waste produced during the operational phase of the project will be transported from site to the nearest recognised landfill site. Prospecting will be done in daylight hours.

Site vehicles will use the existing gravel farm roads in consultation with the land owners.

Prospecting is proposed in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. As per the figure below (which is only an estimated proposal) only once the applicant consulted land owner a final plan can be developed.

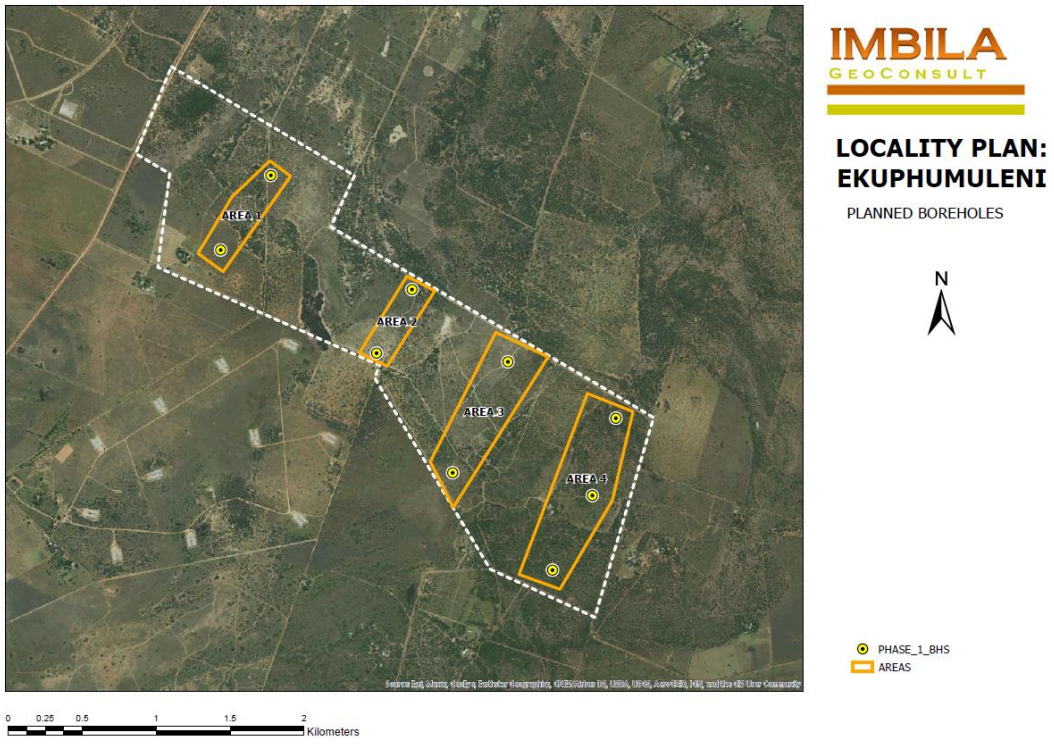


Figure 25: Satellite view of the proposed prospecting boreholes of Lomeza Opencast Operations.

LAND USE

Lomeza Opencast Operations (Pty) Ltd - Ekuphumuleni- will not have to compete with other land uses at the site. Upon closure of the prospecting area, the land will revert back to agricultural grazing for livestock, game farming or any agricultural activity practice on the properties.

Due to the remote location of the proposed project very little to no negative impacts on the community could be identified that were deemed to be of significant importance. The dust and noise impacts that may emanate from the prospecting area during the operational phase could have a negative impact on the surrounding community if the mitigation measures proposed in this document is not implemented and managed on-site.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

Topography

The study area consist of undulating terrain occurs mainly in a broad arc south of the Springbokvlakte from the Pilanesberg in the west through Hammanskraal and Groblersdal to GaMasemola in the east. A generally narrow irregular band along the northwestern edge of the Springbokvlakte (including Mo

dimolle) extending into a series of valleys and lower-altitude areas within the Waterberg including the upper Mokolo River Valley near Vaalwater, the corridor between Rankins Pass and the Doorndraai Dam, and the lowlands from the Mabula area to south of the Hoekberge. Some isolated sandy rises are found on the Springbokvlakte. The altitude varies between 1100–1 217 m.

Visual Characteristics

The viewshed analysis showed that the visual impact of the proposed prospecting operation will be of low significance. The small scale of the proposed operation contributes to the low visual significance. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

Air and Noise Quality

The proposed activity will contribute the emissions of to drilling equipment and field vehicles the receiving environment for the duration of the operational phase. Should the prospecting right holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use. The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property.

Geology and Soil

The large southern and eastern parts of this area are underlain by granite of the Lebowa Granite Suite and some granophyre of the Rashoop Granophyre Suite (both Bushveld Complex, Vaalian). In the north, the sedimentary rocks of the Waterberg Group (Mokolian Erathem) are most important. Specifically, sandstone, conglomerate and siltstone of the Alma Formation and sandstone, siltstone and shale of the Vaalwater Formation. Well-drained, deep Hutton or Clovelly soils often with a catenary

sequence from Hutton at the top to Clovelly on the lower slopes; shallow, skeletal Glenrosa soils also occur. Land types mainly Bb, Fa, Ba, Bd and Ac

Soils vary from planted grassland previously improved grassland, to cultivated, temporary/permanent, commercial/subsistence irrigated/dryland. Soil fall within the following patterns:

LP1 – soils with minimal development, usually shallow or hard or weathered rock, with or without intermitted diverse soils. Lime rate to absent in in the landscape.

Hydrology

The proposed site falls within the Crocodile (West) and Marico Water Management Area, in the A23B quaternary catchment area. There are various streams and small farm dams in the area. The Pienaars River is located approximately 3 km south west of the site and the Boekenhoutspruit located approximately 3 km to the east of the site area.

Mining, Biodiversity and Groundcover

The prospecting activities does not require the removal of any large trees or vegetation of significance. Due to the small footprint of a borehole, the drill position can be manipulated to drill between the trees. In light of this, the impact of the prospecting operation on the vegetation cover of the receiving environment is deemed to be of Low significance. The Applicant will make use of the existing access roads. It is proposed that should the Applicant implement the mitigation measures proposed in the EMPr the impact of the proposed activity on the vegetation and groundcover in general is deemed to be of low significance.

Fauna

Various mammals and reptiles are likely to occur on the property. The fauna at the site will not be impacted by the proposed prospecting activity as they will be able to move away or through the site, without being harmed. Workers should be educated and managed to ensure that no fauna at the site is harmed. As access to the site was denied at this stage no resident protected or red data faunal species could be identified within the earmarked footprint, and the project is expected to have a negligible impact in this regard as prospecting activities will be done in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time.

A desktop study indicating areas of possible ecological importance was undertaken by JG Afrika (Pty) Ltd, a map of all these areas is included as appendix C

The plan includes the following:

- Location of drainage lines and wetland areas. The drainage lines are based on freely available Department of Water and Sanitation (DWS) drainage line shapefiles.
- Wetlands are based on those housed in the NFEPA wetlands database.
- Buffer areas of 100 metres were drawn along the drainage lines and 500 metres for wetland areas.
- The location of critical biodiversity and ecologically sensitive areas. This was based on freely available databases of the sensitive areas. A buffer area of 100 m will be given to the sensitive areas

The result of this study indicated that none of the proposed boreholes was found in any of the sensitive areas.

As mentioned above a site walk through will have to be conducted by relevant specialists in order to eliminate any impacts the prospecting activities might have on the proposed drilling sites. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document and specialist findings as well as in consultation with the landowner / landowners.

The study area falls over some properties that is noted to be operational game farms, should this prospecting right be granted farm owners will be consulted prior to commencement of any activities to ensure that safety of animals and workers.

Areas that should be regarded as no – go areas will be identified in consultation with the landowner/s in order to prevent any negative impact that might be of concern.

Cultural and Heritage Environment

The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the site establishment, operational- and decommissioning phase.

The South African Heritage Resources Agency (SAHRA) compiled the Palaeontological (fossil) Sensitivity Map (PSM) to guide developers, heritage officers and practitioners in screening paleontologically sensitive areas at the onset of a project. When the footprint of the earmarked mining area is placed on the PSM, it shows the study area to extend over an area of insignificant/zero (grey) concern.

ii) Final Site Map

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

See the map indicating site activities attached as Appendix C.

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

PROJECT ASSOCIATED POSITIVE IMPACTS:

- Work opportunities to local residents should prospecting be successful contributing to the socio-economic status of the area;
- Easy movement of infrastructure as processing progress
- Complete removal of infrastructure at closure of the mine.
- Return of the prospecting area to agricultural use upon closure of the project; and
- Diversification of the land use of the property.

POTENTIAL NEGATIVE IMPACTS:

PLANNING AND DESIGN PHASE

- Air quality and emissions as a result of planning and design phase,
- Visual intrusion as a result of planning and design phase;
- Potential hydrocarbon contamination from leaks or spills leeching into the water table;
- Potential impact on fauna within the footprint area;

- Dust nuisance as a result of the result of planning and design phase;
- Noise nuisance as a result of the result of planning and design phase;
- Safety and security on properties due to trespassing of contractors / workers;

OPERATIONAL PHASE (DRILLING)

- Visual intrusion as a result of prospecting activities;
- Potential impact associated with littering and hydrocarbon spills;
- Disturbance to fauna within the footprint area;
- Noise nuisance as a result of the prospecting activities;
- Dust nuisance as a result of the prospecting activities;
- Loss of topsoil a result of the prospecting activities;
- Infestation of denuded areas with invader plant species;
- Deterioration of the access road to the prospecting area;
- Safety and security on properties due to trespassing of contractors / workers;

SLOPING AND LANDSCAPING UPON CLOSURE OF THE PROSPECTING AREA

- Visual intrusion as a result of the decommissioning activities;
- Erosion of returned topsoil after rehabilitation;
- Infestation of denuded areas with invader plant species;
- Noise nuisance as a result of the decommissioning activities;
- Dust nuisance as a result of the decommissioning activities
- Potential impact associated with litter/hydrocarbon spills left at the decommissioning activities;
- Disturbance to fauna within the footprint area;
- Safety and security on properties due to trespassing of contractors / workers;
- Deterioration of the access road to the decommissioning activities.

The negative impacts associated with the project that was deemed to have a Low-Medium or higher significance includes:

- Infestation of denuded areas with invader plant species as a result of operational and decommissioning phase **Low-Medium**
- Potential impact associated with littering and hydrocarbon spills as a result of operational phase **Low-Medium**

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 condition of authorisation.

Table 23: Proposed impact management objectives and the impact management outcomes for inclusion in the EMPR

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
VISUAL CHARACTERISTICS Mitigating the visual impact.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Contain prospecting to the boundaries of the authorised area. • Ensure that the site have a neat appearance and is kept in good condition at all times. • Limit vegetation removal, and only strip topsoil immediately prior to the use of a specific area. • Rehabilitate and level the site upon closure to ensure that the visual impact on the aesthetic value of the area is kept to a minimum.	• Minimise the impact of the proposed project on the visual characteristics of the receiving environment during the operational phase, and ensure no residual impact remains after closure.
AIR QUALITY Dust management	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Control the liberation of dust into the surrounding environment by the use of; inter alia, straw, water spraying and/or environmentally friendly dust-allaying agents that contains no PCB's (e.g. DAS products). • Ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression. • Limit speed on the access roads to 40 km/h to prevent the generation of excess dust. • Minimise areas devoid of vegetation. • Take weather conditions into consideration upon commencement of daily operations. Limit operations during very windy periods to reduce airborne dust and resulting impacts. • Ensure dust generating activities comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA, 2004 and ASTM D1739 (SANS 1137:2012).	• Dust prevention measures are applied to minimise the generation of dust.

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
		• Implement best practice measures during the operation to minimize potential dust impacts.	
NOISE AMBIANCE Noise mitigation.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Ensure that employees and staff conduct themselves in an acceptable manner while on site. • No loud music may be permitted at the prospecting area. • Ensure that all project related vehicles are equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996. • Implement best practice measures to minimise potential noise impacts.	• Prevent unnecessary noise to the environment by ensuring that noise from development activity is mitigated.
GEOLOGY AND SOIL Topsoil management mitigation measures	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Strip and stockpile the upper 300 mm of the soil. • Carefully manage and conserve the topsoil throughout the stockpiling and rehabilitation process. • Ensure topsoil stripping, stockpiling and re-spreading is done in a systematic way. Plan prospecting in such a way that topsoil is stockpiled for the minimum possible time. • Place topsoil heaps on a levelled area within the prospecting footprint area. Do not stockpile topsoil in undisturbed areas. • Protect topsoil stockpiles against losses by water and wind erosion. Position stockpiles so as not to be vulnerable to erosion by wind and water. Establishment of plants on the stockpiles will help prevent erosion. • Ensure that topsoil heaps do not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. • Keep temporary stockpiles free of invasive plant species. • Divert storm- and runoff water around the stockpile area (if applicable) to prevent erosion. • Spread the topsoil evenly over the rehabilitated area, to a depth of 300 mm, upon closure of the site.	• Adequate fertile topsoil is available to rehabilitate the mined area upon closure.

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
		• Strive to re-instate topsoil at a time of the year when vegetation cover can be established as quickly as possible afterwards, to that erosion of returned topsoil is minimized. The best time of year is at the end of the rainy season. • Plant and irrigate a cover crop immediately after spreading topsoil to stabilise the soil and protect it from erosion. Fertilise the cover crop for optimum biomass production. Rehabilitation extends until the first cover crop is well established. • Monitor the rehabilitated area for erosion, and appropriately stabilize if erosion do occur, for at least 12 months after reinstatement.	
HYDROLOGY Storm water management.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Divert storm water around the topsoil heaps to prevent erosion. • Conduct activity in terms of the Best Practice Guidelines for small-scale mining as developed by DWS.	• Impact to the environment caused by storm water discharge is avoided.
GROUNDCOVER Mitigating invader plants.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Implement an invasive plant species management plan to control all invasive plant species on site in terms of NEM:BA, 2004 and CARA, 1983. • Keep all stockpiles (topsoil) if any free of invasive plant species. • Control declared invader or exotic species on the rehabilitated areas.	• Prospecting area is kept free of invasive plant species.
FAUNA Mitigating the fauna component.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Ensure no fauna is caught, killed, harmed, sold or played with. • Instruct workers to report any animals that may be trapped in the working area. • Ensure no snares are set or nests raided for eggs or young.	• Disturbance to fauna is minimised.

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
		• Prospecting areas should be done in consultation with the land owner in order to insure the safety and security of animals that might occur in the prospecting areas.	
CULTURE/HERITAGE Mitigating cultural/heritage aspects.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Confine all prospecting to the approved footprint area. • Implement the following change find procedure when discoveries are made on site: ▪ If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager. ▪ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area. ▪ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify SAHRA. ▪ Work may only continue once the go-ahead was issued by SAHRA.	• Impact to cultural/heritage resources is avoided or at least minimised.
EXISTING INFRASTRUCTURE Control of access road.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Divert storm water around the access road to prevent erosion. • Restrict vehicular movement to the existing access road to prevent crisscrossing of tracks through undisturbed areas. • Repair rutting and erosion of the access road caused as a direct result of the prospecting activities.	• The access road remains accessible to the road users during the operational phase, and upon closure the road is returned in a better, or at least the same state as received by the prospecting right holder.

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
GENERAL Waste management	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Ensure regular vehicle maintenance, repairs and services takes place at the off-site workshop and service area of the right holder, and that none of the above is allowed in the on the farms. When a breakdown occurs in the prospecting area, arrange for the removal of the machine within 6 hours to a recognised workshop where it can be mended. • Provide ablution facilities in the form of a chemical toilet that is placed outside the 1:100 year floodline of any open water source. Ensure the toilet is serviced at least once every two weeks for the duration of the prospecting activities. • Ensure that the use of any temporary, chemical toilet facilities does not cause any pollution to water sources or pose a health hazard. In addition, ensure that no form of secondary pollution arise from the disposal of refuse or sewage from the temporary, chemical toilets. Address any pollution problems arising from the above immediately. • Equip the diesel bowser with a drip tray if used on site. The nozzle of the bowser must rest in a sleeve to prevent dripping after refuelling. • Clean drip trays after use. Do not use dirty drip trays. • Keep a spill kit on site. • Collect any effluents containing oil, grease or other industrial substances in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. • Collect the contaminated soil from spillage that occurred, such as oil or diesel leaking from a burst pipe, within the first hour of occurrence, in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. File proof. • Compile a waste management plan and implement it on site. The plan must focus on the waste hierarchy of the NEM:WA.	• Wastes are appropriately stored, handled and safely disposed of at a recognised waste facility.

MANAGEMENT OBJECTIVES	ROLE	MANAGEMENT ACTION	MANAGEMENT OUTCOME
		• Contain general waste in marked, sealable, refuse bins placed at a designated area and remove waste from the prospecting area to a recognised general waste landfill site. • Prevent the burning or burying of waste on site. • Report any significant spillage of chemicals, fuels etc. during the lifespan of the prospecting activities to the Department of Water and Sanitation and other relevant authorities. • Park the drill machinery at the prospecting area with drip trays placed underneath stationary vehicles.	
GENERAL Health and safety aspects.	Site Manager to ensure compliance with the guidelines as stipulated in the EMPR. Compliance to be monitored by the Environmental Control Officer.	• Ensure adequate ablution facilities and water for human consumption is daily available on site. • Ensure that workers have access to the correct PPE as required by law. • Manage all operations in compliance with the Mine Health and Safety Act, 1996 (Act No 29 of 1996).	• Employees work in a healthy and safe environment.

n) Aspects for inclusion as conditions of Authorisation.

Any aspects which must be made conditions of the Environmental Authorisation

The management objectives listed in this report under *Part A(1)(m) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPR* above should be considered for inclusion in the environmental authorisation.

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

(Which relate to the assessment and mitigation measures proposed)

The assumptions made in this document which relate to the assessment and mitigation measures proposed, stem from site specific information gathered from site inspections, desktop studies as well as the specialist study. No uncertainty regarding the proposed project or the receiving environment could be identified.

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

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

Should the mitigation measures and monitoring programmes proposed in this document be implemented on site, no fatal flaws could be identified that were deemed as severe as to prevent the activity continuing.

ii) Conditions that must be included in the authorisation

The management objectives listed in this report under *Part A(1)(m) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPR* should be considered for inclusion in the environmental authorisation.

q) Period for which the Environmental Authorisation is required.

The Applicant requests the Environmental Authorisation to be valid for a five-year period to correspond with the validity of the prospecting right.

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.

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.

s) Financial Provision

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

i) Explain how the aforesaid amount was derived

The amount required to manage and rehabilitate the environment was estimated to be R 84 828.63. As indicated the prospecting activities will be done in phases of 4 areas consisting of a total of 9 drilling prospecting boreholes comprising and area of less than 400 square meters per site with a total of less than 0.4 ha disturbed at any given time. Prior to moving to the next drill block these sites will have to be fully rehabilitated as per the mitigation measures set out in this document as well as in consultation with the landowner / landowners.

ii) Confirm that this amount can be provided 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).

Lomeza Opencast Operations (Pty) Ltd will be responsible for the financial and technical aspects of the proposed prospecting project. The operating expenditure is provided for as such in the Prospecting Work Programme attached as Appendix K to this report.

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)

The following potential impacts were identified that may impact on socio-economic conditions of directly affected persons:

- **Visual intrusion associated with the proposed prospecting activities:**

  The viewshed analysis showed that the visual impact of the proposed prospecting operation will be of low significance. The small scale of the proposed operation contributes to the low visual significance. Should the Applicant successfully rehabilitate the prospecting areas (upon closure), no residual visual impact is expected upon closure of the prospecting activities.

- **Dust nuisance caused as a result of the proposed prospecting activities:**

The proposed activity will contribute the emissions of one excavator, one front-end-loader and two tippers to the receiving environment for the duration of the operational phase. Should the prospecting right holder implement the mitigation measures proposed in this document and the EMPR the impact on the air quality of the surrounding environment is deemed to be of low significance and compatible with the current land use.

- **Noise nuisance as a result of prospecting activities:**

The potential impact on the noise ambiance of the receiving environment is expected to be of low significance and representative of the machinery already operational at the property. The distance of the proposed prospecting area from residential infrastructure further lessens the potential noise impact.

- **Employment opportunities and socio-economic impact:**

The proposed labour component of the activity will be four employees. The operation will contribute to the local economy in the area, both directly and through the multiplier effect that its continued presence will create.

Equipment and supplies will be purchased locally, and wages are spent at local businesses, generating both jobs and income in the area. Although the employees are not resident on the site, they will be from the surrounding community.

(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 the 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).

The proposed site falls in the surrounding area of the Komjekejeke Heritage site therefore a Heritage Impact Assessment will be conducted as soon as access to the site was granted by the landowners. The Applicant will implement a chance-find protocol on site for the duration of the site establishment, operational- and decommissioning phase.

The South African Heritage Resources Agency (SAHRA) compiled the Palaeontological (fossil) Sensitivity Map (PSM) to guide developers, heritage officers and practitioners in screening paleontologically sensitive areas at the onset of a project. When the footprint of the earmarked prospecting area is placed on the PSM, it shows the study area to extend over an area of insignificant/zero concern.

u) Other matters required in terms of section 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)

Site Alternative 1, which entails the prospecting area in which drilling sites can be moved to various positions in consultation with the land owners depending on sensitivity and accessibility. However, the proposed prospecting area was identified as the preferred and only viable site alternative. In light of this, S1 was identified during the assessment phase of the environmental impact assessment, by the Applicant and project team due to the following:

- The geological setting of the area of interest is mainly covered by Ecca Group rocks, shale, shaly sandstone, grit, sandstone, conglomerate, coal in places near base and top.
- Availability of the coal resource will only be determined should prospecting the prospecting right be granted and drilling can take place.

No-go Alternative: The no-go alternative entails no change to the *status quo* and is therefore a real alternative that must be considered.

- The applicant will not be able to prospect for any possible coal resource;
- The application, if approved, would allow the applicant to determine the available coal as well as provide employment opportunities to local employees.
- Should the no-go alternative be followed these opportunities will be lost to the applicant, potential employees and clients; and the applicant will not be able to diversify the income of the property.

Not proceeding with the proposed operation will entail that a mineral which if found will contribute towards the local and provincial social and economic structures of the area, will not be mined, and that this opportunity will be lost.

In light of this, the no-go alternative was no deemed to be the preferred alternative.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1. DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME.

a) Details of the EAP,

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

The details and expertise of Sonette Smit of Greenmined Environmental that acts as EAP on this project has been included in Part A Section 1(a) as well as Appendix M as required.

b) Description of the Aspects of the Activity

(Confirm that the requirements 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).

The aspects of the activity that are covered by the draft environmental management programme has been described and included 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)

As mentioned under Part A, section (1)(l)(ii) this map has been compiled and is attached as Appendix C to this document.

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 in 2.4 herein)

The end objective is for the prospecting area to return to agricultural use. No buildings/infrastructure, other than the chemical toilet and drill rig, need to be removed.

The decommissioning activities will consist of the following:

- Removal of all prospecting machinery from the prospecting area;
- Removal of the chemical toilet from the prospecting area;
- Landscaping and replacing the topsoil (if removed);
- Controlling the invasive plant species.

The Applicant will comply with the minimum closure objectives as prescribed DMR and detailed below:

- Rehabilitation of the Prospecting Area:

  Upon closure of the prospecting activities the Applicant will remove the drilling machinery from the area. The entrance into the river will remain, but should any signs of erosion occur, these will be reinstated and landscaped by the prospecting right holder.

- Final Rehabilitation:

  Final rehabilitation of the surface area shall entail landscaping, levelling, maintenance, and clearing of invasive plant species. All equipment, plant and other items used during the prospecting period will be removed from site (section 44 of the MPRDA, 2002). Waste material of any description will be removed entirely from the prospecting area and disposed of at a recognized landfill facility. It will not be permitted to be buried or burned on the site. The management of invasive plant species will be done in a sporadic manner during the life of the prospecting activities. Species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto) will be eradicated from the site. Final rehabilitation shall be completed within a period specified by the Regional Manager.

ii) Volume and rate of water use required for the operation

No water will be required during this operation

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

The Applicant will not require water use authorisation in terms of the NWA, 1998.

iv) Impacts to be mitigated in their respective phases

Table 24: Impact to be mitigated in their respective phases

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
(as listed in 2.11.1)	of operation in which activity will take place. State; Planning and design, Pre-Construction, Operational, Rehabilitation, Closure, Post closure	(volumes, tonnages and hectares or m^2)	(describe how each of the recommendations herein will remedy the cause of pollution or degradation and migration of pollutants)	(A description of how each of the recommendations herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)	Describe the time period when the measures in the environmental management programme must be implemented. Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. With regard to Rehabilitation, therefore state either – Upon cessation of the individual activity or Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Demarcation of site with visible beacons.	Planning and design / Site establishment phase	0.04 ha	Demarcation of the site will ensure that all employees are aware of the boundaries of the prospecting area, and that work stay within the approved area.	Prospecting of coal is only allowed within the boundaries of the approved area. • MPRDA, 2008 • NEMA, 1998	Beacons need to be in place throughout the life of the activity.
• Planning and design / Site establishment	Planning and design / Site establishment & Operational Phase	0.04 ha	**<u>Visual Mitigation</u>** • Prospecting must be contained to the boundaries of the authorised area. • The site must have a neat appearance and be kept in good condition at all times.	Management closure of prospecting area must be in accordance with the: • MPRDA, 2008 • NEMA, 1998	Throughout the planning and design / site establishment -, and operational phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			• The right holder must limit vegetation removal (if applicable), and stripping of topsoil may only be done immediately prior to the use of a specific area. • Upon closure the stockpile area must be rehabilitated and levelled to remove the visual impact on the aesthetic value of the area.		
• Planning and design / Site establishment	Planning and design / Site establishment phase	0.04 ha	**Impact on Biodiversity:** • The prospecting boundaries must be clearly demarcated and all operations must be contained to the approved prospecting area. • The area outside the prospecting boundaries must be declared a no-go area, and all employees must be educated accordingly. • The invasive plant species management plan attached as Appendix J must be implement on site to control weeds and invasive plants on denuded areas, topsoil heaps and reinstated areas.	Natural vegetated areas must be managed in accordance with the: • NEM:BA 2004 • Gauteng Biodiversity Plan	Throughout the Planning and design / Site establishment phase.
• Planning and design / Site establishment. • Sloping and landscaping upon closure of prospecting area.	Planning and design / Site establishment - and Decommissioning phase	0.04 ha	**Topsoil Management:** • The upper 300 mm of the soil must be stripped and stockpiled. • Topsoil is a valuable and essential resource for rehabilitation and it must therefore be managed carefully to conserve and maintain it throughout the stockpiling and rehabilitation processes. • Topsoil stripping, stockpiling and re-spreading must be done in a systematic way. The prospecting plan have to be such that topsoil is stockpiled for the minimum possible time.	Topsoil must be managed in accordance with the: • CARA, 1983 • NEM:BA, 2004 • MPRDA, 2008	Throughout the planning and design / Site establishment -, operational, and decommissioning phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			• The topsoil must be placed on a levelled area, within the prospecting footprint. No topsoil may be stockpiled in undisturbed areas. • Topsoil stockpiles must be protected against losses by water and wind erosion. Stockpiles must be positioned so as not to be vulnerable to erosion by wind and water. The establishment of plants (weeds or a cover crop) on the stockpiles will help to prevent erosion. • Topsoil heaps may not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. • The temporary topsoil stockpiles must be kept free of invasive plant species. • Storm- and runoff water must be diverted around the stockpile area to prevent erosion. • The stockpiled topsoil must be evenly spread, to a depth of 300 mm, over the rehabilitated area upon closure of the site. • The prospecting right holder must strive to re-instate topsoil at a time of year when vegetation cover can be established as quickly as possible afterwards, so that erosion of returned topsoil by both rain and wind, before vegetation is established, is minimized. The best time of year is at the end of the rainy season, when there is moisture in the soil for vegetation establishment and the risk of heavy rainfall events is minimal. • The rehabilitated area must be monitored for erosion, and appropriately stabilized if any erosion occurs for at least 12 months after reinstatement.		

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
• Planning and design / Site establishment. • Prospecting activities / drilling.. • Sloping and landscaping upon closure of prospecting area.	Planning and design / Site establishment -, Operational- and Decommissioning phase	0.04 ha	**Management of Invader Plant Species:** • An invasive plant species management plan (Appendix J) must be implemented at the site to ensure the management and control of all species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto). Weed/alien clearing must be done on an ongoing basis throughout the life of the prospecting activities. • All stockpiles (topsoil) must be kept free of invasive plant species. • Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used: ▪ The plants can be uprooted, felled or cut off and can be destroyed completely. ▪ The plants can be treated chemically by a registered pest control officer (PCO) through the use of an herbicide recommended for use by the PCO in accordance with the directions for the use of such an herbicide.	Invader plants must be managed in accordance with the: • CARA, 1983 • NEM:BA 2004 • Invasive Plant Species Management Plan (Appendix J)	Throughout the planning and design / site establishment -, operational, and decommissioning phase.
• Planning and design / Site establishment. • Prospecting activities / drilling.	Planning and design / Site establishment - and Operational phase	0.04 ha	**Protection of Fauna:** • The site manager must ensure no fauna is caught, killed, harmed, sold or played with. • Workers must be instructed to report any animals that may be trapped in the working area. • No snares may be set or nests raided for eggs or young.	Fauna must be managed in accordance with the: • NEM:BA 2004	Throughout the planning and design / site establishment -, and operational phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			• Prospecting areas should be done in consultation with the land owner in order to insure the safety and security of animals that might occur in the prospecting areas.		
• Site establishment. • Prospecting activities / drilling.	Site Establishment-, Operational Phase	0.04 ha	**<u>Fugitive Dust Emission Mitigation:</u>** • The liberation of dust into the surrounding environment must be effectively controlled by the use of, inter alia, straw, water spraying and/or environmentally friendly dust-allaying agents that contains no PCB's (e.g. DAS products). • The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression. • Speed on the access road must be limited to 40 km/h to prevent the generation of excess dust. • Areas devoid of vegetation, which could act as a dust source, must be minimized and vegetation removal may only be done immediately prior to prospecting. • Loads must be flattened and covered to ensure that minimal spillage of material takes place during transportation, also preventing windblown dust. • Weather conditions must be taken into consideration upon commencement of daily operations. Limiting operations during very windy periods would reduce airborne dust and resulting impacts.	Dust generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1) • National Dust Control Regulations, GN No R827 • ASTM D1739 (SANS 1137:2012)	Throughout the planning and design / site establishment -, operational, and decommissioning phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			• All dust generating activities shall comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA (Act 39 of 2004) and ASTM D1739 (SANS 1137:2012).		
• Site establishment. • Prospecting activities / drilling.. • Sloping and landscaping upon closure of prospecting area.	Site Establishment-, Operational-, and Decommissioning Phase	0.04 ha	**Noise Handling:** • The prospecting right holder must ensure that employees and staff conduct themselves in an acceptable manner while on site. • No loud music may be permitted at the prospecting area. • All prospecting vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996). • Best practice measures shall be implemented in order to minimize potential noise impacts.	Noise generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1) • NRTA, 1996	Throughout the planning and design / site establishment -, operational-, and decommissioning phase.
• Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	Site Establishment-, Operational-, and Decommissioning Phase	0.04 ha	**Waste Management:** • Regular vehicle maintenance, repairs and services may only take place at the off-site workshop and service area of the prospecting right holder, and none of the above may be allowed on the prospecting right area. When a breakdown occurs in the prospecting right area, the right holder must arrange for the removal of the machine, within 6 hours, to a recognised workshop where it can be mended. • Ablution facilities must be provided in the form of a chemical toilet. The chemical toilet must be placed outside the 1:100 year floodline of	Prospecting related waste must be managed in accordance with the: • NWA, 1998 • NEM:WA, 2008 • NEM:WA, 2008: National norms and standards for the storage of waste (GN 926) • NEMA, 1998 (Section 30)	Throughout the planning and design / site establishment -, operational-, and decommissioning phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			any open water source, and must be serviced at least once every two weeks for the duration of the prospecting activities. • The use of any temporary, chemical toilet facilities may not cause any pollution to water sources or pose a health hazard. In addition, no form of secondary pollution should arise from the disposal of refuse or sewage from the temporary, chemical toilets. Any pollution problems arising from the above are to be addressed immediately by the prospecting right holder. • If a diesel bowser is used on site, it must be equipped with a drip tray at all times. Drip trays must be used during each and every refuelling event. The nozzle of the bowser needs to rest in a sleeve to prevent dripping after refuelling. • Site management must ensure drip trays are cleaned after each use. No dirty drip trays may be used on site. • A spill kit must be available on-site which can be operated by trained employees for the adhoc remediation of minor chemical and hydrocarbon spillages. • Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. • Should spillage occur, such as oil or diesel leaking from a burst pipe, the contaminated soil must, within the first hour of occurrence, be collected in a suitable receptacle and		

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			removed from the site, either for resale or for appropriate disposal at a recognized facility. Proof must be filed. • A waste management plan must be compiled by site management and implemented on site. The plan must focus on the waste hierarchy of the NEM:WA. • General waste must be contained in marked, sealable, refuse bins placed at a designated area, to be removed when filled to capacity to a recognised general waste landfill site. • No waste may be buried or burned on the site. • No chemicals or hazardous materials may be stored at the prospecting area. • It is important that any significant spillage of chemicals, fuels etc. during the lifespan of the prospecting activities is reported to the Department of Water and Sanitation and other relevant authorities. • To lower the risk of accidental hydrocarbon spillages all machinery must be parked at the prospecting area with drip trays placed underneath stationary vehicles.		
• Propspecting of coal.	Operational Phase	0.04 ha	**Archaeological, Heritage and Palaeontological Aspects:** • All prospecting must be confined to the development footprint area. • If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds	Cultural/heritage aspects must be managed in accordance with the: • NHRA, 1999	Throughout the operational phase.

ACTIVITIES	PHASE	SIZE AND SCALE OF DISTURBANCE	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
			any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager. • It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area. • The senior on-site Manager must inform the ECO of the chance find and its immediate impact on operations. The ECO must then contact a professional archaeologist for an assessment of the finds who must notify SAHRA. • Work may only continue once the go-ahead was issued by SAHRA.		
• Planning and design / Site establishment. • Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	Planning and design / Site establishment -, Operational-, and Decommissioning phase	2.8 ha	**Management of Health and Safety Risks:** • Adequate ablution facilities and water for human consumption must daily be available on site. • Workers must have access to the correct personal protection equipment (PPE) as required by law. • All operations must comply with the Mine Health and Safety Act, 1996 (Act No 29 of 1996).	Health and safety aspects must be managed in accordance with the: • MHSA, 1996 • OHSA, 1993 • OHSAS, 18001	Throughout the planning and design / site establishment -, operational and decommissioning phase.

e) Impact Management Outcomes

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

Table 25: Impact Management Outcomes

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.
• Demarcation of site with visible beacons.	• No impact could be identified other than the beacons being outside the boundaries of the approved prospecting area.	N/A	Planning and design / Site establishment phase	Control through management and monitoring.	Prospecting of coal is only allowed within the boundaries of the approved area. • MPRDA, 2008 • NEMA, 1998
• Planning and design / Site establishment	• Visual intrusion as a result of site establishment.	The visual impact may affect the aesthetics of the landscape.	Planning and design / Site establishment & Operational Phase	<u>Control:</u> Implementing proper housekeeping.	Management closure of prospecting area must be in accordance with the: • MPRDA, 2008 • NEMA, 1998
• Planning and design / Site establishment • Prospecting activities / drilling.	• Loss of topsoil and fertility during prospecting and	Loss of topsoil will affect the rehabilitation	Planning and design / Site establishment & Operational Phase -	<u>Control & Remedy:</u> Proper housekeeping and storm water management.	Topsoil must be managed in accordance with the: • CARA, 1983 • NEM:BA, 2004

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
• Sloping and landscaping upon closure of prospecting area.	stockpiling (stockpile area) • Loss of stockpiled material due to ineffective storm water control. • Erosion of returned topsoil after rehabilitation (stockpile area)	success upon closure of the mine.	and Decommissioning phase		• MPRDA, 2008
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Infestation of the topsoil heaps and prospecting area with invader plant species. • Infestation of denuded areas with invader plant species • Infestation of the reinstated area with invader plant species.	This will impact on the biodiversity of the receiving environment.	Planning and design / Site establishment & Operational Phase - and Decommissioning phase	Control: Implementing soil- and storm water management.	Invader plants must be managed in accordance with the: • CARA, 1983 • NEM:BA 2004 • Invasive Plant Species Management Plan (Appendix J)
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Potential impact on fauna (terrestrial) within the footprint area.	This will impact on the biodiversity of the receiving environment.	Planning and design / Site establishment & Operational Phase - and Decommissioning phase	Control & Stop: Implementing good management practices.	Fauna must be managed in accordance with the: • NEM:BA 2004
• Planning and design / Site establishment	• Dust nuisance as a result of the prospecting activities.	Increased dust generation will impact on the air	Planning and design / Site establishment & Operational Phase -	Control: Dust suppression methods and proper housekeeping.	Dust generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1)

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
• Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Dust nuisance as a result of the prospecting activities.	quality of the receiving environment.	and Decommissioning phase		• National Dust Control Regulations, GN No R827 • ASTM D1739 (SANS 1137:2012)
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Noise nuisance as a result of the prospecting activities. • Noise nuisance as a result of the decomissiononig activities.	Should noise levels become excessive it may have an impact on the noise ambiance of the receiving environment.	Planning and design / Site establishment & Operational Phase - and Decommissioning phase	<u>Control:</u> Noise suppression methods and proper housekeeping.	Noise generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1) • NRTA, 1996
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area	• Soil contamination from hydrocarbon spills. • Potential impact assocaited with littering and hydrocarbon spills. • Potential impact associated with litter left at the prospecting area.	Contamination of the footprint area will negatively impact the soil, surface runoff and potentially the groundwater. It will also incur additional costs to the prospecting right holder.	Planning and design / Site establishment & Operational Phase - and Decommissioning phase	<u>Control & Remedy:</u> Proper housekeeping and implementation of an emergency response plan and waste management plan.	Prospecting related waste must be managed in accordance with the: • NWA, 1998 • NEM:WA, 2008 • NEM:WA, 2008: National norms and standards for the storage of waste (GN 926) • NEMA, 1998 (Section 30)
• Prospecting activities / drilling.	• Potential impact on area/infrastructure of heritage or cultural concern.	This could impact on the cultural and heritage legacy of the receiving environment.	Operational Phase	<u>Control & Stop:</u> Implementing good management practices, as well as the chance-find protocol.	Cultural/heritage aspects must be managed in accordance with the: • NHRA, 1999

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
• Prospecting activities / drilling.	• Deterioration of the access road to the prospecting area.	Collapse of the road infrastructure will affect the landowner.	Operational Phase	Control & Remedy: Maintaining the access road for the duration of the operational phase, as well as leaving it in a representative or better condition than prior to prospecting.	The access road must be managed in accordance with the: • NRTA, 1996

f) Impact Management Actions

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

Table 26: Impact Management Actions

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)
▪ Demarcation of site with visible beacons.	▪ No impact could be identified other than the beacons being outside the boundaries of the approved prospecting area.	Demarcation of the site will ensure that all employees are aware of the boundaries of the prospecting area, and that work stay within the approved area.	Beacons need to be in place throughout the life of the activity.	Prospecting of coal is only allowed within the boundaries of the approved area. ▪ MPRDA, 2008 ▪ NEMA, 1998
▪ Prospecting activities / drilling.	▪ Visual intrusion as a result of site establishment.	**<u>Visual Mitigation</u>** ▪ Prospecting must be contained to the boundaries of the permitted area.	Throughout the operational Phase - and Decommissioning phase.	Management of the prospecting area must be in accordance with the: ▪ MPRDA, 2008

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
▪ Sloping and landscaping upon closure of the prospecting area		▪ The site must have a neat appearance and be kept in good condition at all times. ▪ The prospecting right holder must limit vegetation removal (if applicable), and stripping of topsoil may only be done immediately prior to the use of a specific area. ▪ Upon closure the stockpile area must be rehabilitated and levelled to remove the visual impact on the aesthetic value of the area.		▪ NEMA, 1998
▪ Prospecting activities / drilling. ▪ Sloping and landscaping upon closure of the prospecting area.	▪ Loss of topsoil and fertility during prospecting ▪ Loss of stockpiled material due to ineffective storm water control. ▪ Erosion of returned topsoil after rehabilitation	**<u>Topsoil Management:</u>** ▪ The upper 300 mm of the soil must be stripped and stockpiled. ▪ Topsoil is a valuable and essential resource for rehabilitation and it must therefore be managed carefully to conserve and maintain it throughout the stockpiling and rehabilitation processes. ▪ Topsoil stripping, stockpiling and re-spreading must be done in a systematic way. The prospecting plan have to be such that topsoil is stockpiled for the minimum possible time. ▪ The topsoil must be placed on a levelled area, within the prospecting footprint. No topsoil may be stockpiled in undisturbed areas. ▪ Topsoil stockpiles must be protected against losses by water and wind erosion. Stockpiles must be positioned so as not to be vulnerable to erosion by wind and water. The establishment of plants (weeds or a cover crop) on the stockpiles will help to prevent erosion.	Throughout the operational, and decommissioning phase.	Topsoil must be managed in accordance with the: ▪ CARA, 1983 ▪ NEM:BA, 2004 ▪ MPRDA, 2008

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		• Topsoil heaps may not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. • The temporary topsoil stockpiles must be kept free of invasive plant species. • Storm- and runoff water must be diverted around the stockpile area to prevent erosion. • The stockpiled topsoil must be evenly spread, to a depth of 300 mm, over the rehabilitated area upon closure of the site. • The prospecting right holder must strive to re-instate topsoil at a time of year when vegetation cover can be established as quickly as possible afterwards, so that erosion of returned topsoil by both rain and wind, before vegetation is established, is minimized. The best time of year is at the end of the rainy season, when there is moisture in the soil for vegetation establishment and the risk of heavy rainfall events is minimal. • A cover crop must be planted, irrigated and established immediately after spreading of topsoil, to stabilize the soil and protect it from erosion. The cover crop must be fertilized for optimum biomass production. It is important that rehabilitation be taken up to the point of cover crop stabilization. Rehabilitation cannot be considered complete until the first cover crop is well established. • The rehabilitated area must be monitored for erosion, and appropriately stabilized if any erosion occurs for at least 12 months after reinstatement.		

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
• Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Infestation of the topsoil heaps and prospecting area with invader plant species. • Infestation of denuded areas with invader plant species • Infestation of the reinstated area with invader plant species.	**Management of Invader Plant Species:** • An invasive plant species management plan (Appendix J) must be implemented at the site to ensure the management and control of all species regarded as Category 1a and 1b invasive species in terms of NEM:BA (National Environmental Management: Biodiversity Act 10 of 2004 and regulations applicable thereto). Weed/alien clearing must be done on an ongoing basis throughout the life of the prospecting activities. • All stockpiles (topsoil) must be kept free of invasive plant species. • Management must take responsibility to control declared invader or exotic species on the rehabilitated areas. The following control methods can be used: ▪ The plants can be uprooted, felled or cut off and can be destroyed completely. ▪ The plants can be treated chemically by a registered pest control officer (PCO) through the use of an herbicide recommended for use by the PCO in accordance with the directions for the use of such an herbicide.	Throughout the operational, and decommissioning phase.	Invader plants must be managed in accordance with the: • CARA, 1983 • NEM:BA 2004 • Invasive Plant Species Management Plan (Appendix J)
• Planning and design / Site establishment • Prospecting activities / drilling.	• Potential impact on fauna (terrestrial) within the footprint area.	**Protection of Fauna:** • The site manager must ensure no fauna is caught, killed, harmed, sold or played with. • Workers must be instructed to report any animals that may be trapped in the working area. • No snares may be set or nests raided for eggs or young.	Throughout the site establishment-, operational-, and decommissioning phase.	Fauna must be managed in accordance with the: • NEM:BA 2004

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
• Sloping and landscaping upon closure of prospecting area.		• Prospecting areas should be done in consultation with the land owner in order to insure the safety and security of animals that might occur in the prospecting areas.		
• Prospecting activities / drilling. • Sloping and landscaping upon closure of prospecting area.	• Dust nuisance as a result of the prospecting activities. • Dust nuisance as a result of the prospecting activities.	**<u>Fugitive Dust Emission Mitigation:</u>** • The liberation of dust into the surrounding environment must be effectively controlled by the use of, inter alia, straw, water spraying and/or environmentally friendly dust-allaying agents that contains no PCB's (e.g. DAS products). • The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression. • Speed on the access road must be limited to 40 km/h to prevent the generation of excess dust. • Areas devoid of vegetation, which could act as a dust source, must be minimized and vegetation removal may only be done immediately prior to prospecting. • Loads must be flattened and covered to ensure that minimal spillage of material takes place during transportation, also preventing windblown dust. • Weather conditions must be taken into consideration upon commencement of daily operations. Limiting operations during very windy periods would reduce airborne dust and resulting impacts.	Throughout the operational, and decommissioning phase.	Dust generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1) • National Dust Control Regulations, GN No R827 • ASTM D1739 (SANS 1137:2012)

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		• All dust generating activities shall comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA (Act 39 of 2004) and ASTM D1739 (SANS 1137:2012).		
• Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	• Noise nuisance as a result of the prospecting activities. • Noise nuisance as a result of the decomissiononig activities.	**Noise Handling:** • The prospecting right holder must ensure that employees and staff conduct themselves in an acceptable manner while on site. • No loud music may be permitted at the prospecting area. • All prospecting vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996). • Best practice measures shall be implemented in order to minimize potential noise impacts. • A qualified occupational hygienist must be contracted to quarterly monitor and report on the personal noise exposure of the employees working at the mine. The monitoring must be done in accordance with the SANS 10083:2004 (Edition 5) sampling method as well as NEM:AQA, 2004, SANS 10103:2008.	Throughout the site establishment-, operational-, and decommissioning phase.	Noise generation must be managed in accordance with the: • NEM:AQA. 2004 Regulation 6(1) • NRTA, 1996
• Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	• Soil contamination from hydrocarbon spills. • Potential impact assocaited with littering and hydrocarbon spills.	**Waste Management:** • Regular vehicle maintenance, repairs and services may only take place at the off-site workshop and service area. When a breakdown occurs, the prospecting right holder must arrange for the removal of the	Throughout the Operational-, and decommissioning phase.	Prospecting related waste must be managed in accordance with the: • NWA, 1998 • NEM:WA, 2008

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
	Potential impact associated with litter left at the prospecting area.	machine, within 6 hours, to a recognised workshop where it can be mended. Ablution facilities must be provided in the form of a chemical toilet. The chemical toilet must be placed outside the 1:100 year floodline of any open water source, and must be serviced at least once every two weeks for the duration of the prospecting activities. The use of any temporary, chemical toilet facilities may not cause any pollution to water sources or pose a health hazard. In addition, no form of secondary pollution should arise from the disposal of refuse or sewage from the temporary, chemical toilets. Any pollution problems arising from the above are to be addressed immediately by the prospecting right holder. If a diesel bowser is used on site, it must be equipped with a drip tray at all times. Drip trays must be used during each and every refuelling event. The nozzle of the bowser needs to rest in a sleeve to prevent dripping after refuelling. Site management must ensure drip trays are cleaned after each use. No dirty drip trays may be used on site. A spill kit must be available on-site which can be operated by trained employees for the adhoc remediation of minor chemical and hydrocarbon spillages. Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility.		NEM:WA, 2008: National norms and standards for the storage of waste (GN 926) NEMA, 1998 (Section 30)

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		• Should spillage occur, such as oil or diesel leaking from a burst pipe, the contaminated soil must, within the first hour of occurrence, be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. Proof must be filed. • A waste management plan must be compiled by site management and implemented on site. The plan must focus on the waste hierarchy of the NEM:WA. • General waste must be contained in marked, sealable, refuse bins placed at a designated area, to be removed when filled to capacity to a recognised general waste landfill site. • No waste may be buried or burned on the site. • No chemicals or hazardous materials may be stored at the prospecting area. • It is important that any significant spillage of chemicals, fuels etc. during the lifespan of the prospecting activities is reported to the Department of Water and Sanitation and other relevant authorities. • All machinery must be parked at the stockpile area with drip trays placed underneath stationary vehicles.		

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
▪ Prospecting activities / drilling.	▪ Potential impact on area/infrastructure of heritage or cultural concern.	**Archaeological, Heritage and Palaeontological Aspects:** ▪ All prospecting must be confined to the application footprint area. ▪ If during the planning and design, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager. ▪ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area. ▪ The senior on-site Manager must inform the ECO of the chance find and its immediate impact on operations. The ECO must then contact a professional archaeologist for an assessment of the finds who must notify SAHRA. ▪ Work may only continue once the go-ahead was issued by SAHRA.	Throughout the operational phase.	Cultural/heritage aspects must be managed in accordance with the: ▪ NHRA, 1999
▪ Prospecting activities / drilling.	▪ Loss of topsoil due to ineffective storm water control.	**Storm Water Mitigation:** ▪ Storm water must be diverted around the topsoil heaps and stockpile area to prevent erosion.	Throughout the operational phase.	Storm water must be managed in accordance with the: ▪ CARA, 1983 ▪ NEMA, 1998 ▪ NWA, 1998

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		• Prospecting must be conducted only in accordance with the Best Practice Guideline for small scale prospecting that relates to storm water management, erosion and sediment control and waste management, developed by the Department of Water and Sanitation (DWS), and any other conditions which that Department may impose: ▪ Clean water (e.g. rainwater) must be kept clean and be routed to a natural watercourse by a system separate from the dirty water system. You must prevent clean water from running or spilling into dirty water systems. ▪ Dirty water must be collected and contained in a system separate from the clean water system. ▪ Dirty water must be prevented from spilling or seeping into clean water systems. ▪ A storm water management plan must apply for the entire life cycle of the prospecting activity and over different hydrological cycles (rainfall patterns). ▪ The statutory requirements of various regulatory agencies and the interests of stakeholders must be considered and incorporated into a storm water management plan.		
• Prospecting activities / drilling.	• Deterioration of the access road to the prospecting area.	**<u>Access Road Mitigation:</u>** • Vehicular movement must be restricted to the existing access road to prevent crisscrossing of tracks through undisturbed areas.	Throughout the operational phase.	The access road must be managed in accordance with the: • NRTA, 1996

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		• Rutting and erosion of the access road caused as a direct result of the prospecting activities must be repaired by the prospecting holder.		
• Planning and design /Site establishment. • Prospecting activities / drilling • Sloping and landscaping upon closure of the prospecting area.	• Potential health and safety risk to employees.	**<u>Management of Health and Safety Risks:</u>** • Adequate ablution facilities and water for human consumption must daily be available on site. • Workers must have access to the correct personal protection equipment (PPE) as required by law. • All operations must comply with the Mine Health and Safety Act, 1996 (Act No 29 of 1996).	Throughout the planning and design / site establishment-, operational and decommissioning phase.	Health and safety aspects must be managed in accordance with the: • MHSA, 1996 • OHSA, 1993 • OHSAS, 18001

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.

The primary objective is to obtain a closure certificate at the end of the life of the mine at minimum cost and in as short a time period as possible whilst still complying with the requirements of the Minerals and Petroleum Resources Development Act. To realise this, the following objectives must be achieved:

- Remove all temporary infrastructure and waste from the site as per the requirements of this EMPR and of the Provincial Department of Mineral Regulation;
- Demolish / rehabilitate all roads with no post -prospecting use potential;
- Clear all carbonaceous material from site;
- Remove all waste from site;
- Any wetlands in the area should not be compromised or destructed;
- Future public health and safety are not compromised;
- Ensure that no threat to surface and underground water quality remains;
- Ensure that all permanent changes in topography are sustainable and do not cause erosion or the damming up of runoff;
- Shape and contour all disturbed areas in compliance with the EMPR;
- The stockpiled topsoil will be spread over the disturbed area to a depth of at least 500 mm;
- Make safe any dangerous excavations or subsidence on the surface;
- Rehabilitate all disturbed areas in compliance with the EMPR and of the Provincial Department of Mineral Regulation;
- Ensure that all rehabilitated areas are safe, stable and self-sustaining in terms of vegetation;
- Control of weeds and alien invasive plant species is an important aspect after topsoil replacement and seeding has been done in an area;

- Site management will implement an alien invasive plant management plan during the 12 months' aftercare period to address germination of problem plants in the area;
- The applicant will comply with the minimum closure objectives as prescribed by DMRE;
- Any adverse socio-economic impacts are minimised; and
- All socio-economic benefits are maximised

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

This report, the Draft Basic Assessment Report, includes all the environmental objectives in relation to closure and will be made available for perusal by the landowner, registered I&AP's and stakeholders over a 30-days commenting period.

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

The requested rehabilitation plan is attached as Appendix E.

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

The decommissioning phase will entail the final rehabilitation of the prospecting site. Final landscaping, levelling and top dressing will be done. The rehabilitation of the prospecting area as indicated on the rehabilitation plan attached as Appendix E will comply with the minimum closure objectives as prescribed by DMRE and detailed below, and therefore is deemed to be compatible:

- Rehabilitation of the surface area shall entail landscaping, levelling, top dressing, land preparation, seeding and maintenance, and weed / alien clearing.
- All Temporary Infrastructures, equipment, plant, temporary housing and other items used during the prospecting period will be removed from the site.
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the prospecting area and disposed of at a recognized landfill facility, proof of this removal will be kept on file at the applicant's office. It will not be permitted to be buried or burned on the site.
- Weed / Alien clearing will be done in a sporadic manner during the life of the prospecting activities. Species regarded as the National Environmental Biodiversity Act [NEMBA] (Act No. 10 of 2004) Alien and Invasive Species Regulation GNR 598 and 599 of 2014 Species regarded as need to be eradicated from the site on final closure.
- Final rehabilitation shall be completed within a period specified by the Regional Manager.

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

The calculation of the quantum for financial provision was according to Section B of the working manual.

Mine type and saleable mineral by-product

According to Tables B.12, B.13 and B.14

Mine type	Coal
Saleable mineral by-product	None

Risk ranking

According to Tables B.12, B.13 and B.14

Primary risk ranking (either Table B.12 or B.13)	C (Low risk).
Revised risk ranking (B.14)	N/A

Environmental sensitivity of the mine area

According to Table B.4

Environmental sensitivity of the mine area	Low

Level of information

According to Step 4.2:

Level of information available	Limited

Identify closure components

According to Table B.5 and site-specific conditions

Component No.	Main description	Applicability of closure components (Circle Yes or No)	
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)	-	NO
2(A)	Demolition of steel buildings and structures	-	NO
2(B)	Demolition of reinforced concrete buildings and structures	-	NO
3	Rehabilitation of access roads	-	NO
4(A)	Demolition and rehabilitation of electrified railway lines	-	NO
4(B)	Demolition and rehabilitation of non-electrified railway lines	-	NO

Component No.	Main description	Applicability of closure components (Circle Yes or No)	
5	Demolition of housing and facilities	-	NO
6	Opencast rehabilitation including final voids and ramps	-	NO
7	Sealing of shafts, adits and inclines	-	NO
8(A)	Rehabilitation of overburden and spoils	-	NO
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing)	-	NO
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich)	-	NO
9	Rehabilitation of subsided areas	-	NO
10	General surface rehabilitation, including grassing of all denuded areas	YES	-
11	River diversions	-	NO
12	Fencing	-	NO
13	Water management (Separating clean and dirty water, managing polluted water and managing the impact on groundwater)	-	NO
14	2 to 3 years of maintenance and aftercare	YES	NO

Unit rates for closure components

According to Table B.6 master rates and multiplication factors for applicable closure components.

Component No.	Main description	Master rate	Multiplication factor
1	Dismantling of processing plant and related structures (including overland conveyors and power lines)	-	-
2(A)	Demolition of steel buildings and structures	-	-
2(B)	Demolition of reinforced concrete buildings and structures	-	-
3	Rehabilitation of access roads	-	-
4(A)	Demolition and rehabilitation of electrified railway lines	-	-
4(B)	Demolition and rehabilitation of non-electrified railway lines	-	-
5	Demolition of housing and facilities	-	-
6	Opencast rehabilitation including final voids and ramps	-	-
7	Sealing of shafts, adits and inclines	-	-
8(A)	Rehabilitation of overburden and spoils	-	-
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing)	-	-
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich)	-	-

Component No.	Main description	Master rate	Multiplication factor
9	Rehabilitation of subsided areas	-	-
10	General surface rehabilitation, including grassing of all denuded areas	126 059	1.00
11	River diversions	-	-
12	Fencing	-	-
13	Water management (Separating clean and dirty water, managing polluted water and managing the impact on groundwater)	-	-
14	2 to 3 years of maintenance and aftercare	16 776	1.00

Determine weighting factors

According to Tables B.7 and B.8

Weighting factor 1: Nature of terrain/accessibility	1.00 (Flat)
Weighting factor 2: Proximity to urban area where goods and services are to be supplied	1.05

Calculation of closure costs

Table B.10 Template for Level 2: "Rules-based" assessment of the quantum for financial provision

Table 27: Calculation of closure cost

CALCULATION OF THE QUANTUM							
Mine:	Lomeza Opencast Operations (Pty) Ltd - Ekuphumuleni			**Location:**	Cullinun		
Evaluators:	Sonette Smit			**Date:**	21 August 2020		
No	**Description**	**Unit**	**A Quantity**	**B Master rate**	**C Multiplication factor**	**D Weighting factor 1**	**E=A *B*C*D Amount (Rand)**
			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)	m^2	0	17	1.00	1.00	R 0.00
2(A)	Demolition of steel buildings and structures	m^2	0	241	1.00	1.00	R 0.00
2(B)	Demolition of reinforced concrete buildings and structures	m^2	0	356	1.00	1.00	R 0.00
3	Rehabilitation of access roads	m^2	0	43	1.00	1.00	R 0.00
4(A)	Demolition and rehabilitation of electrified railway lines	m	0	419	1.00	1.00	R 0.00
4(B)	Demolition and rehabilitations of non-electrified railway lines	m	0	229	1.00	1.00	R 0.00
5	Demolition of housing and/or administration facilities	m^2	0	483	1.00	1.00	R 0.00
6	Opencast rehabilitation including final voids and ramps	ha	0	253 019	0.52	1.00	R 0.00
7	Sealing of shaft, audits and inclines	m^3	0	130	1.00	1.00	R 0.00
8(A)	Rehabilitation of overburden and spoils	ha	0	168 679	1.00	1.00	R 0.00
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing waste)	ha	0	210 087	1.00	1.00	R 0.00
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich waste)	ha	0	610 192	0.51	1.00	R 0.00
9	Rehabilitation of subsided areas	ha	0	141 244	1.00	1.00	R 0.00
10	General surface rehabilitation	ha	0.4	133 622	1.00	1.00	R 53 448.80
11	River diversions	ha	0	133 622	1.00	1.00	R 0.00

12	Fencing	m	0	152	1.00	1.00	R 0.00
13	Water Management	ha	0	50 807	0.17	1.00	R 0.00
14	2 to 3 years of maintenance and aftercare	ha	0.4	17782	1.00	1.00	R 7 112.80
15(A)	Specialists study	Sum	0				R 0.00
15(B)	Specialists study	Sum	0				R 0.00
Sum of items 1 to 15 above							R 60 561.60
Multiply Sum of 1-15 by Weighting factor 2 (Step 4.4)		1.05				**Sub Total 1**	R 63 589.68

1	Preliminary and General	6% of Subtotal 1 if Subtotal 1 <R100 000 000.00	R 3815.38
		12% of Subtotal 1 if Subtotal 1 >R100 000 000.00	-
2	Contingency	10.0% of Subtotal 1	R 6358.97
		Sub Total 2 (Subtotal 1 plus management and contingency)	R 73 764.03
		Vat (15%)	R11 064.60
		GRAND TOTAL (Subtotal 3 plus VAT)	**R 84 828.63**

The amount that will be necessary for the rehabilitation of damages caused by the operation, both sudden closures during the normal operation of the project and at final, planned closure gives a sum total of **R 84 828.63**.

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

Herewith I, the person, whose name is stated below confirm that I am the person authorised to act as representative of the Applicant in terms of the resolution submitted with the application. I herewith confirm that the company will provide the amount that will be determined by the Regional Manager in accordance with the prescribed guidelines.

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) Mechanisms for monitoring compliance

Table 28: Mechanisms for monitoring compliance with and performance assessment against the EMPR and reporting thereon.

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
• Demarcation of site with visible beacons	Maintenance of beacons	• Visible beacons need to be placed at the corners of the prospecting area.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Ensure beacons are in place throughout the life of the prospecting activities.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.
• Planning and design / Site establishment	**Visual Characteristics:** • Visual intrusion as a result of site establishment.	• Minimize the visual impact of the activity on the surrounding environment through proper site management and implementing good housekeeping practices.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Contain prospecting to the boundaries of the authorised area. • Ensure that the site have a neat appearance and is kept in good condition at all times.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
			• Limit vegetation removal, and only strip topsoil immediately prior to the use of a specific area. • Rehabilitate and level the site upon closure to ensure that the visual impact on the aesthetic value of the area is kept to a minimum.	
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	**Geology and Soil:** • Loss of topsoil and fertility during prospecting and stockpiling (stockpile area) • Loss of stockpiled material due to ineffective storm water control. • Erosion of returned topsoil after rehabilitation (stockpile area).	• Earthmoving equipment to reinstate mined-out areas. • Cover crop to be established on reinstated areas. • Erosion control infrastructure (if necessary)	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Strip and stockpile the upper 300 mm of the soil. • Carefully manage and conserve the topsoil throughout the stockpiling and rehabilitation process. • Ensure topsoil stripping, stockpiling and re-spreading is done in a systematic way. Plan prospecting in such a way that topsoil is stockpiled for the minimum possible time. • Place topsoil heaps on a levelled area within the prospecting footprint area. Do not stockpile topsoil in undisturbed areas. • Protect topsoil stockpiles against losses by water and wind erosion. Position stockpiles so as not to be vulnerable to erosion by wind and water. Establishment of plants on the stockpiles will help prevent erosion. • Ensure that topsoil heaps do not exceed 1.5 m in order to preserve micro-organisms within the topsoil, which can be lost due to compaction and lack of oxygen. • Keep temporary stockpiles free of invasive plant species.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
			• Divert storm- and runoff water around the stockpile area to prevent erosion. • Spread the topsoil evenly over the rehabilitated area, to a depth of 300 mm, upon closure of the site. • Strive to re-instate topsoil at a time of the year when vegetation cover can be established as quickly as possible afterwards, to that erosion of returned topsoil is minimized. The best time of year is at the end of the rainy season. • Plant and irrigate a cover crop immediately after spreading topsoil to stabilise the soil and protect it from erosion. Fertilise the cover crop for optimum biomass production. Rehabilitation extends until the first cover crop is well established. • Monitor the rehabilitated area for erosion, and appropriately stabilize if erosion do occur, for at least 12 months after reinstatement.	
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	**<u>Groundcover:</u>** • Infestation of the topsoil heaps and prospecting area with invader plant species. • Infestateion of denuded areas with invader plant species. • Infestation of the reinstated area with invader plant species.	• Designated team to cut or pull out invasive plant species that germinated on site. • Herbicide application equipment.	<u>Role:</u> • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. <u>Responsibility:</u> • Implement an invasive plant species management plan to control all invasive plant species on site in terms of NEM:BA, 2004 and CARA, 1983. • Keep all stockpiles (topsoil) free of invasive plant species. • Control declared invader or exotic species on the rehabilitated areas.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
• Planning and design / Site establishment. • Prospecting activities / drilling..	**Fauna:** • Potential impact on fauna (terrestrial) within the footprint area.	• Toolbox talks to educate employees how to handle fauna that enter the work areas.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Ensure no fauna is caught, killed, harmed, sold or played with. • Instruct workers to report any animals that may be trapped in the working area. • Ensure no snares are set or nests raided for eggs or young. • Prospecting areas should be done in consultation with the land owner in order to insure the safety and security of animals that might occur in the prospecting areas.	Applicable throughout planning and design / Site establishment -, and operational phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.
• Planning and design / Site establishment • Prospecting activities / drilling.	**Air Quality:** • Dust nuisance as a result of the prospecting activities.	• Dust suppression equipment such as a water car. • Signage that clearly reduce the speed on the access roads.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Control the liberation of dust into the surrounding environment by the use of; inter alia, straw, water spraying and/or environmentally friendly dust-allaying agents that contains no PCB's (e.g. DAS products). • Ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
			• Limit speed on the haul roads to 40 km/h to prevent the generation of excess dust. • Minimise areas devoid of vegetation. • Flatten and cover loads to prevent spillage and windblown dust during transportation. • Take weather conditions into consideration upon commencement of daily operations. Limit operations during very windy periods to reduce airborne dust and resulting impacts. • Ensure dust generating activities comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM:AQA, 2004 and ASTM D1739 (SANS 1137:2012). • Implement best practice measures during the stripping of topsoil, loading, and transporting of material from site to minimize potential dust impacts.	
• Planning and design / Site establishment • Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	**<u>Noise Ambiance:</u>** • Noise nuisance as a result of the prospecting activities. • Noise nuisance as a result of the decomissiononig activities.	• Silencers fitted to all project related vehicles, and the use of vehicles that are in road worthy condition in terms of the National Road Traffic Act, 1996.	<u>Role:</u> • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. <u>Responsibility:</u> • Ensure that employees and staff conduct themselves in an acceptable manner while on site. • No loud music may be permitted at the prospecting area. • Ensure that all project related vehicles are equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
			• Implement best practice measures to minimise potential noise impacts. • Contract a qualified occupational hygienist to quarterly monitor and report on the personal noise exposure of the employees working at the mine. Monitoring must be in accordance with SANS 10083:2004 (Edition 5) sampling method as well as NEM:AQA 2004, SANS 10103:2008.	
• Prospecting activities / drilling.. • Prospecting activities / drilling. • Sloping and landscaping upon closure of the prospecting area.	**Waste Management:** • Soil contamination from hydrocarbon spills. • Potential impact assocaited with littering and hydrocarbon spills. • Potential impact associated with litter left at the prospecting area.	• Oil spill kit. • Sealed drip trays. • Formal waste disposal system with waste registers.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Ensure regular vehicle maintenance, repairs and services takes place at the off-site workshop and service area. When a breakdown occurs, arrange for the removal of the machine within 6 hours to a recognised workshop where it can be mended. • Provide ablution facilities in the form of a chemical toilet that is placed outside the 1:100 year floodline of any open water source. Ensure the toilet is serviced at least once every two weeks for the duration of the prospecting activities. • Ensure that the use of any temporary, chemical toilet facilities does not cause any pollution to water sources or pose a health hazard. In addition, ensure that no form of secondary pollution arise from the disposal of refuse or sewage from the temporary, chemical toilets.	Applicable throughout planning and design / Site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
			Address any pollution problems arising from the above immediately. • Equip the diesel bowser with a drip tray if used on site. The nozzle of the bowser must rest in a sleeve to prevent dripping after refuelling. • Clean drip trays after use. Do not use dirty drip trays. • Keep a spill kit on site. • Collect any effluents containing oil, grease or other industrial substances in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. • Collect the contaminated soil from spillage that occurred, such as oil or diesel leaking from a burst pipe, within the first hour of occurrence, in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognized facility. File proof. • Compile a waste management plan and implement it on site. The plan must focus on the waste hierarchy of the NEM:WA. • Contain general waste in marked, sealable, refuse bins placed at a designated area and remove waste from the prospecting area to a recognised general waste landfill site. • Prevent the burning or burying of waste on site. • Report any significant spillage of chemicals, fuels etc. during the lifespan of the prospecting activities to the Department of Water and Sanitation and other relevant authorities.	
• Prospecting activities / drilling.	• Potential impact on areas/infrastructure of heritage or cultural concern.	• Contact number of an archaeologist that can be contacted when a discovery is made on site.	<u>Role:</u> • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR.	Applicable throughout planning and design / site establishment -, operational-, and decommissioning phases.

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
			• Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. <u>Responsibility:</u> • Confine all prospecting to the development footprint area. • Implement the following change find procedure when discoveries are made on site: ▪ If during the pre-construction phase, construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance or heritage site, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager. ▪ It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area. ▪ The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify SAHRA. ▪ Work may only continue once the go-ahead was issued by SAHRA.	• Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
• Prospecting activities / drilling.	**Hydrology:** • Storm water management	• Storm water management structures such as berms to direct storm- and runoff water around the stockpiled topsoil area (when needed).	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Control drainage to ensure that runoff from the stockpile area does not culminate in off-site pollution, flooding or result in damage to properties downstream or storm water discharge points. • Divert storm water around the topsoil heaps to prevent erosion. • Conduct activity in terms of the Best Practice Guidelines for small-scale mining as developed by DWS.	Applicable throughout planning and design / site establishment -, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.
• Prospecting activities / drilling.	**Existing Infrastructure:** • Deterioration of the access road to the prospecting area.	• Grader to restore the road surface when needed.	Role: • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. Responsibility: • Divert storm water around the access road to prevent erosion. • Restrict vehicular movement to the existing access road to prevent crisscrossing of tracks through undisturbed areas. • Repair rutting and erosion of the access road caused as a direct result of the prospecting activities.	Applicable throughout operational phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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
• Planning and design / Site establishment. • Prospecting activities / drilling... • Sloping and landscaping upon closure of the prospecting area.	• Potential health and safety risks to employees.	• Stocked first aid box. • Level 1 certified first aider. • All appointments in terms of the Mine Health and Safety Act, 1996.	<u>Role:</u> • Site Manager to ensure day-to-day compliance with the guidelines as stipulated in the EMPR. • Compliance to be monitored by the independent Environmental Control Officer during the annual environmental audit. <u>Responsibility:</u> • Ensure adequate ablution facilities and water for human consumption is daily available on site. • Ensure that workers have access to the correct PPE as required by law. • Manage all operations in compliance with the Mine Health and Safety Act, 1996 (Act No 29 of 1996).	Applicable throughout planning and design / site establishment, operational-, and decommissioning phases. • Daily compliance monitoring by site management. • Annual compliance monitoring of site by an Environmental Control Officer.

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

The Environmental Audit Report in accordance with Appendix 7 as prescribed in Regulation 34 of the EIA Regulations, 2014 (as amended) will annually be submitted to DMRE for compliance monitoring purposes or in accordance with the time period stipulated by the Environmental Authorisation.

m) Environmental Awareness Plan

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

Once the Applicant received the prospecting right and may commence with the proposed activity, a copy of the Environmental Management Programme will be handed to the site manager for his perusal. Issues such as the prospecting boundaries, fire principals and waste handling will be discussed.

An induction meeting will be held with all the site workers to inform them of the Basic Rules of Conduct with regard to the environment.

ii) Manner in which risk will be dealt with in order to avoid pollution or the degradation of the environment.

The operations manager must ensure that he/she understands the EMPR document and its requirement and commitments before any prospecting takes place. An Environmental Control Officer needs to check compliance of the prospecting activity to the management programmes described in the EMPR.

The following list represents the basic steps towards environmental awareness, which all participants in this project must consider whilst carrying out their tasks.

- **Site Management:**

  - Stay within boundaries of site – do not enter adjacent properties.
  - Keep tools and material properly stored.
  - Smoke only in designated areas.
  - Use toilets provided – report full or leaking toilets.

- **Water Management and Erosion:**

  - Check that rainwater flows around work areas and are not contaminated.
  - Report any erosion.
  - Check that dirty water is kept from clean water.

- **Waste Management:**

  - Take care of your own waste
  - Keep waste separate into labelled containers – report full bins.
  - Place waste in containers and always close lid.
  - Don't burn waste.
  - Pick-up any litter laying around.

- **Hazardous Waste Management (Petrol, Oil, Diesel, Grease)**

  - Never mix general waste with hazardous waste.
  - Use only sealed, non-leaking containers.
  - Keep all containers closed and store only in approved areas.
  - Always put drip trays under vehicles and machinery.
  - Empty drip trays after rain.
  - Stop leaks and spills, if safe:
    - ✓ Keep spilled liquids moving away.
    - ✓ Immediately report the spill to the site manager/supervision.
    - ✓ Locate spill kit/supplies and use to clean-up, if safe.
    - ✓ Place spill clean-up wastes in proper containers.
    - ✓ Label containers and move to approved storage area.

- **Discoveries:**

  - Stop work immediately.
  - Notify site manager/supervisor.
  - Includes – archaeological finds, cultural artefacts, contaminated water, pipes, containers, tanks and drums, any buried structures.

- **Air Quality:**

  - Wear protection when working in very dusty areas.
  - Implement dust control measures:
    - ✓ Water all roads and work areas.

- ✓ Minimize handling of material.
- ✓ Obey speed limit and cover trucks.

- **Driving and Noise:**

  - Use only approved access roads.
  - Respect speed limits.
  - Only use turn-around areas – no crisscrossing through undisturbed areas.
  - Avoid unnecessary loud noises.
  - Report or repair noisy vehicles.

- **Vegetation and Animal life:**

  - Do not remove any plants or trees without approval of the site manager.
  - Do not collect fire wood.
  - Do not catch, kill, harm, sell or play with any animal, reptile, bird or amphibian on site.
  - Report any animal trapped in the work area.
  - Do not set snares or raid nests for eggs or young.

- **Fire Management:**

  - Do not light any fires on site, unless contained in a drum at demarcated area.
  - Put cigarette butts in a rubbish bin.
  - Do not smoke near gas, paints or petrol.
  - Know the position of firefighting equipment.
  - Report all fires.
  - Don't burn waste or vegetation.

n) Specific information required by the Competent Authority

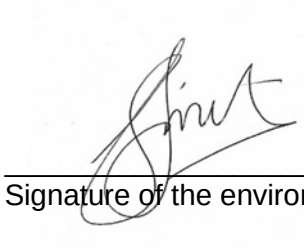
(Among others, confirm that the financial provision will be reviewed annually)

The Applicant undertakes to annually review and update the financial provision calculation, upon which it will be submitted to DMR for review and approved as being sufficient to cover the environmental liability at the time and for closure of the mine at that time.

2. UNDERTAKING

The EAP herewith confirms

a) the correctness of the information provided in the reports **X**
b) the inclusion of comments and inputs from stakeholders and I&AP's **X**
c) the inclusion of inputs and recommendations from the specialist reports where relevant, and **X**
d) that the information provided by the EAP to interested and affected parties and any response by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein **X**



Signature of the environmental assessment practitioner:

Greenmined Environmental (Pty) Ltd

Name of Company:

17 November 2020

Date:

-END-

APPENDIX A

REGULATION 2(2) MINE MAP

APPENDIX B
LOCALITY MAP

APPENDIX C
PROSPECTING ACTIVITIES PLAN

APPENDIX D

LAND USE MAP

APPENDIX E
REHABILITATION MAP

APPENDIX G1 & G2

COMMENTS AND RESPONSE REPORT

&

PROOF OF PUBLIC PARTICIPATION

APPENDIX H

SUPPORTING IMPACT ASSESSMENT

APPENDIX I

PHOTOGRAPHS OF THE PROPOSED SITE

APPENDIX J

INVASIVE PLANT SPECIES MANAGEMENT PLAN

APPENDIX K

PROSPECTING WORK PROGRAMME

APPENDIX K

DMRE ACCEPTANCE AND ACKNOWLEDGEMENT LETTERS

APPENDIX M
CV AND PROOF OF EXPERIENCE OF THE EAP