

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATION FOR PSEUDOCOAL AND TORBANITE/OIL SHALE RESOURCES ON ALL PORTIONS OF FARM KAFFERKRAAL 98 HT IN WAKKERSTROOM MAGISTERIAL DISTRICT, MPUMALANGA PROVINCE.

DMRE REF: MP 30/5/1/1/2/17543 PR

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PREPARED FOR:



**mineral resources
& energy**

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

2022



mineral resources & energy

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REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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

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File reference number SAMRAD: MP 30/5/1/1/2/17543 PR

DOCUMENT CONTROL

Project Title:	Prospecting Right Application on all the portions of the farm Kafferkraal 98 HT
Mineral	Pseudocoal and Torbanite/Oil shale
Site Location	Wakkerstroom Magisterial District, Mpumalanga Province.
Compiled on behalf of	Notre Coal (Pty) Ltd
Compiled By	Bongokuhle Sibiya
Reviewed By	Dr Kenneth Singo
Submitted to	Department of Mineral Resources and Energy
Date	2022

EXECUTIVE SUMMARY

Notre Coal (Pty) Ltd (the Applicant) has applied for a Prospecting Right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) and an Application for Environmental Authorization in terms of Chapter 6 of GNR 326 promulgated under the National Environmental Management Act (Act 107 of 1998) (NEMA) to prospect for coal resource.

The proposed project will aim to ascertain if economically viable mineral deposit exists within the application area. To undertake prospecting activities, Notre Coal (Pty) Ltd will require a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act No.28 of 2002). The Applicant is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998) which involves the submission of a Basic Assessment Report (BAR). Singo Consulting (Pty) Ltd has been appointed by Notre Coal (Pty) Ltd to compile the BAR (this report) in support of the Prospecting Right application submitted by Notre Coal (Pty) Ltd, which in turn will be submitted to the DMRE for adjudication.

This BAR has been designed to meet the requirements for a BAR and Environmental Management Programme report (EMPr) as stipulated in the 2014 EIA Regulations promulgated under the NEMA. The adjudicating authority for this Application will be the Department of Mineral Resources and Energy (DMRE), and this report has been compiled in accordance with the applicable DMRE guidelines and reporting template. A Prospecting Work Programme (PWP) has been developed to include both non-invasive and invasive prospecting activities. The target geological formation of the PWP is the Karoo Supergroup.

The proposed Prospecting Right Area is situated over the farm Kafferkraal 98 HT. The proposed prospecting area is located Approximately 1 km southeast of Dirkiesdorp, within the Dr Mkhondo Local Municipality under the Mkhondo Magisterial District, the project area can be accessed through the gravel road that extents from R543.

Public Participation Process commenced from the Newspaper that was published on the 05th of August 2022 to notify the public as the whole about the project, Emails were sent through the email on the 05th of August 2022, Mkhondo Local Municipality (Department Environment and Waste Management & Department of Town Planning and Mkhondo Pubic Library were consulted on the 12th of August 2022, Site Assessment was successfully conducted on the 13th of August 2022 and site conditions were

observed as follows, homesteads, water bodies with includes non- perennial stream and wetland, powerline, livestock, access road from R543 was observed on site. Consultation was undertaken with Interested and Affected Parties (I&Aps) with a coverage of 30km radius. People from Kwa-Ngema, Driefontein, Dirkiesdorp, Piet Retief, and farm dwellers were contacted, and an open public meeting with the community to be confirmed.

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LIST OF ABBREVIATIONS

BAR	: Basic Assessment Report
BID	: Background Information Document
CA	Competent Authority
CBA	Critical Biodiversity Area
DAFF	Department of Agriculture, Forestry and Fisheries
DEFF	Department of Environmental, Forestry and Fisheries
DMRE	: Department of Mineral Resources and Energy
DWS	: Department of Water and Sanitation
EA	: Environmental Authorisation
EAP	: Environmental Assessment Practitioner
EIA	: Environmental Impact Assessment
EIMS	: Environmental Impact Management Services
EMPr	: Environmental Management Programme Report
GIS	: Geographic Information System
I&AP	: Interest and Affected Party
MPRDA	: Mineral and Petroleum Resources Development Act
NEMA	: National Environmental Management Act
NEMWA	: National Environmental Management Waste Act
NWA	: National Water Act
PPP	: Public Participation Process
PRA	: Prospecting Right Application
PWP	: Prospecting Works Programme

DISCLAIMER

The opinion expressed in this, and associated reports are based on the information provided by Notre Coal (Pty) Ltd to Singo Consulting (Pty) Ltd ("Singo Consulting") and is specific to the scope of work agreed with Notre Coal (Pty) Ltd.

Singo Consulting acts as an advisor to the Notre Coal (Pty) Ltd and exercises all reasonable skill and care in the provision of its professional services in a manner consistent with the level of care and expertise exercised by members of the environmental profession.

Where site inspections, testing or fieldwork have taken place, the report is based on the information made available by Singo Consulting during the visit, visual observations and any subsequent discussions with regulatory authorities. The data and information used in this report were provided to Singo Consulting by the client and also referred to other outside sources (includes historical site investigation information and third-party expert research).

Singo Consulting (Pty) Ltd ("Singo Consulting") takes reasonable care and diligence when providing services and preparing documents, but it has been assumed that the information provided to Singo Consulting (Pty) Ltd ("Singo Consulting") is accurate.

These views do not generally refer to circumstances and features that may occur after the date of this study, which were not previously known to Singo Consulting (Pty) Ltd or had the opportunity to assess.

IMPORTANT NOTICE

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

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

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application conforms to the requirements of the EIA Regulations, any protocol or minimum information requirements relevant to the application as identified and gazetted by the Minister in a government notice or instruction or guidance provided by the competent authority to the submission of application.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorization 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 Authorization 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, significance, consequence, extent, duration, and probability of the impacts occurring to; and
 - (ii) the degree to which these impacts—
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be managed, avoided or mitigated;
- (e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—

- (i) identify and motivate a preferred site, activity and technology alternative;
- (ii) identify suitable measures to manage, avoid or mitigate identified impacts; and
- (iii) identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. Contact Person and Correspondence Address

a) Details of:

(i) The EAP (s) who prepared the report

Name of the Practitioner	Miss Bongokuhle Sibiya
Designation	Environmental Technician
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Fax No.	+27 86 515 4103
Email	bongokuhle@singoconsulting.co.za

(ii) Details of the EAP who reviewed the report.

Name of the Practitioner	Dr NK Singo
Designation	Principal EAP (Reviewer)
Tel No.	+27 13 692 0041
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Fax No.	+27 86 515 4103
Email	kenneth@singoconsulting.co.za

a) Summary of the appointed consulting firm

In the year 2008, Singo Consulting (Pty) Ltd was established as an Independent Consulting Company focused to create opportunities within the Mining and Environmental Industry. With time, Singo Consulting (Pty) Ltd has diversified its services, it provides high value Geological, Hydrological, Environmental, Cleaning and Rehabilitation specialized services to clients across a range of industries that are primarily natural resource based.

The company aims to be a consulting firm that communicates sound environmental services solutions. Singo Consulting (Pty) Ltd takes pride in the fact that it holds no equity in any project and is owned by the staff, enabling it to offer clients objective support on crucial issues.

2. Locality of the Overall Activity

Table 1 Location of the Overall Activity

Farm Name:	All portions of the farm Kafferkraal 98 HT
Application area (Ha)	883,913 Ha
Magisterial district:	Mkhondo, Mpumalanga Province
Distance and direction from nearest town	Approximately 1 km southeast of Dirkiesdorp
21-digit Surveyor General Code for each farm portion	TOHT00000000009900000 TOHT00000000006900007 TOHT00000000009800002 TOHT00000000009800001 TOHT00000000009800003 TOJT00000000009800000

2.1. Locality map

The proposed Prospecting Right Area is situated over the farm Kafferkraal 98 HT. The proposed prospecting area is located Approximately 1 km southeast of Dirkiesdorp

within Mkhondo local municipality, under the Mkhondo Magisterial District. See attached locality map on see **Error! Reference source not found.**below.

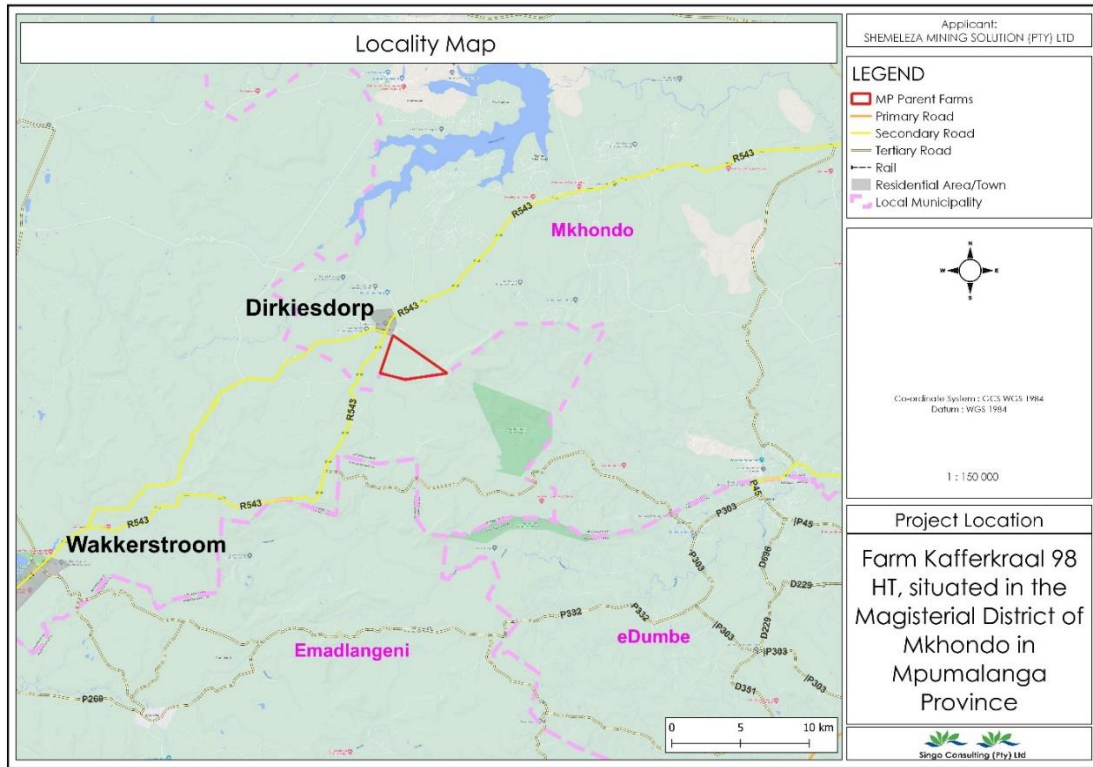


Figure 1: Locality map of the proposed project area

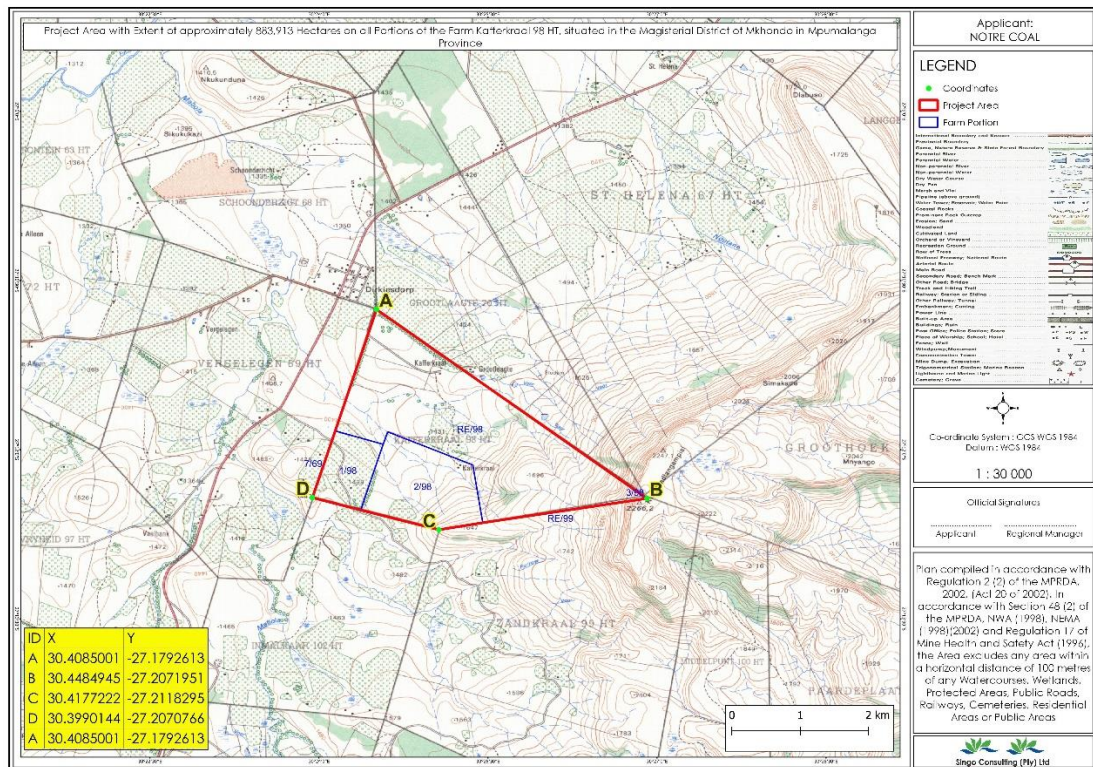


Figure 2: Reg 2.2 Map of the proposed project area

2.2. Description of the scope of the proposed overall activity

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

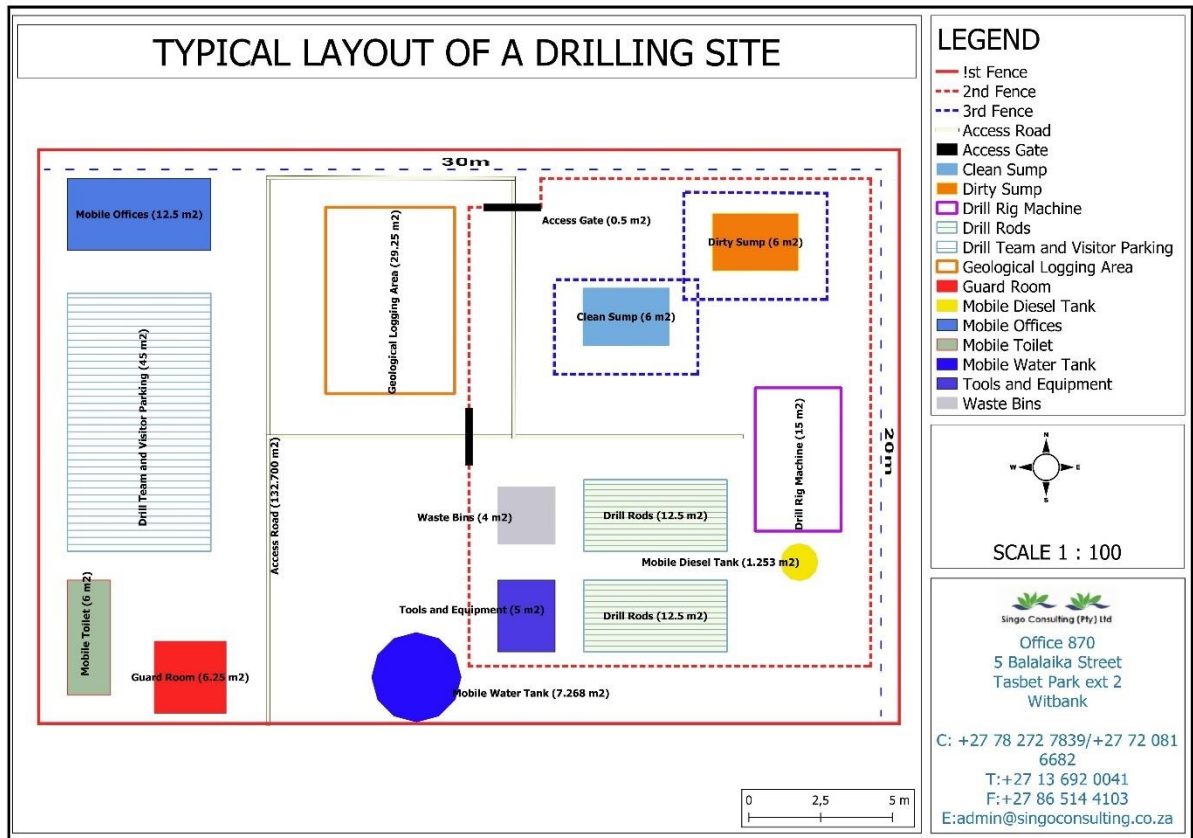


Figure 2: Typical layout plan of a drilling site

2.3. Listed and specified activities

Table 2: Listed and specified activities

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc. E.g. for mining , - excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE GNR 517 on 11 June 2021	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Prospecting Area	883,913 Ha	X	GNR 517 Listing Notice 1, Activity 20.	Not required
Vegetation clearing	0. 48 ha	X	Not Listed	
Drilling	0. 48 ha	X	Not Listed	
Access roads	625,85 m2	X	Not listed	
Mobile office	12,50 m2	X	Not Listed	
Mobile toilet	6,00 m2	X	Not Listed	
Access gate	0,5 m2	X	Not Listed	
Guard room	6,25 m2	X	Not Listed	
Drill rods	25,00 m2	X	Not Listed	
Geological logging area	29,25 m2	X	Not Listed	
Mobile water tank	7,265 m2	X	Not Listed	
Clean sump	6,00 m2	X	Not Listed	
Dirty sump	6,00 m2	X	Not Listed	
Drill rig mobile	15,00 m2	X	Not Listed	
Tools and equipments	5,00 m2	X	Not Listed	

Table 3: Summary of the drilling activities

Drilling method	Diamond drilling
Number of boreholes	15
Depth of boreholes	500m
Duration of drilling	A borehole takes about 2 days to complete; 15 will take at least 30 days.
Demarcated working area	0.9 ha for all 15 drilling sites
Total area to be disturbed	$30 \times 20 = 600 \text{m}^2$ $15 \text{ boreholes} \times 600 \text{m}^2 = 9000 \text{m}^2$ $9000 \text{m}^2 \div 50000 = \mathbf{0.9 \text{ ha}}$

2.4. Description of the activities to be undertaken.

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

Background

Notre Coal (Pty) Ltd is applying for a Prospecting Right without bulk sampling, to prospect for pseudocoal and torbanite/Oil shale resources on the aforementioned properties. The area demarcated for the prospecting covers an area of approximately 883,913 Ha, refer to Table 1 above.

Prospecting work will initially entail a high-level desktop study and potential desktop resource evaluation. This will include a data search of any previous drilling, trenching, sampling activities, exploration activities, existing maps and relevant historical data. On successful completion of this desktop study, further possible drilling, trenching and resource estimations will be performed if the results warrant it.

Description of the prospecting methods to be undertaken:

- **Planned non-invasive activities:**

Desktop studies to be undertaken over the area would include studying of geological reports, prospecting data, plans/maps, aerial photographs, topography maps and any other related geological information about this area.

- Consultation with landowners:

The appointed consultant will visit the respective landowners prior to the proposed prospecting and arrange all issues relating to the envisaged prospecting programme such as dates, access routes, availability of water, and rehabilitation of the drill sites and any other items of mutual concern. Official permission together with all agreed requirements will be in writing.

- Data processing and validation:

Data will be obtained during the drilling process needs to be process and validated versus stratigraphic, structural, and analytical data received and correlated with surrounding boreholes in the reserve area.

- ❖ Electronic procession of borehole data
- ❖ Validation of lithological data versus analytical data.
- ❖ Stratigraphic correlation of the commodities.
- ❖ Editing and correction of data on database.

- Lithofacies and coal quality modelling:

Variations in a stratigraphic unit across the reserve area are generated and illustrated by contoured maps showing lateral trends of most significant properties. This is done by the utilization of computerized geological software. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations.

- Compilation of geology report:

Information obtained during the exploration phase together with computer generated information is compiled into a geological report.

- Inspection/Consultation with landowner:

Land Tenure Specialist will visit the boreholes during and after prospecting has been completed. Once confirmation has been obtained that the area had been properly rehabilitated, sign off will be obtained from the landowners and compensation paid for any damages caused as a result of the prospecting.

- **Planned invasive activities:**

- Diamond drilling:

The drill rigs are truck-mounted and equipped with diesel driven engines to provide power to the drill. A truck fitted with a water tank will be used to provide the water supply for the drilling process. The drill site is not larger than 20m x 30m (600m²) and consists of a drill rig, water pump, caravan and portable chemical toilet. Except for the sump required by the drill rig, no excavations will be required. The sumps are normally 1 m² and 50 cm (0.5 m) deep. It is always necessary to separate topsoil from the subsoils. The dimension of the borehole is NQ (± 76 mm), and the average depth of the coal resource reserve is estimated to be 110 m. On completion of the borehole, it is cemented from the bottom up. The only rehabilitation that will specifically be required is borehole capping and revegetation. Drill holes must be permanently capped as soon as is practicable.

- **Pre-feasibility studies**

The coal seam thickness distribution, lateral extent and quality will be determined through detailed borehole measurement and laboratory core analysis. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations.

A geological report (or Competent Person Report) will be compiled which entails all results obtained during the exploration phase. This will be done by the appointed Exploration Geologist.

Table 4: Proposed prospecting phases and time frames.

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe outcome for	What technical expert will sign off on the outcome?
Phase 1: Invasive Prospecting						
	Diamond drilling (5 boreholes)	Exploration Geologist	Month 1 (30 days)	Borehole core data coal samples Rock core samples	Month 1	Exploration Geologist
	Sampling	Exploration Geologist		Core analyses Rock core analyses	Month 2 – 3	Laboratory analyst
Phase 1: Non-invasive Prospecting						
	Consultations with landowners	Land Tenure Specialist	Month 1	Legal Access Agreement	Month 1	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 7-8	Stratigraphic correct borehole data Analytical correct borehole data	Month 8 – 10 Month 8 - 10	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal quality modelling	Exploration Geologist	Month 10-12	Contour maps Reserve breakdown	Month 10-12	Exploration Geologist /Modeller
	Inspection/Consultation with landowners	Land Tenure Specialist /Drilling contractor	Month 5-6	Rehabilitation clearance certificate	Month 5 - 6	Land Tenure Specialist / Environmental officer
Phase 2: Invasive Prospecting						
	Diamond drilling (5 borehole)	Exploration Geologist	Month 13	Borehole core data Coal core samples	Month 13	Exploration Geologist Laboratory analyst
				Rock core samples Core analyses Rock core analyses	Month 13-14	
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 13-15	Lithology data Structural data	Month 13-14	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 13-14	Borehole water yield Water samples	Month 17-20	Geohydrologist
Phase 2: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 12	Legal Access Agreement	Month 12	Land Tenure Specialist

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
	Data processing and validation	Exploration Geologist	Month 17-18	Stratigraphic correct borehole data Analytical correct borehole data	Month 20 – 22 Month 20 - 22	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and coal quality modelling	Exploration Geologist	Month 22-24	Contour maps Reserve breakdown	Month 22-24	Exploration Geologist /Modeler
	Inspection/Consultation with landowners	Mining Rights officer	Month 16-17	Rehabilitation clearance certificate	Month 16 - 17	Land Tenure Specialist / Environmental officer
Phase 3: Invasive Prospecting						
	Diamond drilling (5 borehole)	Exploration Geologist	Month 25	Borehole core data Coal core samples	Month 25 Month 25-60	Exploration Geologist Laboratory analyst
	Directional drilling (Optional)	Exploration Geologist	Month 24-30	Lithological data	Month 24-60	Exploration Geologist
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 25-27	Lithology data Structural data	Month 25-60	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 25-26	Borehole water yield Water samples	Month 29-60	Geohydrologist
Phase 3: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 24	Legal agreement	Month 24	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 29-30	Stratigraphic correct borehole data Analytical correct borehole data	Month 32 – 60 Month 32 - 60	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal	Exploration Geologist	Month 34-36	Contour maps Reserve breakdown	Month 34-60	Exploration Geologist /Modeler
	Inspection/consultation with landowners	Land Tenure Specialist	Month 28-29	Rehabilitation clearance certificate	Month 28 - 60	Land Tenure Specialist / Environmental officer

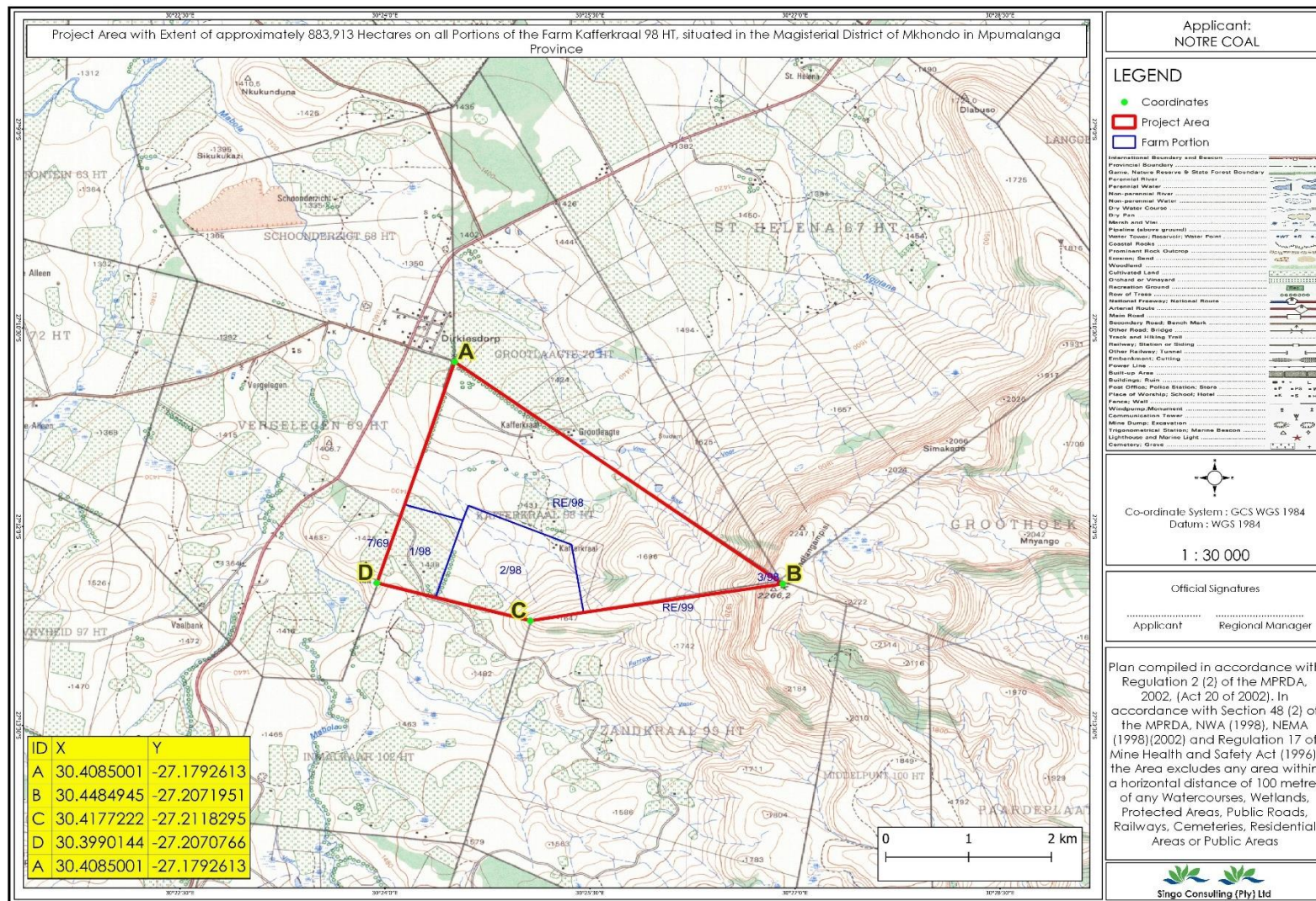


Figure 3: Regulation 2.2 plan for the project area

2.5. Ancillary activities

2.5.1. Access roads

The proposed prospecting area can be easily accessed through the unknown road that extend from R543 which passes closest to the project area. There are pathways that exist within the project area, but new extending roads will be made to access the borehole locations. The applicant must conduct a detailed technical assessment of the proposed site by negotiating access with the landowners as well as the lawful occupiers of the farm. An agreement on access to the project area will be reached and agreed with the landowner.

2.5.2. Water supply

The proposed drilling system utilizes air only, which ensures that only on-site workers will need water for drinking and general purposes. A temporary storage tank to provide drinking water and general use will be placed on site. Water will be purchased from the local water suppliers in water containers. Best practice guidelines will be implemented during prospecting activities to prevent contamination in the waterways.



Photo 1: Example of water supply storage

2.5.3. Ablution facilities

Portable toilets will be installed on site for ablution purposes, thus reducing potential pollution associated with erecting sewage pipes underground. Portable toilets are dynamic, they can be moved from drill site to drill site, once drilling activities ceases, portable toilets will be easily removed from the drill site.



Photo 2: Example of portable toilet

2.5.4. Accommodation

No accommodation will be provided on site but on neighboring towns.

2.5.5. Blasting and storage of dangerous goods

Blasting is beyond the scope of this project as no bulk sampling is possible under the Prospecting Work Programme (PWP), no blasting will occur. Instead, the project will include geological mapping, exploration drilling, sampling, resource modelling, and resource reporting. Limited quantities diesel fuel, oil and lubricants will be transported with the pick-up truck to the drill site.

3. Policy and Legislative Context

Table 5: Policy and legislative context

Applicable Legislation and Guidelines	Reference Where Applied (i.e. where in this document has it been explained how the development complies with and responds to the legislation and policy context)	How does this Development Comply with and Respond to the Legislation and Policy Context
National Environmental Management Act (No. 107 of 1998) (NEMA):	This entire report is prepared as part of the prospecting right application under the NEMA, section 24	In terms of the National Environmental Management Act an Application for Environmental Authorisation subject to a Basic Assessment Report. The application was lodged at the DMRE the 11th of July 2022.
Minerals and Petroleum resources Development Act (No.28 of 2002) (MPRDA): In support of the Prospecting Right Application submitted by Notre Coal (Pty) Ltd, the applicant is required to conduct a NEMA BAR process in terms of Section 5A and Chapter 16 of the MPRDA.	This entire report is prepared as part of the Prospecting Right Application under the MPRDA, section 16(2).	In terms of the Mineral and Petroleum Resources Development Act a Prospecting Right Application has been applied for pseudocoal and torbanite/Oil shale resources DMRE Ref: MP 30/5/1/1/2/ 17543 PR
National Water Act (No. 36 of 1998) (NWA): Water may not be used without prior authorisation by the DWS. Section 21 of the National Water Act (No.36 of 1996) the NWA water uses for which authorisation is required.	No Water Use Licence has been applied for this prospecting project.	No water use license is required for this Application. Any water required for drilling activities will be obtained from a legal source within the area or brought in via mobile water tanker. Appropriate dust extractions /suppression equipment will be a condition imposed on the drill contractor for their drill rigs.
The National Environmental Management: Biodiversity Act (Act No. 10 of 2004 – NEMBA) Section 57 and 87	Regulations published under NEMBA provides a list of protected species (flora and fauna), according to the Act (GN R. 151 dated 23 February 2007, as amended in GN R. 1187 dated 14 December 2007) which require a permit in order to be disturbed or destroyed	No applications have been submitted in terms of the National Environmental Management: Biodiversity Act.
Mkhondo Local Municipality (2017- 2022 Final Integrated Development Plan)	Needs, desirability, socio-economic needs	Incorporated under section 4 and 9.1
Gert Sibande District Municipality Spatial Development Framework	Land Use	The applicant acknowledges the need to maximize economic benefit from mining, industrial, business, agricultural and tourism development in the area and promote a climate for economic development in line with the

		municipal development frameworks
Municipality By-Laws: Waste Management by-law Act 59 of 2008, Air Quality Management By-law Act 39 of 2004, Noise control by-law, Spatial Planning and Land Use Management act no 16 of 2013 (SPLUMA).	Environmental Management measures awareness plan	Best practice guidelines will be followed for any by-law's management and the development of the mine environmental and other legislative management.
Constitution of South Africa, Specifically, everyone has the right: a) to an environment that is not harmful to their health or wellbeing; and b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that i) prevent pollution and ecological degradation; ii) promote conservation; and iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.	BAR & EMPr	Environmental impact are documented on BAR of this report and Mitigation based on the environmental Impact are documented on EMPR of this report.
National Heritage Resources Act, 1999	Management measures	Should archaeological artefacts or skeletal material be revealed in the area during development activities, such activities should be halted, and SAHRA notified in order for an investigation and evaluation of the find(s) to take place.
ISO 14001:2015: Principle of Sustainable development	Environmental management system	Development of an integrated environmental management system and measures for responding to environmental conditions (PDCA model).

4. Need and desirability of the proposed activities.

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

Prospecting activities do not offer many tangible benefits as it is the initial phase of mining. Prospecting proceeds mining; however, it is during the prospecting phase that

findings were established on whether the available mineral reserves can be mined at an economic gain. It is understood that mining plays an important role in South African economy and boast a large labour force; hence a greater significance is placed on prospecting for realization of mining benefits.

Although prospecting activities are not labour intensive, approximately 10 people will be hired to assist with general activities. The services required can also be sourced locally depending on their availability thus growing the economy of Kafferkraal. With the existence of different mines located near the prospecting area collaboratively with the geological information, the area has the potential of the pseudocoal and Torbanite/oil shale resources. Notre Coal (Pty) Ltd intends to start mining application once the prospecting activities have proven viable outcome.

Prospecting activities are needed to:

- Confirm and obtain additional information concerning potential targets through non-invasive (e.g. desktop studies) and minimally invasive (e.g. drilling) activities.

- Assess if the resource can be extracted in an environmentally, socially and economically viable manner. Prospecting activities should prove that there are feasible minerals to allow mining, a new mine may be developed, which would generate extensive employment opportunities in an area where employment is required.

The Department of Environmental Affairs has released an updated Need and Desirability Guideline Document dated 2017. Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the National Development Plan 2030 (NDP). Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

The concept of “need and desirability” relates to, amongst others, the nature, scale and location of development being proposed, as well as the wise use of land. While essentially, the concept of “need and desirability” can be explained in terms of the general meaning of its two components in which need primarily refers to time and desirability to place (i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed?), “need and desirability” are interrelated and the two components collectively can be considered in an integrated and holistic manner.

4.1. Motivation for the overall preferred site, activities and technology

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

There is no site or layout alternative as the property provides the ideal geological formation for the presence of the minerals applied for. The positioning of the boreholes is determined by the expected location of the mineral reserve.

There are no technology alternatives considered and the proposed site was identified as the preferred alternative due to the following reasons:

- The site offers the mineral sought after,
- Very little natural vegetation needs to be disturbed in order to establish the prospecting area (0.9 ha).
- The prospecting area can be reached by using the unknown road that extend from R543 that passes near the farm boundary.
- No residual waste as a result of the prospecting activities will be produced that needs to be treated on site. The general waste produced on-site will be contained in sealed refuse bins to be transported to the local municipal landfill site.
- As maintenance and servicing of the equipment will be done at an off-site workshop the amount of hazardous waste to be produced at the site will be minimal and will mainly be as a result of accidental oil or diesel spillages.

- Contaminated soil will be removed to the depth of the spillage and contained in sealed bins until removed from site by a hazardous waste handling contractor to be disposed of at a registered hazardous waste handling site, more information will be discussed after the granting of the prospecting right.

4.1. 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.)

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined. The overall prospecting area is indicated in Figure . Areas to be avoided in terms of sensitivities are also indicated on the sensitivity maps in this report. Positioning of invasive prospecting planned in the sensitive areas and buffer zones should be conducted with a suitably qualified ecologist in order to avoid and/or minimize the destruction of any sensitive vegetation or habitats occurring in these areas.

Details of all alternatives considered

With reference to the site plan provided as Figure 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)

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and core drilling cannot be predetermined.

The following alternatives were investigated as feasible alternatives:

- **The property on which or location where it is proposed to undertake the activity**

The farm is located within Mkhondo Local Municipality under Wakkerstroom Magisterial District. The proposed Prospecting Right Area is situated over the farm Kafferkraal 98 HT. The proposed prospecting area is located approximately southeast of Dirkiesdorp

The type of activity to be undertaken

Main activity conducted to determine the pseudocoal and Torbanite/oil shale resources present in an economic feasible quality and quantity is drilling. The boreholes will be drilled with the diamond drilling method so the geologists can get a clear understanding of the actual subsurface setting of the lithologies. As outlined in the PWP all activities will be conducted in a phase approach whereby the execution of a new phase will depend on the results of the preceding phase. Prospecting activities will not compromise any future land uses on the study area as the applied activities are temporary.

- **The design or layout of the activity**

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

- Portable ablution facilities will be used.
- Activities will be limited to the drilling of 15 boreholes to be determined by the geological formations found during prospecting.
- It is planned to use one rig for all drill holes.
- Rehabilitation will be closely controlled, and supervision will be focused.

- No changes to the layout are considered but with the geophysical survey information, the boreholes can be orientated to match the shape of the good quality of resource.
- **The technology to be used in the activity**

The technologies listed in the PWP have been selected as they are proven effective in the determination of resource viability within the proposed prospecting area. Some of the techniques employed in the non-invasive prospecting will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Invasive technology alternatives have also been considered. It is hereby noted that the different phases and timeframes of the prospecting herein envisaged are, by their nature, dependent on the results obtained during the preceding phases of such prospecting. The proposals set out in the Prospecting Work Programme are therefore made on the basis that results obtained during the preceding phases may necessitate reasonable changes and adaptations to such proposals, which will be reported as prescribed.

- **The option of not implementing the activity**

If the Prospecting Right is not granted, the potential to identify viable mineral resources could be lost. Historical prospecting and mining activities have taken place in the vicinity of the proposed prospecting right area and as such the proposed prospecting activities represent a continuation of surrounding land uses. Additionally, it allows for marginal land impacted on by historical prospecting and mining activities to be re-introduced into the economy.

5. 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 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)

A Public Participation Process is undertaken for the proposed prospecting right application. The process is undertaken to ensure compliance with regards to the requirements in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) [as amended] (MPRDA), the National Environmental Management Act, 1998 (Act No. 107 of 1998) [as amended], (NEMA), and Environmental Impact Assessment Regulations (2014) [as amended].

5.1. Activities undertaken for the Public Participation Process (PPP)

This section of the report provides an overview of the tasks undertaken for the PPP to date. All PPP undertaken is in accordance with the requirements of the NEMA requirements and EIA Regulations (2014) [as amended]. It further provides an outline of the next steps in the PPP and makes recommendations for tasks to be undertaken during the environmental assessment phase of the environmental authorization process.

The PPP conducted for the proposed prospecting project to date include:

- **Identification of key Interested and Affected Parties (affected and adjacent landowners) and other stakeholders (organs of state and other parties)**

Public Participation is the involvement of all parties who are either potentially interested and / or affected by the proposed development. The principal objective of public participation is to inform and enrich decision-making. This is also its key role in this Basic Assessment process.

- **Formal notification of the application to I&APs (including all affected and adjacent landowners) and other stakeholders.**

The project was announced as follows:

- ❖ Newspaper advertisement

On the 05th of August 2022 Media advertisement (English and IsiZulu) was Published in the *Excelsior Nuus/News*. See Figure 4 for the proof of newspaper publication.

- ❖ Site notice placement

In order to inform surrounding communities, affected and adjacent landowners of the proposed development, site notices were erected on site and at visible locations close to the site on the 13th of August 2022. Refer to figure 5 for the site notice placed on site.

comment and / or raise issues of concern regarding the proposed development. Refer to Appendix C for proof of email notification. Draft BAR & EMPr will be shared to all I&APs and relevant stakeholders for a 30-day review period from the 5th of September 2022 to the 5th of October 2022 to comment and raise issues/concerns on the report.

- ❖ Notification to and consultation with landowners and/or lawful occupiers.

RICHTER WEBER INCORPORATED
Registered Auditors
VACANCY: ACCOUNTANT

- Requirements as follows:**
- Minimum 3 years experience in financial field and/or auditing
 - Good communication skills
 - Ability to perform self under pressure
 - Deadline orientated
 - Attention to detail
 - A qualification in the financial field or studying towards a B.Com will be preferable
 - Completed articles will be preferable
 - Experience in Drafting, Postal and completion of financial statements will be preferable

SALARY PACKAGE IS NEGOTIABLE

Submit Curriculum Vitae before 19 August 2022 to:
Email: na@richterweb.co.za
Fax: 086 633 3249

Applications close on 27 August 2022, kindly accept that your application without success.

Liquor licences in South Africa - what you need to know

Each premises and situation for which a liquor licence is required is unique. A specific type of licence is therefore required for different situations and businesses.

Here follow the types of liquor licences that can be applied for:

- **Transfers** - This licence is granted to those who want to transfer liquor from one entity to another, or one premise to the next.
- **On Consumption** - This is a licence granted specifically for the sale of liquor for consumption on the specific premises where the liquor is sold, for example restaurants.
- **Special on Consumption** - This licence is granted for special premises where liquor is sold to be consumed on the premises where the liquor is sold. Examples of such premises are pubs, hotels, clubs, franchises, action bars, pool lounges, cocktail lounges, accommodation facilities, sport facilities (indoor), office shops, wine boutiques, night clubs, the

- **Temporary liquor licence** - A temporary liquor licence is issued for a short period of time only, and only to an applicant that meets the necessary criteria.
- **Occasional liquor licence** - An occasional liquor licence is a licence that is granted for an event when it cannot be covered by any other licence. An occasional liquor licence allows for liquor to be sold to people attending an event.
- **Events licences** - Events liquor licences refers to a licence granted for an event.
- **Procure controlling interest**
- **Wine grocer liquor licence** - This licence is granted to a premises where wine is sold.
- **Manage a premises (management appointments)**
- **Structural changes to licensed premise.**
- **Storage in an additional premise.**
- **Storage in another district.**

- **Supply for testing or promotional purposes.**
- **Supply free for brew house purposes.**
- **Off Consumption** - This is a licence granted for the sale of liquor for consumption off the premises where it is sold. These premises include liquor store, distribution, wholesaler entities.
- **Special off Consumption**
- **Producers** - A licence granted to producers of liquor, such as wine farmers, distillers, and brew houses.
- **Assistance with annual renewals**
- **Concessions**
- **Extended trading hours**

The applicant of a Liquor Licence must be domiciled in South Africa, have no criminal record, may not be insolvent or a minor and must be in good standing at the Receiver of Revenue, to name only a few requirements.

Source: liquorlicences.co.za

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU
Iziko selungelo lakuhlela ikelala i-Naite Coal (Pty) Ltd ikake ikelala kuvinyango Wezimbiwa Namanala (DWRE Ref: MP 30/5/1/1/2/17543 PR) ngenhloso yokuhlela iHshudo coal kanye nefabonkeleli/08 Shale kusa zanke lingxanye ze-pulverised ka-2014, esikhelweni ngaphandle kwe-slabu skhukumeni esingumkabi/92 kuGarathi No. 3822 mika ingu-8 kuBantaba kumnyaka ka-2014, esakhelweni mika ingu-7 kuBantaba kumnyaka ka-2017, sakuthi i-Naite Coal (Pty) Ltd ikake ikelala selungelo lakuhlela ikelala esabwile ngenhloso.

ENGLISH
Notice of the prospecting right Application: Naite Coal (Pty) Ltd has lodged an application with the Department of Mineral Resources and Energy (DWRE Ref: MP 30/5/1/1/2/17543 PR) for the purpose of Prospecting Pseudocool and Tailoring/08 Shale on all Portions of the farm Kalkreindal 98 HT, situated in the Magisterial District of Mkhondo in Mpumalanga Province.
Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that Naite Coal (Pty) Ltd has applied for prospecting right for the abovementioned minerals.

ISIBHEKO SOKUPHAWULA NOKUVELA IMBONO MAYELANALEL SICELO

INVITATION TO COMMENT

Ukuhlolelwa Njengabantu Abanentshelakela Nabathintekayo: Njengengonye yenyabo ye-EA, kokuhlelwa ngabo Yakubambiqhaza Kamphakathi yediphakathi ehlangazwayo, Abanentshelakela Nabathintekayo (SAP) bayaminywa ukuba babhalele futhi babathe ngomusa noma yukuphi ukuphawula noma ukuthathakela ukuzo kulinjani kuka-Bongo-khulu Sibya ngaphandle noma ngamhala-4 kuMandulo 2022 esebenzisa imininingwane yokuhumana ezikawo ngezansi ngaphambili ngamhala 5 ka-Okhthaba 2022. Umphakathi uyaminywa ukuthi ubuyekaze futhi uphawule i-Basic Assessment Report kanye ne-Environmental Management Programme Report (DBAR/EMPR). The draft BAR & EMPR will be available for review for 30 days calendar period from 5th of September 2022 to the 5th of October 2022 (Excluding Public Holidays). This report will be available at Mkhondo Public Library (Relief Street Piet Retief, 2380) and a soft copy upon request from Singo Consulting (Pty) Ltd, using the Environmental Assessment Practitioner's contact details below.

Registration as Interested & Affected Party: As part of the EA process, more especially the Public Participation Process (PPP) for this proposed project, Interested and Affected Parties (IAP) are invited to register and kindly submit any comments or concerns to reach Mts Bongo-khulu Sibya before or on the 4th of September 2022 using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme Report (DBAR/EMPR). The draft BAR & EMPR will be available for review for 30 days calendar period from 5th of September 2022 to the 5th of October 2022 (Excluding Public Holidays). This report will be available at Mkhondo Public Library (Relief Street Piet Retief, 2380) and a soft copy upon request from Singo Consulting (Pty) Ltd, using the Environmental Assessment Practitioner's contact details below.

UKUTHOLA EMINYE IMININGWANE NOMA UKUBHALISA, NJENGENHLANGANO ENINTSHESKELO NOMA EMINTEKAYO, SICELA USHINTHE: -

FOR MORE INFORMATION, TO REGISTER AS AN INTERESTED OR AFFECTED PARTY, PLEASE CONTACT:

Singo Consulting (Pty) Ltd
Office B70, 5 Bakolaka Street, Tabei park Est 2, Witbank, 1040
Contact Person: Mts Bongo-khulu Sibya
Tel. No.: +27 13 692 0041
Fax No.: +27 86 514 4103
Cell No.: +27 61 868 7545
E-mail: bongokhulu@singoconsulting.co.za

NOTRE Coal
Plat 106
Road 4, Delmas
Gauteng, 2210
Contact Person: Mr Eddi Aphane
Cell No.: 065 211 8714
E-mail: edd@notre.co.za

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU
Iziko selungelo lakuhlela ikelala i-Naite Coal (Pty) Ltd ikake ikelala kuvinyango Wezimbiwa Namanala (DWRE Ref: MP 30/5/1/1/2/17557 PR) ngenhloso yokuhlela amakhelwa kusa zanke lingxanye ze-pulverised ka-2014, esakhelweni yevorantshi yaseMkhondo esFundazweni saMpumalanga.

ENGLISH
Notice of the Prospecting Right Application: Naite Coal has lodged an application with the Department of Mineral Resources and Energy (DWRE Ref: MP 30/5/1/1/2/17557 PR) for the purpose of prospecting Coal on all portions of the farm Aranygruif 142 HT, situated in the Magisterial District of Mkhondo in Mpumalanga Province.
Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that Naite Coal has applied for prospecting right for the abovementioned minerals.

ISIBHEKO SOKUPHAWULA NOKUVELA IMBONO MAYELANALEL SICELO

INVITATION TO COMMENT

Ukuhlolelwa Njengabantu Abanentshelakela Nabathintekayo: Njengengonye yenyabo ye-EA, kokuhlelwa ngabo Yakubambiqhaza Kamphakathi yediphakathi ehlangazwayo, Abanentshelakela Nabathintekayo (SAP) bayaminywa ukuba babhalele futhi babathe ngomusa noma yukuphi ukuphawula noma ukuthathakela ukuzo kulinjani kuka-Bongo-khulu Sibya ngaphandle noma ngamhala-4 kuMandulo 2022 esebenzisa imininingwane yokuhumana ezikawo ngezansi ngaphambili ngamhala 5 ka-Okhthaba 2022. Umphakathi uyaminywa ukuthi ubuyekaze futhi uphawule i-Basic Assessment Report kanye ne-Environmental Management Programme Report (DBAR/EMPR). The draft BAR & EMPR will be available for review for 30 days calendar period from 5th of September 2022 to the 5th of October 2022 (Excluding Public Holidays). This report will be available at Mkhondo Public Library (Relief Street Piet Retief, 2380) and a soft copy upon request from Singo Consulting (Pty) Ltd, using the Environmental Assessment Practitioner's contact details below.

Registration as Interested & Affected Party: As part of the EA process, more especially the Public Participation Process (PPP) for this proposed project, Interested and Affected Parties (IAP) are invited to register and kindly submit any comments or concerns to reach Mr Mulaudli Ndumuhlu Shommoah using the contact details provided below before on the 5th of October 2022. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme Report (EMPR). The draft BAR & EMPR will be available for review for 30 days calendar period from Monday the 5th of September 2022 to Wednesday the 5th of October 2022 (excluding public holidays). This report will be available at Mkhondo local Municipality (33 Mark St, Piet Retief, 2380, South Africa), Piet Retief Public Library (Piet Retief, 2380), and a soft copy upon request from Singo Consulting (Pty) Ltd, using the (EAP) Environmental Assessment Practitioner's contact details below.

UKUTHOLA EMINYE IMININGWANE NOMA UKUBHALISA, NJENGENHLANGANO ENINTSHESKELO NOMA EMINTEKAYO, SICELA USHINTHE: -

FOR MORE INFORMATION, TO REGISTER AS AN INTERESTED OR AFFECTED PARTY, PLEASE CONTACT:

Singo Consulting (Pty) Ltd
Office B70, 5 Bakolaka Street, Tabei park Est 2, Witbank, 1040
Contact Person: Mr Mulaudli Ndumuhlu Shommoah
Tel. No.: +27 13 692 0041
Fax No.: +27 86 514 4103
Cell No.: +27 71 587 3383
E-mail: ndumuhlu@singoconsulting.co.za

NOTRE Coal
Plat 106
Road 4, Delmas
Gauteng, 2210
Contact Person: Mr Eddi Aphane
Cell No.: +27 66 211 8714
E-mail: edd@notre.co.za

Figure 4: Proof of newspaper publication (Page 5, Excelsior Nuis/News)

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT APPLICATION AND ENVIRONMENTAL AUTHORISATION APPLICATION

Notre Coal (Pty) Ltd has lodged an application with the Department of Mineral Resources and Energy (DMRE) Ref: **MP 30/5/1/1/2/17543 PR** for the purpose of Prospecting **Pseudocoal and Torbanite/Oil Shale** on **all Portions of the Farm Kafferkraal** situated in the Magisterial District of **Mkhondo in Mpumalanga Province**.

This application is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, as amended under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that **Notre Coal (Pty) Ltd** has applied for prospecting right for the abovementioned minerals.

Project Area with Extent of approximately 883.913 Hectares on all Portions of the Farm Kafferkraal 98 HT, situated in the Magisterial District of Mkhondo in Mpumalanga Province

Applicant: **NOTRE COAL**

LEGEND

- Coordinates
- Project Area
- Farm Portion

Co-ordinate System: GCS WGS 1984
Datum: WGS 1984
1 : 30 000

Official Signatures

Applicant: _____ Regional Manager: _____

Plan compiled in accordance with Regulation 2 (2) of the MPRDA, 2002 (Act 28 of 2002), in accordance with Section 48 (2) of the MPRDA, NWA (1998), NEMA (1998) (2002) and Regulation 17 of Mine Health and Safety Act (1996). The Area excludes any area within a horizontal distance of 100 metres of any Watercourses, Wetlands, Protected Areas, Public Roads, Railways, Cemeteries, Residential Areas or Public Areas.

Singo Consulting (Pty) Ltd

Figure 1: Regulation 2.2 map of the proposed project area (A -27.1792613, 30.4085001)

INVITATION TO COMMENT

As part of the EIA process, more especially the Public Participation Process (PPP) for this proposed Prospecting Right Application, Interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms. Bongokuhle Sibiya** by no later than **Sunday the 4th of September 2022**. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme report. The Draft BAR & EMPR will be available for a review period of 30 calendar days from **Monday the 5th of September 2022 to Wednesday the 5th of October 2022 (Excluding Public Holidays)**. This report will be available at **Mkhondo Public Library (Smit Street, Piet Retief, 2380)** and a soft copy upon request from **Singo Consulting (Pty) Ltd**, using the Environmental Assessment Practitioner's contact details below.

Comments on the DBAR & EMPR must be submitted to **Ms. Bongokuhle Sibiya** no later than the **5th of October 2022**.

ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Singo Consulting (Pty) Ltd
Physical address: Office 870, 5 Bakalaka Street
Taisel Park Ext 2
eMachabeni, 1040
Contact Person: Ms. Bongokuhle Sibiya
Tel No.: +27 13 6920 041
Cell No.: +27 61 8687 545
Email: bongokuhle@singoconsulting.co.za

NOTRE COAL
Physical address: Plot 106, Road 4, Delmas,
Gauteng, 2210
Contact person: Mr. Rudi Aphiwe
Tel No.: +27 66 211 8714
Email: rudi@notrecoal.co.za

Figure 5: Site notice placement

Any personal information obtained from this search will only be used as per the Terms and Conditions agreed to and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPI), and shall not be used for marketing purposes.

SEARCH CRITERIA

Search Date	2022/07/26 10:38	Farm Number	98
Reference	-	Registration Division	HT
Report Print Date	2022/07/26 10:38	Portion Number	-
Farm Name	-	Remaining Extent	NO
Deeds Office	Mpumalanga	Search Source	Deeds Office

PORTION LIST

Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
0	KHIPHINKUNZI COMMUNAL PROP ASSOC			
1	NKUMANE BOY STEPHEN			
2	COETZEE JOHANNES LODEWIKUS			
3	KARLUSCHI TRUST			

Figure 6: Windeed search results

- **Consultation and correspondence with I&AP's and stakeholders**

All I&AP registrations and comments that are received from stakeholders are formally recorded in the Comments and Responses Report.

- **Draft Basic Assessment Report (BAR) and Environmental Management Programme (EMPr)**

consultation: from the 05th of August 2022 and is ongoing.

Review of Draft Basic Assessment Report (BAR) and Environmental Management Programme report (EMPr): the 5th of September 2022 to the 5th of October 2022

Copies of the Draft BAR and EMPr will delivered and shared via email to all organs of state and relevant authorities, to registered I&APs and upon request from Singo Consulting.

- **Next phases of the public participation process**




All comments received from I&APs and organs of state and responses sent will be included in the final BAR and EMPr to be submitted to the Competent Authority (CA).





Once the BAR and EMPr is submitted, the CA will have 90 days to reach a decision on the application. Thereafter the registered I&APs will be notified of the CA's decision.



5.2. Summary of issues raised by I&APs

Table 6: Summary of the I&Ps

Interested and Affected Parties		Date	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.
List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Comments Received			
AFFECTED PARTIES					
Landowner/s					
Portion 1 of Kafferkraal 98 HT	X	13/08/2022 (Text)	<ul style="list-style-type: none"> My parents own portion of portion 1 Kafferkraal 98 HT, we were not notified about any possible PR and Environmental authorization application on our farm portion. 	<ul style="list-style-type: none"> EAP apologised and proper explanation was conducted 	
Lawful occupier/s of the land					
N/A					
Landowners or lawful occupiers on adjacent properties					
N/A					
Municipal councillor					

Municipality					
 Mkhondo Local Municipality Department of Environment and Waste Management Department of Spatial Development	X	12/08/2022 (Face to face) 12/08/2022 (Face to face)	<ul style="list-style-type: none"> We will wait for DBAR &EMPR to review and comment on the proposed project. Portion of portion 2 of the farm Amsterdam 26 HT is zoned for agriculture 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. Environment and Waste Management Department was also consulted face to face with the Hard copy of the BID and DBAR &EMPR to be shared with them once made available for stakeholders to review and comment. Town planning Department was consulted in relation to zoning of the proposed project area. 	
 Gert Sibande District Municipality	X		<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DW)					
 SANRAL SOUTH AFRICAN NATIONAL ROADS AGENCY (SAC) LTD <small>REG. NO. 1999/000947/00</small>	X		<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	

	X	<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
Mpumalanga Region				
	X	<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
	X	<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
Communities				
Amsterdam Community & Kwa Ngema Community			<ul style="list-style-type: none"> Site notices were plugged on the boundaries and with Amsterdam and KwaNgema Community. Some community members inquired about the proposed project so far, they are interested as some are unemployed. 	
Dept. Land Affairs				
 Department of Rural Development and Land Reform	X	<ul style="list-style-type: none"> No issue raised yet 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
Traditional Leaders				

Nkosi Mshengu	X	14/08/2022 (Face to face)	<ul style="list-style-type: none"> I am not objecting the project as most of my youth needs jobs and to better themselves as well as their families, however everything must be done according to the book, and they must from their land. 	<ul style="list-style-type: none"> EAPs consulted Inkosi, who was delighted by the proposed project as his youth is unemployed. EAP acknowledged such respond and promise to pass the message to the applicant. 	
KwaNgema Tribal House	X	12/08/2022 (Meeting)	<ul style="list-style-type: none"> I am not objecting the project, but I will have the meeting with my bloodline, we will then summon you back to have a meeting with us but we are requesting fairness amongst the people. 	<ul style="list-style-type: none"> EAP introduced the company and further explained the project to the Chairperson including the location. EAP appreciated the comment and contact details were shared with the chairperson for further communication. 	
Dept. Environmental Affairs					
	X		<ul style="list-style-type: none"> No issue raised 	<ul style="list-style-type: none"> Email with the attached BID was sent through on the 05th of August 2022. 	
Other Competent Authorities affected					
	x		<ul style="list-style-type: none"> No issue raised 	<ul style="list-style-type: none"> A request for sensitivity maps of the proposed area was sent via email on the 05th of August 2022. 	
OTHER AFFECTED PARTIES					

NB: According to Protection of Personal Information (POPI) Act that was established on the 01st of July 2021, it requires businesses to put in place “appropriate, reasonable technical and organizational measures” to prevent loss, theft or damage to personal information.

6. The Environmental attributes associated with alternatives

(The environmental attributes described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

6.1. The Environmental attributes associated with the alternatives

Baseline Environment

6.1.1. Locality

The proposed Prospecting Right Area is situated over the farm Kafferkraal 98 HT. The proposed prospecting area is located approximately 1 km Southeast of Dirkiersdorp Mkhondo Local Municipality under the Wakkerstroom Magisterial District. See **Figure 1**

Type of environment affected by the proposed activity.

(It's current geographical, physical, biological, socio- economic, and cultural character)

6.1.2. Topography

Topography is the study of the shape and features of land surfaces. The topography of an area could refer to the surface shapes and features themselves, or a description (especially their depiction in maps). Topography is a field of geoscience and planetary science and is concerned with local detail in general, including not only relief but also natural and artificial features, and even local history and culture. This meaning is less common in the United States, where topographic maps with elevation contours have made "topography" synonymous with relief.

The proposed prospecting area is characterized by steep slopes towards the east of the proposed project area as contour lines are concentrated towards East on the topography map of the proposed area. This indicate that the proposed area is a mountainous region, have few streams within the project area.

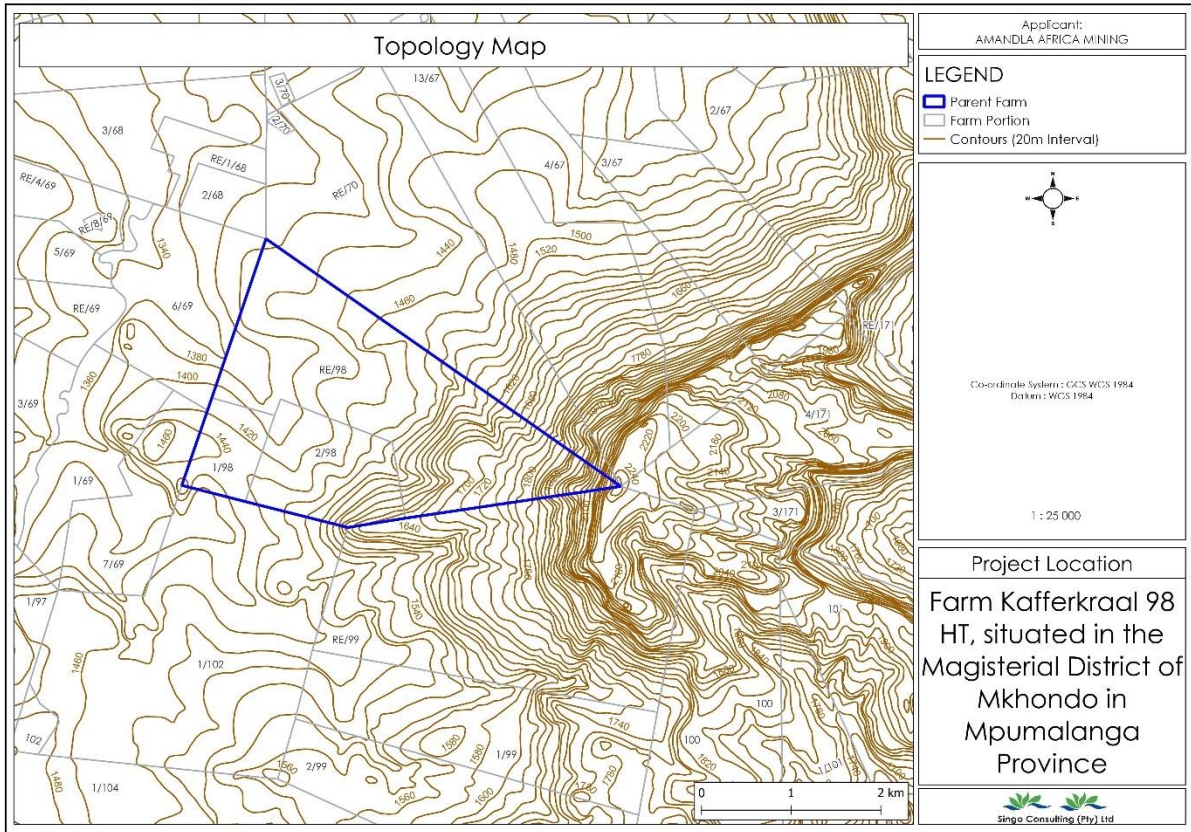


Figure 7: Topographic map of the project area



Photo 3: Shows Mountainous area towards the East of the proposed project area

6.1.3. Geology

Regional geology

Karoo Dolerite Suite

The Karoo Dolerite Suite represents a network of dykes and sills which occur as feeders or tongues to the flood basalt province (Walker and Poldervaart, 1949) and are best developed in the main Karoo Basin. Multiple dolerite intrusion events occurred in the Karoo, both predating and postdating the flood basalts (Erlank, 1984; Mountain, 1968; Walker and Poldervaart, 1949), therefore making it nearly impossible to associate them with any single intrusive or tectonic event (Chevallier and Woodford, 1999; Duncan and Marsh, 2006; van Zijl, 2006a0).

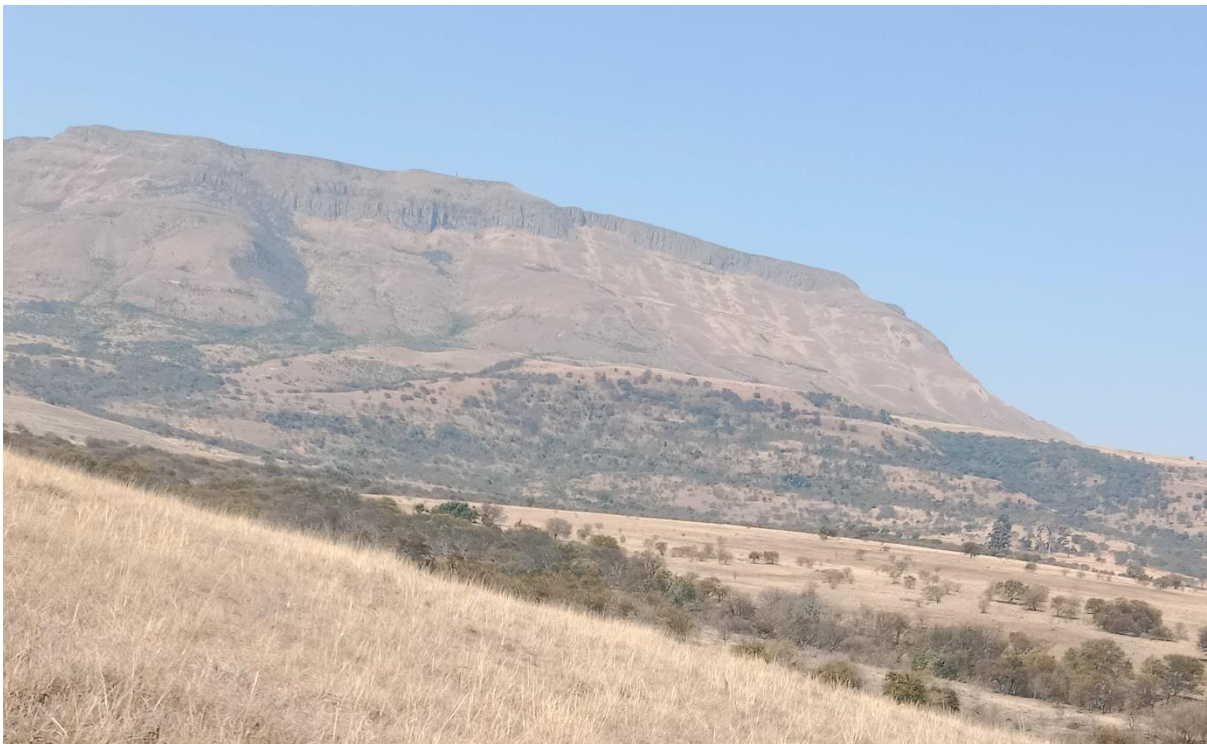


Figure 8: Karoo Dolerite observed on site

Karoo Supergroup

The sedimentary part of the Karoo Supergroup is subdivided into four main lithostratigraphic units, which from the base up are the Dwyka, Ecca, Beaufort and Stormberg (Molteno, Elliot and Clarens formations) groups (Johnson et al., 1996; SACS, 1980;). These are capped by some 1.4 km of basaltic lavas of the Drakensberg Group (Johnson et al., 1996; Veevers et al., 1994), the extrusion of which is related to the break-up of Gondwana (Cox, 1992). The basement to the Karoo Supergroup fill in both the MKB and in the northern basins is heterogeneous (Bordy et al., 2004a; Hancox, 1998; Rutherford, 2009) and this heterogeneity plays a significant control on the nature

of the fill, particularly during the early phases of the deposition of the Karoo Supergroup.



Figure 9: Karoo Supergroup on Site

Dwyka Group

The rocks of the Dwyka Group in South Africa are amongst the most important glaciogenic deposits from Gondwana. This Group is named for exposures along the Dwyka River east of Laingsburg and forms the basal succession of the Karoo Supergroup. Dwyka Group strata are mostly contained within bedrock valleys incised into Archean to lower Palaeozoic bedrock (Visser, 1990; Visser and Kingsley, 1982; Von Brunn, 1996). The lithologies in the areas underlying the coalfields of South Africa consist of a heterolithic arrangement of massive and stratified polymictic diamictites, conglomerates, sandstones and dropstone-bearing varved mudstones. The easily identifiable lithologies form a good marker below the coal bearing Eccca Group. In the distal sector of the MKB these sedimentary strata accumulated largely as ground moraine associated with continental ice sheets and is generally composed of basal lodgement and 9 supraglacial tills. These deposits are generally massive, but crude horizontal bedding occurs in places towards the top (Tankard et al., 1982).

Eccca Group

In the 1970s a number of studies (Cadle, 1974; Hobday, 1973, 1978; Mathew, 1974; Van Vuuren and Cole, 1979) showed that the Eccca Group could be subdivided into several informal units based on the cyclic nature of the sedimentary fills. In 1980 the South African Committee for Stratigraphy (SACS, 1980) introduced a formal lithostratigraphic nomenclature for the Eccca Group in the northern, distal sector of the MKB, which replaced the previously used informal Lower, Middle and Upper subdivisions with the Pietermaritzburg Shale Formation, the Vryheid Formation, and the Volksrust Shale Formation.

Normandien Formation

The Beaufort Group of the Main Karoo basin is subdivided into lower Adelaide and upper Tarkastad (Sui) groups, with both thinning towards the northeast of the basin (including the study area) and the latter only being found east of 24°E. Within this northeastern part of the basin (see study area, Figure 1), the Karoo succession comprises the lowermost Volksrust Formation (Eccca Group), following Normandien and Verkykerskop, and uppermost Driekoppen Formations (Table 1). The upper Normandien Formation unconformity with the lower Harrysmith member is equated with the Permian-Triassic boundary (Ward, 2005), and this paper focuses on the former

unit. The Normandien Formation comprises three sandstone members (lower Frankfort, Rooinek, upper Schoondmai) each overlain by an argillaceous interval.

Volkrust Formation

SACS (1980) applied the name Volkrust Shale Formation to the old "Upper Eccabeds", with the choice of name based on a description given by Blignaut et al. (1952). The general thickness of the unit is between 150-250 m and it is dominated by dark grey-green siltstones and mudstones, with phosphatic/carbonate/sideritic concretions. Cadle (1975) documents that the Volkrust Formation shows an overall coarsening-upward trend. The Volkrust Formation is postulated to have formed in shallow to deep water basinal conditions. Palaeontologically the Volkrust Formation is probably best known for its low diversity trace fossil assemblage (Tavener-Smith et al., 1988) and various organic microfossils. Macrofaunal remains include only various insects (Van Dijk, 1981) and a rare bivalve assemblage (Cairncross et al., 2005).

Local geology

Rashoop Granophyre

Suite Field relationships indicate that the Rashoop Granophyre Suite (2061.8 ± 5.5 Ma; Harmer & Armstrong, 2000) predates the intrusion of the Rustenburg Layered Suite (2054.4 ± 2.8 Ma U-Pb SHRIMP; Harmer & Armstrong, 2000) and occurs as an intrusive sheet into the Rooiberg rhyolites and the Transvaal Supergroup rocks (Kleeman, 1985). The granophyres are thought to be a cogenetic, shallow intrusive equivalent of the Rooiberg Group volcanic event. The granophyre-rhyolite magma is largely thought to be derived from partial melting of the lower crust, presumably with a granitic composition (Walraven, 1982). Some varieties of granophyre, however, possibly formed as a result of metamorphic/metasomatic effects related to the intrusion of the Rustenburg Layered Suite acting on the Pretoria Group sedimentary roof rocks or by the partial melting of Rooiberg Group rhyolites also a consequence of the hot intrusive magmas of the Rustenburg Layered Suite (Walraven, 1982). The Rashoop Granophyre Suite comprises three units based on textural variations; the Stavoren Granophyre, the Zwartbank Pseudogranophyre and the Rooikop Granite Porphyry (SACS, 1980). Many more varieties have been proposed by extensive work by Walraven (1977, 1979, 1982). The Stavoren granophyre is a granophyre *sensu stricto* and is the most prominent and abundant of the various types of granophyre in the Bushveld Complex. It consists

almost exclusively of micrographic intergrowths of quartz and perthitic feldspar (Walraven, 1982) and displays a range of colours from brick-red to grey. The proportion of quartz to feldspar is a remarkably constant ratio of 45:55, which has been suggested to indicate cotectic crystallisation at the ternary minimum melting point, and hence evidence for a magmatic origin (Walraven, 1977). The Zwartbank pseudogranophyre is distinguished from the Stavoren granophyre by the variability in proportions of quartz and feldspar and the distinctly less regular intergrown textures. Walraven (1977) proposed that this rock formed from metamorphic/metasomatic effects of the intrusion of the Rustenburg Layered Suite acting on the Pretoria Group sedimentary roof rocks.

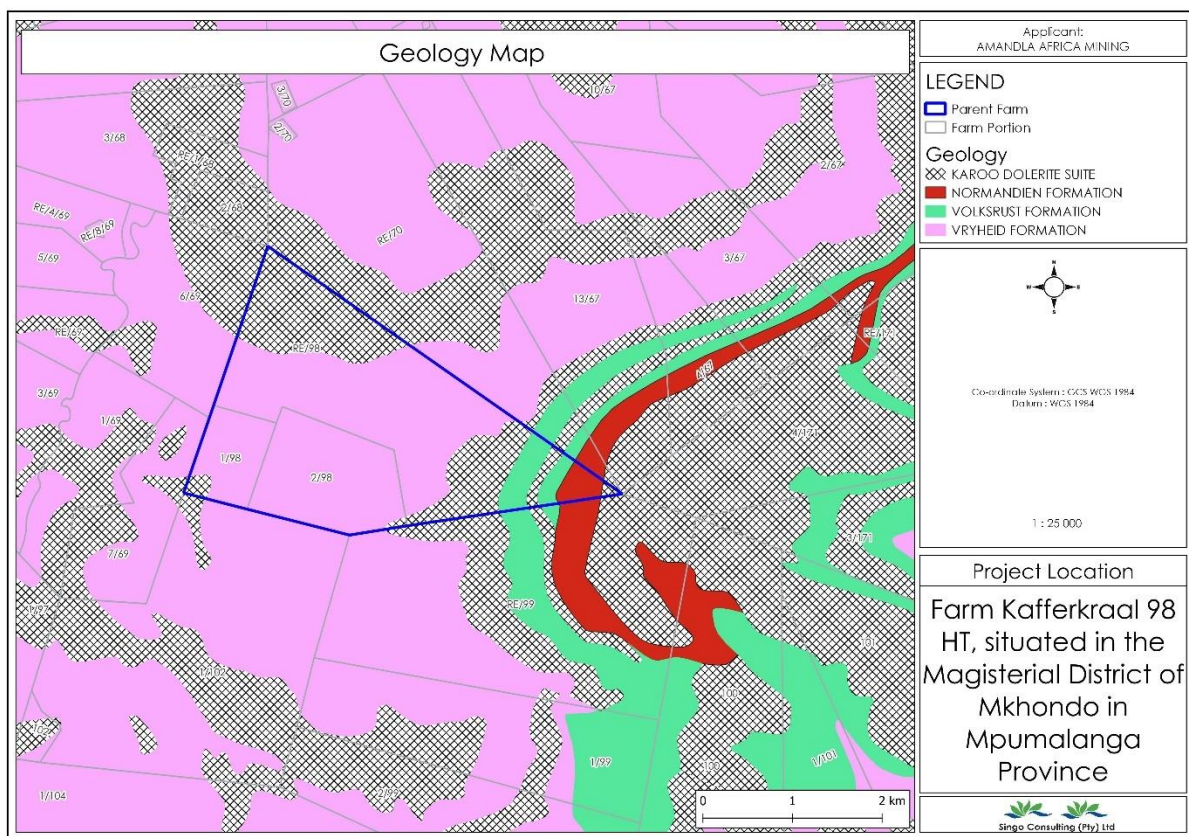


Figure 10: Geology map for the proposed project area

Ermelo Coalfield

The Ermelo Coalfield is located in the districts of Carolina, Dirkiesdorp, Hendrina, Breyten, Davel, Ermelo and Morgenzon in the southeast Mpumalanga Province. It extends approximately 75 km east–west, and 150 km north–south, covering an area of about 11,250,000 ha (Fig. 19). The northern and eastern boundaries of the Ermelo Coalfield are defined by the sub-outcrop of the coal-bearing strata against pre-Karoo basement. In the west, the Ermelo Coalfield shares a boundary with the Witbank and

Highveld coalfields, and to the south with the Klip River and Utrecht coalfields of KZN (Greenshields, 1986). Between the Ermelo and westernmost part of the Highveld Coalfield there is an area of poor (thin) coal development where no coal mining takes place

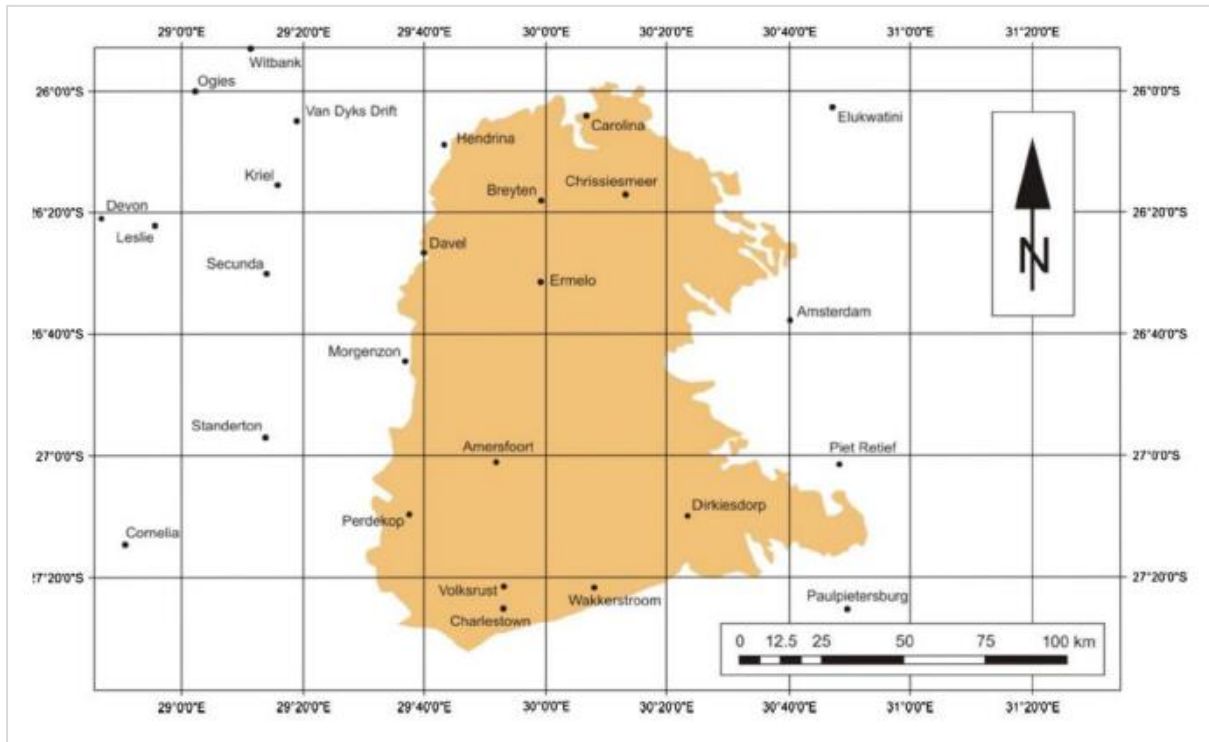


Figure 11: Geographic extent of Ermelo Coalfield

Rocks of the Permian Vryheid Formation and Jurassic aged dolerites dominate the surface exposures of the coalfield. A generalised stratigraphic section for the Ermelo Coalfield is provided as Figure 5. Similar to the Witbank and Highveld coalfields the Vryheid Formation is the coal bearing horizon in the Ermelo Coalfield and five coal seams are also recognised within an 80–90 m thick sedimentary succession. Unlike in the Witbank and Highveld coalfields, the seams are given letters as codes (Figure 6) and are named from the top to bottom the A to E seams (Wybergh, 1928). The basement to the Ermelo Coalfield is less well known than for the Witbank and Highveld coalfields, as few boreholes have been drilled through to it. Where 11 documented it is formed mainly by Archaean basement granites, BIC intrusives, or metasedimentary strata of the Transvaal Supergroup (Greenshields, 1986). De Oliveira and Cawthorn (1999) document granitic gneiss basement at Majuba Colliery in the far southwest of the coalfield. Wakerman (2003) notes that in the Sheepmoor project area two boreholes intersected basement, one of which penetrated greenstone belt metavolcanics and the other, Archaean granite. The basement is overlain by rocks

attributable to the Dwyka Group, which throughout the Ermelo Coalfield are only poorly developed, except in the far south where the unit exhibits variable thickness (Greenshields, 1986). Where developed the Dwyka is usually confined to palaeovalleys and consists of diamictites, sandstones and siltstones, attributed to glacial deposits, such as formed as moraines and in glacial outwash fans and lakes, and on sandur plains. Wakerman (2003) notes that on the Sheepmoor project area the Dwyka Group is between 3 and 30 m thick and consists of massive polymictic diamictite capped by interbedded siltstones and mudstones. He further notes that some units contain well-rounded dropstones of exotic provenance. The Pietermaritzburg Formation is not exposed in the Ermelo Coalfield and is rarely intersected in its entirety in any of the boreholes drilled during exploration programmes. According to Greenshields (1986) it is thinly developed or absent in the centre of the Ermelo Coalfield but may reach a thickness of up to 75 m in the south of the coalfield. Van Alphen (1990) documents a thickness of 12 m for the Pietermaritzburg Formation in his field area. Wakerman (2003) documents thicknesses of between 3 and 48 m for the Sheepmoor project area.

Where present the strata of the Pietermaritzburg Formation effectively blanket and fill the glacial palaeotopography and as such topography does not have the strong control that it does in the Witbank and Highveld coalfields. As for the rest of the northern part of the MKB, the Pietermaritzburg Formation is formed by characteristically blue-grey, micaceous mudstone and siltstone. Wakerman (2003) documents the succession at Sheepmoor as being formed by massive to horizontally bedded carbonaceous mudstone that is often highly bioturbated. In the northern parts of the coalfield, where neither the Pietermaritzburg Formation nor the Dwyka Group are developed, the Vryheid Formation Unconformably rests on basement. Elsewhere it disconformably overlies the Dwyka Group or the Pietermaritzburg Formation (Ecca Group).

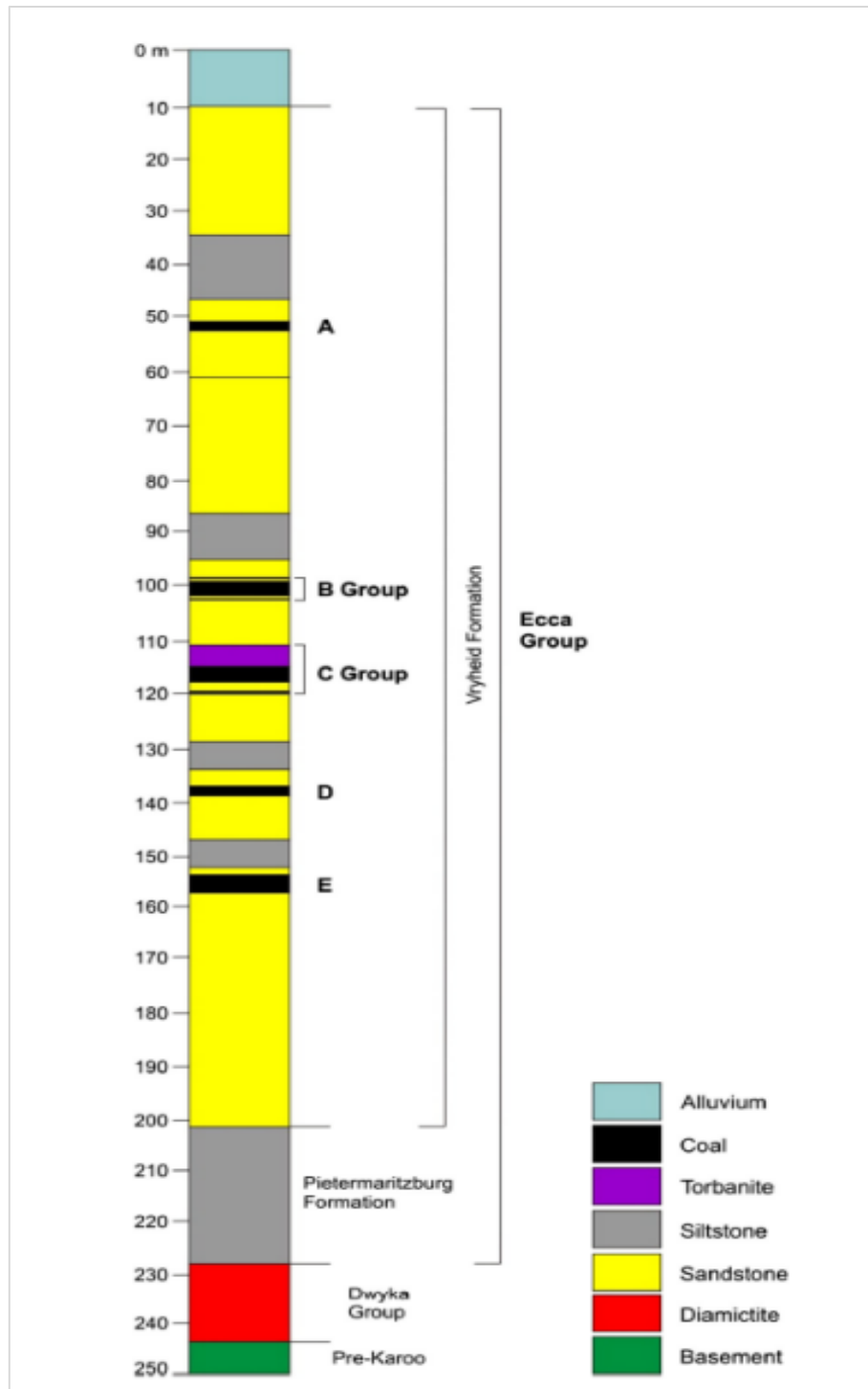


Figure 12: Lithostratigraphy of Ermelo coalfield (adopted from Hancox & Goltz, 2014)

Coal qualities

The coal seams in the Ermelo Coalfield are generally flat-lying to slightly undulating and as for the Witbank and Highveld coalfields, are separated by fine- to coarse-grained sandstones, siltstones and mudstones. The A, D and E seams are usually too thin to be of economic interest and historically the C Seam group was the most important in the Carolina– Breyton area, and the B Seam group in the Ermelo area. Rapid seam thickness variations characterise the coalfield.

The E Seam may reach a thickness of up to 3 m but is of economic importance only in isolated patches in the north of the Ermelo Coalfield (Greenshields, 1986). The coal is mostly bright and banded, has a competent sandstone roof and floor and is sometimes split by a thin sandstone or carbonaceous fines parting (Greenshields, 1986). In the central and southern part of the coalfield, it is developed as a torbanite or as a carbonaceous siltstone or mudstone unit, and locally becomes too thin for mining (Greenshields, 1986). The coal of the D Seam is of good quality, but in general is too thin (0.1–0.4 m) to be of economic importance (Greenshields, 1986). The coal is not split by partings and consists of large amounts of vitrain and occasional durain bands (Greenshields, 1986; Jeffrey, 2005a).

The C Seam group has been one of the main seam packages of economic importance throughout the Ermelo Coalfield. It is usually split by several partings which can lead to miscorrelation of the seams (Greenshields, 1986). In general the C Seam is subdivided into the C Upper (CU) and C Lower (CL) seams. The CU Seam is well-developed over the entire coalfield and is often split by partings of different lithologies, such as sandstone, siltstone or mudstone, reaching a composite thickness of 0.7–4 m. It has historically been mined in several collieries of the Ermelo Coalfield, including the Golfview, Usutu, Goedehoop, Union, and Kobar collieries (Greenshields, 1986), as well as more recently at the Ferreira opencast mine.

The CL Seam is not developed throughout the entire coalfield, but where developed is between 0.5 and 2 m thick. It locally grades into carbonaceous siltstone and mudstone, which often form the roof of the seam, whereas the floor mostly consists of sandstone. It has historically been mined at the Savmore, Anthra, Ermelo, Golfview, and Wesselton mines (Greenshields, 1986; Paulson and Stone, 2002). Several other mines in and around the towns of Ermelo and Breyten have at times extracted coal from this seam including the Spitzkop, Bellevue, Grenfell, Usutu, Consolidated

Marsfield, and Union collieries. The CL was also the main target seam at CCL's Ferreira opencast mine and it is also currently being mined underground at their Penumbra mine, where it occurs at an average depth of around 500 m. It is the thickest of all the coal seams intersected here, reaching a thickness of more than 15 1.5 m over large parts of the project area. Locally seam floor rolls may negatively influence the thickness of the CL Seam in the Ermelo Coalfield.

The B Seam group varies in thickness from 1 to 2.7 m and may be split into three units. Greenshields (1986) terms these the B1, B and BX seams, but they are more commonly referred to as the B Lower Marsfield collieries, and was the seam mined at CoAL's Mooiplaats Colliery, where it is between 0.6 and 2.87 m thick. The BU was mined at the end of the mine life at the old Usutu Colliery, and the BL at the Ferreira mine. At Mooiplaats the BU Seam occurs at depths of between 90 and 140m and ranges in thickness between 0.15 m in the southeast to over 3 m in the north.

The A Seam occurs only in the northern and central parts of the coalfield, where it varies in thickness from 0 to 1.5 m (Greenshields, 1986). Wakerman (2003) provides a weighted average thickness of 0.94 m for the seam in the Sheepmoor exploration area. Over most of the Ermelo Coalfield however this seam has been removed by erosion. Like in the Witbank and Highveld coalfields for the No. 5 Seam, the A Seam is overlain by a green glauconitic sandstone that forms a useful marker horizon and denotes the transition from a fluvio-deltaic to a marine depositional environment.

6.1.4. Soil

A map in **Error! Reference source not found.** below was produced from a desktop study. From the map, it can be deduced that the prospecting area is covered with Association of Classes 1 to 4: Undifferentiated structureless soils, Association of classes 13 and 16: undifferentiated shallow soils and land classes, association of classes 17 and 18: Structureless soils & clay, no soil land classes and Freely drained, structureless soils. Structureless soils have no observable aggregation and no definite arrangement of the soil particles. Clay soils may also be described as structureless when the particles form a massive structure with no small aggregates within. This is more commonly seen in finer textured soils like clays, particularly when they have been worked wet or exposed to heavy loads under wet conditions. The soil classes in the proposed area

can be described based on their soil depth, soil drainage, erodibility, and natural fertility.

Topsoil will not be removed as there will not be any mining related activities to take place on the proposed site. No foundation excavations will be needed for fuel storage depot as fuel will be transported to site daily during the drilling phase. The boreholes footprint will be minimal. The pathways to be created to provide access of the drill rig can cause compaction of the soil. However, the pathways are to be stripped according to the stripping guideline and management plan when the soil is dry (as far as practically possible), so as to minimize the compaction. It is highly recommended to do rehabilitation after the drilling phase of the applied minerals has ceased. Further recommendations have been detailed in the Basic soil study for the proposed project attached as Appendix G.

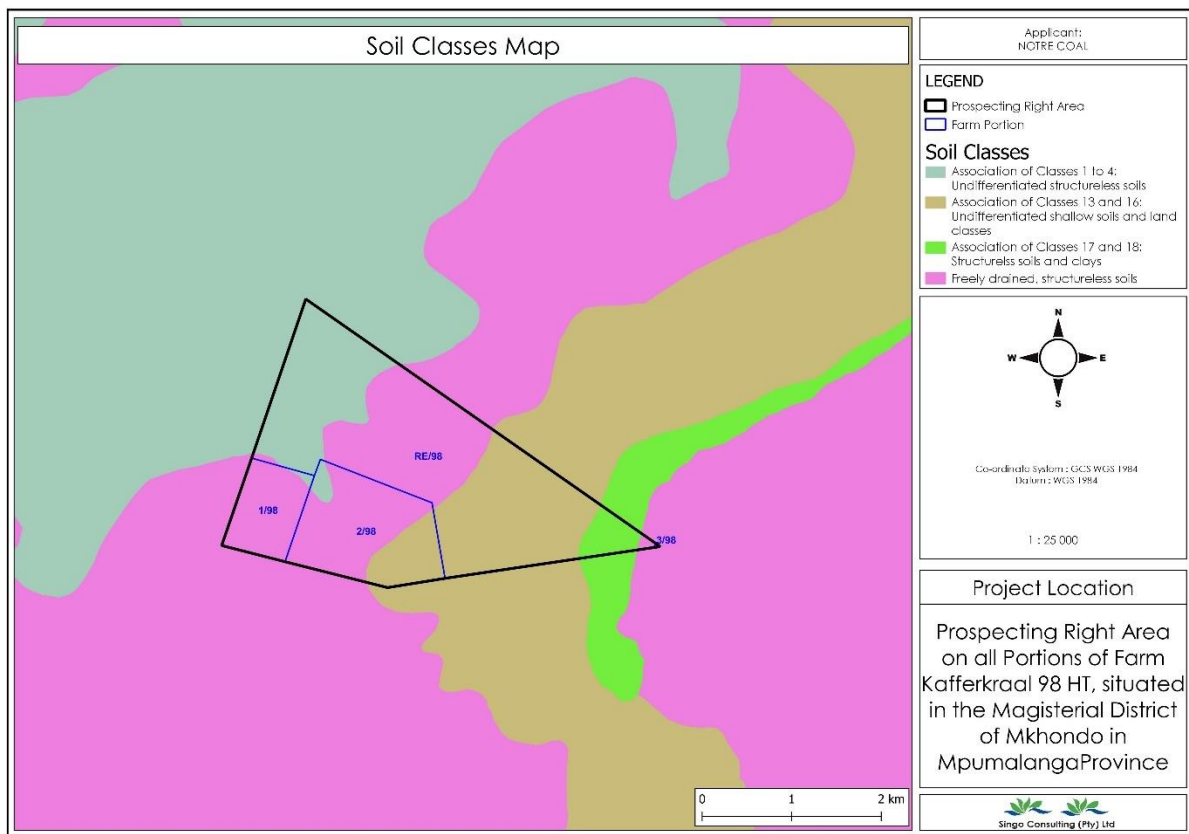


Figure 13: soil classes of the project area



(-27,180; 30,409)

Photo 4: Soil discovered on Site

6.1.5. Climate

The climate is warm and temperate in Mkhondo. The summers here have a good deal of rainfall, while the winters have very little. The climate here is classified as Cwb by the Köppen-Geiger system. The difference in precipitation between the driest month and the wettest month is 196 mm | 8 inches. Throughout the year, temperatures vary by 9.3 °C | 16.7 °F. The month with the highest relative humidity is January (76.08 %). The month with the lowest relative humidity is August (44.27 %). The month with the highest number of rainy days is December (19.77 days). The month with the lowest number of rainy days is June (1.87 days). Wakkerstroom are in the southern hemisphere. Summer starts here at the end of January and ends in December. There are the months of summer: December, January, February, March. In Wakkerstroom, the month with the most daily hours of sunshine is August with an average of 8.67 hours of sunshine. In total there are 268.86 hours of sunshine throughout August. The month with the fewest daily hours of sunshine in Mkhondo is January with an average of 7.81 hours of sunshine a day. In total there are 242.19 hours of sunshine in January. Around

2876.63 hours of sunshine are counted in Mkhondo throughout the year. On average there are 94.53 hours of sunshine per month.

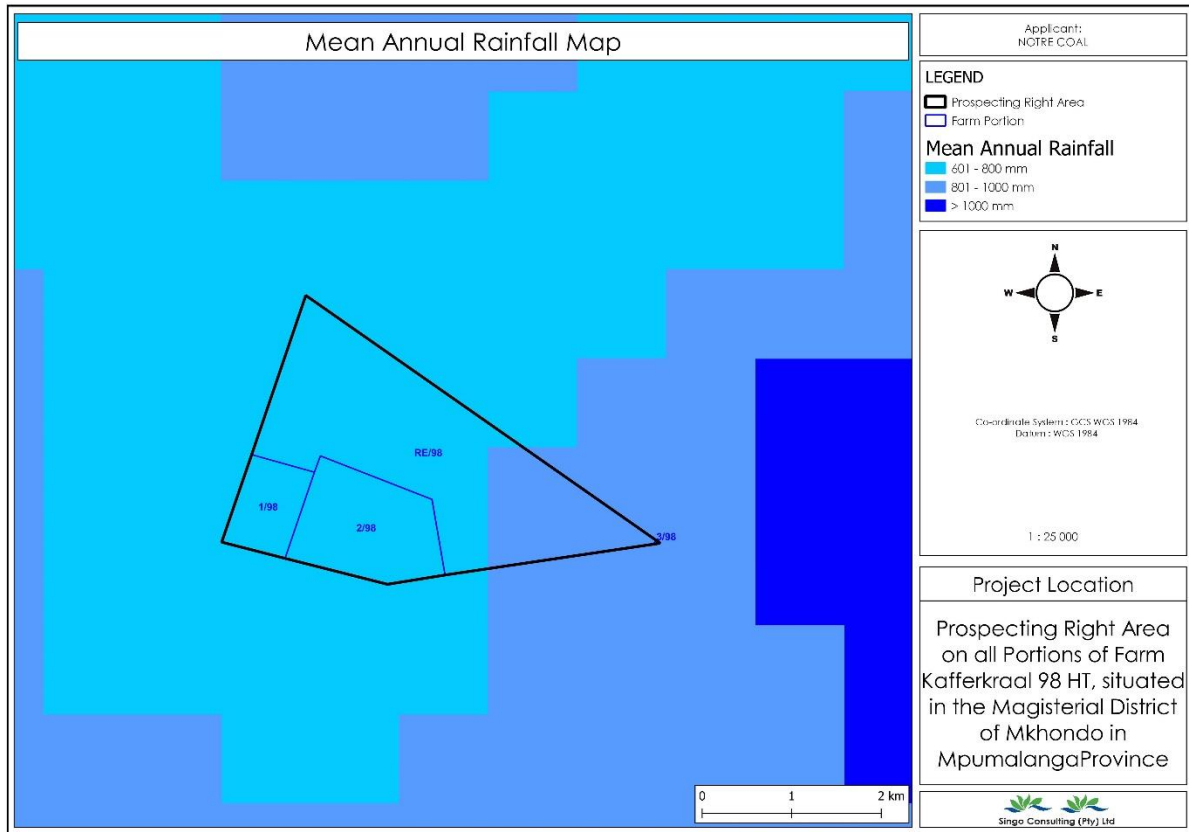
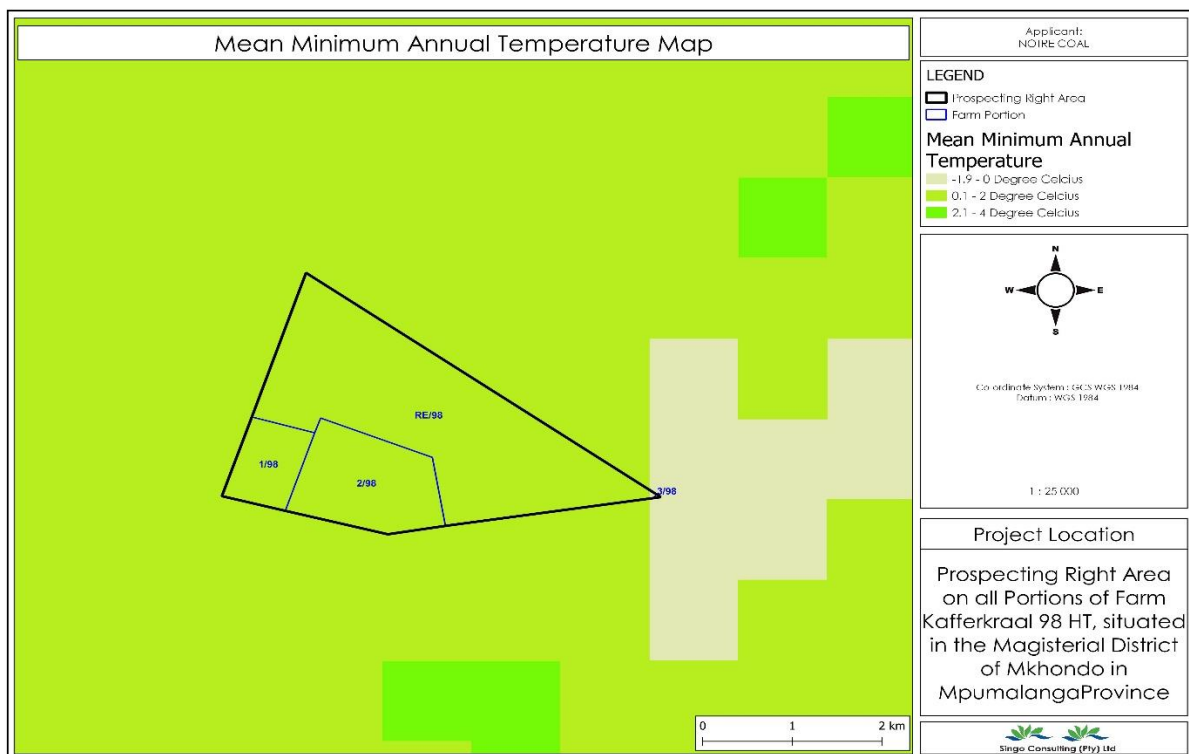


Figure 14: Mean annual rainfall within the prospecting right area.



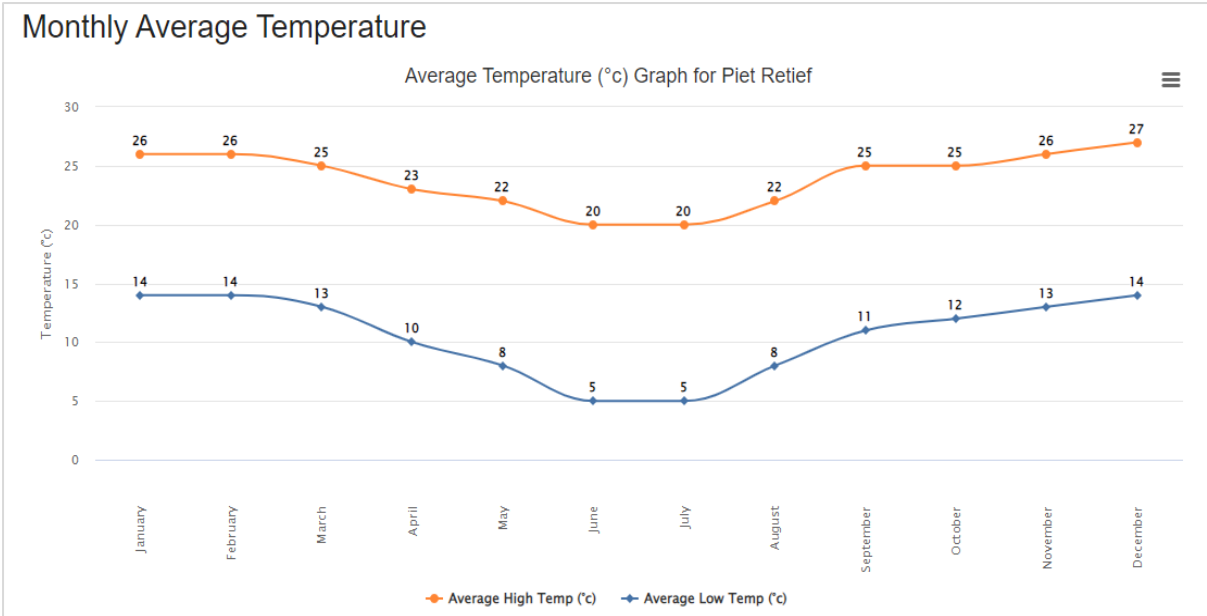


Figure 15: Mean minimum temperature within the prospecting right area.

6.1.6. Hydrology

The hydrology surrounding the proposed area is very importance during prospecting. In this context hydrology is all the surface waters appearing within and nearby the proposed project area, where a potential to be impacted upon by the project exist. The hydrology map see Figure 16, illustrates that the following water bodies exists:

- Non-perennial river
- Channelled valley bottom

For this project where prospecting right poses a risk on them, there should be measures and guidelines put in place that will protect the water resources in this area to ensure optimal conservation of water. The prospecting right activities should take place during dry seasons when the water percentages are extremely low. Extreme caution should be taken during prospecting, owing to the rivers and numerous wetlands existing nearby and within the project area. And all the wetlands, perennial and non-perennial rivers will be buffered as a no-go area and approximately a 500m buffer should apply.

Surface water

The project area is in the Inkomati-Usuthu Management Areas (WMA). The quaternary catchment of the project area is W51A. The WR2012 study, presents hydrological parameters for each quaternary catchment including area, mean annual precipitation (MAP) and mean annual runoff (MAR). Based on the WR2012 study, the

project area falls within the quaternary catchment of W51A. The total catchment area of W51A is 624 km² with MAP of 922 millimetre (mm). See **Figure 16**

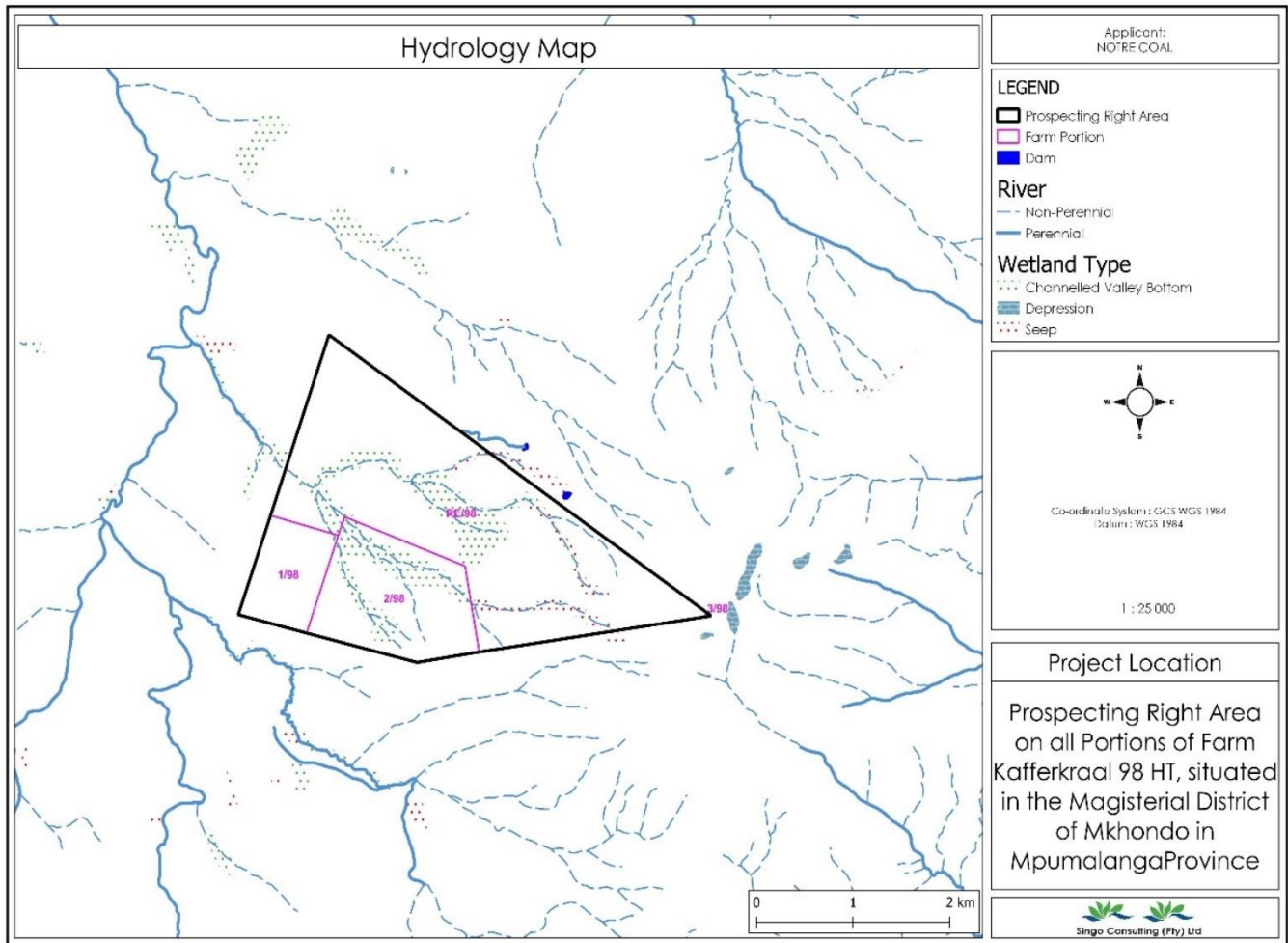


Figure 16: Hydrology map of the proposed project area



(-27,191;30,408)

Photo 5: *Non perennial River observed on site*

These are important natural water resources that should not be disturbed by anthropogenic activities. For this project where prospecting right poses a risk on them, will be measures and guidelines put in place that will protect the water resources in this area to ensure optimal conservation of water. The prospecting right will take place during dry seasons where the water percentages are exceptionally low in the water bodies. Drilling activity will not be conducted near these water resources, the exploration geologists will be advised to drill and sample away from rivers and wetlands on site. A 500m buffer will apply around the water bodies present within the prospecting right area.

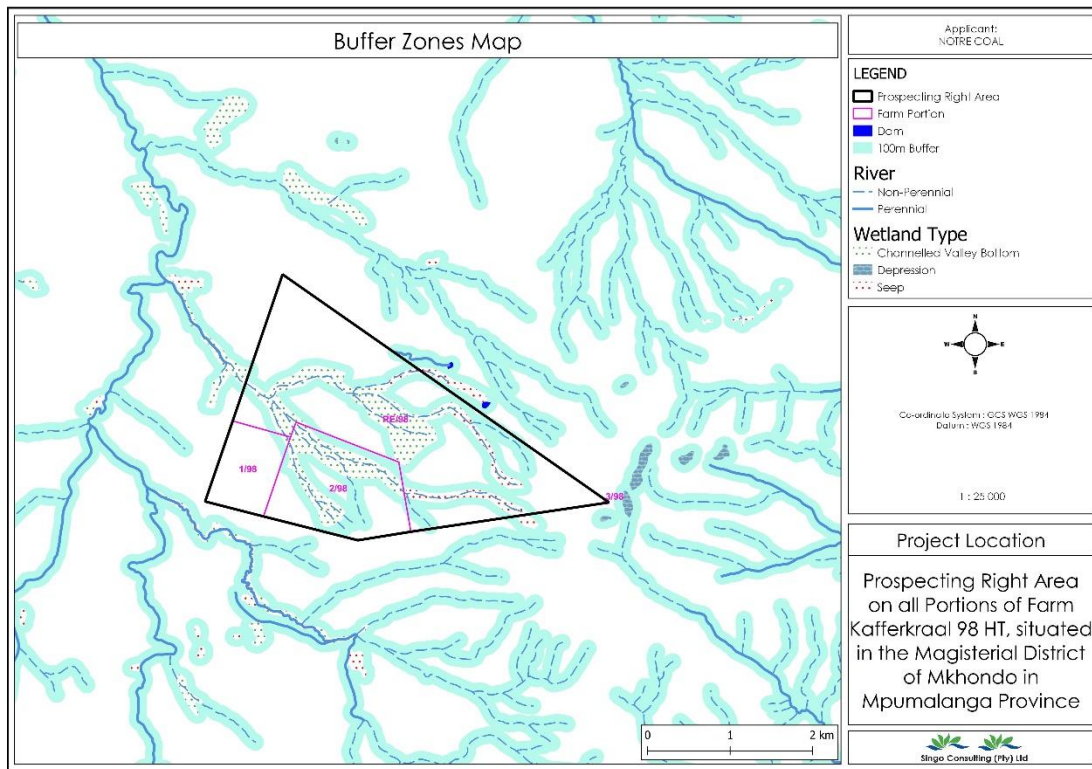


Figure 17: Buffer zone on the proposed project area.



Figure 18: Example of Absorbent spill kits to be used.

Upon completion of the drilling each borehole, the only rehabilitation that will specifically be required is borehole capping and revegetation: Drill holes must be permanently capped as soon as is practicable. The exploration boreholes will be cased during drilling, boreholes that will not be required for monitoring will be properly rehabilitated by cap sealing the borehole after drilling to prevent possible crossflow and contamination between aquifers. Water samples will be taken from selected monitoring boreholes by using approved sampling techniques and adhering to recognized sampling procedures by a qualified hydrogeologist.

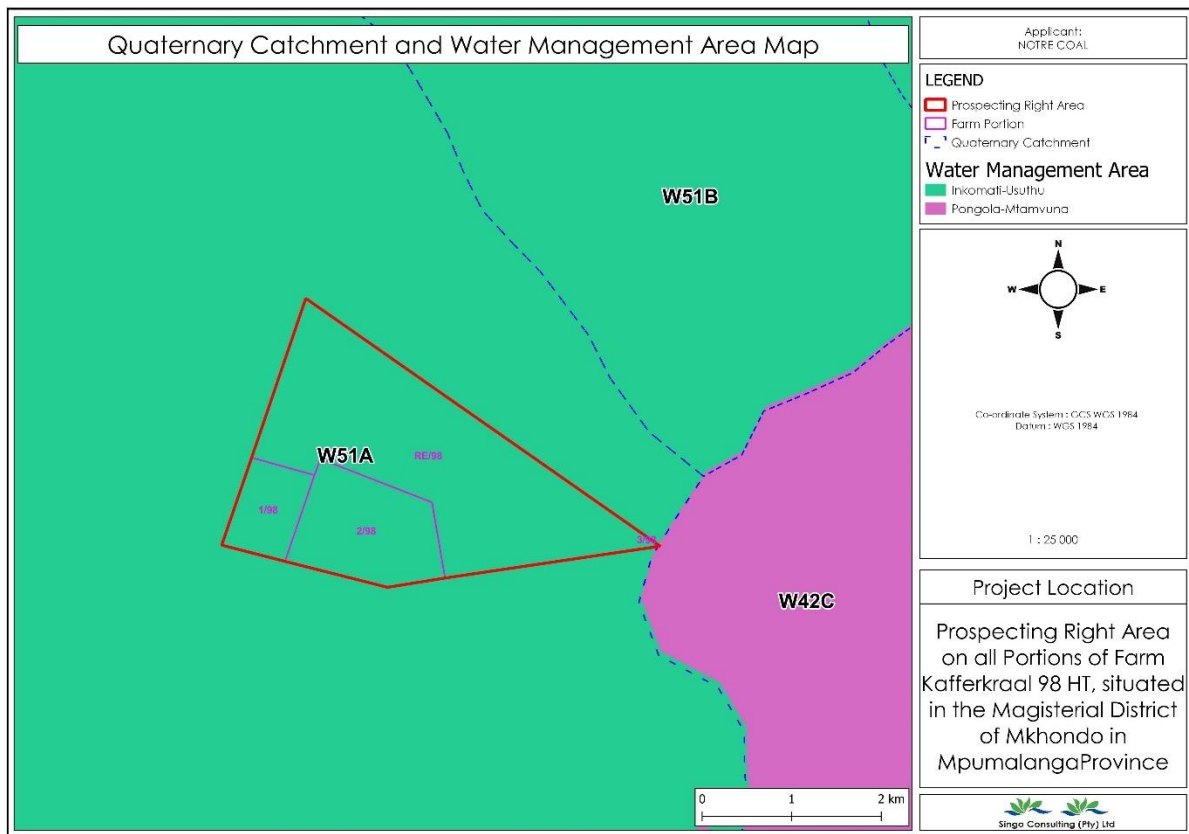


Figure 19: Quaternary Catchment and Water Management Areas of the proposed project area

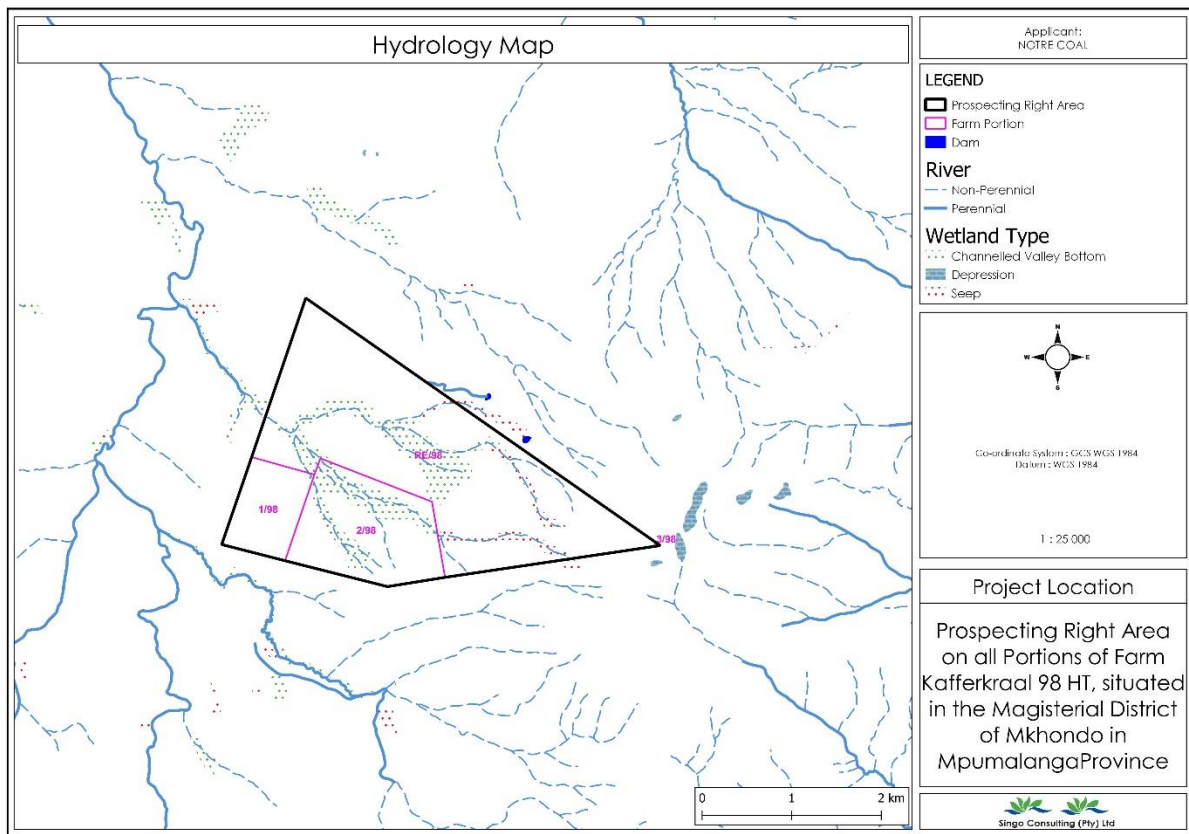


Figure 20: Hydrology map of the project area

Drilling and siting of boreholes.

The exploration boreholes will be drilled one at a time throughout the proposed project area see Figure 22. The drill holes' depths will average 500 m and will be determined onsite while the drilling program is in progress based on the depths and dips measured in other holes. A 500 buffer will be maintained between identified wetlands and rivers see Figure 21 due to the high density of water hence these streams contribute to the percentage of freshwater in South Africa.

The drill site will be fenced off, cleared of debris, and drilled. Drilling will be followed immediately by rehabilitation. After a hole is drilled, the site is rehabilitated, and the drilling crew moves on to the next planned hole. This procedure will be repeated until all of the holes are filled.

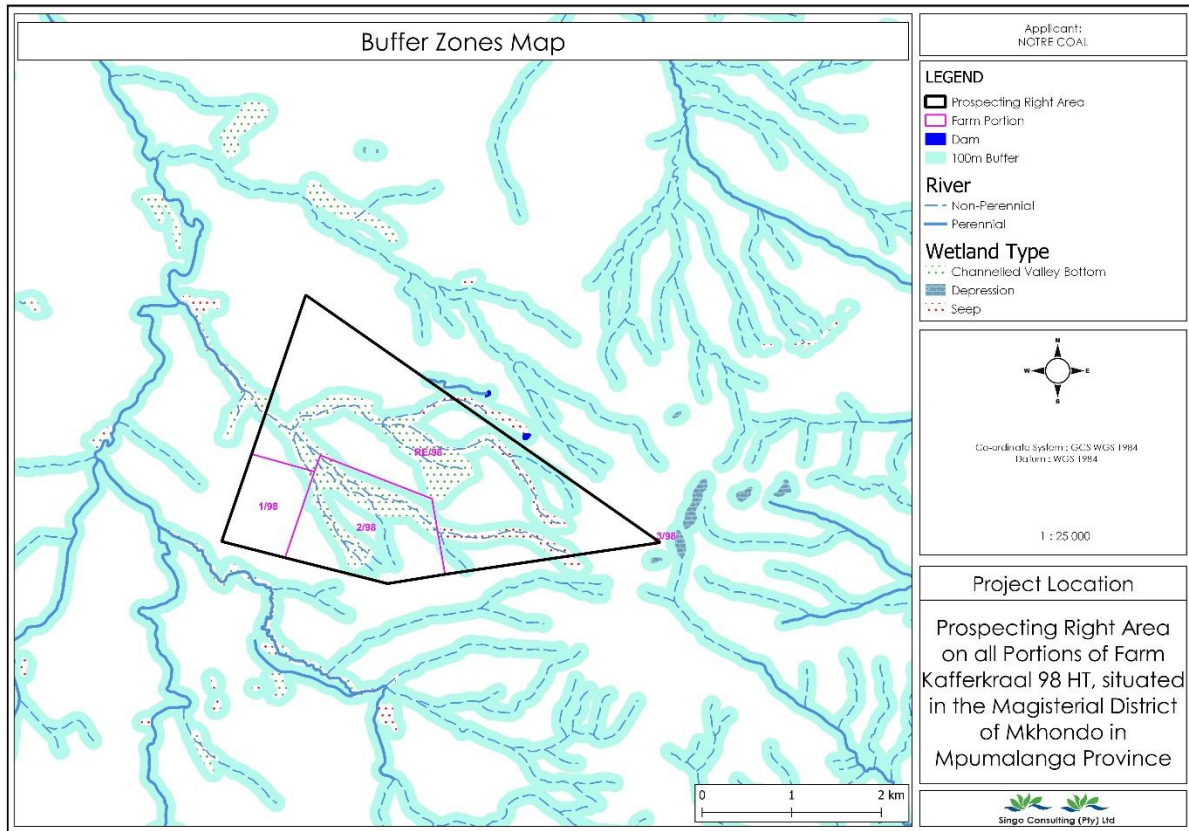


Figure 21: Buffer zone map for the project area

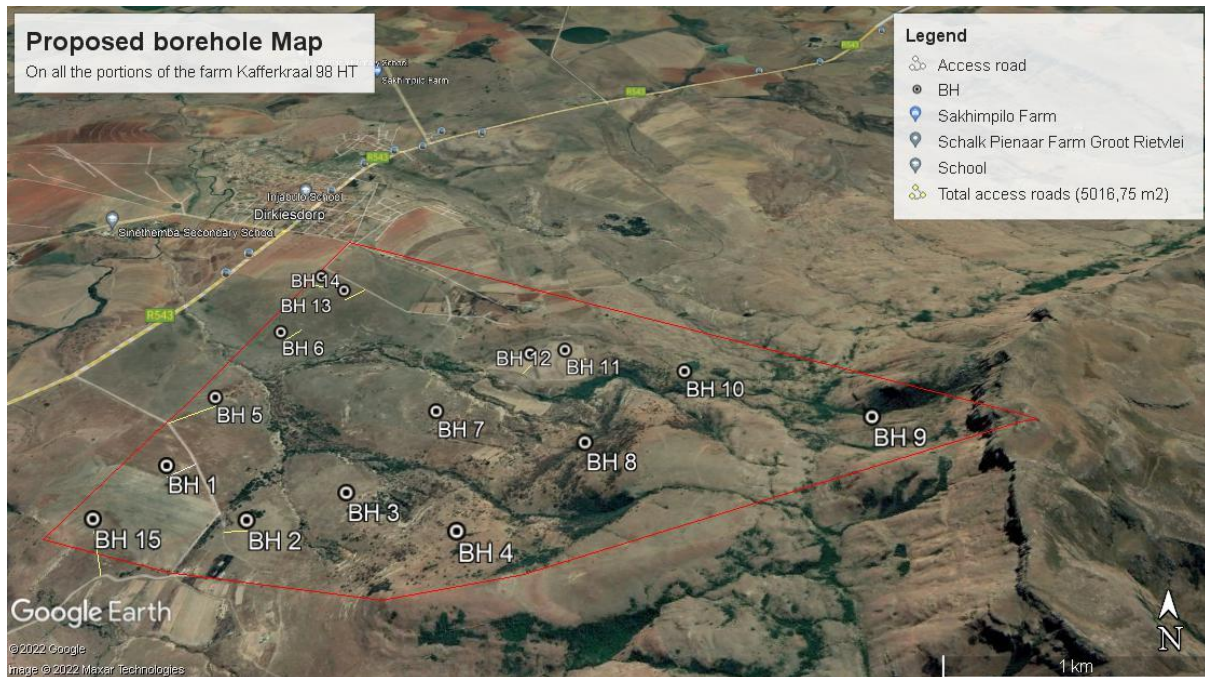


Figure 22: Proposed borehole map on the project area

6.1.7. Biodiversity

As according to the biodiversity map below (see Figure 23) the proposed project has the CBA: Irreplaceable sensitivity areas that are 80-500% irreplaceable for meeting

biodiversity conservation targets or critical linkages or Critically Endangered Ecosystems, CBA: Optimal sensitivity are areas that are optimally located as part of the most efficient solution to meet biodiversity targets, Heavily modified are transformed areas, where biodiversity and ecological function have been lost to the point that they are not worth considering for conservation at all and Moderately modified are areas which were modified within the last 80 years but now abandoned, including old mines and old cultivated lands.

Approximately 0,9 ha of vegetation will be cleared during prospecting, however, care will be taken to avoid relocation and/or disturbance of any protected species identified. The cleared area with vegetation will be rehabilitated per drill site. Though prospecting activities are of a low impact. Sensitivity of the farm has been noted and will be kept in close supervision during the prospecting phases. Drilling will be concentrated on the highly modified areas of the farm. Rehabilitation will take place on each drill site as drilling activities commences, an ECO will be appointed to overlook the drilling activities.

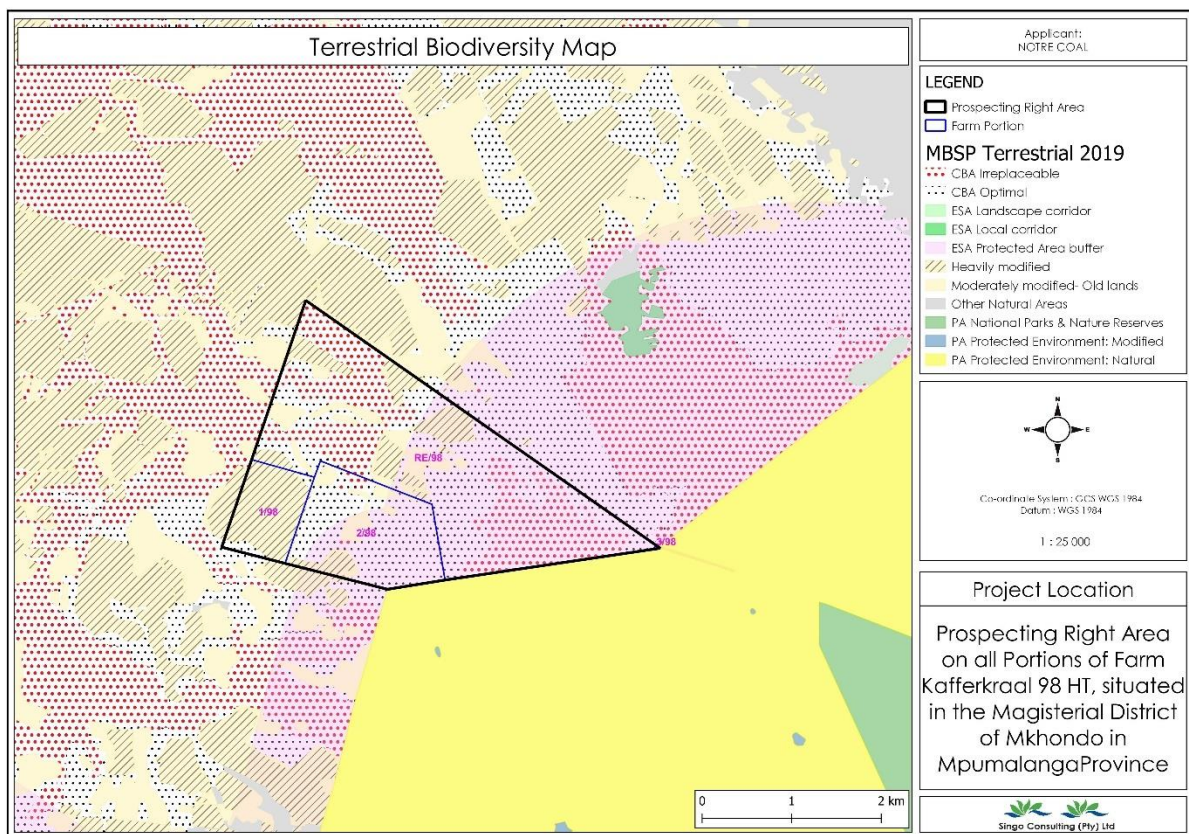


Figure 23: Biodiversity map of the project area

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

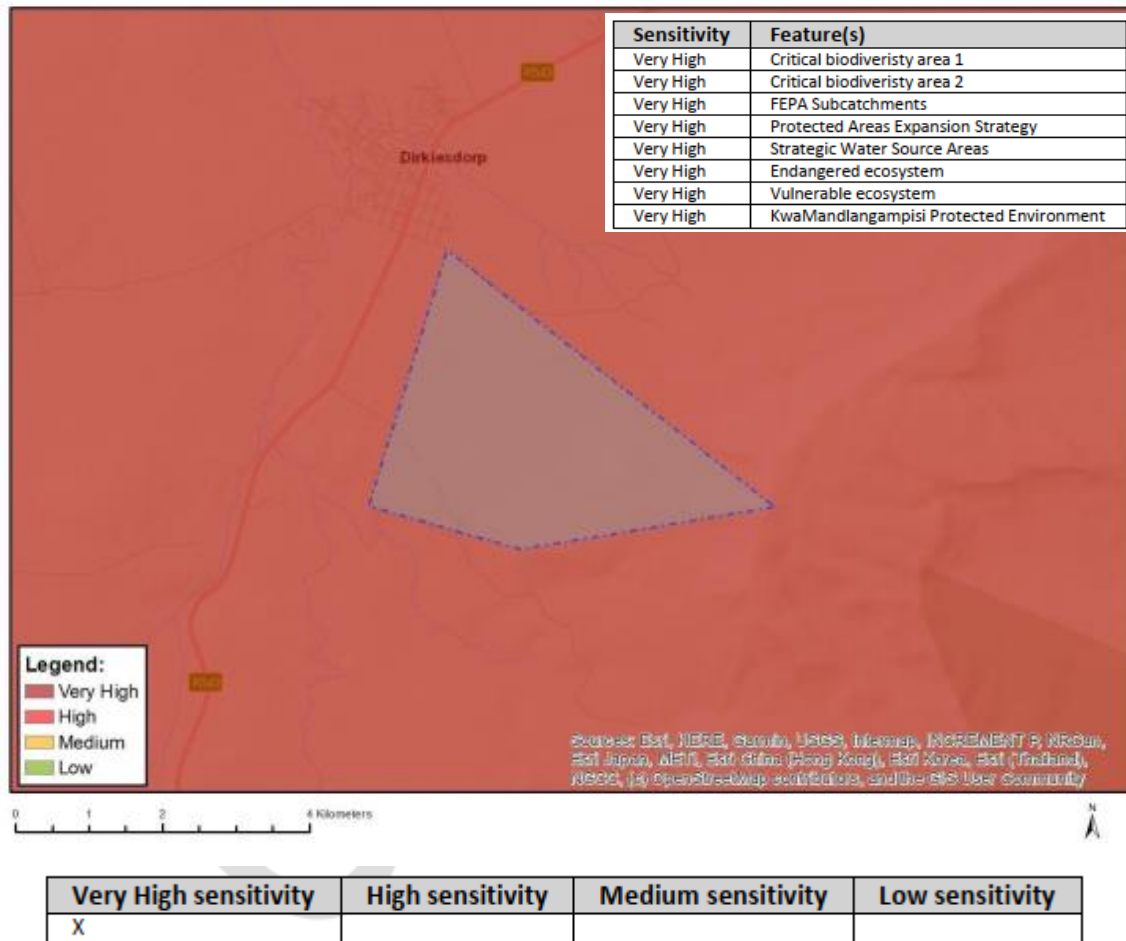


Figure 24: Map of relative terrestrial biodiversity theme sensitivity

Floral Assessment

From the screening report, plant species theme which showed that the proposed mining prospecting area is of high sensitivity with features including *Aspidoglossum demissum*, *Holothrix majubensis*, *Faurea macnaughtonii* and *Ocotea bullata* to name a few. *Aspidoglossum demissum* is a vulnerable species whose distribution ranges Volksrust to Wakkerstroom. This plant species is South African endemic and known from four properties, three adjacent properties in the Wakkerstroom district, and one near Volksrust. Grasslands on all four properties are used for grazing of livestock. Judging by the condition of the grasslands, grazing pressure is currently low (S.P. Bester pers. obs.), and grazing is not suspected to be a threat to this species at present. Should management practises change, and grazing pressure increase, the population could

potentially be impacted. This species is a localized habitat specialist, currently known from two subpopulations, about 40 km apart. Surveys of similar, suitable habitat on mountain summits in the intervening areas have thus far failed to locate and other subpopulations.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

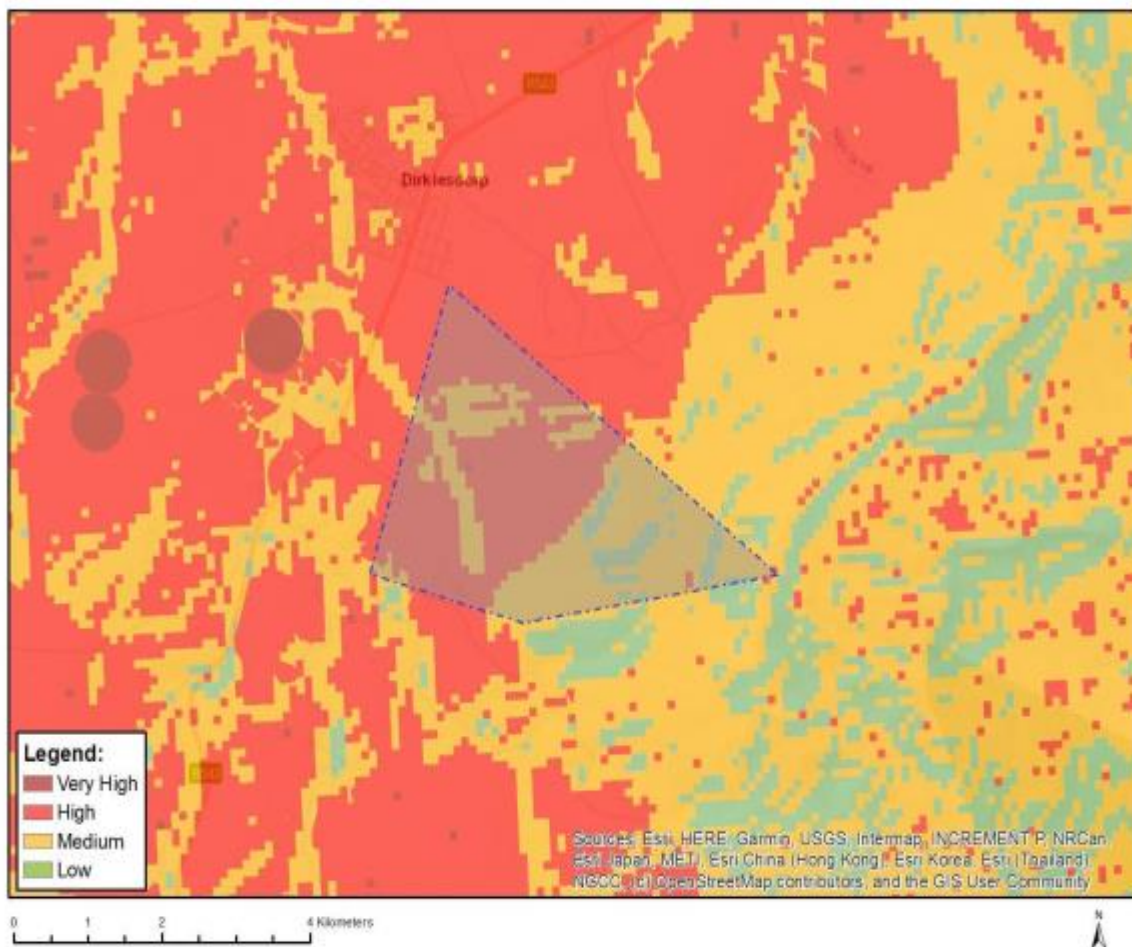
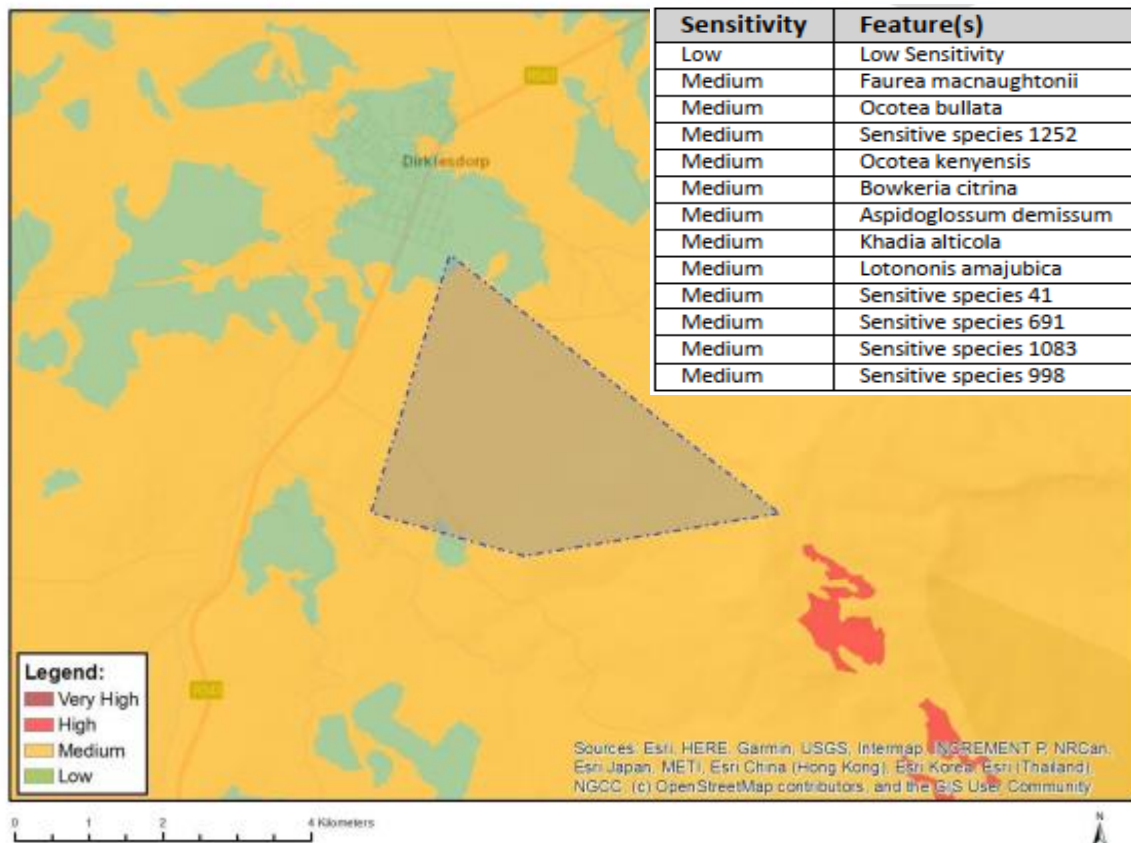


Figure 25: Map of relative agricultural theme sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Figure 26: Map of relative plant species theme sensitivity

Faunal Assessment

The screening report showed the development footprint environmental sensitivity for animal species to the of high sensitivity with features including the Aves-Circus ranivorus and the Aves-Tyto capensis. The Aves-Circus ranivorus is a bird species that is endemic to the great escarpment, mainly resident in the moister regions of southern and eastern Africa, from the Western Cape northwards through eastern South Africa, Lesotho, Swaziland. the species is regarded as regionally endangered. The population is preliminarily estimated to number between 10,000–500,000 individuals. Populations are declining due to drainage and damming of wetland habitats, over-grazing and human disturbance and, possibly, pesticide poisoning The Aves-Circus ranivorus has a varied diet which includes:

- small mammals (70% of items[4]) and
- adult birds,
- fledglings,
- lizards,
- Frogs, large insects.
- Red-billed teal,
- speckled pigeon,
- laughing doves,
- striped mouse *Rhabdomys pumilio*,
- African fish eagles

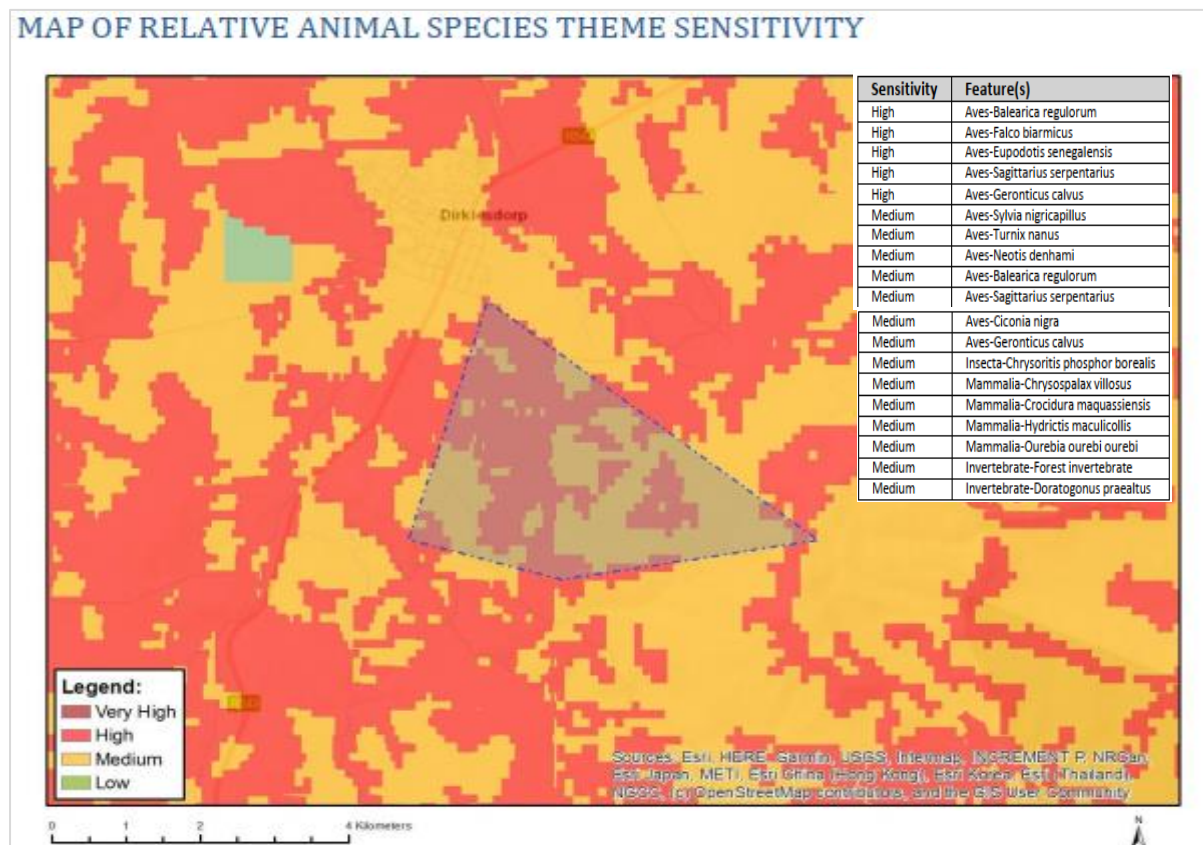


Figure 27: Map of relative animal species theme sensitivity

6.2. Cultural and Heritage

Heritage Impact Assessment was not undertaken as part of the development of the impact assessment. Based on available Geographic Information System data and site assessment, " graves are present within the prospecting area.

During site visit conducted on the 13th of August 2022, no graves were observed within the site area. As outlined in this report, prospecting will be undertaken in phases; the first phase being a desktop assessment, followed by drilling. Based on the outcome of these activities, desktop study and potential drill sites will be determined. Potential heritage impact will only occur once desktop study has been used to identify sites for drilling, and it is therefore recommended that the Heritage Impact Assessment be undertaken prior to drilling activities, and that the Heritage Impact Assessment be conducted over identified localized drill sites and access routes, as opposed to the entire exploration area. This recommendation will be submitted to the South African Heritage Resource Agency (SAHRA) for approval which was also consulted using the SAHRIS online system. From the screening report conducted, the proposed prospecting area has an archeological and cultural heritage of low sensitivity.

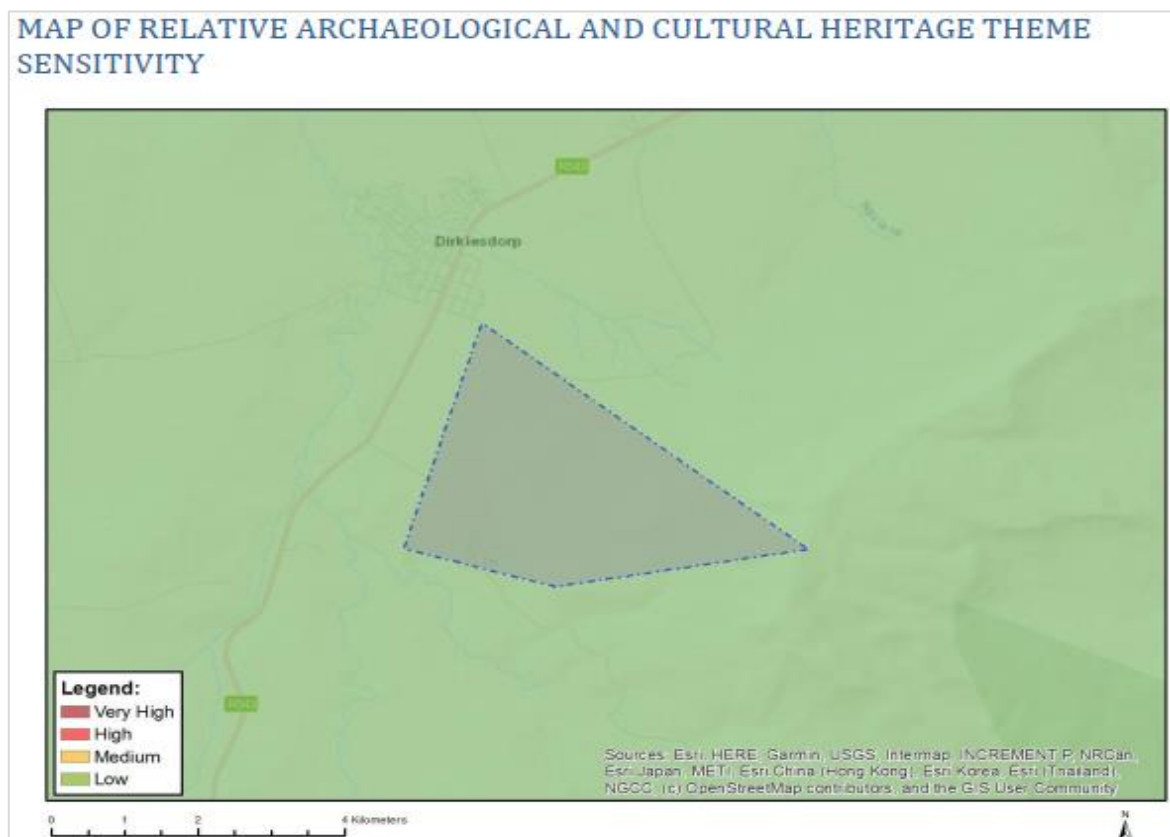


Figure 28: Map of relative Archeological and cultural heritage theme sensitivity

6.3. Paleontological Assessments

Paleontology is the scientific study of life that existed prior to, and sometimes including, the start of the Holocene Epoch (roughly 11,700 years before present). It includes the study of fossils to classify organisms and study interactions with each other and their environments. Paleontology lies on the border between biology and geology but differs from archaeology in that it excludes the study of anatomically modern humans. It now uses techniques drawn from a wide range of sciences, including biochemistry, mathematics, and engineering.

According to the results obtained from the screening report conducted within Singo Consulting's premises using the National Web based screening tool (see Figure), it can be concluded that the area has medium, high and very high paleontological sensitivity. Thus, during the operation of the proposed development. Although this is so, Singo Consulting recommends that both field assessments and drilling are deemed important for purposes of having a true representation of how the paleontology of the area looks like. Where bedrock is to be affected, or where there are coastal sediments, or marine or river terraces and in potentially fossiliferous superficial deposits.

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

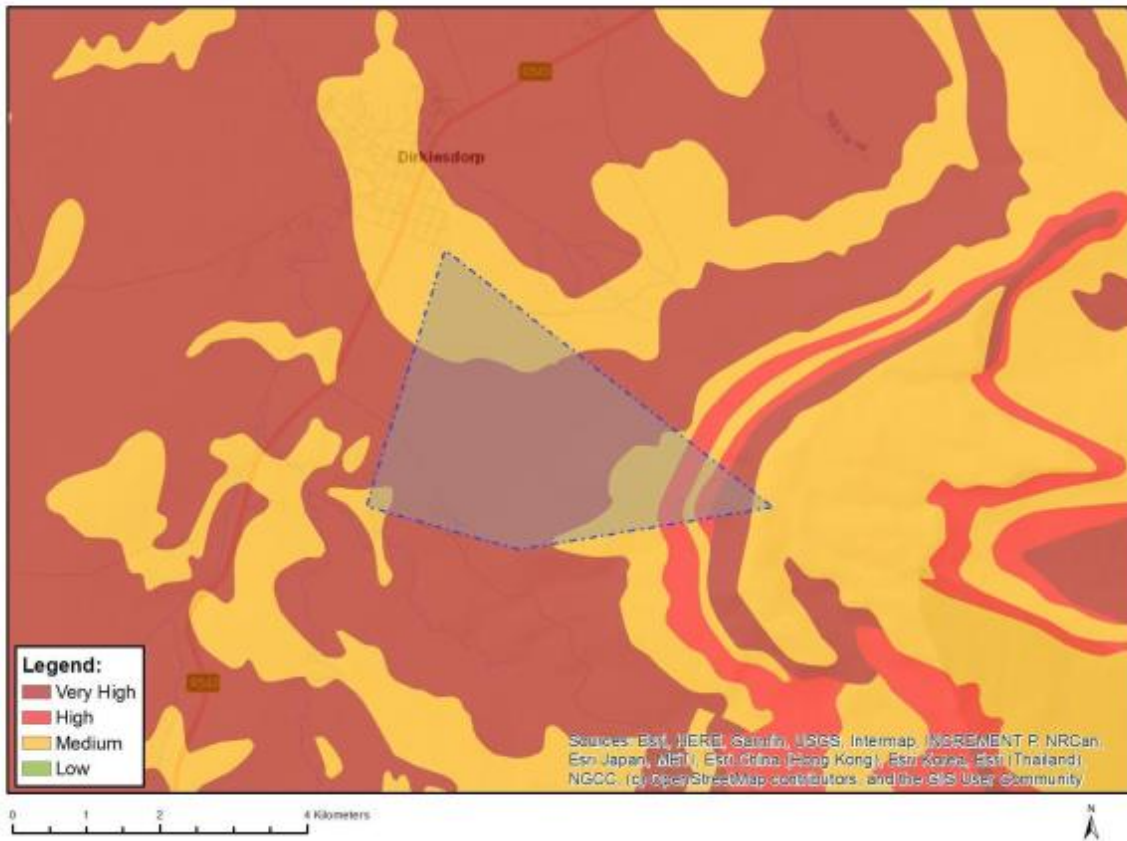


Figure 24: Map of relative paleontology theme sensitivity

6.4. Land Capability

The proposed project area is in an arable and grazing land. Arable land is any land capable of being ploughed and used to grow crops and grazing land grassland suitable for cattle, sheep to graze on. The study area (and the surrounding areas) has a land capability class value; 09. Moderate-High/10. Moderate-High as classified and zoned by the agricultural sensitivity on the screening report developed. The main land use of this proposed area is farming and residential use.

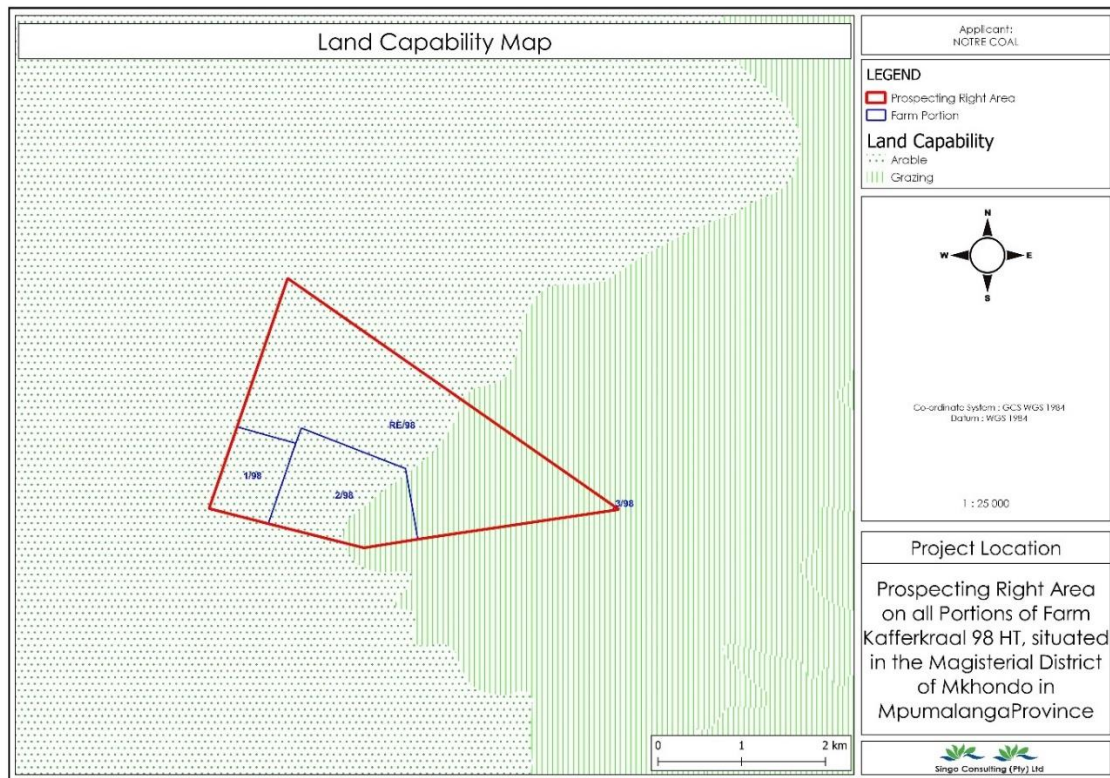


Figure 25: Land capability map for the project area



photo 6: Cattle and homesteads observed on site

6.5. Noise and Dust Sources

Noise sources and baseline

Prospecting and associated activities often emit significant noise levels which can become a nuisance or health risk when not properly managed. This impact may affect not only to the prospecting area, but also to the surrounding land users and occupiers. The most sensitive receptors identified for the project area are the landowners and occupiers of the study area itself, surrounding communities including land users. The local area is predominantly occupied by agricultural land uses.

The main noise generation activities of the proposed activities during all phases are:

- ❖ Transportation of materials;
- ❖ Drilling; and
- ❖ Loading and off-loading of equipment and materials.
- ❖ Limited amount of vehicles moving around the site; and

Noise generation can be expected on the proposed site due to various activities and actions as indicated above. Noise levels may possibly exceed allowed limits for noise as indicated in SANS 10103: 2008. There are multiple sensitive receptors in the area that will be affected by the noise associated with prospecting activities, this includes but not limited to the Kafferkraal 98 HT community on and immediately adjacent to the study area as well as the animal species which may be affected by the noise in the area and will be driven away.

Due to the proximity of the community to prospecting activities, mitigation measures are required to be implemented to reduce this impact. Mitigation measures may include keeping noisy activities to normal working hours and not over weekends or public holidays and maintaining machinery and vehicles to avoid unnecessary excessive noise emanating. It is also recommended that consultations be held with affected parties in order to establish an acceptable schedule of noisy activities. Animals that are found within the proposed farm area will also be affected by the noise generated by drilling activities. Mitigation measures will be developed and implemented to protect the animals from the noisy prospecting activities.

Dust Sources and baseline

The following sensitive receptors of dust have been identified and it is expected that these receptors may be affected by dust fallout and other air pollutants, resulting from the proposed prospecting activities:

- ❖ Landowners, lawful occupiers and the community of the study area;
- ❖ Landowners, lawful occupiers of the properties adjacent to the study area;
- ❖ Surrounding communities (Kafferkraal community)
- ❖ Faunal and floral species within the farm area

The main source of air pollution in the local area is the dust emanating from the agricultural activities within the farm and the timber activities from the York timber facility. Dust fallout will be measured prior to the drilling activities and monitored throughout the period of the drilling activities within the proposed farm area. It is not expected that the air quality outside of the study area will deviate from its current condition during prospecting. Normal vehicular activity, as is already present, will most likely continue. There is, however, a risk that dust levels may increase as a result of the proposed activity and therefore mitigation measures will be recommended. Limiting the speed of vehicles on the gravel roads to 30km/h will have a threefold benefit in terms of health and safety: it will reduce dust fallout, reduce exhaust emissions and ensure the safety of workers. Another measure is to suppress dust by means of spraying water on the gravel roads, 20 000L water will be bought from the local municipality or from the local water service facility to aid in the suppression of the amount of dust to be created by the drilling activities. To minimize impacts on plants caused by dust deposition from the drilling activities.

Aesthetic Quality

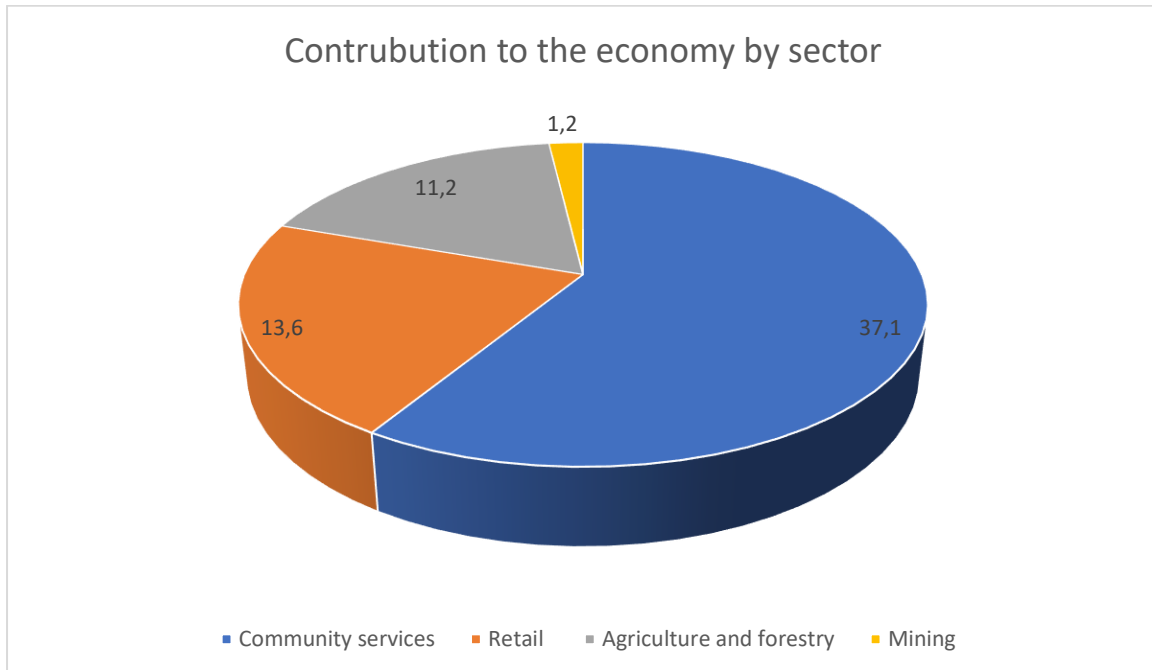
It is important to bear in mind that determining a visual resource in absolute terms is not achievable. Evaluating a landscape's visual quality is both complex and challenging, as many quality standards apply and it is largely subjective, with individuals basing evaluations on experiences, their social level and their cultural background. Furthermore, natural features are inherently variable. Climate, season, atmospheric conditions, region and sub-region all affect the attributes that comprise the landscape.

Visual Absorption Capacity (VAC) can be described as the ability of an area to absorb physical modifications. Factors affecting VAC include *inter alia*, vegetation, the built environment, existing infrastructure and topography. In terms of these factors, the receiving environment is perceived to have a low to medium VAC. The prospecting activities will not modify the physical characteristics of the landscape significantly and can easily be rehabilitated upon completion.

7. Socio-Economic Environment

The proposed project area is under Mkhondo Local Municipality which is situated on the eastern border between Mpumalanga and Kwa - Zulu Natal (Newcastle Local Municipality). For the purposes of the Dr Pixley Ka Isaka Seme Integrated Development Plan the boundaries as proclaimed in terms of Section 21 (B) of the Local Government: Municipal Demarcation Act, 1998 (Act 27 of 1998). The Municipality has a Total Population of 85 395 with 22546 households which amounts to a household size of 3.8 persons per household according to the 2016 Community Survey data. In 2016, 62% of the Municipality's population was under the age of 30 years, 22% between the ages 30 to 49 years and 16% ages 50 years and older. This analysis therefore puts major pressure on the Municipality to prioritize for youth development and empowerment programmes as one of the key drivers towards sustainable development of the Municipality. Moving ahead the implication of the aforementioned growth serves as a key developmental indicator in influencing the manner in which a municipality plans its infrastructure development to pro-actively alleviate against undersupply or oversupply of services in certain wards as a result of failure to pre-determine infrastructural needs complimented by every increase in the population. In the spirit of trying to make sure that the correct planning is undertaken by the Municipality

population projections are made using the growth rate as calculated above per age group.



The proposed project area is located in Mkhondo Local Municipality within Gert Sibande District Municipality (GSDM), Mpumalanga Province. The socio-economic analysis is based on a desktop study of existing socio-economic information and development strategies contained in the governmental national, regional and local databases (Statistics SA: Census 2011/2016 and Community Survey 2016), IDP and Census data from the Municipal IDP (2017- 2022)

Table 7: Mkhondo Local Municipality Structure

Urban nodes	Rural nodes/Settlements
<ul style="list-style-type: none"> • eMkhondo (Town) • eThandakukhanya • Amsterdam • KwaThandeka 	<ul style="list-style-type: none"> • Saul Mkhizeville • KwaNgema • Mahamba • Dirkiesdorp/Mabola • Iswepe • Stafford • eNtombe • Comondale

The Municipality comprises of forestry plantations and much of its economy originates from this source. Mondi, Sappi, TWK and Komati Land Forests are the major companies that lead the forestry industry in the municipality. Mkhondo Local Municipality is known for wood processing, furniture, manufacturing,

and coal briquettes manufacturing. A number of timbers producing companies are located within the municipality, including Mpact, Tafibra and PG Bison and Normandien which are national businesses. Large-scale agriculture is limited in the municipality due to the extensive use of land for forestry.

The municipality's primary economic components are forestry, mining, and subsistence farming. Mkhondo Local Municipality is home to two significant mining firms (Jindal and Kangra Coal Pty (Ltd)). In comparison to other local municipalities in Mpumalanga, Mkhondo Local Municipality ranks low in terms of tourism. There is, nevertheless, a lot of tourism potential within the municipality, thanks to the South African heritage sites that are located there.

Population Distribution

According to Stats SA (2016) the population of Mpumalanga Province has increased. The population of Gert Sibande District Municipality has increased from 1 043 194 in 2011 to 1 135 409 in 2016 and that of Mkhondo Local Municipality has also increased (from 171 982 in 2011 to 189 036 in 2016). It is evident that the Gert Sibande District recorded an increase in population of 92216 people between 2011 and 2016. It noteworthy that Mkhondo Local Municipality grew at a rate of 2.0 % during the 2011 to 2016 period. This shows that the Gert Sibande District is ever-growing in population, between 2001 and 2011, there was an increase of +152 496 people.

Table 8: Mkhondo Local Municipality Population Distribution (IDP 2017- 2022)

	2011	2016	Growth rate	Projected 2030 number
Population	171 982	189 036	2.0%	252 874
Number of House Hold	37 433	45 595		
House Hols living in RDP House	11 733			
House Hold in Shacks within Informal Settlements	642	508		

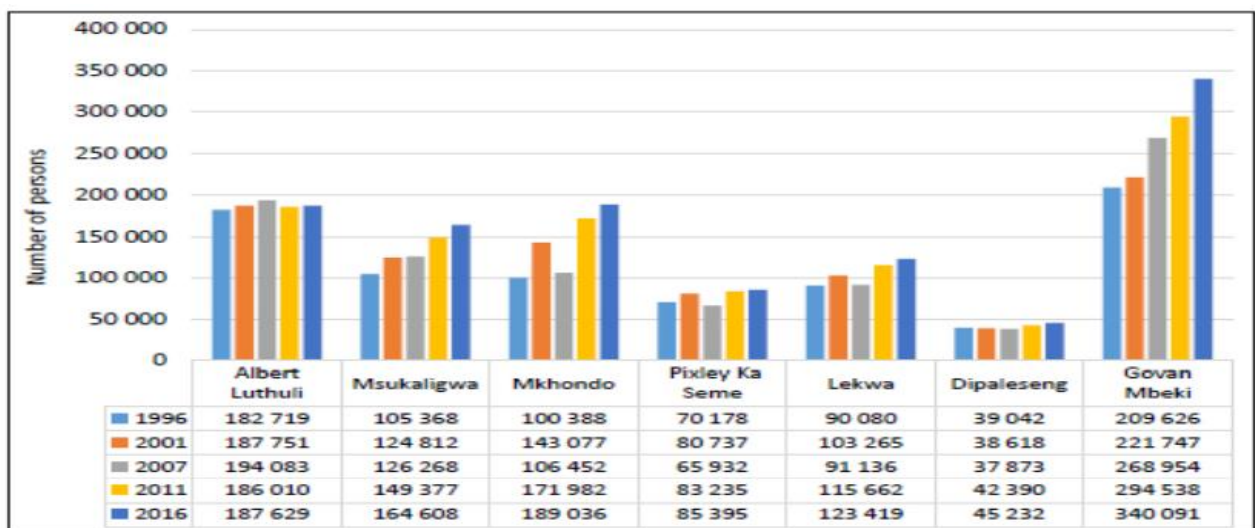


Figure 29: Population 2001 vs 2011 vs 2016 (Sources: STATS SA Community Profile (2001, 2011 and 2016))

Education & Unemployment

The number of people with ‘no schooling’ has declined from 2001 to 2011, while those with ‘matric’ has increased. According to the Final MLM Draft SDF (2016) the settlements with the lowest education level are Ngema Tribal Trust, Mkhondo Non-urban, Saul Mkhizeville and KwaNgema. These are the settlements that are in close proximity to traditional areas or informal settlements. Settlements with the highest education levels are eMkhondo, Iswepe and Amsterdam (UP Enterprise, 2016).

Table 9: Educational Background 1996 vs 2001 vs 2011 vs 2016

EDUCATION BACK-GROUND	1996	2001	2011	2016
No Schooling	18 000	22 806	15 914	38 045
Grade 7	3 360	4 304	4 543	7880
Grade 12	5 594	8 674	22 600	30841
Higher than Grade 12	1 759	2 411	4 575	

Sources: STATS SA 2016

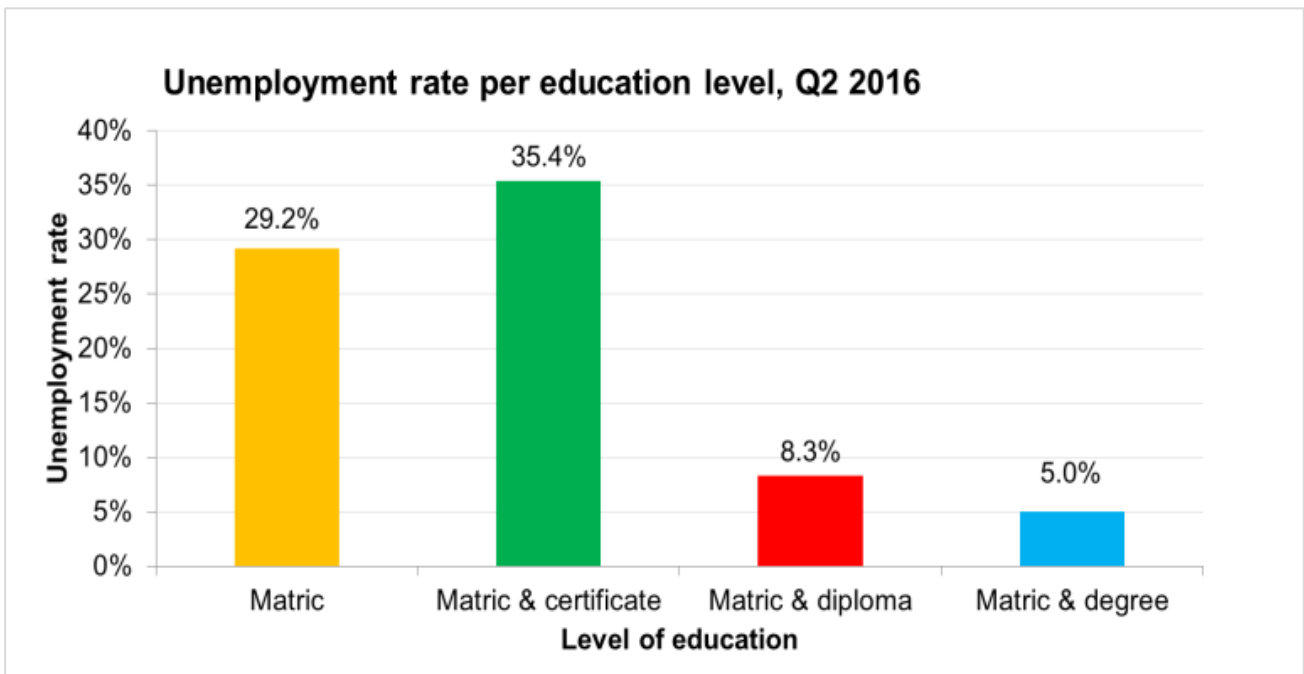


Figure 30: Unemployment rate per education level, Q2 2016

Gross Value Added (GVA) Contribution for Mkhondo Local Municipality

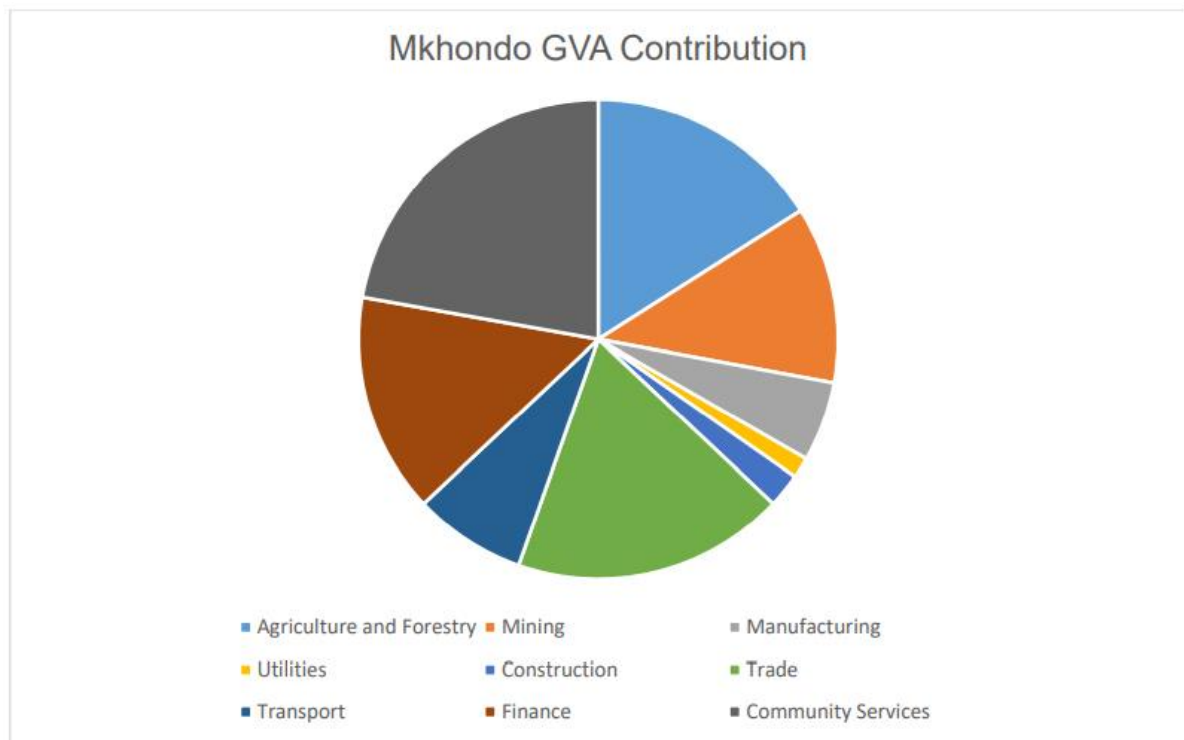


Figure 31: Mkhondo GVA Contribution (2017- 2022)

The sector or industry that contributes the most to the GVA of the municipality is community services (22.2 %) followed by trade (18.4 %), agriculture and forestry (16 %), finance (14.8 %), mining (11.9 %), transport (7.6 %), manufacturing (5.4%), construction (2.3%) and utilities (1.4 %).

Concluding Remarks

Socio-economic information detailed in this section of the report provides an understanding of the need for economic development which is to further create employment opportunities. The people most affected by the proposed project is the community residing near/around the project area. Although there are economic/agricultural activities taking place in close proximity to the application area, most of the people residing within the 20 km radius; in this context being Dirkiesdorp, Driefontein and Kwa Ngema remain unemployment and underprivileged. Not implementing the activities will result in a loss of potential economic development and opportunities that comes with the development.

8. Land Uses

8.1. Parties to be potentially affected by the prospecting activities:

The residents are likely to be affected by the proposed prospecting activities. 500m buffers will be developed to prevent any drilling activities to occur in proximity of the residents and their houses.

8.2. Description of the current land uses

The majority of the study area is used for farming purposes. Kafferkraal 98 HT community has been observed within the farm area as well.

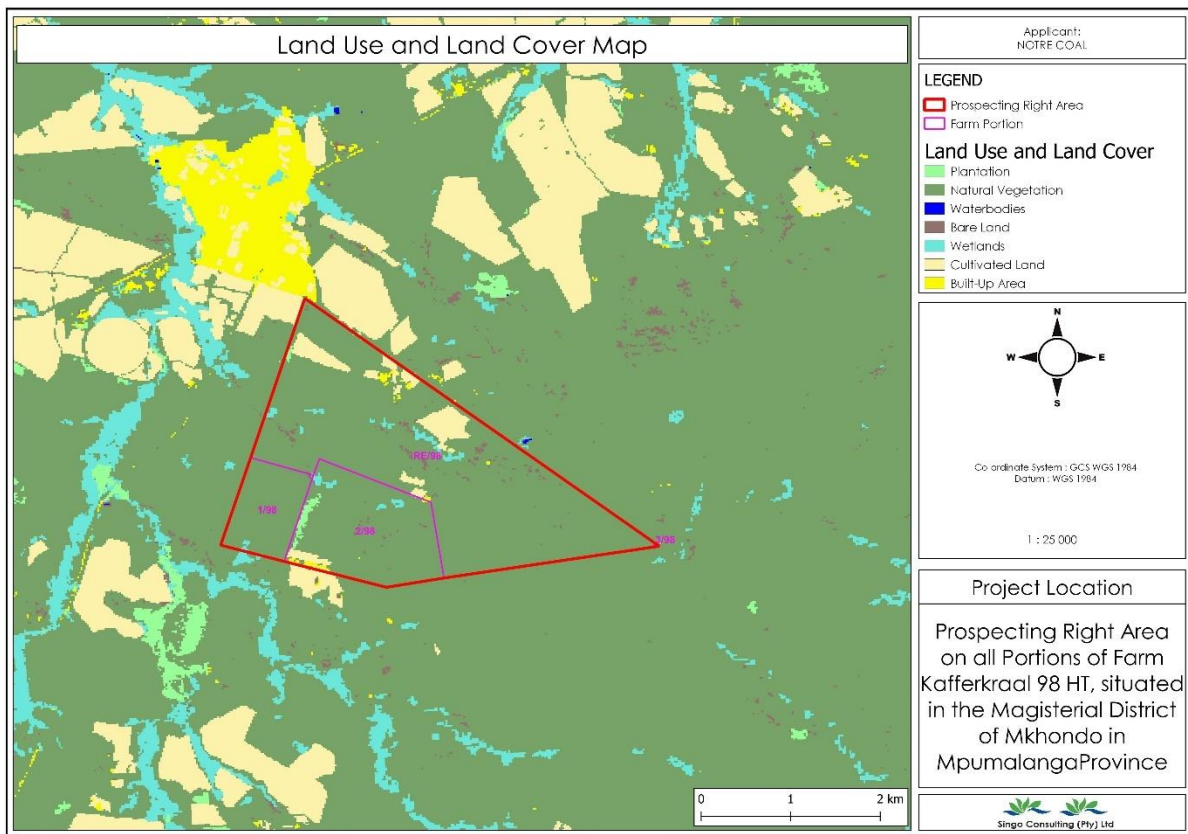


Figure 32: Land-use map of the proposed area

8.3. Description of specific environmental features and infrastructure on the site Environmental Features

The major sensitive features within the study area include:

- ❖ Houses and residents

House
observed on
Site



Photo 7: House observe on site

- ❖ Faunal and floral communities



Photo 8: Vegetation observed on site

Infrastructure on the study area and in close proximity

- ❖ Roads in the study area

9. Impacts and risks identified including 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).

Table 10: Impact Significance Calculation – Construction, Operational and Rehabilitation Phase

ENVIRONMENTAL ASPECT	NATURE OF THE IMPACT	IMPACT STATUS	MAGNITUDE	EXTENT	DURATION	REVERSIBILITY	IRREPLACEABILITY	PROBABILITY	SIGNIFICANCE	MITIGATION POTENTIAL	SIGNIFICANCE	CONFIDENCE RATING	CUMULATIVE IMPACTS
									PRE-MITIGATION		POST-MITIGATION		
GEOLOGY AND SOILS	<p>Minor loss and disturbance to topsoil as a result of clearing of vegetation and drilling.</p> <p>When vegetation is cleared and the topsoil is stripped, the soil's natural structure is disturbed and as a result the natural cycle is broken exposing the bare soil to erosion.</p> <p>Vehicles driving on these soils cause compaction of soils and reduces the soil's ability to be penetrated by root growth. Compaction also increases erosion potential.</p> <p>When soils are not stripped and stockpiled according to the soil stripping guidelines these soils would have lost their natural physical and chemical properties, reducing the topsoil's ability to be a plant growth medium.</p> <p>The above factors all contribute to a loss of the topsoil's ability to be a resource through alterations and removal.</p>	-	3	2	1	2	8	5	40	Medium	20	Certain	Very Low
	<p>Hydrocarbon spills on soils can occur where heavy machinery and vehicles are parked such as the hard park area because they contain large volumes of lubricating oils, hydraulic oils, and diesel to run. There is a chance of these breaking down and/or leaking.</p>	-	3	2	1	3	9	2	18	Medium	9	Sure	Very Low

HYDROLOGY: GROUNDWATER SURFACE WATER	Stormwater, erosion and siltation impacts due to a lack of implementing temporary measures to manage stormwater run-off quantity and quality.	-	3	3	1	3	10	3	30	Medium	15	Sure	Very Low
	Contamination of stormwater runoff and groundwater, caused by chemicals such as hydrocarbon-based fuels and oils or lubricants spilled from heavy vehicles and machinery and fuel storage area.	-	3	2	1	3	9	2	18	Medium	9	Sure	Very Low
BIODIVERSITY	Minor loss of natural vegetation and destruction of habitat will result in associated loss of fauna and flora species.	-	3	3	1	3	10	4	40	Medium	27	Sure	Very Low
ENVIRONMENTAL ASPECT	NATURE OF THE IMPACT	IMPACT STATUS	MAGNITUDE	EXTENT	DURATION	REVERSIBILITY	IRREPLACEABILITY	PROBABILITY	SIGNIFICANCE	MITIGATION POTENTIAL	SIGNIFICANCE	CONFIDENCE RATING	CUMULATIVE IMPACTS
									PRE- MITIGATION		POST- MITIGATION		
	Disruption in the movement patterns of fauna species may impact on biodiversity.	-	3	3	1	3	10	4	40	Low	27	Sure	Very Low
	Noise, dust and potential light pollution, as well as migration of pollutants such as hydrocarbons in the soils, dust and emissions from vehicle and machinery altering air quality will all have an impact on biodiversity.	-	3	3	1	3	10	4	40	Low	27	Sure	Very Low
	Introduction and spread of alien invasive species. The moving of soil and vegetation resulting in opportunistic invasions after disturbance and the introduction of seed in construction materials and on vehicles. Invasion of alien plants can impact on hydrology, by reducing the quantity of water entering a watercourse through stormwater, and outcompete natural vegetation, decreasing the natural biodiversity. Once in a system, alien plants can spread throughout the catchment. If allowed to seed before control measures are implemented, alien plants can easily colonise and impact on downstream users.	-	4	3	1	3	11	4	44	Medium	22	Sure	Very Low
ARCHAEOLOGICAL/ HERITAGE RESOURCES	Alteration of archaeological, historical and palaeontological resources that may be discovered during earthworks and drilling.	-	2	1	5	5	13	2	26	Low	17	Sure	Very Low

VISUAL AND SENSE OF PLACE	Visibility from sensitive receptors / visual scarring of the landscape as a result of the prospecting activities.	-	3	3	1	1	8	5	40	Medium	20	Sure	Very Low
NOISE AND VIBRATION	Nuisance and health risks caused by an increase in the ambient noise level as a result of noise and vibration impacts associated with the operation of vehicles, machinery and equipment.	-	4	3	1	2	10	5	50	Low	33	Sure	Very Low
AIR QUALITY	Increased dust pollution due to vegetation clearance and vehicles driving on gravel roads and drilling.	-	4	3	1	2	10	5	50	High	16	Sure	Very Low
	Gaseous emissions from vehicles and machinery may cause an impact on ambient air quality.	-	3	3	1	3	10	5	50	Low	33	Sure	Very Low

ENVIRONMENTAL ASPECT	NATURE OF THE IMPACT	IMPACT STATUS	MAGNITUDE	EXTENT	DURATION	REVERSIBILITY	IRREPLACEABILITY	PROBABILITY	SIGNIFICANCE	MITIGATION POTENTIAL	SIGNIFICANCE	CONFIDENCE RATING	CUMULATIVE IMPACT
									PRE-MITIGATION		POST-MITIGATION		
WASTE	Generation of additional general waste, litter and building rubble and hazardous waste.	-	3	3	1	5	12	5	60	Medium	30	Certain	Very Low
SERVICES	Minor impact caused by need for services i.e. water, electricity and sewerage systems during the prospecting phase causing additional strain on natural resources and service infrastructure.	-	2	2	1	3	8	5	40	Medium	20	Certain	Very Low
TRAFFIC	Minor change in traffic patterns as a result of traffic entering and exiting the site on the surrounding road infrastructure and existing traffic.	-	2	3	1	1	7	5	35	High	12	Sure	Very Low
	Nuisance, health and safety risks caused by increased traffic on and adjacent to the study area including cars, and heavy vehicles.	-	5	3	5	5	18	3	54	High	18	Sure	Very Low
HEALTH AND SAFETY	Possibility of prospecting activities and workers causing veld fires, which can potentially cause injury and or loss of life to workers and surrounding landowners, visitors and workers.	-	5	4	5	5	19	3	57	High	19	Sure	Very Low
	Increased risk to public and worker safety: If not fenced off, the public and workers may fall into excavated areas and trenches.	-	5	3	5	5	18	3	54	High	18	Sure	Very Low
SOCIO-ECONOMIC	Potential creation of very limited extent short term employment opportunities for the local community, during the prospecting phase.	+	3	3	1	1	8	5	40	N/A	40	Certain	Very Low

	Multiplier effects on local economy will be positive, but very limited in extent and only short term.	+	2	3	1	1	7	5	35	N/A	35	Certain	Very Low
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10. 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).

A “significant impact” is defined as it is defined in the EIA Regulations (2014): “an impact that may have notable effect on one or more aspects of the environment or may result in non-compliance with accepted environmental quality standards, thresholds or targets and is determined through rating the positive and negative effects of an impact on the environment based on criteria such as duration, magnitude, intensity and probability of occurrence”. The objective of this EIA methodology is to serve as a framework for accurately evaluating impacts associated with current or proposed activities in the biophysical, social and socio-economical spheres. It aims to ensure that all legal requirements and environmental considerations are met in order to have a complete and integrated environmental framework for impact evaluations.

The process of determining impacts to be assessed is one of the most important parts of the environmental impact assessment process. It is of such high importance because the environmental impacts identified can and are often linked to the same impact stream. In this method all impacts on the biophysical environment are assessed in terms of the overall integrity of ecosystems, habitats, populations and individuals affected. For example, the removal of groundcover for the sloping or scraping of an embankment, can lead to higher amounts of water runoff which increases the rate of erosion. Further down in the river the amount of sediment increases because of the increased erosion. Several fish species cannot endure the high amount of sediment and moves off. The habitat is thus changed or in the process of changing. Thus, one needs to understand that the root of the problem (removal of groundcover) is assessed in terms of the degree of change in the health of the environment and/or components in relation to their conservation value. Thus, if the impact of removal of groundcover of a definable system is high and the conservation value is also high then the impact of removal of groundcover is highly significant.

The Environmental Impact Assessment (EIA) 2014 Regulations promulgated in terms of Sections 24 (5), 24M and 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) [as amended] (NEMA), requires that all identified potential impacts associated with the proposed project be assessed in terms of their overall potential significance on the natural, social and economic environments. The criteria identified in the EIA Regulations (2014) include the following:

- ❖ Nature of the impact;
- ❖ Extent of the impact;
- ❖ Duration of the impact
- ❖ Probability of the impact occurring;
- ❖ Degree to which impact can be reversed;
- ❖ Degree to which impact may cause irreplaceable loss of resources;
- ❖ Degree to which the impact can be mitigated; and
- ❖ Cumulative impacts.

The evaluation of impacts is conducted in terms of the criteria detailed in the Tables below. The various environmental impacts and benefits of this project are discussed in terms of impact status, extent, duration, probability, and intensity. Impact significance is regarded as the sum of the impact extent, duration, probability and intensity and a numerical rating system has been applied to evaluate impact significance; therefore, an impact magnitude and significance rating is applied to rate each identified impact in terms of its overall magnitude and significance.

Impact Assessment Methodology

By considering the root cause of the issue in this way, the probability that the activity undertaken does or may result in an impact, can be determined. The associated impact can then be assessed in order to determine its significance and to define mitigation measures or management measures to address the impact.

The following definitions therefore apply:

- ❖ An activity is a distinct process or task undertaken by an organization for which a responsibility can be assigned. Activities also include facilities or pieces of infrastructure that are possessed by an organization;

- ❖ An environmental aspect is an 'element of an organization's activities, products and services which can interact with the environment. The interaction of an aspect with the environment may result in an impact.
- ❖ Environmental impacts are the consequences of these aspects on environmental resources or receptors of particular value or sensitivity, for example, disturbance due to noise and health effects due to poorer air quality;
- ❖ Receptors can comprise, but are not limited to, people or human-made systems, such as local residents, communities and social infrastructure, as well as components of the biophysical environment such as aquifers, flora and palaeontologic. Impacts on the environment can lead to changes in existing conditions; the impacts can be direct, indirect or cumulative;
- ❖ Direct impacts refer to changes in environmental components that result from direct cause-effect consequences of interactions between the environment and project activities. Indirect impacts result from cause-effect consequences of interactions between the environment and direct impacts; and
- ❖ Cumulative impacts refer to the accumulation of changes to the environment caused by human activities.

Assessment of Impact Significance

The accumulated knowledge and the findings of the environmental investigations form the basis for the prediction of impacts. Once a potential impact has been determined, it is necessary to identify which project activity will cause the impact, the probability of occurrence of the impact, and its magnitude and extent (spatial and temporal). This information is important for evaluating the significance of the impact, and for defining mitigation and monitoring strategies. The aspects and impacts identified are therefore described according to the following:

(a) Nature of the impact

The NATURE of an impact can be defined as: "*a brief description of the impact being assessed, in terms of the proposed activity or project, including the socio-economic or environmental aspect affected by this impact*".

(b) The status of the impact:

STATUS	Status	Description
	Positive (+)	A benefit to the holistic environment.
	Negative (-)	A cost to the holistic environment.
	Neutral (N)	No cost or benefit to the holistic environment.

(c) Magnitude of the impact

The MAGNITUDE of an impact can be defined as: "a brief description of the intensity or amplitude of the impact on socioeconomic or environmental aspects".

Determining the magnitude of an impact			
MAGNITUDE Magnitude / intensity of impact (at the specified scale)	Magnitude	Score	Description
	Zero	1	Natural and/or social and/or functions processes remain unaltered.
	Very low	2	Natural and/or social functions and/or processes are negligibly altered.
	Low	3	Natural and/or social and/or functions processes are slightly altered.
	Medium	4	Natural and/or social and/or functions processes are notably altered.
	High	5	Natural and/or social and/or functions processes severely altered.

(d) Extent of the impact

The EXTENT of an impact can be defined as: "a brief description of the spatial influence of the impact or the area that will be affected by the impact".

Determining the extent of an impact			
EXTENT Extent or spatial influence of impact	Extent	Score	Description
	Footprint	1	Only as far as the activity, such as footprint occurring within the total site area
	Site	2	Only the site and/or 500m radius from the site will be affected

	Local	3	Local area / district (neighbouring properties, transport routes and adjacent towns) is affected
	Region	4	Entire region / province is affected.
	National	5	Country is affected

(e) Duration of the impact

The DURATION of an impact can be defined as: "a short description of the period of time the impact will have an effect on aspects".

Determining the duration of an impact			
DURATION Duration of the impact	Extent	Score	Description
	Short term	1	Less than 2 years
	Short to medium term	2	2 – 5 years
	Medium term	3	6 – 25 years
	Long term	4	26 – 45 years
	Permanent	5	46 years or more

(f) Degree to which impact can be reversed

The REVERSIBILITY of an impact can be defined as: "the ability of an impact to be changed from a state of affecting aspects to a state of not affecting aspects".

Determining the reversibility of an impact			
REVERSIBILITY	Reversibility	Score	Description
	Completely reversible	1	Impacts can be reversed through the implementation of minimal mitigation measures and rehabilitation with negligible residual effects.
	Nearly completely reversible	2	Impacts can nearly be completely reversed through the implementation of mitigation measures and rehabilitation, with marginal residual effects.
	Partly reversible	3	Impacts can be partly reversed through the implementation of mitigation measures and rehabilitation with moderate residual effects.
	Nearly irreversible	4	Impacts can be mitigated, but only marginally reversed through the implementation of mitigation measures and rehabilitation with severe residual effects.

	Irreversible	5	Impacts are permanent and can't be reversed by the implementation of mitigation measures or rehabilitation is not viable.
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(g) Degree to which impact may cause irreplaceable loss of resources

The irreplaceability of an impact can be defined as "the amount of resources that can/can't be replaced".

Irreplaceability = Magnitude + Extent + Duration + Reversibility

Degree to which impact may cause irreplaceable loss of resources			
IRREPLACEABILITY Irreplaceable loss of resources	Irreplaceability	Score	Description
	No loss	0	No loss of any resources
	Very Low	1 - 5	
	Low	6 - 10	Marginal loss or resources
	Medium	11 - 15	Significant loss of resources
	High	16 - 20	Complete loss of resources

(h) Probability of the impact occurring

The PROBABILITY of an impact can be defined as: "the estimated chance of the impact happening".

Determining the probability of an impact			
PROBABILITY	Probability	Score	Description
	Unlikely	1	Unlikely to occur (0 – 15% probability of impact occurring)
	Possible	2	May occur (15 – 40% chance of occurring)
	Probable	3	Likely to occur (40– 60% chance of occurring)
	Highly Probable	4	Between 60% and 85% sure that the impact will occur
	Definite	5	Will certainly occur (85 - 500% chance of occurring)

(i) Significance of Impacts - Pre-Mitigation

The SIGNIFICANCE can be defined as: "the combination of the duration and importance of the impact, in terms of physical and socio-economic extent, resulting in an indicative level of mitigation required".

The significance of an impact is determined as follows:

Significance = Irreplaceability x Probability

The maximum value is 500 significance points (SP). Environmental impacts were rated as either of Very High (VH) High (H), Medium (M), Low (L) or Very Low (VL) significance on the following basis:

Table 11: Significance Rating (SR) Basis

Score	Significance
0	Neutral
1 to 20	Very low
21 to 40	Low
41 to 60	Medium
61 to 80	High
81 to 500	Very high

(j) Degree to which the impact can be mitigated

The degree to which an impact can be MITIGATED can be defined as: "the effect of mitigation measures on the impact and its degree of effectiveness".

MITIGATION POTENTIAL	Determining the mitigation potential of an impact		
	Degree	Calculation	Description
	High	$\frac{\text{Pre-mitigation SR}}{3} = \text{Post Mitigation SR}$	Impact 500% mitigated
	Medium	$\frac{\text{Pre-mitigation SR}}{2} = \text{Post Mitigation SR}$	Impact >50% mitigated
Low	$\frac{\text{Pre-mitigation SR}}{3} = x$ <p>Then:</p> $\text{Pre-mitigation SR} - x = \text{Post Mitigation SR}$	Impact <50% mitigated	

(k) Significance of Impacts Post-Mitigation

The SIGNIFICANCE can be defined as: "the combination of the duration and importance of the impact, in terms of physical and socio-economic extent, resulting in an indicative level of mitigation required".

The significance of an impact is determined as follows:

Significance = Irreplaceability x Probability

Table 12: Significance Rating

Score	Significance
0	Neutral
1 to 20	Very low
21 to 40	Low
41 to 60	Medium
61 to 80	High
81 to 500	Very high

(l) Confidence rating

CONFIDENCE in the assessment of an impact can be defined as the: "level of certainty of the impact occurring".

Determining the confidence rating of an impact			
CONFIDENCE RATING	CONFIDENCE	Certain	Amount of information on and/or understanding of the environmental factors that potentially influence the impact is unlimited and sound
		Sure	Amount of information on and/or understanding of the environmental factors that potentially influence the impact is reasonable and relatively sound
		Unsure	Amount of information on and/or understanding of the environmental factors that potentially influence the impact is limited

(m) Cumulative impacts

The effect of CUMULATIVE impacts can be described as: "the effect the combination of past, present and "reasonably foreseeable" future actions have on aspects".

Determining the confidence rating of an impact			
CUMULATIVE RATING	CUMULATIVE EFFECTS	Low	Minor cumulative effects
		Medium	Moderate cumulative effects
		High	Significant cumulative effects

10.1. 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 proposed prospecting activities to be undertaken include the use of both invasive and non-invasive prospecting techniques. There will therefore be physical disturbance to the application area although this disturbance will be limited to the identified borehole sites and not the entire application area. Another negative impact of the proposed activity would be the interference with landowners or communities and the existing land uses. The actual invasive work only covers a few properties within the application area itself and therefore the disturbance due to invasive work will be minimal.

The positive impact of the proposed activity is the discovery of an economically viable mineral resource within the identified Local Municipalities, whose economy is dependent of the mining industry.

It should be noted that this report made available to I&AP's for review and comment and their comments and concerns will be taken into account in this BAR & EMPr. Furthermore, it should be noted that the impact scores themselves will include the results of the public response and comment. Please refer to Section 10 for the Methodology used in determining and ranking the nature, significance,

consequence, extent, duration and probability of potential environmental impacts and risks.

The following provides a description and assessment of the potential impacts identified in the impact assessment process. The topographical and geophysical surveys will see an increase in the use of access tracks by vehicles driving around the site. The access roads may over time and continuous use deteriorate and become damaged. The potential exists for a group of unfamiliar workers to enter the project area during the prospecting activities. This impact could potentially affect the local communities; however the impact will be minimal as people on site will be limited to the Applicant, contractor and geologists for the topographical and geophysical surveys.

Access to the application area for the topographical and geophysical survey, prospecting drilling and resource definition drilling will be required which may interrupt the existing land uses, such as grazing and residential developments. However, this impact will be minimal as it is of short duration. Approximately 0,9 ha of vegetation will be cleared during prospecting, however, care will be taken to be ensure that any protected species identified are relocated outside the footprint of the prospecting activities. Provisions have been made for the rehabilitation of all areas disturbed during prospecting, including access tracks.

The prospecting activities will generate general waste during the construction/ operational phase. This waste must be collected during site visits to be disposed of at appropriate landfill sites.

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

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

The following sections provide a description and assessment of the mitigation measures for each potential impact identified in the impact assessment process. The impact scores below are reflective of the impacts post the implementation of

mitigation measures. A second score indicating the final significance of each potential impact is also reflected below. This score indicates the degree of potential loss of irreplaceable resources, the cumulative nature of the impact, as well as the degree of public concern regarding the impact. It should be noted that this report will be made available to I&AP's for review and comment and their comments and concerns will be addressed in the final report to be submitted to the DMRE for adjudication. Furthermore, it should be noted that the impact scores themselves will include the results of the aforementioned public response and comment. The results of the public consultation will be used to update the impact scores upon completion of the public review period, where after the finalized report will be submitted to the DMRE for adjudication.

The following mitigation types have been associated with the potential impacts identified:

- ❖ Avoid and control through implementation of EMPr mitigation measures (e.g. speed limit enforcement, vehicle maintenance);
- ❖ Avoidance and control through preventative measures (e.g. site security, code of conduct);
- ❖ Remedy through application of mitigation measures in EMPr;
- ❖ Avoid and control through implementation of preventative measures (e.g. monitoring, communication with landowners, emergency response procedures);
- ❖ Avoid through implementation of preventative measures (e.g. consultation and communication);
- ❖ Avoid and remedy impacts and risks to the community through ongoing communication with the community. In this regard, quarterly community meetings shall be held with the affected communities.
- ❖ Avoid through implementation of suitable progressive rehabilitation and soil management;
- ❖ Avoid and control through implementation of EMPr mitigation measures (e.g. Spill prevention, Hydrocarbon Storage);
- ❖ Avoid through preventative measures (e.g. bunding, spill kits);

- ❖ No invasive prospecting activities to be undertaken within 500m of a watercourse.
- ❖ Should any watercourse be affected, then the necessary water use licenses should be obtained from the Department of Water and Sanitation.
- ❖ No ablution of site laydown areas is to be located within 500m of a watercourse.
- ❖ Where shallow aquifers are encountered, a survey of the drinking water/ livestock watering boreholes should be undertaken (within 500 m of the prospecting borehole sites). A detailed groundwater monitoring programme should be developed for these drinking water/ livestock watering boreholes and pre- and post-prospecting water quality samples should be taken.
- ❖ Where drinking water/ livestock watering boreholes are to be affected then the advice of a geohydrologist should be sought with regards to the need for plugging and casing of the prospecting boreholes.
- ❖ Remedy through clean-up and waste disposal; and
- ❖ Avoid and control through implementation of preventative measures (e.g. location of toilets, spill prevention, waste management).

The following impacts will result from the proposed prospecting activities:

- ❖ Job creation
- ❖ Clearance of vegetation
- ❖ Compacting of soils
- ❖ Drilling impact on identified lithic scatters
- ❖ Deterioration and damage to existing access roads and tracks
- ❖ Safety and security risks to landowners and lawful occupiers
- ❖ Interference with existing land uses
- ❖ Generation and disposal of waste
- ❖ Contamination of surface and groundwater
- ❖ Introduction/invasion by alien species
- ❖ Noise
- ❖ Impact on fauna
- ❖ Pollution of soils
- ❖ Dust
- ❖ Erosion due to vegetation clearance

- ❖ Impact on surface water features
- ❖ Impact on groundwater
- ❖ Loss of fossil heritage

11. Motivation where no alternative sites were considered

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined. The overall prospecting area is indicated in Figure . Areas to be avoided in terms of sensitivities are also indicated on the sensitivity maps in this report. Positioning of invasive prospecting planned in the sensitive areas and buffer zones should be conducted with a suitably qualified ecologist in order to avoid or minimize the destruction of any sensitive vegetation or habitats occurring in these areas.

Since exploration is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the farm owners to use any existing infrastructure like access roads. The location of the property is in an area where the geological formation that is known to host the desired mineralization.

11.1. Statement motivating the alternative development location within the overall site

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

The proposed project area as discussed above, has been selected due to the geology of the site and the anticipated favorable tectono-stratigraphic setting of the proposed prospecting area. No prospecting activities will occur within 500m from the watercourses should the Water Use license be not issued. The land or properties affected are mostly remain unused and as a result, the potential discovery of viable mineral resources within the proposed project area would be beneficial in terms of diversifying the use of land in the area. Negotiations and agreements will be made with the farm owners to use any existing infrastructures like access roads and farm houses. Negative impacts identified above will be mitigated through implementation

of the proposed mitigation measures as detailed in the EMPr. Where negative impacts cannot be avoided, rehabilitation will be undertaken.

12. 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).

- **Approach to the EIA**

An Environmental Impact Assessment (EIA) is a good planning tool. It identifies the environmental impacts of a proposed development and assists in ensuring that a project will be environmentally acceptable and integrated into the surrounding environment in a sustainable way.

The Basic Impact Assessment for this project complies with the National Environmental Management Act (1998) (as amended) and the NEMA EIA Regulations (2014) and guidelines of the Department of Environmental Affairs (DEA). The guiding principles of an EIA are listed below.

- **Guiding principles for an EIA**

The EIA must take an open participatory approach throughout. This means that there should be no hidden agendas, no restrictions on the information collected during the process and an open-door policy by the proponent. Technical information must be communicated to stakeholders in a way that is understood by them and that enables them to meaningfully comment on the project.

There should be ongoing consultation with interested and affected parties representing all walks of life. Sufficient time for comment must be allowed. The opportunity for comment should be announced on an on-going basis. There should be opportunities for input by specialists and members of the public. Their contributions and issues should be considered when technical specialist studies are conducted and when decisions are made.

- **Information gathering**

Early in the Basic Assessment process, the Environmental Assessment Practitioner (EAP) identified the information that would be required for the impact assessment and the relevant data were obtained. In addition, available information about the receiving environment was gathered from reliable sources, interested and affected parties, previous documented studies in the area and previous EIA Reports. The project team visited the site to gain first-hand information and an understanding of the existing operations and the proposed project.

- **Specialist Assessments**

The following specialist study have been conducted:

- Hydrogeological study

The main objective of the specialist study to provide independent scientifically sound information on issues of concern relating to the project proposal.

The findings and recommendations identified by the various specialist studies undertaken, were incorporated into the Basic Impact Assessment.

- **Legislative Framework**

The legal requirements were described and assessed in detail.

- **Alternatives**

Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and core drilling cannot be predetermined.

The following alternatives were investigated as feasible alternatives:

- The property on which or location where it is proposed to undertake the activity

The proposed prospecting right has been applied on all the portions of the farm Kafferkraal 98 HT. The proposed prospecting area is located approximately 1,00 km

Southeast of Dirkiesdorp within Mkhondo Local Municipality under the Mkhondo (Wakkerstroom) Magisterial District. See **Figure 1** for the locality map.

- The type of activity to be undertaken

Main activities conducted to determine the pseudocoal and torbanite/shale resources present in an economic feasible quality and quantity is drilling. The boreholes will be drilled with the diamond drilling method so the geologists can get a clear understanding of the actual subsurface setting of the lithologies. As outlined in the PWP all activities will be conducted in a phase approach whereby the execution of a new phase will depend on the results of the preceding phase. Prospecting activities will not compromise any future land uses on the study area.

- The design or layout of the activity

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

- Portable ablution facilities will be used.
- Activities will be limited to the drilling of 10 boreholes to be determined by the geological formations found during prospecting.
- It is planned to use one rig for all drill holes.
- Rehabilitation will be closely controlled and supervision will be focused.
- No change to the layout is considered but with the geophysical survey information, the boreholes can be orientated to match the shape of the good quality of resource.

- The technology to be used in the activity

The technologies listed in the PWP have been selected as they are proven effective in the determination of resource viability within the proposed prospecting area. Some of the techniques employed in the non-invasive prospecting will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Invasive technology alternatives have also been considered. It is hereby noted that the different phases and timeframes of the prospecting herein envisaged are, by their nature, dependent on the results obtained during the preceding phases

of such prospecting. The proposals set out in the Prospecting Work Programme are therefore made on the basis that results obtained during the preceding phases may necessitate reasonable changes and adaptations to such proposals, which will be reported as prescribed.

- The option of not implementing the activity

If the Prospecting Right is not granted, the potential to identify viable mineral resources could be lost. Historical prospecting and mining activities have taken place in the vicinity of the proposed prospecting right area and as such the proposed prospecting activities represent a continuation of surrounding land uses. Additionally, it allows for marginal land impacted on by historical prospecting and mining activities to be re-introduced into the economy.

- **Description and assessment of impacts identified**

A comprehensive list of all potential impacts of the prospecting as identified by the EAP and the specialists, are provided and are assessed.

- **Environmental management programme**

An Environmental Management Programme containing mitigation, management and monitoring measures and specifying roles and responsibilities was compiled with specialist input and are included in this report.

- **Stakeholder engagement**

Registered interested and affected parties including relevant organs of state, are consulted with during the process. All their comments will be formally responded to and incorporated into the Final Basic Assessment Report and Environmental Management Programme that will be submitted to the competent authority.

12.1. 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)

Potential impacts that may be caused by the proposed development will be identified using input from the following:

- Views of I&APs;
- Existing information;
- Specialist investigations;
- Site visit with the project team; and
- Legislation.

The following potential major direct, indirect and cumulative impacts were identified:

- Contamination and compaction of soils;
- Erosion;
- Contamination of ground- and surface water quality and decline in quantity;
- Impacts on biodiversity;
- Loss and displacement of fauna;
- Impacts on existing land use of the study and surrounding area;
- Destruction or loss of heritage features including graves and other historical sites of importance that may be uncovered during excavations;
- Decreased aesthetic value and impact on "Sense of Place";
- Poor air quality and decreased visibility due to dust pollution;
- Increased noise levels;
- Waste generation;
- Increased demand on service infrastructure and resources;
- Slight increase in traffic and need for maintenance of road infrastructure;
- Potential injury and loss of health and life of humans; and
- Altered Socio-Economic Environment (Positive or negative).

Table 13: Assessment of each identified potentially significant impact and risk

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
<ul style="list-style-type: none"> • Minimal clearing of vegetation and topsoil. • Prospecting including diamond core drilling, logging and sampling of the borehole core. 	<p>Minor loss and disturbance to topsoil as a result of clearing of vegetation and drilling and trenching.</p> <p>When vegetation is cleared and the topsoil is stripped, the soil's natural structure is disturbed and as a result the natural cycle is broken exposing the bare soil to erosion.</p> <p>Vehicles driving on these soils cause compaction of soils and reduces the soil's ability to be</p>	Soil	Prospecting	Low (-)	<p>Prevent and reduce through management measures.</p> <p>Stripping of topsoil:</p> <ul style="list-style-type: none"> • Clearing of areas to take place a maximum of one month prior to intended prospecting in the area; • Stripping of topsoil will not take place during rain or excessive wind; and • The top 30 cm of vegetation and topsoil is to be stripped from the area to be prospected. <p>Storage of topsoil / overburden:</p> <ul style="list-style-type: none"> • Topsoil (top 30cm) is to be stored in predetermined topsoil berms, (+/- 5m) outside the boundary of the specific area; and • Topsoil stockpiles will be restricted to 1.5 to 2m in height. <p>Maintenance and monitoring of topsoil stockpiles:</p>	Very Low (-)

	penetrated by root growth. Compaction also increases erosion potential.				<ul style="list-style-type: none"> The stored topsoil should be used as soon as possible in concurrent rehabilitation; Weekly visual inspections to be conducted. 	
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
<ul style="list-style-type: none"> Dust Suppression. 	<p>When soils are not stripped and stockpiled according to the soil stripping guidelines these soils would have lost their natural physical and chemical properties, reducing the topsoil's ability to be a plant growth medium.</p> <p>The above factors all contribute to a loss of the topsoil's ability to be a resource through alterations and removal.</p>					

	Hydrocarbon spills on soil can occur where heavy machinery and vehicles are parked such as the hard park area because they contain large volumes of lubricating oils, hydraulic oils, and diesel	Soil	Prospecting	Very Low (-)	<p>Prevent and reduce and remedy through management measures.</p> <ul style="list-style-type: none"> All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; All leaks will be cleaned up immediately using an absorbent material and spill kits, in the prescribed manner; and 	Very Low (-)
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
	to run. There is always a chance of these breaking down and/or leaking.				<ul style="list-style-type: none"> The approved Integrated Water and Waste Management Plan to be implemented. <p><u>Hydrocarbons and hazardous waste</u></p> <ul style="list-style-type: none"> All hazardous waste generated shall be kept separate and shall not be mixed with general waste; and All hazardous waste shall be stored within a sealed drum on an impermeable surfaced area within the 	

					central waste storage and transition area.	
	Stormwater, erosion and siltation impacts due to a lack of implementing temporary measures to manage stormwater runoff quantity and quality.	Surface water	Prospecting	Low (-)	<p>Prevent and reduce and remedy through management measures.</p> <ul style="list-style-type: none"> • A Stormwater Management Plan (SMP) to be developed for the collective area where prospecting will occur, (or the existing SMP updated, where applicable for present and future activities) and should include the management of stormwater during excavation, as well as the installation of temporary stormwater and erosion control measures during prospecting, followed up by rehabilitation of the area; 	Very Low (-)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> • The slopes of the area where prospecting activities will occur, should be profiled to ensure that they are not subjected to excessive erosion but capable of drainage run-off with minimum risk of scrub (hydrologic action by water that causes erosion). A maximum gradient of 1:3 is recommended; • If necessary, temporary diversion channels should be constructed ahead of the stockpiles (if relevant) to intercept clean run-off and divert it around disturbed areas into the natural drainage system downstream (down gradient) of the prospecting area; • Existing vegetation must be retained as far as possible to minimise erosion problems; • Rehabilitation of the prospecting area shall be planned and completed (after conclusion of the prospecting activities) in such a way that the run-off water (if any) will not cause erosion; • Visual inspections shall be done on a weekly basis with regard to the stability of the temporary water control structures, erosion and siltation (if required). 	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> • Sediment-laden run-off from cleared areas should be prevented from entering rivers and streams; • No river or surface water may be affected by silt emanating from the prospecting area • No wastewater may run freely into any of the surrounding naturally vegetated areas. 	

	Contamination of stormwater runoff and groundwater, caused by chemicals such as hydrocarbon-based fuels and oils or lubricants spilled from heavy vehicles and machinery and fuel storage area.	Surface water and groundwater resources	Prospecting	Very Low (-)	<p>Prevent and reduce through management measures.</p> <p>In accordance with Government Notice 704 (GN 704), the onsite management should:</p> <ul style="list-style-type: none"> • Keep clean and dirty water separated; <ul style="list-style-type: none"> • Contain any dirty water within a system; and • Prevent the contamination of clean water. <p>In order to achieve these objectives, the following stormwater management measures must be implemented on the site to ensure that those potential stormwater impacts are kept to a minimum:</p> <ul style="list-style-type: none"> • Clean and dirty stormwater needs to be separated. Dirty stormwater may not be released 	Very Low (-)
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					into the environment and should be contained and treated on site;	

				<ul style="list-style-type: none">• All temporary stormwater infrastructure (if any) on-site shall be maintained and kept clean throughout the prospecting period;• Immediate reporting of any polluting or potentially polluting incidents so that appropriate measures can be implemented;• Fuel and oil spills shall be treated immediately by appropriate spill kits. Several hydrocarbon absorption/remediation products (i.e. Spill kits) must be placed throughout the site;• Use of bunds or traps to ensure full containment of hydrocarbon and other hazardous materials are mandatory;• Any contaminated material is disposed of in an appropriate manner and the potential risks associated with such spills are limited;• Stormwater leaving the site must in no way be contaminated;• Ensure good housekeeping practices;	
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> Increased runoff should be managed using berms and other suitable structures as required to ensure flow velocities are reduced; and Removal of spills, rainwater and waste produced during clean-up of the bunds – shall be done in accordance to relevant specifications. 	

	Minor loss of natural vegetation and destruction of habitat will result in associated loss of fauna and flora species.	Surface water	Prospecting	Low (-)	<p>Reduce through management measures.</p> <ul style="list-style-type: none"> • A suitably qualified specialist (ecologist) to accompany the site manager to demarcate areas for prospecting, in order to avoid damaging sensitive vegetation as identified during the specialist study and according to the sensitivity maps provided in this report; • Only vegetation falling directly into demarcated access routes or project sites should be removed; • No further vegetation clearance except for the removal of alien invasive species will be allowed; and • All remaining indigenous vegetation should be conserved wherever possible. 	Low (-)
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
	Disruption in the movement patterns of fauna species may impact on biodiversity.	Biodiversity	Prospecting	Low (-)	<p>Prevent and reduce through management measures.</p> <ul style="list-style-type: none"> • Reduce the levels of disturbance on areas indicated by the Environmental Control Officer (ECO) as migratory routes, if any; 	Low (-)

	Noise, dust and potential light pollution, as well as migration of pollutants such as hydrocarbons in the soils, dust and emissions from vehicle and machinery altering air quality will all have an impact on biodiversity.				<ul style="list-style-type: none"> • Environmental awareness training should include that no hunting, trapping or killing of fauna are allowed; • Any animals rescued or recovered will be relocated in a suitable habitat away from the prospecting operations and associated infrastructure; • Any lizards, snakes or monitors encountered should be allowed to escape to a suitable habitat away from disturbance. • No reptile should be intentionally killed, caught or collected during any phase of the project; and • General avoidance of snakes is the best policy if encountered. Snakes should not be intentionally harmed or killed and allowed free movement away from the area. 	
	Introduction and spread of alien invasive species.	Biodiversity Soils	Prospecting	Medium (-)	Prevent and control through management measures.	Low (-)
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated

	<p>The moving of soil and vegetation resulting in opportunistic invasions after disturbance and the introduction of seed in construction materials and on vehicles. Invasion of alien plants can impact on hydrology, by reducing the quantity of water entering a watercourse through stormwater, and outcompete natural vegetation, decreasing the natural biodiversity. Once in a system, alien plants can spread throughout the catchment. If allowed to seed before control measures are implemented, alien plants can easily colonise and</p>	Surface water ecosystems			<ul style="list-style-type: none"> Regular removal of invasive alien species should be undertaken. This should extend through to the closure phase of the project; and No spreading of alien vegetation onto adjacent properties should be allowed. 	
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated

	impact on downstream users.					
	Alteration of archaeological, historical and palaeontological resources that may be discovered during earthworks and drilling.	Cultural Heritage	Prospecting	Low (-)	<p>Protect heritage resources through developing and implementing procedures.</p> <ul style="list-style-type: none"> • Prior to any development, construction or prospecting, a qualified archaeologist should conduct a site inspection on the areas demarcated for geotechnical drilling/prospecting. Proposed access roads to the drill sites should also be surveyed in order to avoid the destruction of heritage material; • Should the prospecting outcome result in further development or construction and mining, a full Phase2 Archaeological Impact Assessment must be conducted on the affected area if triggered; • Because archaeological artefacts generally occur below surface, the possibility exists that culturally significant material may be exposed during the development and construction phases, in which case all activities must be suspended pending further 	Very Low (-)

					archaeological investigations by a qualified archaeologist. Also,	
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<p>should skeletal remains be exposed during development and construction phases, all activities must be suspended and the relevant heritage resources authority contacted (see National Heritage Resources Act (Act No. 1999)Section 36 (6)). Should culturally significant material or skeletal remains be exposed during prospecting all activities suspended pending further investigation qualified archaeologist (Refer to National Heritage and Resources Act, 25 of 1999 36(6));</p> <ul style="list-style-type: none"> Should any objects of archaeological or palaeontological remains be found during activities, work must immediately stop in area and the Environmental Control Office (ECO) must be informed; The ECO must inform SAHRA and contact archaeologist and / or palaeontologist depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work 	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					be resumed in this area without the permission of the ECO and SAHRA.	

	<p>Visibility from sensitive receptors / visual scarring of the landscape as a result of the prospecting activities.</p>	<p>Aesthetic quality and sense of place</p>	<p>Prospecting</p>	<p>Low (-)</p>	<p>Reduce through controlling management measures.</p> <ul style="list-style-type: none"> • Unnecessary lights should be switched off during the day and / or night to avoid light pollution; • If lighting is required, the lighting will be located in such a place and such a manner so as to minimise any impact on the surrounding community and fauna; • Install temporary lights that will not create a night sky glow; • Security lighting should be designed in such a way as to minimise emissions onto undisturbed areas on site and neighbouring properties. Light fittings should face downwards; • Housekeeping on site should be enforced; • Rehabilitation measures such as re-vegetation and plan to be implemented; • Reduce the prospecting period through careful planning and productive implementation of resources; 	<p>Very Low (-)</p>
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> • Plan the placement of lay-down areas and any potential temporary prospecting camps in order to minimise vegetation clearing; • Restrict the activities and movement of workers and vehicles to the immediate prospecting site and existing access roads; • Ensure that rubble, litter and issued materials are managed and removed regularly; • Ensure that all infrastructure and the site and general surrounds are maintained in a neat and appealing way; and • Reduce and control dust through the use of approved dust suppression techniques. 	

	<p>Nuisance and health risks caused by an increase in the ambient noise level as a result of noise and vibration impacts associated with the operation of vehicles, machinery and equipment.</p>	<p>Health of landowners and occupiers Biodiversity</p>	<p>Prospecting</p>	<p>Medium (-)</p>	<p>Reduce through controlling measures.</p> <ul style="list-style-type: none"> • Vehicles and machinery will be regularly serviced to ensure acceptable noise levels are not exceeded; • Silencers will be utilised where possible; • Heavy vehicle traffic should be routed away from noise sensitive areas where possible; • Noise levels should be kept within acceptable limits. All noise and sounds generated should 	<p>Low (-)</p>
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<p>adhere to South African Bureau of Standards (SABS) specifications for maximum allowable noise levels for construction sites. No pure tone sirens or hooters may be utilised except where required in terms of SABS standards or in emergencies;</p> <ul style="list-style-type: none"> • With regard to unavoidable very noisy activities in the vicinity of noise sensitive areas, the Site Manager (SM) should liaise with local residents and a suitably qualified ecologist and how best to minimise impacts, and the local population should be kept informed of the nature and duration of intended activities; • The SM should take measures to discourage labourers from loitering in the area, causing noise disturbance; • Noise impacts should be minimised by restricting the hours (between 06h00 and 18h00 on Monday to Friday, and 06h00 and 13h00 on Saturdays), during which the offending activities are carried out and, where possible, by insulating machinery and/or enclosing areas of activity; 	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> No noisy activities to occur on Sundays or public holidays; Personal Protective Equipment to all persons working in areas where high levels of noise can be expected; Signs where it is compulsory; 	
	Increased dust pollution due to vegetation clearance and vehicles driving on gravel roads and drilling.	Aesthetic environment Sense of Place Air quality Biodiversity	Prospecting	Medium (-)	<p>Reduce through controlling measures.</p> <ul style="list-style-type: none"> Dust suppression shall be implemented during dry periods and windy conditions; All exposed surfaces should be minimised in terms of duration of exposure to wind and stormwater; Excavation, handling and transportation of erodible materials shall be avoided under high wind conditions (excess of 35km/hr) or when a visible dust plume is present; Ensure that the shortest routes are used for material transport; Ensure that stockpile height is kept to a minimum; Minimise travel speed on unpaved roads; 	Very Low (-)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> • Implement monthly site inspection to check for possible areas of dust generation not addressed or not effectively managed; • Spray areas to be cleared with water; • Ensure minimum travel distance between working areas and stockpiles; • Ensure that topsoil for stockpiles is sprayed with water before tipping to prevent dust generation; • Ensure graded areas are sprayed with water; • Minimise the amount of graded areas; • Load and offload material, as far as possible, downwind of topsoil stockpiles. 	
	Gaseous emissions from vehicles and machinery may cause an impact on ambient air quality.	Health of landowners and occupiers	Prospecting	Medium (-)	<ul style="list-style-type: none"> • All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; • Proper planning of movements (vehicle trips) and working of machinery should take place, in order to avoid unnecessary trips and hours of operation. 	Low (-)

	Generation of additional general waste, litter and building rubble and hazardous waste.	Biodiversity Health and safety Soil	Prospecting	Medium (-)	Control through management measures. <ul style="list-style-type: none"> A central waste storage and transition area shall be established within the site camp; 	Low (-)
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
		Surface water systems			<ul style="list-style-type: none"> • The central waste storage and transition area shall be surfaced and demarcated appropriately; • Portable wheelie bins shall be placed throughout the site camp as well as at the remainder of the site and at all working areas in the field; • Wheelie bins shall be colour coded and labelled to identify the waste stream for which it is intended; • All portable wheelie bins and other containers shall be emptied at the central waste storage and transition area a minimum of once a week or when filled, as to avoid waste build-up; • The waste shall be removed (within 30 days) by a licensed waste service provider as shall be disposed of at a licensed waste landfill site and records of safe disposal (as required for hazardous wastes) shall be supplied to the Contractor. These records shall be kept on site by the ESM; • Wherever possible and practical, waste materials generated on site must be recycled; and 	

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
					<ul style="list-style-type: none"> Waste specific (hazardous, timber, steel etc.) mitigation measures to be implemented. 	
	Minor impact caused by need for services i.e. water, electricity and sewerage systems during the prospecting phase causing additional strain on natural resources and service infrastructure.	Natural resources including water and energy resources	Prospecting	Low (-)	<p>Reduce through controlling management measures.</p> <ul style="list-style-type: none"> Energy savings measures to be implemented at the site e.g.: <ul style="list-style-type: none"> No lights to be switched on unnecessarily; Only security lights to be switched on at night; Energy saving bulbs to be installed; and Water should be recycled as far as possible to avoid any additional water usage. 	Very Low (-)
	Minor change in traffic patterns as a result of traffic entering and exiting the site on the surrounding road infrastructure and existing traffic.	Traffic	Prospecting	Low (-)	<p>Reduce through controlling management measures.</p> <ul style="list-style-type: none"> Where feasible heavy vehicles should not operate on public roads during peak hours; and Heavy vehicles should adhere to the speed limit of the road. 	Very Low (-)

	Nuisance, health and safety risks caused by increased traffic on and adjacent to the study area	Safety of workers, contractors and landowners	Prospecting	Medium (-)	Prevent through controlling management measures. <ul style="list-style-type: none"> • Drivers will be enforced to keep to set speed limits; • Trucks will be in a road-worthy condition; 	Very Low (-)
NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated

	including cars, and heavy vehicles.	and occupiers			<ul style="list-style-type: none"> • Roads and intersections will be signposted clearly. Only main roads should be used; • Where feasible vehicles should not operate on public roads during peak hours; • Vehicles should adhere to the speed limit of the road; • Heavy vehicles should always travel with their headlights switched on; • Heavy vehicles should not stop on the road to pick up hitchhikers – No stopping on the road approaching the site will be allowed; • Notre Coal (Pty) Ltd shall be responsible for ensuring that suitable access is maintained for public traffic to all relevant businesses and properties; and • All traffic accommodation measures are to conform to the latest edition of the South African Road Signs Manual. 	
	Possibility of prospecting activities and workers causing veld fires, which can potentially cause	Biodiversity Health and safety of landowners,	Prospecting	Medium (-)	<p>Prevent through controlling management measures.</p> <ul style="list-style-type: none"> • All workers will be sensitized to the risk of fire; 	Very Low (-)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
	injury and or loss of life to workers and surrounding landowners, visitors and workers.	occupiers, and visitors workers			<ul style="list-style-type: none"> • Smoking is only allowed in designated smoking areas and disposal of cigarette butts safely in sand buckets; • The Applicant shall ensure that the basic firefighting equipment is available on the site; • Extinguishers should be located outside hazardous materials and chemicals storage containers; • Fire response and evacuation: <ul style="list-style-type: none"> ○ An Emergency Plan (including Fire Protection, Response and Evacuation Plan) is to be prepared by the Applicant and conveyed to all staff on the site' ○ Identify major risks to minimise the environmental impacts e.g., air pollution and contaminated effluent runoff. 	

	<p>Increased risk to public and worker safety: If not fenced off, the public and workers may fall into excavated areas and trenches.</p>	<p>Health and safety of landowners, occupiers of land, workers, visitors and</p>	<p>Prospecting</p>	<p>Medium (-)</p>	<ul style="list-style-type: none"> • A health and safety plan in terms of the Mine Health and Safety Act (Act 29 of 1996) should be compiled and implemented to ensure worker safety; • A health and safety control officer should monitor the implementation of the health and safety plan for the operational phase; 	<p>Very Low (-)</p>
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NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
		the general public.			<ul style="list-style-type: none"> • A record of health and safety incidents should be kept on site and made available for inspection; • Any health and safety incidents should be reported to the Site Manager (SM) immediately; • First aid facilities should be available on site at all times; • Workers have the right to refuse work in unsafe conditions; • Material stockpiles or stacks should be stable and well secured to avoid collapse and possible injury to site workers. • Access to excavation must be controlled; • Excavated areas should be temporarily fenced-off; and • Excavations will be backfilled and landscaped as soon as possible. 	
	Potential creation of very limited extent short term employment opportunities for the local community, during the prospecting phase.	Socio-economic	Prospecting	Low (+)	<ul style="list-style-type: none"> • Local labour to be sourced where possible. 	Low (+)

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
	Multiplier effects on local economy will be positive, but very limited in extent and only short term.	Socioeconomic	Prospecting	Low (+)	<ul style="list-style-type: none"> Supplies to be bought locally as far as possible. 	Low (+)

The supporting impact assessment conducted by the EAP must be attached as an appendix, marked Appendix – Please refer to Table 8 for the full impact assessment.

13. Summary of specialist reports

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

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

Specialist studies attached as Appendix.

14. Environmental impact statement

14.1. Summary of the key findings of the environmental impact assessment;

A summary of the key findings of the environmental impact assessment is outlined below.

Key findings for the Basic Assessment:

- ❖ The possible environmental impacts associated with the proposed prospecting are considered insignificant. A diamond core drill rig will be used for drilling.
- ❖ There are impacts associated with the water courses that is located onsite. The proposed prospecting area falls within the Inkomati-Usuthu Management Area (WMA) and under the Quaternary Catchment W51A.
- ❖ The proposed prospecting area falls within the heavily or moderately modified as well as other natural areas.

Key findings for the socio-economic environment:

- ❖ Consultation with all relevant Interested and Affected Parties as well as stakeholders and landowners is conducted in order to capture any comments or concerns regarding the proposed activities and to ensure that they are kept informed and allowed to raise issues. The concerns raised will be included in the final BAR & EMPr.

14.2. Final Site Map

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

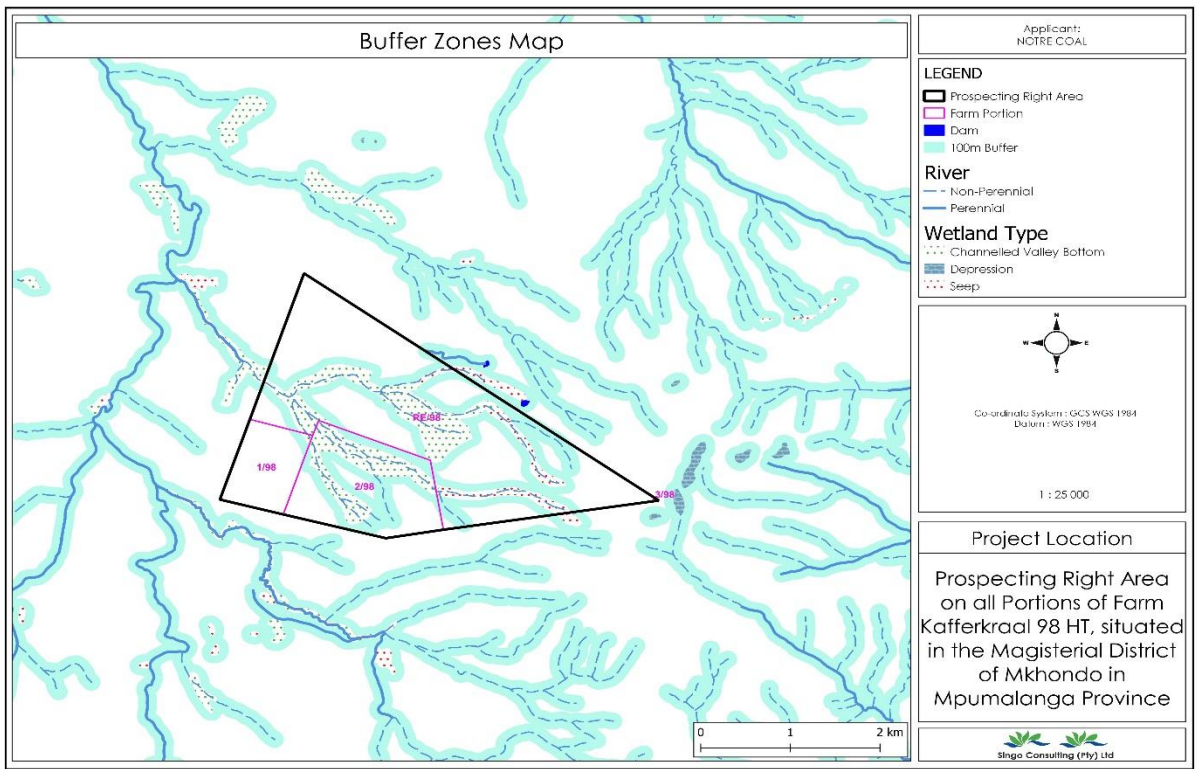
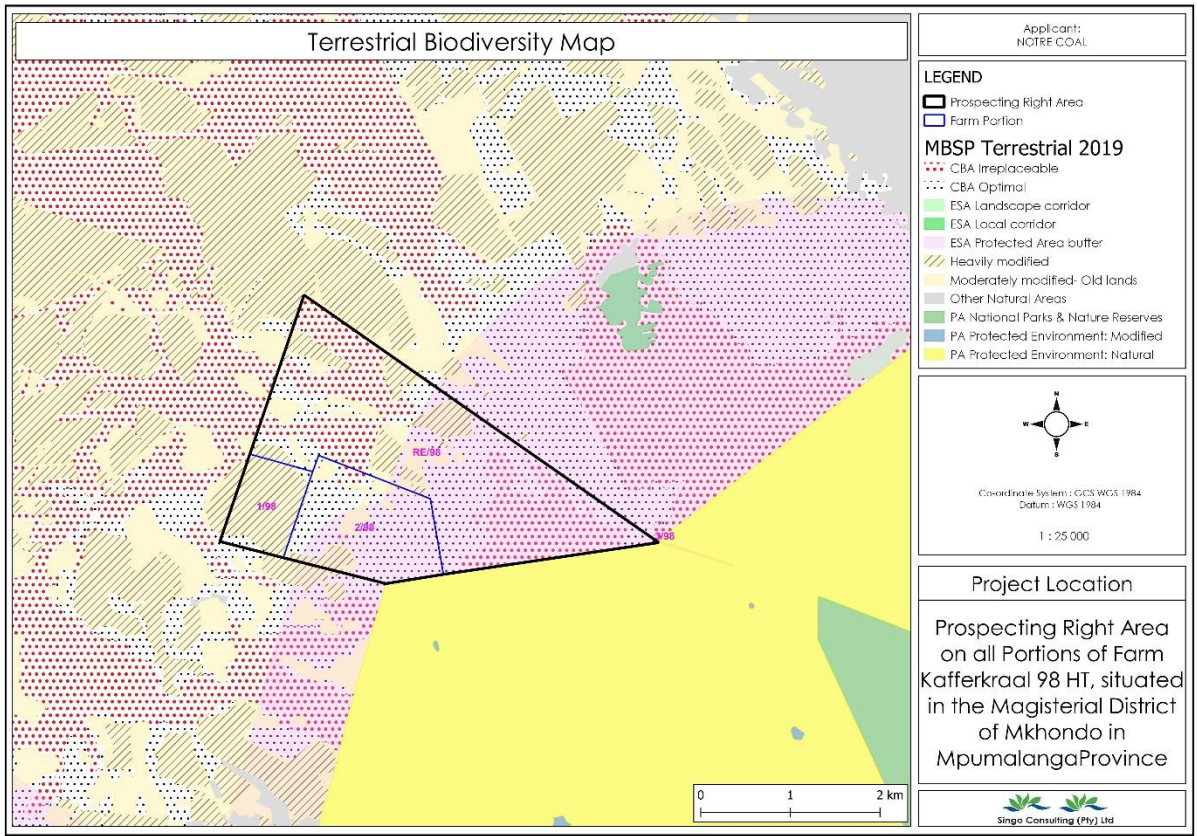


Figure 33: biodiversity and buffer map of the area

14.3. Summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.

The positive implication of the Prospecting Right is the discovery of an economically viable mineral resource. Although non-invasive techniques will be utilized as part of the proposed prospecting activities. The implementation of the proposed mitigation measure will ensure that the negative implications and risks of the project are minimal.

The Potential positive impacts are as follows:

- ❖ Discovery of an economically viable mineral resources
- ❖ Employment contributing to the economy.
- ❖ Positive contribution to the South African Gross Domestic Product
- ❖ Concurrent rehabilitation during prospecting

The potential negative impacts are as follows:

- ❖ Clearance/Disturbance of vegetation;
- ❖ Compacting of Soils;
- ❖ Drilling impact on identified lithic scatters;
- ❖ Deterioration and damage to existing access roads and tracks;
- ❖ Safety and security risks to landowners and lawful occupiers;
- ❖ Interference with existing land uses;
- ❖ Generation and disposal of waste;
- ❖ Contamination of surface and ground water;
- ❖ Introduction/invasion by alien species;
- ❖ Noise;
- ❖ Impact on faunal species;
- ❖ Pollution of Soils;
- ❖ Dust;
- ❖ Erosion due to vegetation clearance;

- ❖ Impact on surface water features;
- ❖ Impact on groundwater;
- ❖ Loss of fossil heritage.

The EMPr has identified appropriate mechanisms for avoidance and mitigation of these negative impacts.

14.4. Proposed impact management objectives and the impact management outcomes for inclusion in the EMPR;

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

The following management objectives and impact management outcomes are recommended for inclusion in the EMPR:

- Biodiversity: Prevent and / or restrict the loss of indigenous fauna and flora as far as practically possible;
- Physical aspects: Prevent and / or restrict the impact on soils and surface water;
- Social Aspects: Ensure the health and safety of employees of Notre Coal (Pty) Ltd and any contractors associated with the development and operation of the proposed activity as well as the surrounding community and visitors;
- Heritage: Ensure the protection of any potential heritage features or objects that may be excavated during the proposed development.

15. Aspects for inclusion as conditions of Authorization

(Any aspects which must be made conditions of the Environmental Authorization)

The following aspects are recommended to be included as conditions in the Environmental Authorisation:

- The EMPR is a contractual document and must be implemented at all times during the prospecting phase;

- An independent environmental control officer (ECO) must be appointed to monitor the implementation of the EMPR and audit reports to be kept by the applicant;
- All contractors and employees of Notre Coal (Pty) Ltd must be made aware of the EMPR and its requirements as well as the impact of not implementing the measures of the EMPR;
- Copies of the EMPR, Integrated Environmental Authorisation and any emergency procedures and method statements, must be kept on site and be available on request of the Competent Authority.

16. Description of any assumptions, uncertainties and gaps in knowledge.

(Which relate to the assessment and mitigation measures proposed)

The following assumptions, uncertainties, and gaps in knowledge are applicable to this BAR & EMPr:

The location of drill sites is not yet known and will be identified through the phased approach of the prospecting programme. This assessment is therefore based on a desktop approach at a broad scale and assuming that drilling could occur within the proposed Prospecting Right area. Once drill sites have been identified, then it is recommended that focus should be given to these sites in order to identify any cultural or heritage resources of significance, any ecologically significant areas that may occur as well as re-engaging landowners regarding the intention to access and conduct drilling activities on their property.

17. Reasoned opinion as to whether the proposed activity should or should not be authorized

17.1. Reasons why the activity should be authorized or not

In general, it is recognized that the proposed prospecting activities have the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. However, based on the findings of this BA documented in this report, all impacts can be mitigated to insignificant levels.

This report shows that the proposed development has the potential to provide socio-economic benefits to the local and regional communities. The EAP therefore recommends that the proposed activities be approved on condition that the EMPR is strictly implemented and monitored for compliance and that the northern portions of the study area are excluded from prospecting.

Not implementing the prospecting activities will result in a loss of information on mineral reserves present on the study area. Should economically feasible reserves exist on the study area and the applicant cannot prospect, the opportunity to utilize the reserves for future mining and brick-making will be lost, i.e. the minerals will be sterilized and resultant socio-economic benefits will be lost.

The proposed prospecting activities have the potential to have a negative impact on the ecological environment as well as the social environment of the area. These impacts, however, can potentially be prevented, minimised, mitigated and managed to low and very low levels, as shown through the impact assessment.

17.2. Conditions that must be included in the authorisation

- The EMPR is a contractual document and must be implemented at all times during the prospecting phase;
- An independent environmental control officer (ECO) must be appointed to monitor the implementation of the EMPR and audit reports to be kept by the applicant;
- All contractors and employees of Notre Coal (Pty) Ltd must be made aware of the EMPR and its requirements as well as the impact of not implementing the measures of the EMPR;
- Copies of the EMPR, Environmental Authorisation and any emergency procedures and method statements, must be kept on site and be available on request of the Competent Authority.

18. Period for which the Environmental Authorisation is required

This Environmental Authorisation is required for a period of 5 years.

19. 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).

It is confirmed 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 BAR and the EMPR.

20. Financial provision

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

A financial provision of approximately **R47 577** has been budgeted for the prospecting activities. In addition, **R47 577** will be made available by Notre Coal (Pty) Ltd for rehabilitation purposes.

Table 14 Calculation of the quantum


		CALCULATION OF THE QUANTUM					
Applicant: Evaluator: Bongokuhle Sibiya		Ref No.: Date:		MP 30/5/1/1/2/ 17543 PR 01-Sep-22			
No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (Including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	5016,75	49	0,05	1	12291,0375
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	284292	1	1	0
7	Sealing of shafts adits and Inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	189528	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	0,48	150138	0,3	1	21619,872
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0	57087	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	19980	1	1	0
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							33910,9095
1	Preliminary and General		4069,30914		weighting factor 2		4069,30914
					1		
2	Contingencies			3391,09095			3391,09095
Subtotal 2							41371,31
VAT (15%)							6205,70
Grand Total							47577

Figure 34: Financial Provision

20.1. Explain how the aforesaid amount was derived

This information has been provided in the Prospecting Work Programme that was submitted to the DMRE. The drilling contractor will be responsible for rehabilitating the drill pad once the drilling activities have been completed at each exploration hole. The financial guarantee was calculated using the DMRE official financial quantum calculator.

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

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

Notre Coal (Pty) Ltd herewith confirms both its capacity and willingness to make the financial provision required should the prospecting right be granted. Work will be approved on a phase-by-phase basis, dependent on the results obtained in the previous phase i.e., although prospecting work may be provided for financially in the budget for a specific year, it will only take place if justified. The amount is also reflected in the Prospecting Work Programme submitted to the DMRE.

21. Specific information required by the competent authority

No additional information other than the appendices of this report has been included.

21.1. 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 potential impacts on the socio-economic conditions have the potential to include:

❖ Safety and security risks to landowners and lawful occupiers

The potential exists for a group of unfamiliar workers to enter the project area during the prospecting activities. This impact could potentially affect the local communities; however the impact will be minimal as people on site will be limited to the Applicant, contractor and geologists for the topographical and geophysical surveys.

❖ Interference with existing land uses

Access to the application area for the topographical and geophysical survey will be required which may interrupt the existing land uses, such as livestock grazing, residential developments and game activities. However, this impact will be minimal as no heavy equipment will be brought on site and it is of short duration.

The consultation process will allow directly affected parties to raise their concerns. Further to this, it must be noted that I&AP's, including directly affected parties such as landowners, have the opportunity to review and comment on this report. The results of the public consultation have been included in the final report submitted to the department for adjudication.

2. Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act

From these previous research records conducted in the area; the specialist concluded that the general region is significant from a heritage perspective. Heritage sites are likely to include graveyards, Iron Age/Farmer and Historical remains. Since heritage sites, e.g. graves, are not always clearly identifiable as it might consist of stone cairns, it is advised that a qualified archaeologist inspect the proposed prospecting sites prior to drilling to establish whether the sites might be sensitive from a heritage perspective.

The following recommendations were made in terms of the National Heritage Resources Act (Act No. 25 of 1999) in order to avoid the destruction of heritage remains in areas demarcated for prospecting:

- Prior to any development, construction or prospecting, a qualified archaeologist should conduct a site inspection on the areas demarcated for geotechnical drilling/prospecting. Proposed access roads to the drill sites should also be surveyed in order to avoid the destruction of heritage material;
- Should the prospecting outcome result in further development or construction and mining, a full Phase 1 Archaeological Impact Assessment must be conducted on the affected area if triggered;
- Because archaeological artefacts generally occur below surface, the possibility exists that culturally significant material may be exposed during the development and construction phases, in which case all activities must be suspended pending further archaeological investigations by a qualified archaeologist. Also, should skeletal remains be exposed during development and construction phases, all activities must be suspended and the relevant heritage resources authority contacted (see National Heritage Resources Act (Act No. 25 of 1999) Section 36 (6)).

22. Other matters required in terms of sections 24(4)(A) and (B) of the act

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

The EAP included all aspects as required by the EIA regulations, 2014 for the EIA and EMPR as described in the Executive Summary of this report. Please refer to Part A.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

23. Introduction

23.1. Details of the EAP

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

Herewith, it is confirmed that the requirement for the provision of the details and expertise of the EAP are already included in PART A, Section 1(a) of this report.

23.2. Description of the Aspects of the Activity

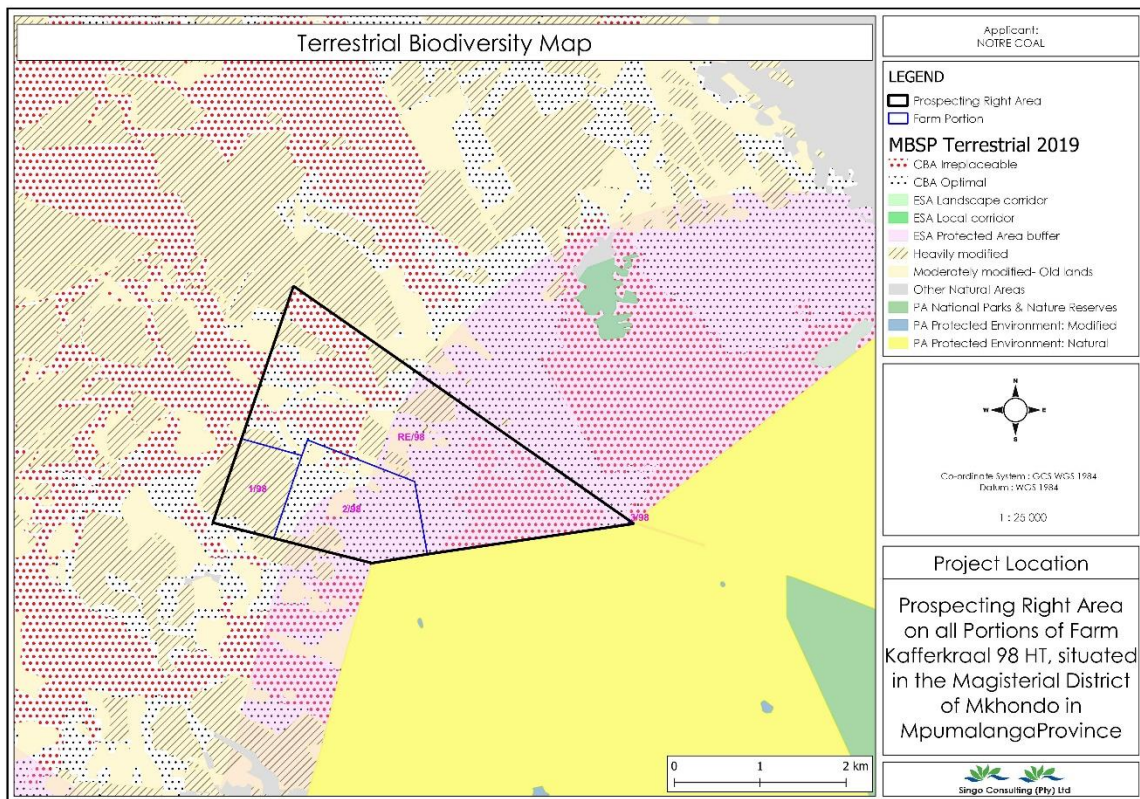
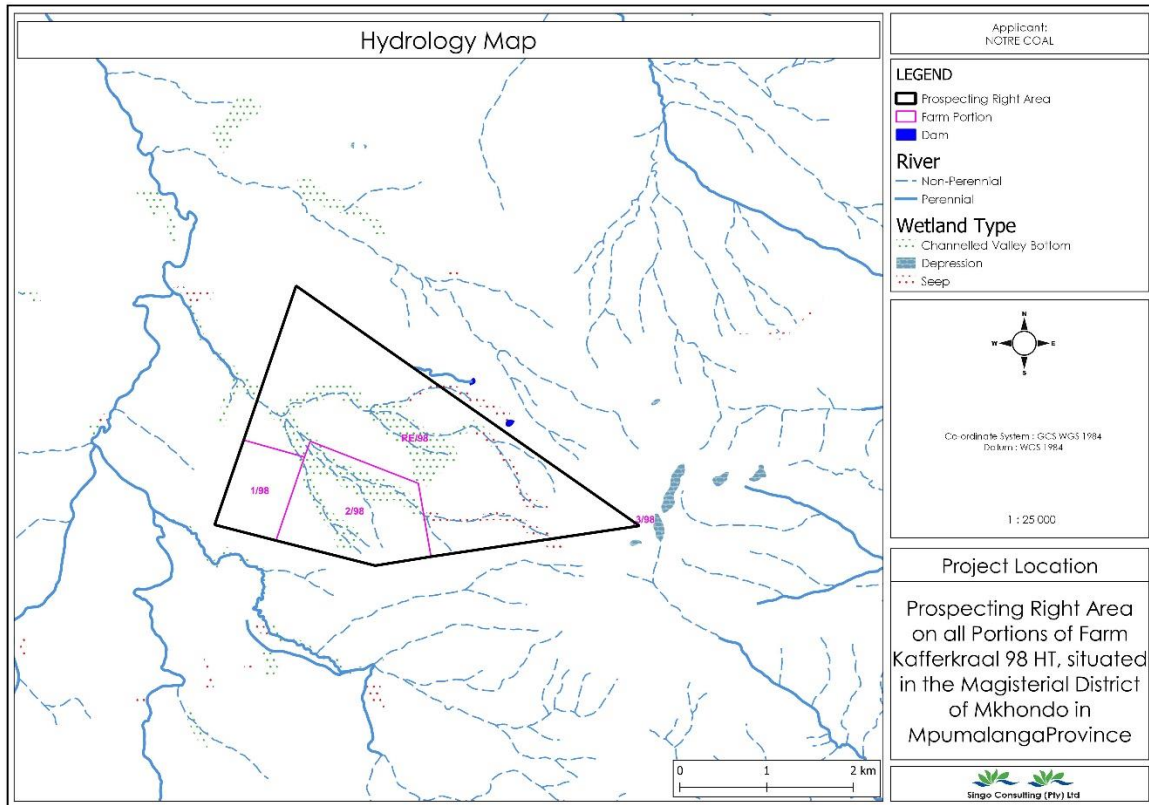
(Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1) (h) herein as required).

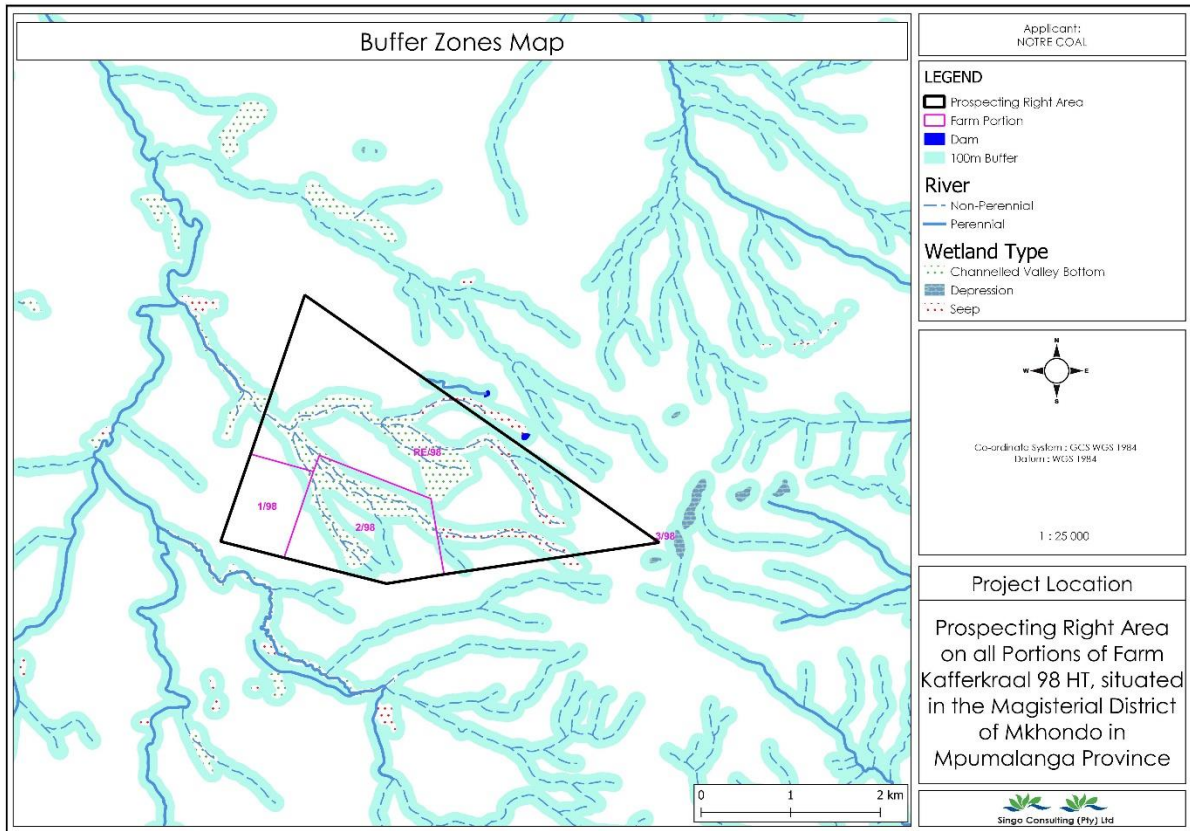
Herewith, it is confirmed that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (2) herein as required.

23.3. Composite Map

(Provide 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).

COMPOSITE MAP





Refer to appendix for a composite map

24. Description of Impact management objectives including management statements

24.1. Determination of closure objectives

(Ensure that the closure objectives are informed by the type of environment described).

The prospecting activities are dependent on the preceding phase (non-invasive). Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined.

The closure objectives include:

- ❖ Ensure that there are no safety risks associated with the drill boreholes through drill hole capping and backfilling;
- ❖ Rehabilitate any pollution that occurred through hazardous spills or waste materials and remove the source of the pollution;

- ❖ Establish an area that is not susceptible to soil erosion;
- ❖ Re-vegetate disturbed areas with endemic plant species that occur naturally within the area.

24.2. Volumes and rate of water use required for the operation

Limited water will be consumed by the surface dust suppression activities (water mist added for dust suppression when required). If diamond drilling is to take place, then it is estimated that up to 20 000 litres per day could be required.

24.3. Has a water use license been applied for?

The main prospecting right activities that will take place includes Drilling, Logging, Sampling and Mapping. It should be noted that these activities do not include any mining activities nor bulk sampling, and No PCD, Trenches and Berms will be constructed. The drilling activity will only take up about 0.9 ha per planned borehole, and all the planned exploration boreholes will be outside the 500m DWS regulated radius from the watercourses. No water will be abstracted from the drilled exploration boreholes. From the above listed activities, we won't trigger any of the section 21 water uses of the National Water Act, 1998 during the prospecting period. Therefore, we will not be applying for a water use license.

24.4. Impacts to be mitigated in their respective phases

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

Table 15: Impacts to be mitigated

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
Site clearance	Construction Operation	0.9 ha, short term and localized	<ul style="list-style-type: none"> • Demarcation of sensitive areas in consultation with relevant specialists and ECO; • Utilise local labour if possible; • Minimise removal of vegetation as far as possible; • Identification and relocation of protected species by a qualified ecologist (and application of the relevant biodiversity permits where required); • Minimize dust generation; • Limit vehicle access; • Implement alien vegetation management; • Ongoing identification of risks and impacts; • Emergency preparedness; • Monitoring and review; and 	NEMA MPRDA NEMBA NEMAQA Dust regulations NWA DWAF Best Practice Guidelines	Throughout Construction and operation

			<ul style="list-style-type: none"> Avoid disturbance of fauna as much as possible, especially bird nesting sites. 		
Site access	Construction Operation	883,913 ha, short term and localized	<input type="checkbox"/> All employees and visitors to the site must undergo a site induction which shall include basic environmental awareness and site-specific environmental requirements (e.g. site sensitivities and relevant protocols/procedures). This induction should be presented or otherwise facilitated by the Contractors EO/Mine EO wherever possible.	NEMA OHS MHSA and	Throughout Construction and operation

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> • Landowners/lawful occupiers must be notified prior to accessing properties. A date and time that is suitable to landowners/lawful occupiers and is reasonable to the applicant should be negotiated and agreed upon. • The number, identity of workers, work location and work to be done must be provided to the landowner/lawful occupier prior to going on site. • Consideration must be taken by the applicant and/or contractors when on site not to interfere with the existing land uses and practices. 		

Establishment of site infrastructure	Construction	2,1 ha, short term and localized	<ul style="list-style-type: none"> • Minimise physical footprint of construction; • Ensure construction is consistent with occupational health and safety requirements; • Minimise vegetation clearance; • Ensure proper and adequate drainage; • Minimise waste and control waste disposal; • Fencing of all drill sites with security access control and warning signs; • Establish waste storage areas for recycling; • Ensure adequate containment of waste to prevent pollution; • Minimise dust generation; • Limit vehicle access to approved access roads; • Prepare contingency plans for spillage and fire risks. 	<p>NEMA MPRDA NEMBA NEMAQA Dust regulations NWA DWAF Best Practice Guidelines NHRA</p>	Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

			<input type="checkbox"/> Temporary heritage signage around the conserved farmsteads during the construction (drilling) phase.		
Storage of construction vehicles	Construction and Operation	0,9 ha, short term and localized	<ul style="list-style-type: none"> • Any equipment that may leak, and does not have to be transported regularly, must be placed on watertight drip trays to catch any potential spillages of pollutants. The drip trays must be of a size that the equipment can be placed inside it; • Drip trays must be cleaned regularly and shall not be allowed to overflow. All spilled hazardous substances must be collected and adequately disposed of at a suitably licensed facility; and • Compacting of soil must be avoided as far as possible, and the use of heavy machinery must be restricted in areas outside of the proposed exploration sites to reduce the compaction of soils. 	NWA DWAF BPG	Throughout Construction and operation

Transportation/ access to and from drill sites	Construction and Operation	2,1 ha, short term and localized	<ul style="list-style-type: none"> • Where possible, drill sites should be located along existing access roads to reduce the requirement for additional access roads; • Any new temporary access routes to a drill site should result in minimal disturbance to existing vegetation; • Prior to accessing any portion of land, the Applicant must enter into formal written agreements with the affected landowner. This formal agreement should additionally stipulate landowners special conditions which would form a legally binding agreement; 	NEMA NEMBA CARA NEMAQA Dust Regulations Road Traffic Act	Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

			<ul style="list-style-type: none">• All farm gates must be closed immediately upon entry/exit;• Under no circumstances may the contractor damage any farm gates, fences, etc.;• On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic (where relevant);• All construction and vehicles using public roads must be in a roadworthy condition and their loads secured. They must adhere to the speed limits and all local, provincial and national regulations with regards to road safety and transport;• Damage caused to public roads as a result of the construction activities must be repaired in consultation with the relevant municipal authorities; and• All measures should be implemented to minimize the potential of dust generation.		
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Storage of hazardous substances	Construction and Operation	0,9 ha, short term and localized	<input type="checkbox"/> All hazardous substances (e.g. fuel, grease, oil, brake fluid, hydraulic fluid) must be handled, stored and disposed of in a safe and responsible manner so as to prevent pollution of the environment or harm to people or animals. Appropriate measures must be implemented to prevent spillage and appropriate steps must be taken to prevent pollution in the event of a spill; and way that does not pose any danger of pollution even during times of high rainfall.	NWA NEMWA DWAF BPG NEMA	Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> • Hazardous substances must be confined to specific and secured areas, and stored at all-time within bunded areas; • Adequate spill prevention and clean-up procedures should be developed and implemented during the prospecting activities. • Should any major spills of hazardous materials take place, such should be reported in terms of the Section 30 of the NEMA. 		

Waste management	Construction and Operation	Short-medium term, localized	<ul style="list-style-type: none"> Waste generated on site must be recycled as far as possible. Recyclable waste must not be stored on site for excessive periods to reduce risk of environmental contamination; Drill muds, formation water (if encountered), etc. would constitute waste and must be classified and ranked in terms of relevant legislation for correct disposal; and A Waste Management System must be implemented, and provide for adequate waste storage (in the form of enclosed containers) waste separation for recycling, and frequent removal of non-recyclable waste for permanent disposal at an appropriately licensed waste disposal facility. No waste material is to be disposed of on site. 	DWAF Minimum requirements for waste disposal NEMWA	Throughout Construction and operation
Prospecting boreholes:	Construction and Operation Decommissioning	0,9 ha, short term	<ul style="list-style-type: none"> Vegetation clearing for prospecting sites should be kept to a minimum in order to reduce the disturbance footprint; Compaction of soil must be avoided as far as possible, and the use of heavy machinery must 	SANS 10103 ECA Noise Regulations NEMAQA	Throughout Construction and operation and decommissioning
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

<p>15 sites , with a footprint of 600 m² each</p>			<p>be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils;</p> <ul style="list-style-type: none"> • All measures should be implemented to minimize the potential of dust generation; • Local residents should be notified of any potentially noisy activities or work and these activities should be undertaken at reasonable times of the day. These works should not take place at night or on weekends; • Noise attenuation on engines must be adequate, and the noisy activities must be restricted as far as is possible to times and locations whereby the potential for noise nuisance is reduced; • When working near to a potential sensitive area, the contractor must limit the number of simultaneous activities to the minimum; • Ensure proper storage of fuels; • On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic; 	<p>Dust Regulations NWA</p>	
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			<ul style="list-style-type: none"> • Workforce should be kept within defined boundaries and to agreed access routes. • No invasive prospecting activities to be undertaken within 500m of a watercourse. • Should any watercourse be affected, then the necessary water use licences should be 		
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>obtained from the Department of Water and Sanitation.</p> <ul style="list-style-type: none"> • No ablution of site laydown areas is to be located within 500m of a watercourse. • Where shallow aquifers are encountered, a survey of the drinking water/ livestock watering boreholes should be undertaken (within 500m of the prospecting borehole sites). A detailed groundwater monitoring programme should be developed for these drinking water/ livestock watering boreholes and pre- and post-prospecting water quality samples should be taken. • Where drinking water/ livestock watering boreholes are to be affected, and where a pollution 		

			<p>event occurs at a particular borehole, then the advice of a geo-hydrologist should be sought with regards to the need for plugging and casing of the prospecting boreholes.</p>		
Prospecting	Construction and Operation	0,9 ha, short term	<input type="checkbox"/> Workers must be easily identifiable by clothing and ID badges. Workers should carry with them, at all times a letter from the applicant stating their employment, title, role and manager contact details.	OHS and MHS	Throughout Construction and operation

Resource definition drilling	Planning Phase Construction and Operation	0,9 ha, short term	□ Local residents (landowners and directly adjacent landowners) should be notified of any potentially noisy activities or work and these activities should be undertaken at reasonable	MPRDA Regulations GN R527 SANS 10103	Planning Phase Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>times of the day. This work should not take place at night or on weekends;</p> <ul style="list-style-type: none"> • The contractor must attempt to restrict noisy activities as far as is possible to times and locations whereby the potential for noise nuisance is reduced; • Dust suppression methods must be applied when necessary to restrict the visual impact of dust emissions. • Any spills of hydrocarbons or fluids used during operation, must be cleaned up immediately; • An above ground drilling sump must be used to contain drilling mud in order to reduce surface and groundwater contamination. No earthen mud sumps are to be constructed and utilized; • No prospecting boreholes should be drilled in the immediate vicinity of existing private boreholes; • Soils in drilling areas where disturbances will be encountered must be stripped and stockpiled 	ECA Noise Regulations NEMAQA Dust Regulations NWA DWAF BPG NHRA	

			<p>outside affected areas for use after completion of the drilling program.</p> <ul style="list-style-type: none"> • Topsoil must be adequately stripped to the correct depth and stored separately from subsoils; • Cut of trench and berm must be constructed around the drill pad to prevent contaminated surface runoff from entering shallow aquifers and surrounding water resources, where required by the topography; • A liner should be placed over the drill pad and drip trays must be used in all areas where hydrocarbons are handled; • On-site vehicles must be limited to approved access routes and areas on the site so as to 		
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic;</p> <ul style="list-style-type: none"> • Workforce should be kept within defined boundaries and to agreed access routes; • The designated competent authority (DMRE) may, at the cost of the Applicant, appoint an independent 		

			<p>and competent person to undertake borehole examination.</p> <ul style="list-style-type: none"> • Should any fugitive emissions be detected, then the recommendations of the must be undertaken throughout the drilling activity up to the decommissioning of the wells. • Should any chance finds be uncovered during the construction phase, these must be handled in accordance with the requirements of the National Heritage Resources Act, 1999 (Act 25 of 1999) (NHRA); and • If a possible heritage site (including graves) or artefact is discovered during construction, all operations in the vicinity of the discovery (at least 30 m buffer) should stop and a qualified specialist contracted to evaluate and recommend appropriate actions. Depending on the type of site that can include initiating a grave relocation process, documentation of structures or archaeological excavations. • Should fossil remains be discovered in the Cenozoic Superficial deposits during any phase of construction, either on the surface or exposed by fresh excavations, the ECO responsible for these developments should be alerted immediately. Such discoveries ought to be protected (preferably in situ) and the ECO should alert SAHRA so that appropriate mitigation 		
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Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>recording, sampling or collection) can be taken by a professional palaeontologist.</p> <ul style="list-style-type: none"> • The Final BAR and appendices must be submitted to SAHRA for record purposes; • If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit must be alerted immediately. A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be 		

			<p>required subject to permits issued by SAHRA; and</p> <ul style="list-style-type: none"> • If the development receives an Environmental Authorisation (EA), SAHRA must be informed and all documents pertaining to the EA must be uploaded to the SAHRIS Case file. • Temporary heritage signage around the conserved. 		
Refuelling	Construction and Operation	Short term and localized	<input type="checkbox"/> Refuelling may only take place within demarcated areas that is subject to appropriate spill prevention and containment measures refuelling	NWA DWAF BPG	Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>and transfer of hazardous chemicals and other potentially hazardous substances must be carried out so as to minimize the potential for leakage and to prevent spillage onto the soil;</p> <input type="checkbox"/> Drip trays should be utilized in relevant locations (inlets, outlets, points of leakage, etc.) during transfer so as to prevent such spillage or leakage. Any accidental spillages must be contained and cleaned up promptly.		
Maintenance and repair	Construction and Operation	Short term and localized	<ul style="list-style-type: none"> • Trucks, machinery and equipment must be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks. All leaks must be cleaned up immediately using spill kits or as per the emergency response plan. For large spills a 	NWA DWAF BPG NEMA	Throughout Construction and operation

			<p>hazardous materials specialist shall be utilized;</p> <ul style="list-style-type: none"> Accidental hydrocarbon spillages must be reported immediately, and the affected soil should be removed, and rehabilitated or if this is not possible, disposed of at a suitably licenced waste disposal facility. 		
Borehole Closure	Decommissioning and Closure	Short term and localized	<ul style="list-style-type: none"> Where groundwater is encountered during drilling, all affected prospecting boreholes that will not be required for later monitoring or other useful purposes should be plugged and sealed with cement to prevent possible cross flow and contamination between aquifers; Cement and liquid concrete are hazardous to the natural environment on account of the very high pH of the material, and the chemicals contained 	NWA DWAF BPG	Throughout Decommissioning and Closure
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

			<p>therein. As a result, the contractor shall ensure that:</p> <ul style="list-style-type: none"> o Concrete shall not be mixed directly on the ground; o The visible remains of concrete, either solid, or from washings, shall be physically removed immediately and disposed of as waste, (Washing of visible signs into the ground is not acceptable); and o All excess aggregate shall also be removed. 		
Removal of surface infrastructure	Decommissioning	Short term and localized	<ul style="list-style-type: none"> • All infrastructure, equipment, and other items used during prospecting will be removed from the site. • Compaction of soil must be avoided as far as possible. The use of heavy machinery must be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils. 	MPRDA Rehab Plan	Decommissioning
Removal of waste	Decommissioning	Small scale and localized	<ul style="list-style-type: none"> □ Any excess or waste material or chemicals, including drilling muds etc. must be removed from the site and must preferably be recycled (e.g. oil and other hydrocarbon waste products). Any waste materials or chemicals that cannot be recycled must be disposed of at a suitably licensed waste facility. 	NWA DWAf BPG	Decommissioning

Rehabilitation	Rehabilitation	All disturbed areas	<input type="checkbox"/> Restoration and rehabilitation of disturbed areas must be implemented as soon as prospecting activities are completed;	MPRDA Rehab Plan NEMA	Rehabilitation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> • Sites must be restored to the original condition with vegetation cover (where applicable) equalling the surrounding vegetation cover; • All debris and contaminated soils must be removed and suitably disposed of; • Contours and natural surrounding must be reformed; • Natural drainage patterns must be restored; • All surface infrastructure on site must be removed; • Temporary access routes/roads must be suitably rehabilitated; and • Sites must be monitored by the ECO (including relevant specialist's inputs if, necessary) for adequate rehabilitation until the desired rehabilitation objectives have been achieved. 		

Consultation	Planning Phase Construction and Operation	Medium term, local	<input type="checkbox"/> Stakeholder engagement will continue throughout the prospecting activities to ensure the community and landowners are kept informed and allowed to raise issues. The Applicant shall attend applicable community meetings with the affected communities. Any issues raised will then be addressed through a grievance mechanism.	NEMA OHS and MHSA	Planning Phase Throughout Construction and Operation
Monitoring	Post-Operational	All rehabilitated areas	The post-operational monitoring and management period following decommissioning of prospecting activities must be implemented by a suitable qualified independent party for a minimum of one (1)	MPRDA Rehab Plan	Post-operation
			<p>year unless otherwise specified by the competent authority. The monitoring activities during this period will include but not be limited to:</p> <ul style="list-style-type: none"> • Biodiversity monitoring; and • Re-vegetation of disturbed areas where required. <p>Provision must be made to monitor any unforeseen impact that may arise as a result of the proposed prospecting activities and incorporated into post closure monitoring and management.</p>		

24.5. Impact Management Outcomes

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

Table 16: Measures to rehabilitate the environment affected by the undertaking of any listed activity, impact management outcomes, and impact management actions for

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
<ul style="list-style-type: none"> • Clearing of vegetation and topsoil. • Stockpiling of overburden positioned for 	<p>Minor loss and disturbance to topsoil as a result of clearing of vegetation and drilling and trenching.</p> <p>When vegetation is cleared and the topsoil is stripped, the soil's natural structure is disturbed and as a result</p>	<p>Prevent and reduce through management measures.</p> <p>Stripping of topsoil:</p> <ul style="list-style-type: none"> • Clearing of areas to take place a maximum of one month prior to intended prospecting in the area; 	<p>Impact avoided. All topsoil used in concurrent rehabilitation.</p>	<p>Rehabilitation objectives and standards</p>	<p>Prospecting Invasive Phase</p>

<p>later rehabilitation.</p> <ul style="list-style-type: none"> Prospecting including diamond core drilling, logging and sampling of the borehole core, trenching will involve the digging of excavation trenches down to approximately 3 metres below surface using graders and excavators. 	<p>the natural cycle is broken exposing the bare soil to erosion.</p> <p>Vehicles driving on these soils cause compaction of soils and reduces the soils' ability to be penetrated by root growth. Compaction also increases erosion potential.</p> <p>When soils are not stripped and stockpiled according to the soil stripping guidelines these soils would have lost their natural physical and chemical properties, reducing the topsoil's ability to be a plant growth medium.</p> <p>The above factors all contribute to a loss of the topsoil's ability to be a resource through alterations and removal.</p>	<ul style="list-style-type: none"> Stripping of topsoil will not take place during rain or excessive wind; and The top 30 cm of vegetation and topsoil is to be stripped from the area to be prospected. <p>Storage of topsoil / overburden:</p> <ul style="list-style-type: none"> Topsoil (top 30cm) is to be stored in predetermined topsoil berms, (+/- 5m) outside the boundary of the specific area; and Topsoil stockpiles will be restricted to 1.5 to 2m in height. <p>Maintenance and monitoring of topsoil stockpiles:</p> <ul style="list-style-type: none"> The stored topsoil should be used as soon as possible in concurrent rehabilitation; Weekly visual inspections to be conducted. 	<p>Rehabilitation objectives and standards</p>		
Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation

<ul style="list-style-type: none"> Dust Suppression. 	<p>Hydrocarbon spills on soil can occur where heavy machinery and vehicles are parked such as the hard park area because they contain large volumes of lubricating oils, hydraulic oils, and diesel to run. There is always a chance of these breaking down and/or leaking.</p>	<p>Prevent and reduce and remedy through management measures.</p> <ul style="list-style-type: none"> All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; All leaks will be cleaned up immediately using an absorbent material and spill kits, in the prescribed manner; and <p><u>Hydrocarbons and hazardous waste</u></p> <ul style="list-style-type: none"> All hazardous waste generated shall be kept separate and shall not be mixed with general waste; and All hazardous waste shall be stored within a sealed drum on an impermeable surfaced area within the central waste storage and transition area. 	<p>Impact avoided. No signs of soil contamination and loss of topsoil due to contamination.</p> <p>Meet rehabilitation objectives and standards.</p>	<p>Rehabilitation objectives and standards</p> <p>Spill procedure</p> <p>Hazardous Substances Act, 1973 (Act 15 of 1973) [as amended]</p> <ul style="list-style-type: none"> Section 2 Declaration of grouped hazardous substances; Section 9 (1) Storage and handling of hazardous chemical substances 	<p>Prospecting Invasive Phase</p>
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
				<ul style="list-style-type: none"> - Section 18 Offences Hazardous Chemical Substances Regulations, 1995 (Government Notice 1179 of 1995) - Section 4 Duties of persons who may be exposed to hazardous chemical substances <p>SANS 10234: 2008: Globally Harmonized</p>	

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
	Stormwater, erosion and siltation impacts due to a lack of implementing temporary measures to manage stormwater run-off quantity and quality.	<p>Prevent and reduce and remedy through management measures.</p> <ul style="list-style-type: none"> A Stormwater Management Plan (SMP) to be developed for the collective area where prospecting will occur, (or the existing SMP updated, where applicable for present and future activities) and should include the management of stormwater during excavation, as well as the installation of temporary stormwater and erosion control measures during prospecting, followed up by rehabilitation of the area; 	<p>Impact avoided. No signs of soil contamination and loss of topsoil due to contamination.</p> <p>Meet rehabilitation objectives and standards.</p>	<p>System of classification and labelling of</p> <ul style="list-style-type: none"> chemicals (GHS) <p>Rehabilitation objectives and standards</p> <p>Spill procedure GN704</p> <p>Regulations in terms of the National Water Act, 1998 (Act No 36 of 1998)</p> <p>Hazardous</p>	<p>Prospecting Invasive Phase</p>

		<ul style="list-style-type: none"> Temporary stormwater management systems (such as sand bags) will be installed to prevent stormwater from entering or exiting the area where prospecting will occur, which could result in silt laden surface water from draining 		Substances Act, 1973 (Act 15 of 1973) [as amended]	
Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> The slopes of the area where prospecting activities will occur, should be profiled to ensure that they are not subjected to excessive erosion but capable of drainage run-off with minimum risk of scrub (hydrologic action by water that causes erosion). A maximum gradient of 1:3 is recommended; If necessary, temporary diversion channels should be constructed ahead of the stockpiles (if relevant) to intercept clean run-off and divert it around disturbed areas into the natural 		<ul style="list-style-type: none"> Section 2 Declaration of grouped hazardous substances; - Section 9 (1) Storage and handling of hazardous chemical substances - Section 18 Offences 	

		<ul style="list-style-type: none"> • drainage system downstream (down gradient) of the prospecting area; • Existing vegetation must be retained as far as possible to minimise erosion problems; <p>Rehabilitation of the prospecting area shall be planned and completed (after conclusion of the prospecting activities) in such a way that the runoff water (if any) will not cause erosion;</p> <p>Visual inspections shall be done on a weekly basis with regard to the stability of the temporary</p>		Hazardous Chemical Substances Regulations, 1995 (Government Notice 1179 of 1995)	
Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation

		<p>water control structures, erosion and siltation (if required).</p> <ul style="list-style-type: none"> • Sediment-laden run-off from cleared areas should be prevented from entering rivers and streams; • No river or surface water may be affected by silt emanating from the prospecting area (especially aimed at prevention of siltation of the nearby watercourse); and • No wastewater may run freely into any of the surrounding naturally vegetated areas. 		<p>- Section 4 Duties of persons who may be exposed to hazardous chemical substances</p> <p>SANS 10234: 2008: Globally Harmonized System of classification and labelling of</p> <ul style="list-style-type: none"> • chemicals (GHS) 	
	<p>Contamination of stormwater runoff and groundwater, caused by chemicals such as hydrocarbon based fuels and oils or lubricants spilled from heavy vehicles and machinery and fuel storage area.</p>	<p>Prevent and reduce through management measures.</p> <p>In accordance with Government Notice 704 (GN 704), the onsite management should:</p> <ul style="list-style-type: none"> • Keep clean and dirty water separated; • Contain any dirty water within a system; and 	<p>Impact avoided. No signs of soil contamination and loss of topsoil due to contamination.</p>	<p>Rehabilitation objectives and standards</p> <p>Spill procedure</p>	<p>Prospecting Invasive Phase</p>

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> • Prevent the contamination of clean water. <p>In order to achieve these objectives, the following stormwater management measures must be implemented on the site to ensure that those potential stormwater impacts are kept to a minimum:</p> <ul style="list-style-type: none"> • Clean and dirty stormwater needs to be separated. Dirty stormwater may not be released into the environment and should be contained and treated on site; • All temporary stormwater infrastructure (if any) on-site shall be maintained and kept clean throughout the prospecting period; • Immediate reporting of any polluting or potentially polluting incidents so that 	Meet rehabilitation objectives and standards.	GN704 Regulations in terms of the National Water Act, 1998 (Act No 36 of 1998) Hazardous Substances Act, 1973 (Act 15 of 1973) [as amended] <ul style="list-style-type: none"> • Section 2 Declaration of grouped hazardous substances; - Section 9 (1) Storage 	

		<p>appropriate measures can be implemented;</p> <ul style="list-style-type: none"> Fuel and oil spills shall be treated immediately by appropriate mop-up products. Several hydrocarbon absorption/remediation products (i.e. Spill kits) must be placed throughout the site; 		and handling of hazardous	
Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation

		<ul style="list-style-type: none"> • Use of bunds or traps to ensure full containment of hydrocarbon and other hazardous materials are mandatory; • Any contaminated material is disposed of in an appropriate manner and the potential risks associated with such spills are limited; • Stormwater leaving the site must in no way be contaminated; • Ensure good housekeeping practices; • Increased runoff should be managed using berms and other suitable structures as required to ensure flow velocities are reduced; and Removal of spills, rainwater and waste produced during clean-up of the bunds – shall be done in accordance to relevant specifications. 		<p>chemical substances</p> <p>- Section 18 Offences</p> <p>Hazardous Chemical Substances Regulations, 1995 (Government Notice 1179 of 1995)</p> <p>- Section 4 Duties of persons who may be exposed to hazardous chemical substances</p>	
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
				SANS 10234: 2008: Globally Harmonized System of classification and labelling of <ul style="list-style-type: none"> • chemicals (GHS) 	
	Minor loss of natural vegetation and destruction of habitat will result in associated loss of fauna and flora species.	<p>Reduce through management measures.</p> <ul style="list-style-type: none"> • A suitably qualified specialist (ecologist) to accompany the site manager to demarcate areas for prospecting, in order to avoid damaging sensitive vegetation as identified during the specialist study and according to the sensitivity maps provided in this report; • Only vegetation falling directly into demarcated access routes or project sites should be removed; • No further vegetation clearance except for the removal of alien invasive species will be allowed; and 	Meet rehabilitation objectives and standards. Alien and invasive vegetation management plan implemented and outcomes achieved.	Meet rehabilitation objectives and standards. Alien and invasive vegetation management plan implemented and outcomes achieved.	Prospecting Invasive Phase

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> All remaining indigenous vegetation should be conserved wherever possible. 			

	<p>Disruption in the movement patterns of fauna species may impact on biodiversity.</p> <p>Noise, dust and potential light pollution, as well as migration of pollutants such as hydrocarbons in the soils, dust and emissions from vehicle and machinery altering air quality will all have an impact on biodiversity.</p>	<p>Prevent and reduce through management measures.</p> <ul style="list-style-type: none"> • Reduce the levels of disturbance on areas indicated by the Environmental Control Officer (ECO) as migratory routes, if any; • Environmental awareness training should include that no hunting, trapping or killing of fauna are allowed; • Any animals rescued or recovered will be relocated in a suitable habitat away from the mining operations and associated infrastructure; • Any lizards, snakes or monitors encountered should be allowed to escape to a suitable habitat away from disturbance. • No reptile should be intentionally killed, caught or collected during any phase of the project; and • General avoidance of snakes is the best policy if encountered. Snakes should not be intentionally harmed or killed and allowed free movement away from the area. 	<p>NEMBA: National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)</p>	<p>NEMBA: National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)</p>	<p>Prospecting Invasive Phase</p>
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
	<p>Introduction and spread of alien invasive species.</p> <p>The moving of soil and vegetation resulting in opportunistic invasions after disturbance and the introduction of seed in construction materials and on vehicles. Invasion of alien plants can impact on hydrology, by reducing the quantity of water entering a watercourse through stormwater, and outcompete natural vegetation, decreasing the natural biodiversity. Once in a system, alien plants can spread throughout the catchment. If allowed to seed before control measures are implemented, alien plants can easily colonise and impact on downstream users.</p>	<p>Prevent and control through management measures.</p> <ul style="list-style-type: none"> • An alien vegetation management plan should be drawn up and implemented; • Regular removal of invasive alien species should be undertaken. This should extend through to the closure phase of the project; and • No spreading of alien vegetation onto adjacent properties should be allowed. 	<p>Rehabilitation Objectives and Standards</p> <p>Alien and invasive vegetation management plan implemented and outcomes achieved.</p> <p>Proof of alien vegetation control. No listed species visible on the site.</p>	<p>Alien and Invasive Species Management Plan</p> <p>Rehabilitation Objectives and Standards</p> <p>Alien and Invasive Species Regulations (Government Notice 598 of 2014) and Alien and Invasive Species List, 2014 in terms of</p>	<p>Prospecting Invasive Phase</p>

				NEMBA (Government Notice 599 of 2014) - Notice 2	
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
				Exempted Alien Species in terms of Section 66 (1) - Notice 3 National Lists of Invasive Species in terms of Section 70(1) – List 1, 3-9 & 11 - Notice 4 • Prohibited Alien Species in terms of	

				Section 67 (1) – List 1, 3-7, 9-10 & 12	
	Alteration of archaeological, historical and paleontological resources that may be discovered during earthworks and drilling.	Protect heritage resources through developing and implementing procedures. • Prior to any development, construction or prospecting, a qualified archaeologist should conduct a site inspection on the areas demarcated for geotechnical drilling/prospecting.	No loss of newly discovered material.	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations.	Prospecting Invasive Phase

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		Proposed access roads to the drill sites should			

		<ul style="list-style-type: none"> • also be surveyed in order to avoid the destruction of heritage material; Should the prospecting outcome result in further development or construction and mining, a full Phase 1 • Archaeological Impact Assessment must be conducted on the affected area if triggered; Because archaeological artefacts generally occur below surface, the possibility exists that culturally significant material may be exposed during the development and construction phases, in which case all activities must be suspended pending further archaeological investigations by a qualified archaeologist. Also, should skeletal remains be exposed during development and construction phases, all activities must be suspended and the relevant heritage resources authority contacted (see National Heritage Resources Act (Act No. 25 of 1999) Section 36 (6)). Should culturally 		<ul style="list-style-type: none"> • South African Heritage Resources Agency Guidelines. 	
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<p>significant material or skeletal remains be exposed during prospecting all activities must be suspended pending further investigation by a qualified archaeologist (Refer to the National Heritage and Resources Act, 25 of 1999 section 36 (6));</p> <ul style="list-style-type: none"> • Should any objects of archaeological or paleontological remains be found during activities, work must immediately stop in that area and the Environmental Control Officer (ECO) must be informed; • The ECO must inform SAHRA and contact an archaeologist and / or paleontologist, depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work may be resumed in this area without the permission of the ECO and SAHRA. 			

	Visibility from sensitive receptors / visual scarring of the landscape as a result of the prospecting activities.	Reduce through controlling management measures. <ul style="list-style-type: none"> Unnecessary lights should be switched off during the day and / or night to avoid light pollution; 	Rehabilitation objectives and standards	<ul style="list-style-type: none"> Rehabilitation objectives and standards 	Prospecting Invasive Phase
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> If lighting is required, the lighting will be located in such a place and such a manner so as to minimise any impact on the surrounding community and fauna; Install temporary lights that will not create a night sky glow; Security lighting should be designed in such a way as to minimise emissions onto undisturbed areas on site and neighbouring properties. Light fittings should face downwards; Housekeeping on site should be enforced; Rehabilitation measures such as re-vegetation and plan to be implemented; 			

		<ul style="list-style-type: none"> • Reduce the prospecting period through careful planning and productive implementation of resources; • Plan the placement of lay-down areas and any potential temporary prospecting camps in order to minimise vegetation clearing; 			
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> • Restrict the activities and movement of workers and vehicles to the immediate prospecting site and existing access roads; • Ensure that rubble, litter and issued materials are managed and removed regularly; • Ensure that all infrastructure and the site and general surrounds are maintained in a neat and appealing way; and 			

		<ul style="list-style-type: none"> Reduce and control dust through the use of approved dust suppression techniques. 			
	Nuisance and health risks caused by an increase in the ambient noise level as a result of noise and vibration impacts associated with the operation of vehicles, machinery and equipment.	<p>Reduce through controlling measures.</p> <ul style="list-style-type: none"> Vehicles and machinery will be regularly serviced to ensure acceptable noise levels are not exceeded; Silencers will be utilised where possible; Heavy vehicle traffic should be routed away from noise sensitive areas where possible; Noise levels should be kept within acceptable limits. All noise and sounds generated should adhere to South African Bureau of Standards (SABS) specifications for maximum allowable noise levels for construction sites. No pure tone 	<p>Impact reduced.</p> <p>Records of service of all operational vehicles. Silencers utilised where applicable.</p> <p>All employees wear PPE where required.</p>	<p>Meet the South African National Standard SANS 10103:2008</p> <p>Meet South African Bureau of Standards (SABS) specifications for maximum allowable noise</p>	Prospecting Invasive Phase

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
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		<p>sirens or hooters may be utilised except where required in terms of SABS standards or in emergencies;</p> <p>With regard to unavoidable very noisy activities in the vicinity of noise sensitive areas, the Site Manager (SM) should liaise with local residents and a suitably qualified ecologist and how best to minimise impacts, and the local population should be kept informed of the nature and</p> <ul style="list-style-type: none"> • duration of intended activities; <p>The SM should take measures to discourage labourers from loitering in</p> <ul style="list-style-type: none"> • the area, causing noise disturbance; <p>Noise impacts should be minimised by restricting the hours (between 06h00 and 18h00 on Monday to Friday, and 06h00 and 13h00 on Saturdays), during which the offending activities are carried out and, where possible, by</p> <ul style="list-style-type: none"> • 		<p>levels for construction sites.</p> <ul style="list-style-type: none"> • Meet the requirements of the Mine Health and Safety Act (Act 29 of 1996) 	
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		insulating machinery and/or enclosing areas of activity; No noisy activities to occur on Sundays or public holidays;			
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> • Personal Protective Equipment to all persons working in areas where high levels of noise can be expected; Signs where it is compulsory; • Regular inspections and maintenance of equipment, vehicles and machinery to prevent unnecessary noise. 			

	<p>Increased dust pollution due to vegetation clearance and vehicles driving on gravel roads and drilling.</p>	<p>Reduce through controlling measures.</p> <ul style="list-style-type: none"> • Dust suppression shall be implemented during dry periods and windy conditions; • All exposed surfaces should be minimised in terms of duration of exposure to wind and stormwater; • Excavation, handling and transportation of erodible materials shall be avoided under high wind conditions (excess of 35km/hr) or when a visible dust plume is present; • Ensure that the shortest routes are used for material transport; • Ensure that stockpile height is kept to a minimum; • Minimise travel speed on unpaved roads; 	<p>Impact reduced.</p> <p>Speed limit road signs, complying with the South African Road Signs Manual on site.</p> <p>Dust fall monitoring programme should be implemented.</p> <p>Dust fallout and Particulate Matter</p>	<p>South Africa National Standard 1929:2005: Ambient Air Quality: Limits for common pollution</p> <p>Meet the requirements of the National Dust Control regulations, 2013, as published in the Government Gazette (No. 36974) of 1</p>	<p>Prospecting Invasive Phase</p>
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> • Implement monthly site inspection to check for possible areas of dust generation not addressed or not effectively managed; • Spray areas to be cleared with water; Ensure minimum travel distance between working areas and stockpiles; • Ensure that topsoil for stockpiles is sprayed with water before tipping to prevent dust generation; • Ensure graded areas are sprayed with water; <p>Minimise the amount of graded areas; Load and offload material, as far as possible, downwind of topsoil stockpiles.</p>	<p>(PM) levels may not exceed the limits as set out in the Dust Control Regulations above.</p> <p>Monitoring dust stands occurring on site.</p>	<p>November 2013 (GNR 827 of 1 November 2013), in terms of the National Environmental Management: Air Quality Act 39 of 2004</p> <ul style="list-style-type: none"> • 	

	Gaseous emissions from vehicles and machinery may cause an impact on ambient air quality.	<ul style="list-style-type: none"> All vehicles and machinery will be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks; <p>Proper planning of movements (vehicle trips) and working of machinery should take place, in order to avoid unnecessary trips and hours of operation.</p>	Rehabilitation objectives and standards	<ul style="list-style-type: none"> Rehabilitation objectives and standards 	Prospecting Invasive Phase
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
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	<p>Generation of additional general waste, litter and building rubble and hazardous waste.</p>	<p>Control through management measures.</p> <ul style="list-style-type: none"> • A central waste storage and transition area shall be established within the site camp; • The central waste storage and transition area shall be surfaced and demarcated appropriately; • Portable wheelie bins shall be placed throughout the drill site as well as at the remainder of the site and at all working areas in the field; • Wheelie bins shall be colour coded and labelled to identify the waste stream for which it is intended; • All portable wheelie bins and other containers shall be emptied at the central waste storage and transition area a minimum of once a week or when filled, as to avoid waste build up; • The waste shall be removed (within 30 days) by a licensed waste service provider as shall be disposed of at a licensed waste landfill site and records of safe disposal (as required for hazardous wastes) shall be supplied to the Contractor. These records shall be kept on site by the ESM; 	<p>Waste management on site visible.</p>	<p>Waste management on site visible.</p> <p>Waste Classification and Management Regulations and Norms and Standards for the assessment of for landfill disposal and for disposal of waste to landfill,</p> <p>2013 (Government Notice 634 – 635 of 2013) promulgated in terms of the National Environmental Management:</p>	<p>Prospecting Invasive Phase</p>
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
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		<ul style="list-style-type: none"> • Wherever possible and practical, waste materials generated on site must be recycled; and <p>Waste specific (hazardous, timber, steel etc.) mitigation measures to be implemented.</p>		<p>Waste Act, 2008 (Act No. 59 of 2008) [as amended] and:</p> <p>Regulations regarding the planning and management of residue stockpiles and residue deposits from a prospecting, mining, exploration or production operation (GN R. 632 of 2015)</p>	
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
				SANS 10234: 2008: Globally Harmonized System of classification and labelling of <ul style="list-style-type: none"> • chemicals (GHS) 	
	Minor impact caused by need for services i.e. water, electricity and sewerage systems during the prospecting phase causing additional strain on natural resources and service infrastructure.	Reduce through controlling management measures. <ul style="list-style-type: none"> • Energy savings measures to be implemented at the site e.g.: <ul style="list-style-type: none"> ○ No lights to be switched on unnecessarily; ○ Only security lights to be switched on at night; • Energy saving bulbs to be installed; and • Water should be recycled as far as possible to avoid any additional water usage. 	Impact avoided. Recycling of used and contaminated water through wastewater and sewage treatment and reuse.		Prospecting Invasive Phase

	Minor change in traffic patterns as a result of traffic entering and exiting the site on the surrounding road infrastructure and existing traffic.	Reduce through controlling management measures. <ul style="list-style-type: none"> Where feasible heavy vehicles should not operate on public roads during peak hours; and 	Impact reduced. Speed limit road signs, complying	Reduce through controlling measures	Prospecting Invasive Phase
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> Heavy vehicles should adhere to the speed limit of the road. 	with the South African Road Signs Manual on site.	Set Speed Limits <ul style="list-style-type: none"> South African Road Signs Manual 	

	<p>Nuisance, health and safety risks caused by increased traffic on and adjacent to the study area including cars, and heavy vehicles.</p>	<p>Prevent through controlling management measures.</p> <ul style="list-style-type: none"> • Drivers will be enforced to keep to set speed limits; • Trucks will be in a road-worthy condition; • Roads and intersections will be signposted clearly. Only main roads should be used; • Where feasible vehicles should not operate on public roads during peak hours; • Vehicles should adhere to the speed limit of the road; • Heavy vehicles should always travel with their headlights switched on; • Heavy vehicles should not stop on the road to pick up hitchhikers – No stopping on the road approaching the site will be allowed; 	<p>Impact reduced.</p> <p>Speed limit road signs, complying with the South African Road Signs Manual on site.</p> <p>South Africa National Standard 1929:2005: Ambient Air Quality: Limits for common pollution</p>	<p>Reduce through controlling measures</p> <p>Set Speed Limits</p> <p>South African Road Signs Manual</p> <p>South Africa National Standard 1929:2005: Ambient Air Quality: Limits for common pollution</p>	<p>Prospecting Invasive Phase</p>
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
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		<ul style="list-style-type: none"> • Notre Coal (Pty) Ltd shall be responsible for ensuring that suitable access is maintained for public traffic to all relevant businesses and properties; and • All traffic accommodation measures are to conform to the latest edition of the South African Road Signs Manual. 	<p>Meet the requirements of the National Dust Control regulations, 2013, as published in the Government Gazette (No. 36974) of 1 November 2013 (GNR 827 of 1 November 2013), in terms of the National Environmental Management: Air Quality Act 39 of 2004</p> <p>Dust fall monitoring</p>	<p>National Dust Control regulations, 2013, as published in the Government Gazette (No. 36974) of 1 November 2013 (GNR 827 of 1 November 2013), in terms of the National Environmental Management: Air Quality Act 39 of 2004</p> <p>Approved dust fall monitoring programme</p>	
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
			<p>programme should be implemented.</p> <p>Dust fallout and Particulate Matter (PM) levels may not exceed the limits as set out in the Dust Control Regulations above.</p> <p>Monitoring dust stands occurring on site.</p>		

	Possibility of prospecting activities and workers causing veld fires, which can potentially cause injury and or loss of life to workers and surrounding landowners, visitors and workers.	<p>Prevent through controlling management measures.</p> <ul style="list-style-type: none"> • All workers will be sensitized to the risk of fire; • Smoking is only allowed in designated smoking areas and disposal of cigarette butts safely in sand buckets; 	Mine Health and Safety Act (Act 29 of 1996) An Emergency Plan (including Fire Protection,	Impact avoided. No incidents of fires occurring on site.	Prospecting Invasive Phase
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Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
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		<ul style="list-style-type: none"> The Applicant shall ensure that the basic firefighting equipment is available on the site; Extinguishers should be located outside hazardous materials and chemicals storage containers; Fire response and evacuation: <ul style="list-style-type: none"> An Emergency Plan (including Fire Protection, Response and Evacuation Plan) is to be prepared by the Applicant and conveyed to all staff on the site; Identify major risks to minimise the environmental impacts e.g., air pollution and contaminated effluent runoff. 	Response and Evacuation Plan) Veld and Forest Fire Act, 1998 (Act No. 101 of 1998) [as amended] - Section 12 (1) Duty of the landowner to prevent fire from spreading to neighbouring properties.	No one smoking in unauthorised areas. Proof / records of training in terms of the risk of fire and of the emergency management plan. <ul style="list-style-type: none"> Basic fire-fighting equipment located in the correct locations on site. 	
	Increased risk to public and worker safety: If not fenced off, the public and workers may fall into excavated areas and trenches.	<ul style="list-style-type: none"> A health and safety plan in terms of the Mine Health and Safety Act (Act 29 of 1996) should be compiled and implemented to ensure worker safety; 	Mine Health and Safety Plan available on site and proof that it is	Health and safety plan in terms of the Mine Health and Safety Act (Act 29 of 1996)	Prospecting Invasive Phase

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
		<ul style="list-style-type: none"> • A health and safety control officer should monitor the implementation of the health and safety plan for the operational phase; • Any health and safety incidents should be reported to the Site Manager (SM) immediately; First aid facilities should be available on site at all times; • Workers have the right to refuse work in unsafe conditions; • Material stockpiles or stacks should be stable and well secured to avoid collapse and possible injury to site workers. • Access to excavation must be controlled; • Excavated areas should be temporarily fenced off; and <p>Excavations will be backfilled and landscaped as soon as possible.</p>	<p>being implemented.</p> <p>Proof of training in awareness of health and safety procedures.</p> <p>Proof / records of health and safety audits available on request.</p> <p>No health and safety incidents reported.</p>	<ul style="list-style-type: none"> • 	

Activity Including Size/ scale	Aspects and potential impacts	Mitigation type and Measures	Standards to be achieved	Compliance with standards	Phase and / or time period for implementation
			Proof / record of stockpile and stacks inspections taking place.		
			Health and safety signs on site at appropriate locations.		
	Potential creation of very limited extent short term employment opportunities for the local community, during the prospecting phase.	Local labour to be sourced where possible.	-		Prospecting Invasive Phase
	Multiplier effects on local economy will be positive, but very limited in extent and only short term.	Supplies to be bought locally as far as possible.	-		Prospecting Invasive Phase

25. Financial Provision

25.1. Determination of the amount of Financial Provision

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

The closure objectives include:

- ❖ Ensure that there are no safety risks associated with the drill boreholes through drill hole capping and backfilling;
- ❖ Rehabilitate any pollution that occurred through hazardous spills or waste materials and remove the source of the pollution;
- ❖ Establish an area that is not susceptible to soil erosion;
- ❖ Re-vegetate disturbed areas with endemic plant species that occur naturally within the area.

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

The Public Participation Process (PPP) is a requirement of several pieces of South African Legislation and aims to ensure that all relevant Interested and Affected Parties (I&AP's) are consulted, involved and their opinions are taken into account and a record included in the reports submitted to Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study. The PPP for the as part of the prospecting right application needs to be managed sensitively and according to best practices in order to ensure and promote:

- ❖ Compliance with national legislation;
- ❖ Establish and manage relationships with key stakeholder groups;
and
- ❖ Encourage involvement and participation in the environmental study and authorisation/ approval process.

As such, the purpose of the PPP and stakeholder engagement process is to:

- Introduce the proposed project;
- Explain the environmental authorizations required;
- Explain the environmental studies already completed and yet to be undertaken (where applicable);
- Determine and record issues, concerns, suggestions, and objections to the project;
- Provide opportunity for input and gathering of local knowledge;
- Establish and formalize lines of communication between the I&AP's and the project team;
- Identify all significant issues for the project; and
- Identify possible mitigation measures or environmental management plans to minimise and/or prevent negative environmental impacts and maximize and/or promote positive environmental impacts associated with the project.

Landowners and interested and affected parties have been consulted and provided an opportunity to comment on this Basic Assessment Report, EMPR including all decommissioning, closure and rehabilitation plans.

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

The prospecting activities are dependent on the preceding phase (non-invasive). Prospecting is conducted in phases, where the activities and location of drilling and trenching to sample soil are dependent on the previous phase. Therefore, the specific locations and extent of soil sampling and diamond core drilling cannot be predetermined. Mapping of prospecting activities can also not be conducted.

Due to the small extent and fairly short-term period of the prospecting activities and as shown in the Environmental Impact Assessment, the impacts will be of a low or very low significance. Rehabilitation will be conducted and will include borehole capping and re-vegetation.

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

Due to the small extent and fairly short-term period of the prospecting activities and as shown in the Environmental Impact Assessment, the impacts will be of a low or very low significance. Rehabilitation will be conducted and will include borehole capping and re-vegetation. Detailed mitigation measures are provided in the EMPR to ensure the closure objectives are met.

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

The closure cost assessment will be conducted, if required. The report will be submitted to the Department of Mineral Resources together with the Final Basic Impact Assessment report, if required.

25.5. Confirm that the financial provision will be provided as determined.

It is confirmed that the amount for financial provision is anticipated to be an operating cost and is provided for as such in the Prospecting Work Programme. Notre Coal (Pty) Ltd herewith confirms both its capacity and willingness to make the financial provision required should the prospecting right be granted.

26. Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including h) Monitoring of Impact Management Actions

- i) Monitoring and reporting frequency
- j) Responsible persons
- k) Time period for implementing impact management actions
- l) Mechanism for monitoring compliance

Table 17: Mechanisms for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
PROSPECTING PHASE				

<ul style="list-style-type: none"> • Clearing of vegetation and topsoil. • Stockpiling of overburden positioned for later rehabilitation. 	Surface Water	<ul style="list-style-type: none"> • A Stormwater Management Plan (SMP) to be developed for the collective area where prospecting will occur, (or the existing SMP updated, where applicable for present and future activities) and should include the management of stormwater during excavation, as well as the installation of temporary stormwater and erosion control measures during prospecting, followed up by rehabilitation of the area. This Stormwater 	Applicant Engineer	After rain / storm events; and Weekly
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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
<ul style="list-style-type: none"> • Prospecting including diamond core drilling, logging and sampling of 		<p>Management Plan to be monitored for implementation.</p> <ul style="list-style-type: none"> • Visual inspections shall be done on a weekly basis with regard to the stability of the temporary water control structures, erosion and siltation. 		

<p>the borehole core, trenching will involve the digging of excavation trenches down to approximately 3 meters below surface using graders and excavators.</p> <ul style="list-style-type: none"> • Dust Suppression. 	<p>Dust and air quality pollution</p>	<ul style="list-style-type: none"> • A minimum of eight dust buckets must be erected around the site in the eight main wind directions. <p>Monthly air quality report will be required as per the regulations to:</p> <ul style="list-style-type: none"> • Ensure that the environmental mitigation and control measures are implemented; • Monitor environmental performance of the mining operations. • Tracking of progress due to pollution control measure implementation; 	<p>Applicant Environmental Specialist</p>	<p>Monthly</p>
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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
		<ul style="list-style-type: none"> • Verify compliance with all relevant legal and statutory requirements. • Promote environmental education and protection; and 		

		<ul style="list-style-type: none"> Determine sources of significant pollution. 		
	<p>Spreading of alien invasive vegetation and impacts on habitat and vegetation.</p>	<p>Specialist monitoring on Faunal and Floral aspects include the monitoring of effects operational processes have on vegetation and accompanied animal life within the immediate or surrounding areas of the operations.</p> <ul style="list-style-type: none"> Alien vegetation control and management; Habitat and vegetation management; Rehabilitation services include the rehabilitation of operational disturbed areas and hydrocarbon spill areas; Sloping and re-vegetation of disturbed area to surrounding landscape; and Remediation of soil at spill sites. 	<p>Environmental Specialist</p>	<p>Visual inspections during all phases of the activities.</p>

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

A Performance Assessment Review of the EMPR should be conducted annually and the environmental audit report will be submitted annually.

28. Environmental Awareness Plan

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

The environmental awareness plan will include the following:

- ❖ Induction of all staff and workers;
- ❖ Monthly 'toolbox' talks (awareness talks);
- ❖ Risk assessments for specific tasks with supervisors and staff involved in the task on a daily basis, or as often as the task is taking place.

The following principles and training will apply to the Environmental Awareness Plan (safety, health and environmental (SHE) training and the Environmental Management System (EMS) training):

- ❖ All personnel, including contactors, will as a minimum undergo general SHE induction and awareness training;
- ❖ The Safety, Health, Environmental and Quality (SHEQ) Manager will identify the SHE training requirements for all personnel and contractors. The training requirements will be recorded in a training needs matrix indicating particular training that must be undertaken by identified personnel and contractors. The training matrix will be administered by the Training Department; and Development of the Training Programme, which will include:
- ❖ Job specific training – training for personnel performing tasks which could cause potentially significant environmental impacts;

- ❖ Assessment of extent to which personnel are equipped to manage environmental impacts;
- ❖ Basic environmental training;
- ❖ EMS training;
- ❖ Comprehensive training – on emergency response, spill management, etc.
- ❖ Specialized skills;
- ❖ Training verification and record keeping; and
- ❖ Periodic re-assessment of training needs, with specific reference to new developments, newly identified issues and impacts and associated mitigation measures.

General Awareness Training

- The HR Manager, together with the SHEQ Manager, will be responsible for the development of, or facilitating the development of, the required general SHE induction and awareness training. A general environmental awareness training module will be developed and integrated into the general induction programme. The general awareness training must include the Environmental Policy, a description of the environmental impacts and aspects and the importance of conformance to requirements, general responsibilities of personnel and contractors with regard to the environmental requirements and a review of the emergency procedures and corrective actions; and
- A Training Practitioner will conduct the general awareness training. The training presenter will keep a record of the details of all persons attending general awareness training. Such attendance registers shall indicate the names of attendants and their organizations, the date and the type of training received.

Specific Environmental Training

- Specific environmental training will be in line with the requirements identified in the training matrix; and
- Personnel whose work tasks can impact on the environment will be made aware of the requirements of appropriate procedures/work instructions. The

SHEQ Manager will communicate training requirements to responsible supervisors to ensure that personnel and contractors are trained accordingly.

Training Evaluation and Re-training

- Effectiveness of the environmental training will be reflected by the degree of conformance to EMPR requirements, the result of internal audits and the general environmental performance achieved.
- Incidents and non-conformances will be assessed through the Internal Incident Investigation and Reporting System, to determine the root cause, including the possible lack of awareness/training.
- Should it be evident that re-training is required, the SHEQ Manager will inform the managers of the need and take the appropriate actions.
- General awareness training of all personnel shall be repeated every year; and
- The re-induction shall take into consideration changes made in the EMPR, changes in legislation, current levels of environmental performance and areas of improvement.

Emergency Procedures

- Emergency procedures, as relevant to this project, shall be implemented.
- The SHEQ Manager shall define emergency reporting procedures for the project.
- All personnel shall be made aware of emergency reporting procedures and their responsibilities.
- Any spills will be cleaned up immediately in accordance with relevant legislation; and
- Telephone numbers of emergency services, including the local firefighting service, shall be conspicuously displayed.

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

The broad measures to control or remedy any causes of pollution or environmental degradation as a result of the proposed prospecting activities taking place are provided below:

- ❖ Contain potential pollutants and contaminants (where possible) at source;
- ❖ Handling of potential pollutants and contaminants (where possible) must be conducted in bunded areas and on impermeable substrates;
- ❖ Ensure the timeous clean-up of any spills;
- ❖ Implement a waste management system for all waste stream present on site;
- ❖ Investigate any I&AP's claims of pollution or contamination as a result of mining activities; and
- ❖ Implement the impact management objectives, outcomes and actions, as described in Section above.

It is of critical importance that the broad measures to control or remedy any causes of pollution or environmental degradation are applied during onsite prospecting activities.

29. Specific information required by the Competent Authority

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

No specific information has been required by the Competent Authority at this point in time.

30. UNDERTAKING

The EAP herewith confirms;

- a) the correctness of the information provided in the reports
- b) the inclusion of comments and inputs from stakeholders and I&APs;
- c) the inclusion of inputs and recommendations from the specialist reports where relevant; ; and
- d) that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.

Signature of the environmental assessment practitioner:

Singo consulting (Pty) Ltd

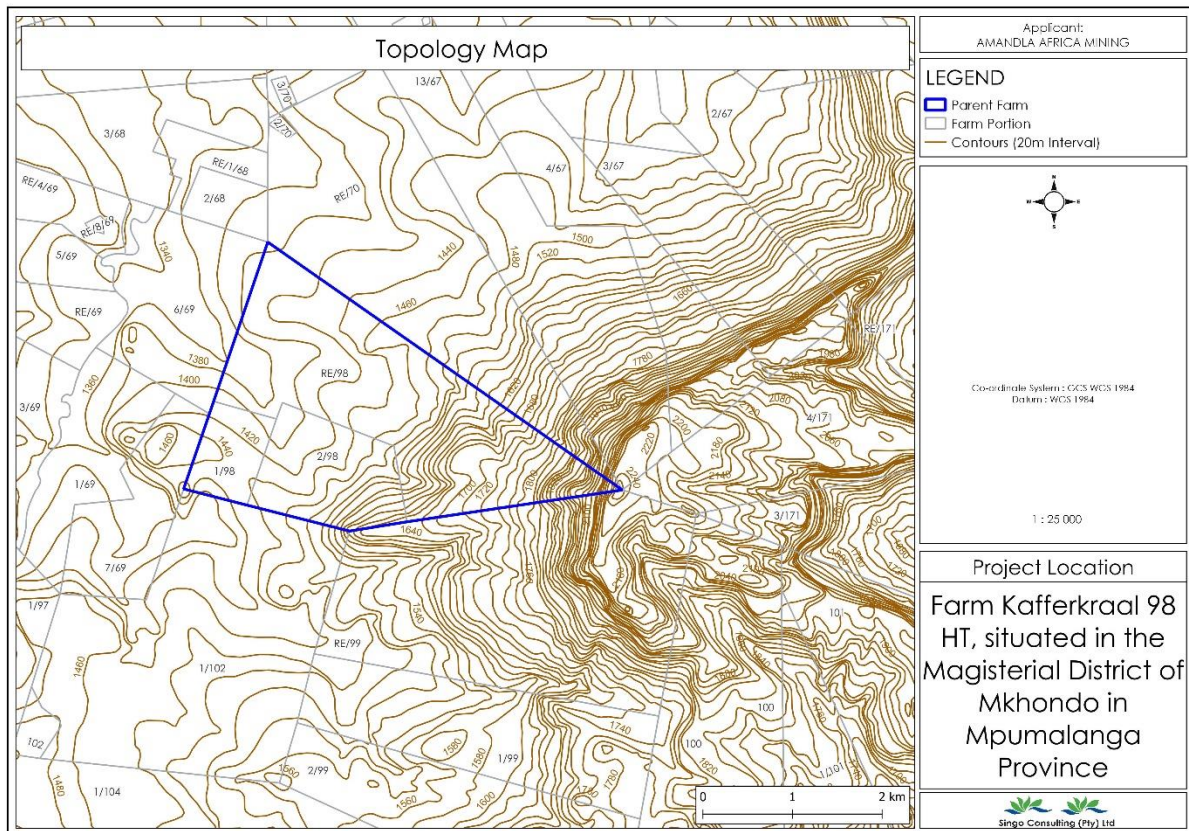
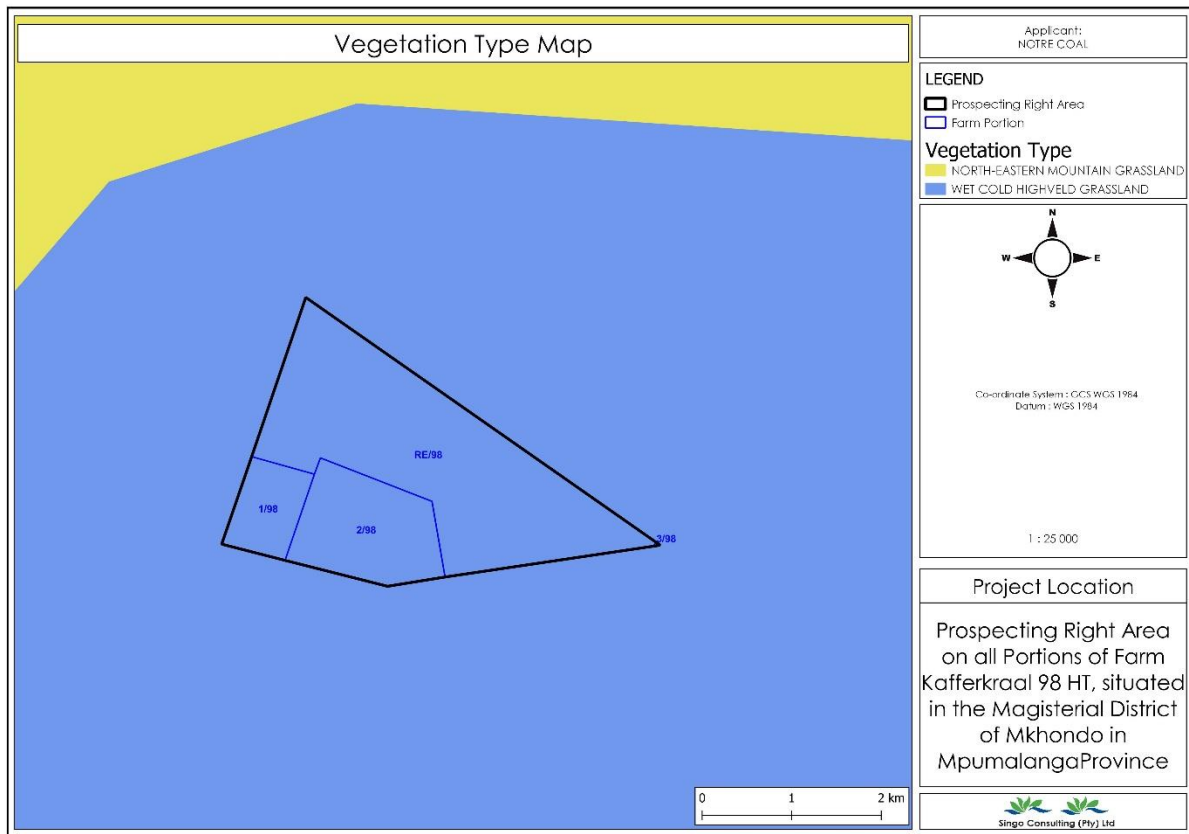
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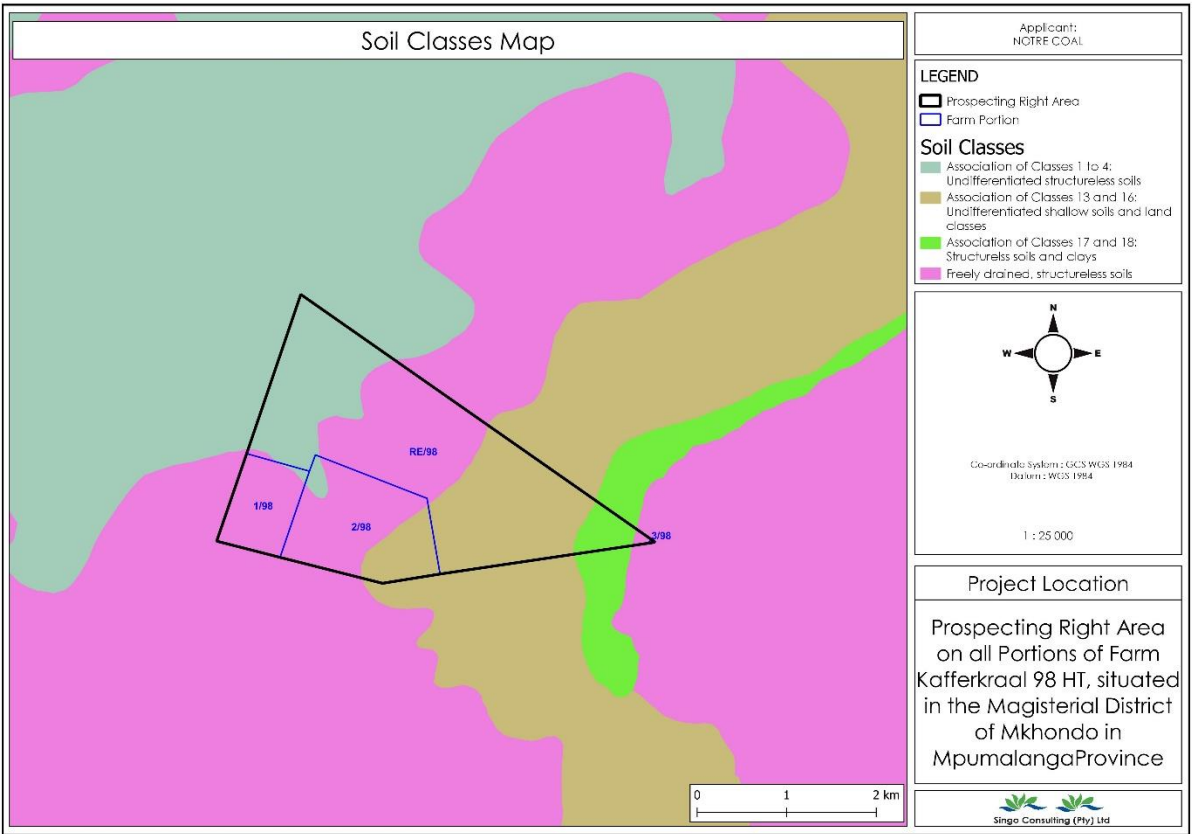
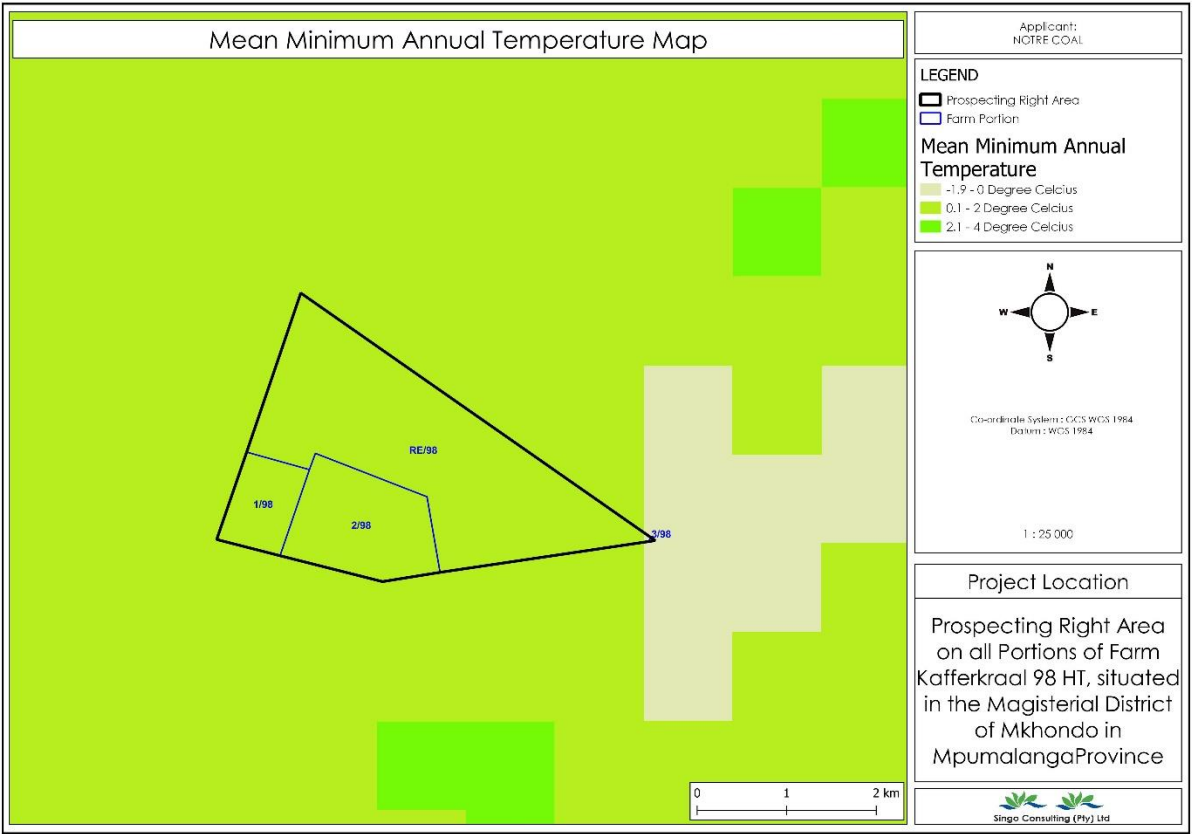
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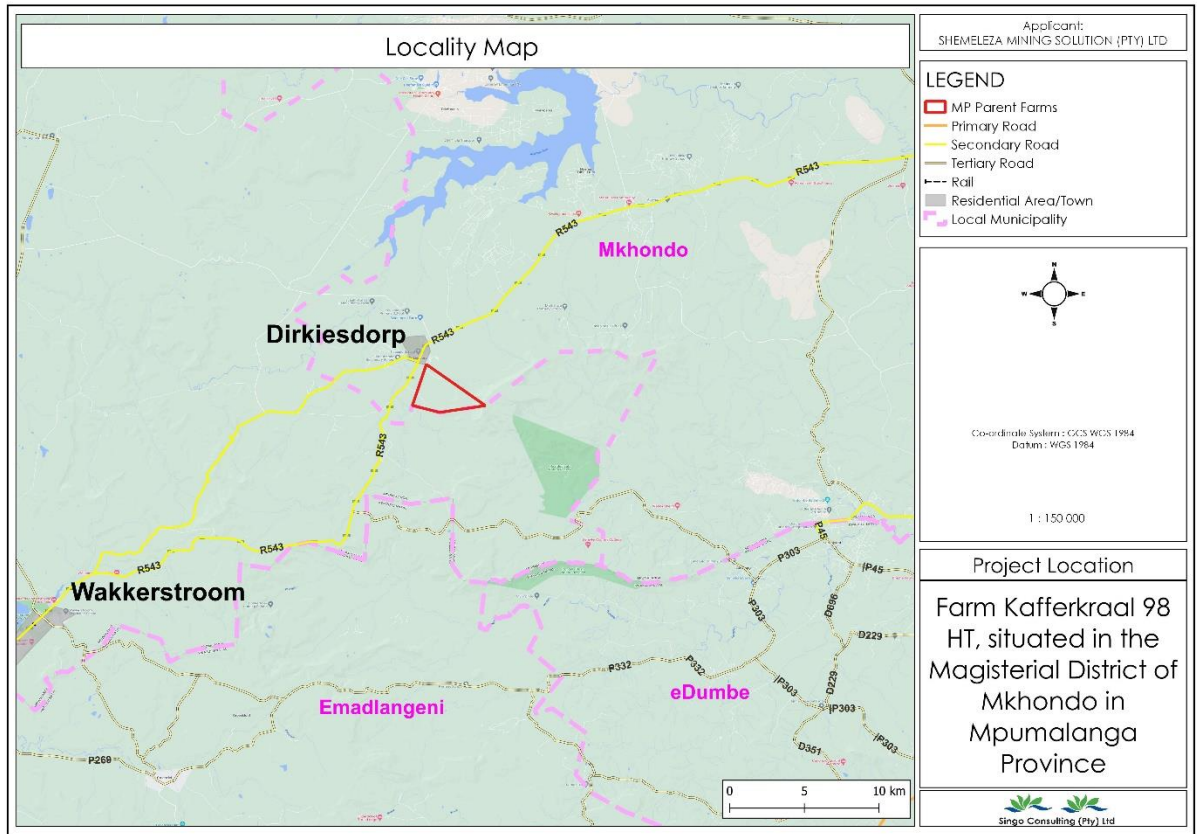
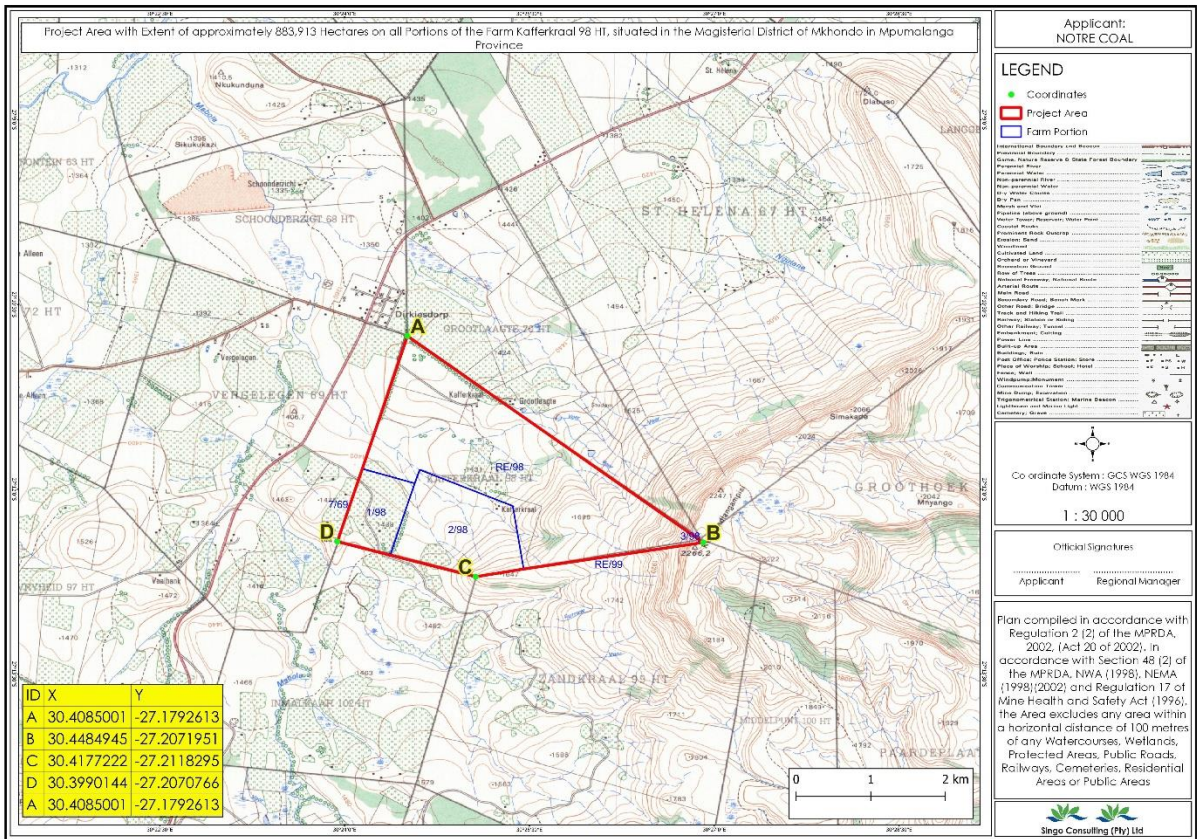
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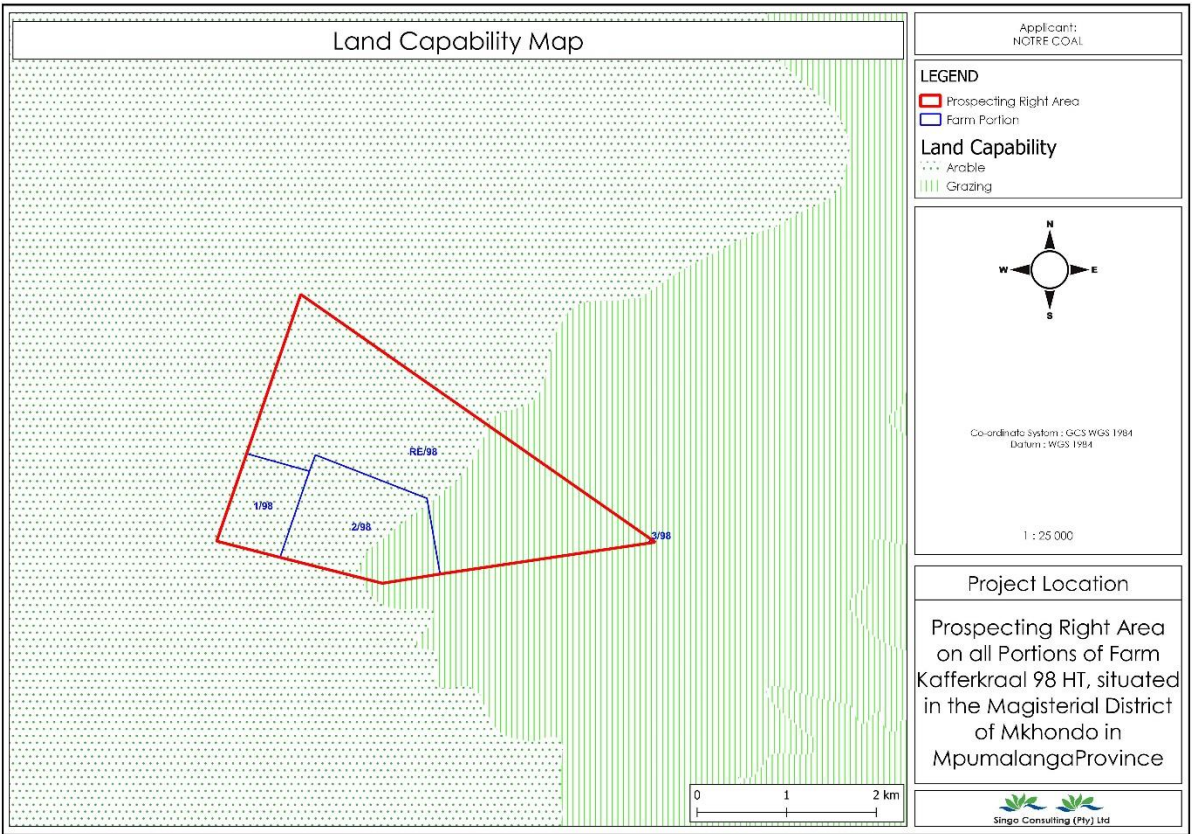
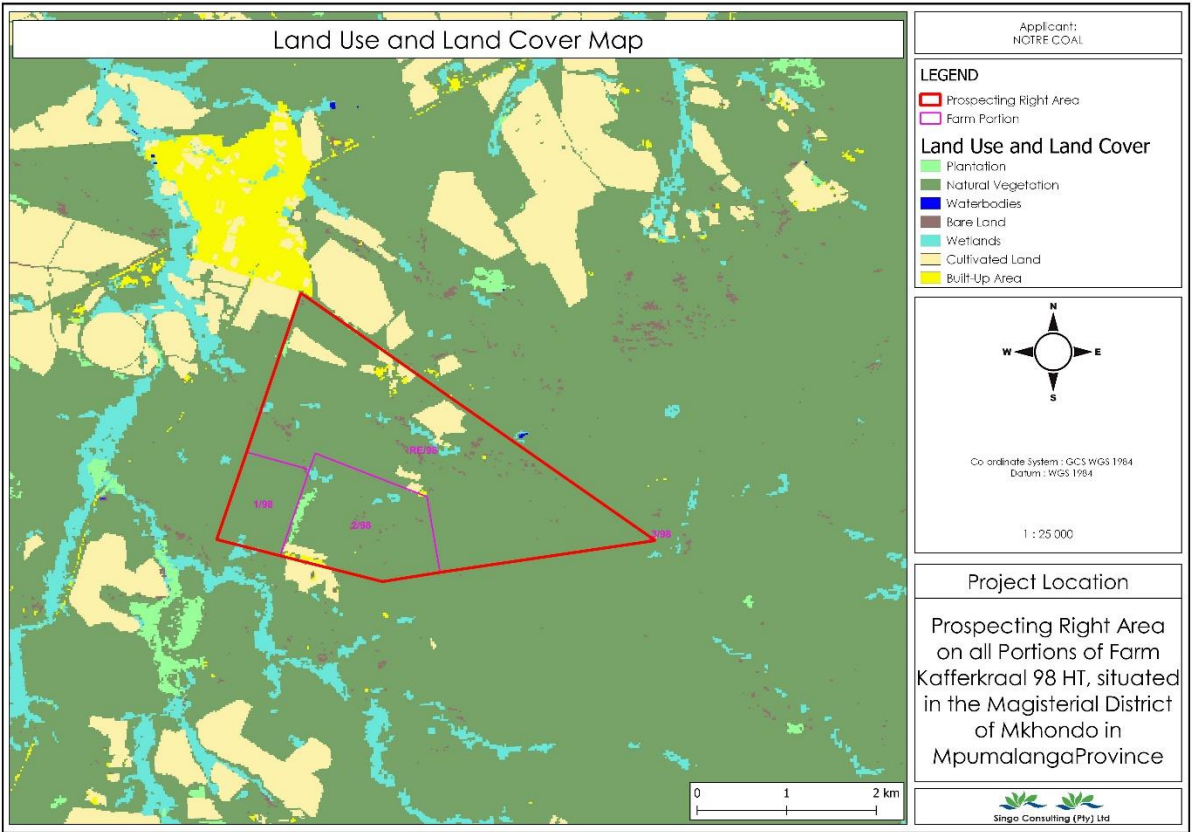
Appendices

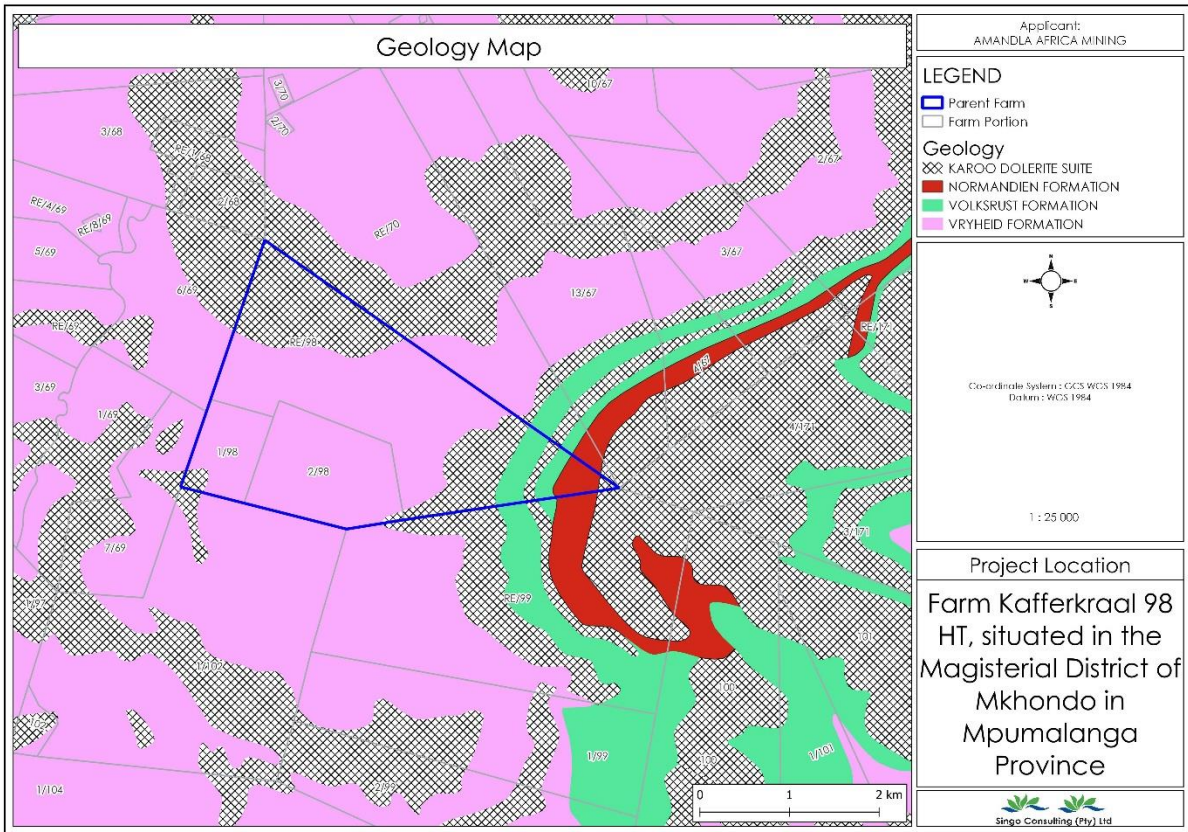
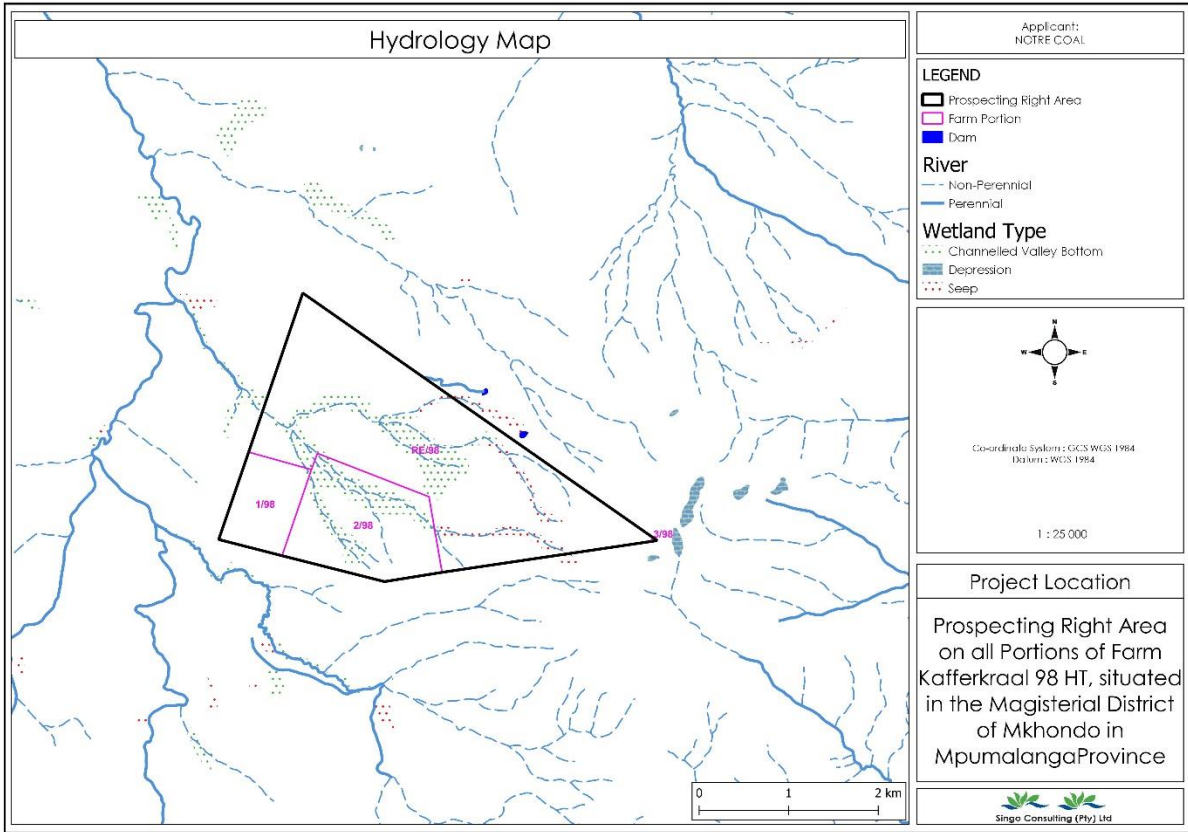
Appendix 1: Project maps

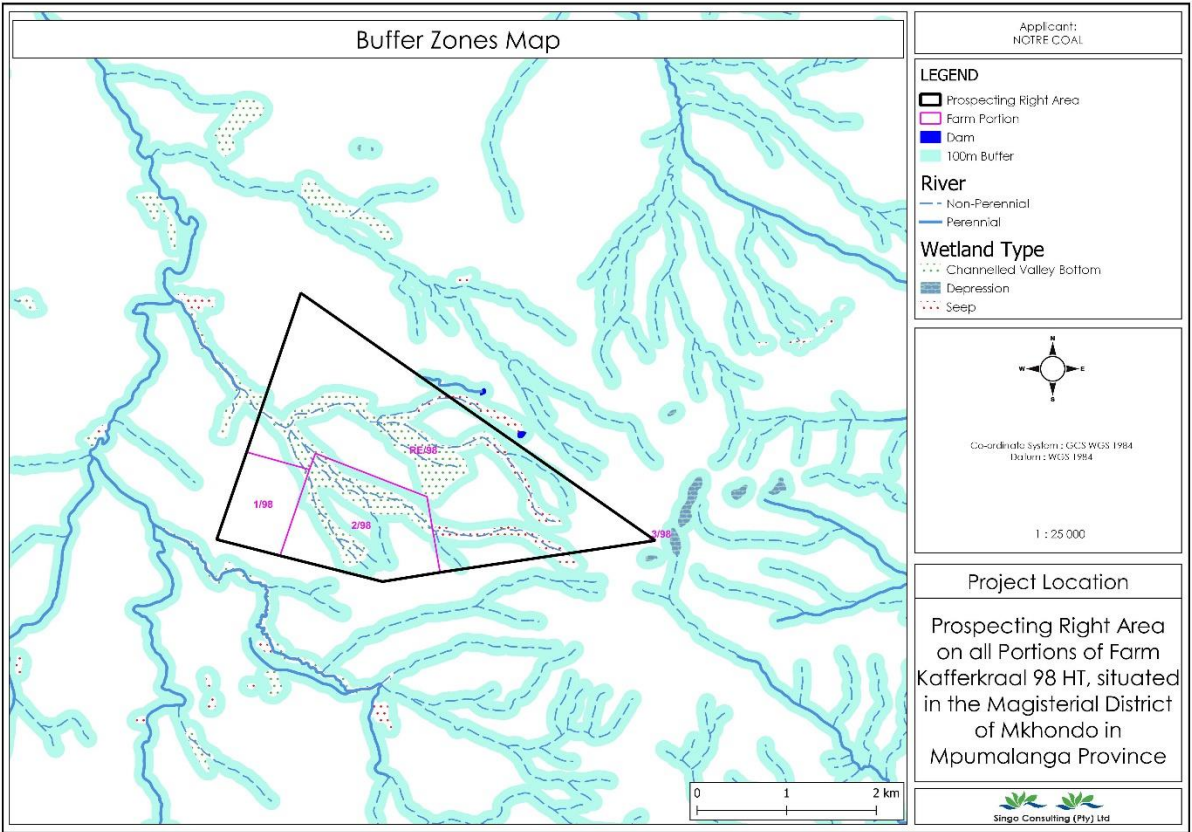












Appendix 2: Public Participation

2.1: Background Information Document

BACKGROUND INFORMATION DOCUMENT	
PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATION FOR THE PURPOSE OF PROSPECTING PSEUDOCOAL AND TORBANITE/OIL SHALE ON ALL PORTIONS OF THE FARM KAFFERKRAAL 98 HT, SITUATED UNDER THE MAGISTERIAL DISTRICT OF MKHONDO, MPUMALANGA PROVINCE.	Prepared by:  Singo Consulting (Pty) Ltd
DMRE REF: MP 30/5/1/1/2/17543 PR	Prepared for:  Notre Coal
INTRODUCTION AND THE PURPOSE OF THIS DOCUMENT	This Background Information Document therefore requests and invite I&APs to comment on the environmental, physical, social, and economic impacts associated with the proposed Prospecting Activities. Be assured that your comments are of great value as they ensure that relevant issues are taken into consideration.
<p>Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Consultant by Notre Coal to conduct Environmental Impact Assessment (EIA), compile Basic Assessment Report (BAR) & Environmental Management Programme report (EMPr) and to undertake Public Participation Process (PPP). This is done for processes of acquiring Environmental Authorization for the proposed Prospecting Right application for Pseudocoal and Torbanite/Oil Shale on all portions of the farm Kafferkraal 98 HT, situated under the Magisterial District of Mkhondo, Mpumalanga Province, with DMRE Ref: MP 30/5/1/1/2/17543 PR.</p> <p>The Purpose of this Background Information Document (BID) is to provide a perfunctory description of the project in question and outline EIA processes through BAR & EMPr to be followed and contributions from Stakeholders, Interested and Affected Parties (I&APs) on the issues related to the project in question, allowing comments and concerns to be raised.</p> <p>Results of the EIA (BAR & EMPr), both negative and positive will be submitted and made available to the relevant Departments such as the Department of Mineral Resources & Energy and if requested Department of Environmental Affairs, Department of Water and Sanitation, Landowners, and other interested stakeholders.</p>	<p>Attached at the end of this document is a registration form, kindly complete it and send it back to Ms. Bongokuhle Sibiya through given means of communication also attached there.</p> PROJECT DESCRIPTION
	<p>Prospecting Right Application has been submitted for the Purpose of prospecting Pseudocoal and Torbanite/Oil Shale on the property mentioned above. This proposed prospecting Area, as seen in figure 1 and figure 2 below is situated within Mkhondo, approximately 1 km southeast of Dirkiecorp.</p> <p>Prospecting activities will be undertaken over a period of five (5) years and are designed in phases, each phase conditional on the success of the previous phase. Both invasive and non-invasive methods will be implemented. Invasive are those activities which have footprint or cause harm (if not mitigated or managed properly) or those that have a physical impact on the environment, while non-invasive do not cause any harm or effects on the environment.</p>

Non-invasive: Desktop study of the area has commenced, and this incorporates desktop geographical and geological mapping. This will be followed by detailed geochemical and geotechnical surveys. In turn, this is followed by detailed geophysical studies.

Invasive: A detailed drilling, sampling, assaying and mineralogical study will be carried out. Diamond method will be utilised to prospect in situ of Coal only. To ensure or minimise impacts on the receiving environment, All the activities will be guided by the project's BAR & EMPr.

REGULATORY FRAMEWORK

Therefore, EIA (BAR & EMPr) process to be undertaken will be conducted in accordance with the National Environmental Management Act (Act 107 of 1998) and Environmental Impact Assessment regulations as amended (April 2017).

The activity is to prospect the existence and occurrence of Coal therefore, this will be conducted in accordance with Mineral and Petroleum Resources Development Act, (Act 28 of 2002). Other regulatory guidelines to be followed include National Water Act, 1998 (Act 36 of 1998), National Air Quality Standards (GN 1210: 2009) and National Dust Control Regulations (GN 36974: 2013).

These all will accurately be followed to ensure that identified impacts are assessed and mitigated according to their significance so that the protection of the receiving environment and populations is met.

BASIC AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESSES

These are planning and decision-making tools used in identifying potential environmental, economic, and social consequences of a proposed activity prior the commencement of the activity. These together with the public issues and concerns are to be identified sufficiently early so that they can be assessed and incorporated into the final reports when/if necessary.

These tools are regarded crucial because they are utilized to demonstrate to the relevant stakeholders about the potential impacts, which in turn leads to the Prospecting application process being a success or declined.

PUBLIC PARTICIPATION PROCESS

Public Participation remains a cornerstone of the Environmental Impact Assessment process. It ensures provision of relevant and enough information with openness and transparency. Public Participation process presents to I&APs, an opportunity to understand what the project is about, and affords them an opportunity to make valuable contributions towards the EIA (BAR & EMPr) process.

I&AP can be any person, group of persons or organization interested in or affected by the proposed activity, and any organ of state that may have jurisdiction over any aspect of the activity. The key objective of PPP is to afford the I&APs with an opportunity to comment and provide valuable inputs during the planning phase of the project.

For this specific proposed project, IAPs will be given a period of 30 days from the 4th of August 2022 to the 5th of September 2022 to comment and raise issues/concerns with regards to the proposed project.

Kindly keep the following dates:

- ❖ Stakeholder engagement and consultation; On-going throughout the process of compiling the BAR & EMPr
- ❖ Review of draft Basic Assessment Report (BAR) and Environmental Management Programme report (EMPr); Monday the 5th of September 2022 to Wednesday the 5th of October 2022

This report will be available at the following places: **Driefontein Police Station, Dirkie's dorp Police Station, KwaNgema Clinic, Mkhondo Local Municipality** (Cnr Market and De Wet Str, eMkhondo) and **Mkhondo Public Library** (Cnr Market and Relief Str, Piet Ritief, 2380). Furthermore, the report will be available upon request, via email from the respective EAP.

Comments on the DBAR & EMPr should be submitted to Ms. Boitumelo Mohalala by no later than the **5th of October 2022**.



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 : admin@singoconsulting.co.za

REGISTRATION & COMMENT SHEET- DMRE Ref: MP 30/5/1/1/2/17543 PR.

Attention: Bongokuhle Sibiya

Email: bongokuhle@singoconsulting.co.za

Title	Name	Surname
Company		
Designation		
Address		
Tel No.		Fax No.
E-mail		Cell No.
I would like to receive my notifications be (mark with "X"):	Post <input type="checkbox"/>	E-mail: <input type="checkbox"/> Fax: <input type="checkbox"/>
Please indicate why you would have an interest in the above-mentioned project.		
Please provide your comments and questions here:		
Please feel free to attach a separate document		
Please add any person you think may be interested and affected parties:		
Full name		Company
Address		
E-mail		Contact No.

RICHTER WEBER INCORPORATED
Registered Auditors
VACANCY: ACCOUNTANT

Requirements as follows:

- Minimum 3 years experience in financial field and/or auditing
- Good communication skills
- Ability to perform well under pressure
- Deadline orientated
- Attention to detail
- A qualification in the financial field or studying towards a B.Com will be preferable
- Completed articles will be preferable
- Experience in Drafting, Paid and completion of financial statements will be preferable

SALARY PACKAGE IS NEGOTIABLE
Submit Curriculum Vitae before 19 August 2022 to:
Email: na@richterweb.co.za
Fax: 066 633 3249
We are contacted once before 27 August 2022, if only accept that your application was not successful.

Liquor licences in South Africa - what you need to know

Each premises and situation for which a liquor licence is required is unique. A specific type of licence is therefore required for different situations and businesses.

Here follow the types of liquor licences that can be applied for:

- **Transfers** - This licence is granted to those who want to transfer liquor from one entity to another, or one premise to the next.
- **On Consumption** - This is a licence granted specifically for the sale of liquor for consumption on the specific premises where the liquor is sold, for example restaurants.
- **Special on Consumption** - This licence is granted for special premises where liquor is sold to be consumed on the premises where the liquor is sold. Examples of such premises are pubs, hotels, clubs, franchises, action bars, pool lounges, cocktail lounges, accommodation facilities, sport facilities (incl. indoor), office shops, wine boutiques, night clubs, the-

atros, taverns, party buses and floating vessels.

- **Temporary liquor licence** - A temporary liquor licence is issued for a short period of time only and only to an applicant that meets the necessary criteria.
- **Occasional liquor licence** - An occasional liquor licence is a licence that is granted for an event when it cannot be covered by any other licence. An occasional liquor licence allows for liquor to be sold to people attending an event.
- **Events licences** - Events liquor licences refers to a licence granted for an event.
- **Procure controlling interest**
- **Wine grocer liquor licence** - This licence is granted to a premises where wine is sold.
- **Manage a premises (management appointments)**
- **Structural changes to licensed premises.**
- **Storage in an additional premise.**
- **Storage in another district.**

- **Supply for using or promotional purposes.**
- **Supply free for brew house purposes.**
- **Off Consumption** - This is a licence granted for the sale of liquor for consumption off the premises where it is sold. These premises include liquor store, distribution, wholesale entities.
- **Special off Consumption**
- **Producers** - A licence granted to producers of liquor, such as wine farmers, distillers, and brew houses.
- **Assistance with annual renewals**
- **Conversion**
- **Extended trading hours**

The applicant of a Liquor Licence must be domiciled in South Africa, have no criminal record, may not be insolvent or a minor and must be in good standing at the Receiver of Revenue, to name only a few requirements.

Source: www.msa.gov.za

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU	ENGLISH
<p>Izibizo selungelo lokuhlala ikhala: I-Naite Coal (Pty) Ltd. Ikhala likhala kuminyango Wezimbiwa Nomananda (DWRE Ref: MP 30/S/1/1/2/17543 PR) ngenhloso yokuhlala i-Pheudocool kanye nefabonke/JOI Shale kuzo zonke iingxenywe ze-pulazi i-Katlekalal 98 HT, esandaweni yevonshu yaseMkhondeni eFundasweni sa eMpumalanga.</p> <p>Izibizo sikhahwa ngokomthetho wokuhluhluhwa kwesibizo Nominwam kanye Phethili (MPDA) (iMithetho wama-28 we-10002) kanye nemithetho ngobalo ye-EA ka-2014, eshicilelwe ngaphandle kwesabho sikhulumeni sngunombalo 982 kuGazethi No. 3822 mha ngu-8 kuLandelako kunyaka ka-2014, esochithiyelwa mha ngu-7 kuNyaka kunyaka ka-2017, sokuhi I-Naite Coal (Pty) Ltd. Ikhala likhala selungelo lokuhlala ikhala esabho ngenhlo.</p>	<p>Notice of the prospecting right Application: Naite Coal (Pty) Ltd has lodged an application with the Department of Mineral Resources and Energy (DWRE Ref: MP 30/S/1/1/2/17543 PR) for the purpose of Prospecting for Psudocool and Tantalite/O4 Shale on all Portions of the Farm Katlekalal 98 HT, situated in the Magisterial District of Mkhondeni in Mpumalanga Province.</p> <p>Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that Naite Coal (Pty) Ltd has applied for prospecting right for the above-mentioned mineral.</p>

ISIBIZO SOKUPHAWULA NOKUVEZA IMBONO MAYELANA NALES SICELO

INVITATION TO COMMENT

Registration as Interested & Affected Party: As part of the EA process, more especially the Public Participation Process (PPP) for this proposed project, Interested and Affected Parties (I&AP) are invited to register and kindly submit any comments or concerns to reach Misa Bongokuhle Sibisi before or on the 4th of September 2022 using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme Report (DBAR & EMP). The draft BAR & EMP will be available for review for 30 days calendar period from 5th of September 2022 to the 5th of October 2022 (excluding Public Holidays). This report will be available at Mkhondeni Public Library (Relief Street, Plot 105, 2380) and a soft copy upon request from Singo Consulting (Pty) Ltd, using the Environmental Assessment Practitioner's contact details below.

FOR MORE INFORMATION, TO REGISTER AS AN INTERESTED OR AFFECTED PARTY, PLEASE CONTACT:

UKUTHOLA EMNYE IMININGWANE NOMA UKUBHALA, NGENGEMKANGANO ENINTSHESHEKO NOMA EMHENTHAKAYO, SICELA UHINTHE:

APPLICANT:

UKUTHOLA EMNYE IMININGWANE NOMA UKUBHALA, NGENGEMKANGANO ENINTSHESHEKO NOMA EMHENTHAKAYO, SICELA UHINTHE:

APPLICANT:

Singo Consulting (Pty) Ltd
Office 870, 5 Boksbaai Street, Tabet park Ed 2, Witbank, 1040

Contact Person: Misa Bongokuhle Sibisi
Tel. No. : +27 13 692 0041
Fax No. : +27 86 514 4103
Cell No. : +27 61 868 7545
E-mail: bongokuhle@singoconsulting.co.za

Plot 105
Road 4, Delmas Gauteng, 2210

Contact Person: Mr Edal Aphone
Cell No. : 066 211 8714
E-mail: edal@che.com.co.za

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU	ENGLISH
<p>Izibizo selungelo lokuhlala ikhala: I-Naite Coal (Pty) Ltd. Ikhala likhala kuminyango Wezimbiwa Nomananda (DWRE Ref: MP 30/S/1/1/2/17543 PR) ngenhloso yokuhlala amakhala kuzo zonke iingxenywe ze-pulazi i-Kunyapuli 142 HT, esandaweni yevonshu yaseMkhondeni eFundasweni sa eMpumalanga.</p> <p>Izibizo sikhahwa ngokomthetho wokuhluhluhwa kwesibizo Nominwam kanye Phethili (MPDA) (iMithetho wama-28 we-10002) kanye nemithetho ngobalo ye-EA ka-2014, eshicilelwe ngaphandle kwesabho sikhulumeni sngunombalo 982 kuGazethi No. 3822 mha ngu-8 kuLandelako kunyaka ka-2014, esochithiyelwa mha ngu-7 kuNyaka kunyaka ka-2017, sokuhi I-Naite Coal (Pty) Ltd. Ikhala likhala selungelo lokuhlala ikhala esabho ngenhlo.</p>	<p>Notice of the Prospecting Right Application: Naite Coal has lodged an application with the Department of Mineral Resources and Energy (DWRE Ref: MP 30/S/1/1/2/17543 PR) for the purpose of prospecting Coal on all portions of the Farm Kunyapuli 142 HT, situated in the Magisterial District of Mkhondeni in Mpumalanga Province.</p> <p>Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that Naite Coal has applied for prospecting right for the above-mentioned mineral.</p>

ISIBIZO SOKUPHAWULA NOKUVEZA IMBONO MAYELANA NALES SICELO

INVITATION TO COMMENT

Registration as Interested & Affected Party: As part of the EA process, more especially the Public Participation Process (PPP) for this proposed project, Interested and Affected Parties (I&AP) are invited to register and kindly submit any comments or concerns to reach Mr Mkhondeni Ndumuhlu Shamah using the contact details provided below before on the 5th of October 2022. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Management Programme Report (EMPR). The draft BAR & EMP will be available for review for 30 days calendar period from Monday the 5th of September 2022 (excluding public holidays). This report will be available at Mkhondeni Local Municipality (33 Mark St, Plot 105, 2380, South Africa), Plot 105 Public Library (Plot 105, 2380), and a soft copy upon request from Singo Consulting (Pty) Ltd, using the (EAP) Environmental Assessment Practitioner's contact details below.

FOR MORE INFORMATION, TO REGISTER AS AN INTERESTED OR AFFECTED PARTY, PLEASE CONTACT:

UKUTHOLA EMNYE IMININGWANE NOMA UKUBHALA, NGENGEMKANGANO ENINTSHESHEKO NOMA EMHENTHAKAYO, SICELA UHINTHE:

APPLICANT:

Singo Consulting (Pty) Ltd
Office 870, 5 Boksbaai Street, Tabet park Ed 2, Witbank, 1040

Contact Person: Mr Mkhondeni Ndumuhlu Shamah
Tel. No. : +27 13 692 0041
Fax No. : +27 86 514 4103
Cell No. : +27 71 587 3383
E-mail: ndumuhlu@singoconsulting.co.za

Plot 105
Road 4, Delmas Gauteng, 2210

Contact Person: Mr Edal Aphone
Cell No. : +27 66 211 8714
E-mail: edal@che.com.co.za

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT APPLICATION AND ENVIRONMENTAL AUTHORISATION APPLICATION

Notice of the prospecting right Application: **Notre Coal (Pty) Ltd** has lodged an application with the Department of Mineral Resources and Energy with DMRE Ref: **MP 30/5/1/1/2/17543 PR** for the purpose of Prospecting **Pseudocoal and Torbanite/Oil Shale** on all Portions of the Farm **Kafferkraal 8 HT**, situated in the Magisterial District of **Mkhondo** in **Mpumalanga Province**.
 Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and EIA regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 8 December 2014, amended on 7 April 2017, that **Notre Coal (Pty) Ltd** has applied for prospecting right for the abovementioned minerals.

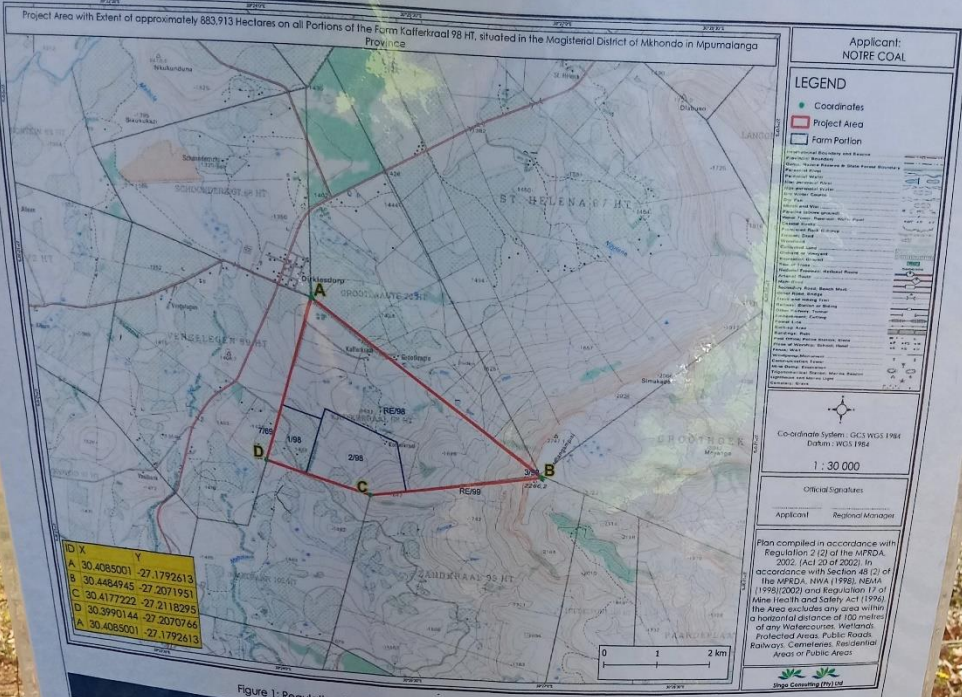


Figure 1: Regulation 2.2 map of the proposed project area (A. -27.1792613, 30.4085001)

INVITATION TO COMMENT

As part of the EIA process, more especially the Public Participation Process (PPP) for this proposed Prospecting Right Application, interested and Affected Parties (I&APs) are invited to register and kindly submit any comments or concerns to reach **Ms. Bongokuhle Sibiya** by no later than **5 September 2022**. The public is also invited to review and comment on the Draft Basic Assessment Report and Environmental Impact Assessment Report. The Draft BAR & EMPr will be available for a review period of 30 calendar days from **Manday the 5th of September 2022 (excluding Public Holidays)**. This report will be available at **Mkhondo Public Library (Smit Street, Piet Retief)** on request from **Singo Consulting (Pty) Ltd**, using the Environmental Assessment Practitioner's contact details below. Comments must be submitted to **Ms. Bongokuhle Sibiya** no later than the **5th of October 2022**.

APPLICANT

NOTRE COAL
 Physical address: Plot 106, Road 4, Delmas, Golegong, 2710
 Contact person: Av. Edal Aphane
 Tel No.: +27 66 211 8714
 Email: a@notrecoal.co.za




Appendix 3: Current site conditions







Appendix 4: Financial Provision

		CALCULATION OF THE QUANTUM					
Applicant: 		Ref No.:		MP 30/5/1/1/2/ 17543 PR			
Evaluator: Bongokuhle Sibhya		Date:		01-Sep-22			
No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (Including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	5016,75	49	0,05	1	12291,0375
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	284292	1	1	0
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	189528	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	0,48	150138	0,3	1	21619,872
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0	57087	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	19980	1	1	0
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							33910,9095
1	Preliminary and General		4069,30914		weighting factor 2 1		4069,30914
2	Contingences			3391,09095			3391,09095
Subtotal 2							41371,31
VAT (15%)							6205,70
Grand Total							47577

Bongokuhle Sibhya
01-Sep-22

Appendix 5: Specialist studies