

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PLAN IN THE APPLICATION FOR A PROSPECTING RIGHT

Middelburg Alias Mat Jesgodkuil 266 IR portions 3, 4, 7, 14 & 18 in

Delmas, Mpumalanga Province.

DMR Reference Number: MP 30/5/1/1/2/15628 PR

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Draft Report

07/2020



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mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT and ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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



Table 1: Details of the Applicant

Project applicant:	Aartoon Mining (Pty) Ltd		
Registration no (if any):	2018/430456/07		
Trading name (if any):	Aartoon Mining (Pty) Ltd		
DMR Ref	MP30/5/1/1/2/(15628)PR		
Responsible Person, (e.g. Director, CEO, etc):	Mr. Kekana Molefe Harry		
Contact person:	Mr. Kekana Molefe Harry		
Physical address:	: 4357 Lesedi Street, Willow Minor Ext 4, Pretoria, Gauteng, 0184		
Postal address	: 4357 Lesedi Street, Willow Minor Ext 4, Pretoria, Gauteng, 0184		
Postal code:	0184		
Telephone:		Cell	079 024 2252/ 073 226 4578
E-mail:	kekanamolfs@gmail.com	Fax:	086 5144 103



1. Important notice

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

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

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

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

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

2. Objective of the basic assessment process

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

- a. determine the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;
- b. identify the alternatives considered, including the activity, location, and technology alternatives;



- c. describe the need and desirability of the proposed alternatives,
- d. through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage , and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on the these aspects to determine:
 - i. the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
 - ii. the degree to which these impacts—
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be managed, avoided or mitigated;
- e. through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—
 - i. identify and motivate a preferred site, activity and technology alternative;
 - ii. identify suitable measures to manage, avoid or mitigate identified impacts; and
 - iii. identify residual risks that need to be managed and monitored.



3. PART A

SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

3.1 Contact Person and correspondence address

a. Details of

i) Details of the EAP

Name of Practitioner	: Mr Ndinannyi Kenneth Singo
Mobile	: +27 78 2727 839
Fax	: +27 86 5144 103
E-mail	: kenneth@singoconsulting.co.za

ii) Expertise of the EAP

Please refer to **Annexure B** for the Curriculum Vitae.

3.2 Summary of the EAP's past experience

(In carrying out the Environmental Impact Assessment Procedure)

Please refer to **Annexure C**: Singo Consulting profile

3.3 Location of the overall Activity

The following table presents the location and associated cadastral details associated with the area in question.

Table 2: Location Details

Farm Name:	Middelburg Alias Mat Jesgodkuil 266 IR
Application area (Ha)	468.95 ha in extent
Magisterial district:	Delmas
Distance and direction from nearest town	Located approximately 14.86 km south-east of Delmas, roughly 15.73 km north-west of Leandra and about 29.21 km north-east of Ogies.
21-digit Surveyor General Code for each farm portion	Please refer to the following page for the list of farms and associated SG digit Surveyor General Codes.



Table 3: SG Digit Surveyor General Codes for the Prospecting Area

Farm Name			Farm Number	Portion	SG Code
Middelburg	Alias	Mat	266 IR	3, 4, 7, 14 & 18	TOIR00000000026600014 TOIR00000000026600007 TOIR00000000026600018 TOIR00000000026600003 TOIR00000000026600004

3.3.1 Regulation & Locality Map (show nearest town, scale not smaller than 1:250,000)

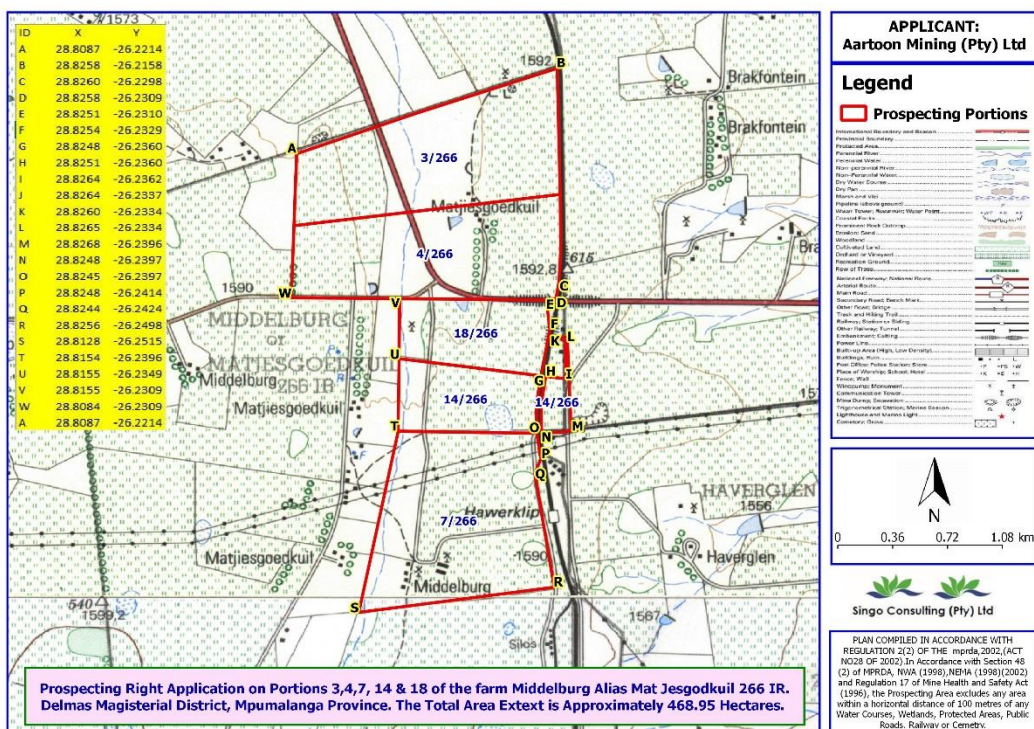


Figure 1: Regulation Map



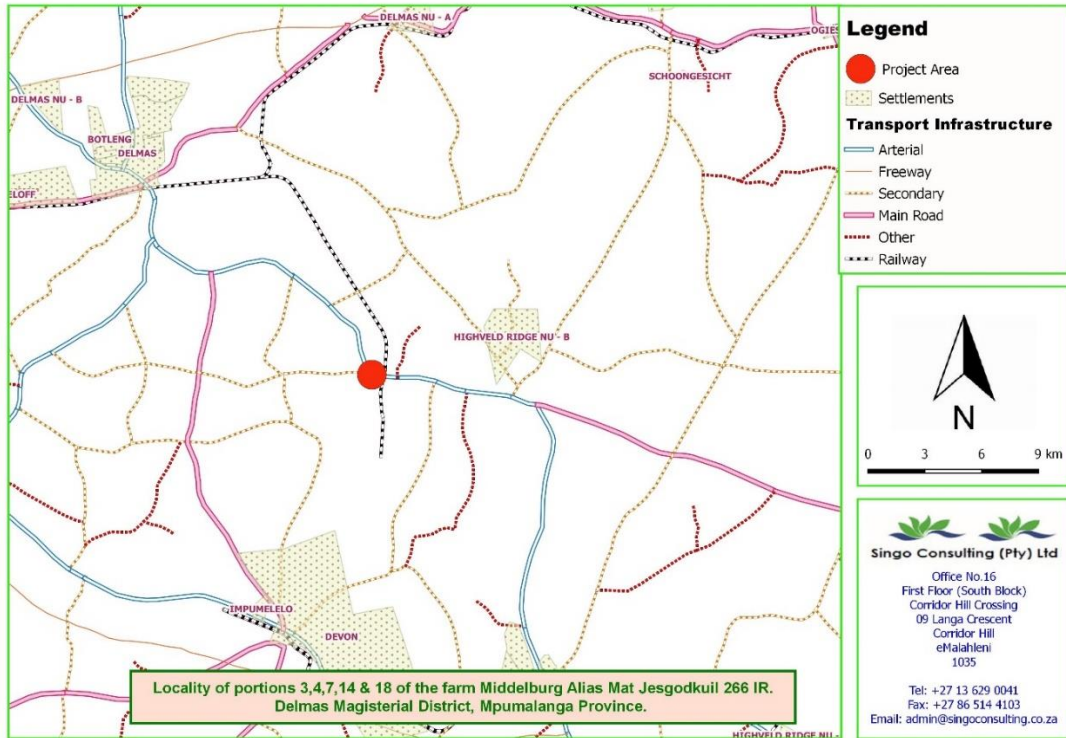


Figure 2: Locality of proposed site project (proposed properties are mapped in red).



Figure 3: Satellite View of Project Area

The town of Delmas is a small maize farming town situated east of Johannesburg in Mpumalanga, South Africa. The town is located some 19 km north-east of Springs and 73 km south-east of Pretoria. Delmas is an important railway junction on the Springs to Witbank rail-line, a line that connects to the Port of Richards Bay. In addition, the town is connected by two main roads, the R555 and the R50. The R50 north connects the town to the N12 freeway junction which links Johannesburg to Witbank while the road continues north to Pretoria. The R50 south connects the town to Standerton.



Delmas was laid out in 1907 on the farm Witklip which translates to White stone from Afrikaans and has been administered by a town council since 1965. The name is derived from the French *de la mas* meaning small farm, and was given by the Frenchman, Frank Campbell Dumat, the former owner of Witklip, after his grandfather's farm in France. He originally laid out the town with 192 residential stands, 48.4 ha small holdings and 138 ha of commonage but by 1909 the governments added a further 5,500 ha to the town which was would divide into 85 small holdings of around 64 ha.

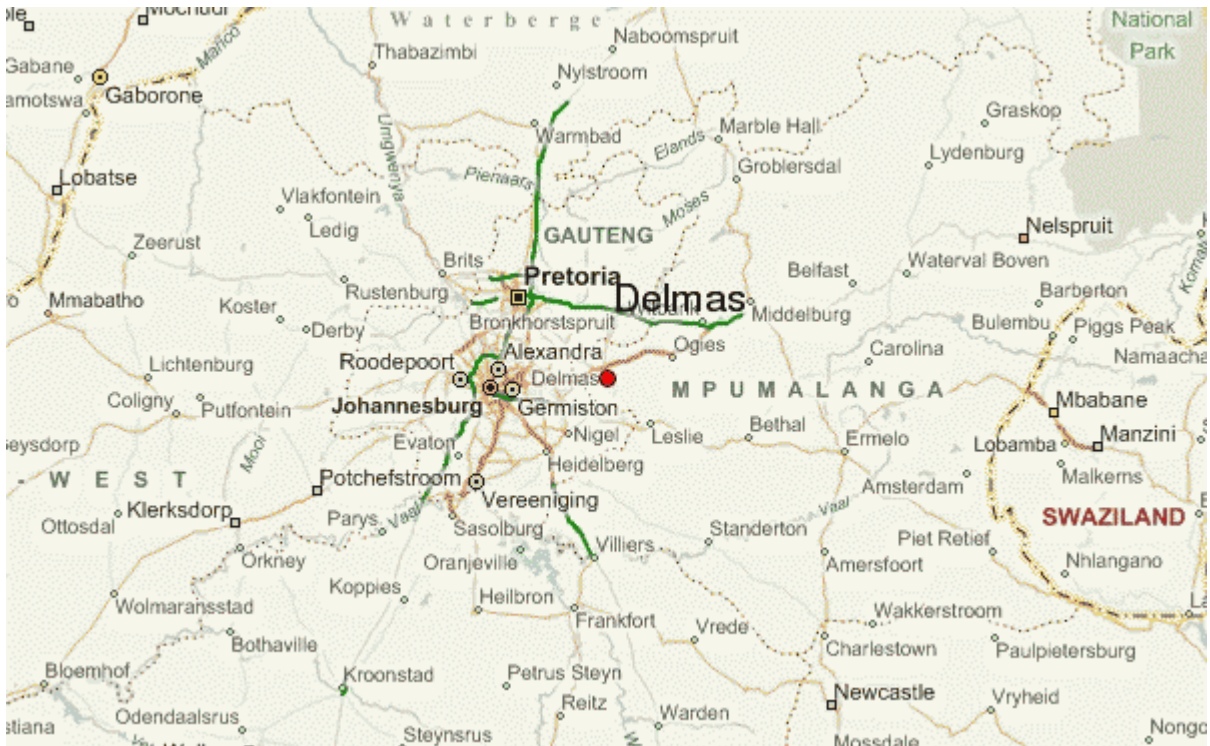


Figure 4: Towns, provinces and countries surrounding proposed project area.

The project is located within the Magisterial District of Delmas, under the jurisdiction of the Victor Khanye Local Municipality, located within the Nkangala District Municipality. The Victor Khanye Local Municipality is a Category B municipality located in the Highveld of the Mpumalanga Province. It borders the Gauteng Province, less than 100km from Pretoria, Johannesburg and eMalahleni in Mpumalanga. The municipality is linked by a major freeway, the N12, which was declared a Maputo Corridor. There is a railway line running through to the inner part of Mpumalanga and to Mozambique. The municipality is regarded as a gateway to the Mpumalanga Province and it is one of the smallest of six municipalities in the district.



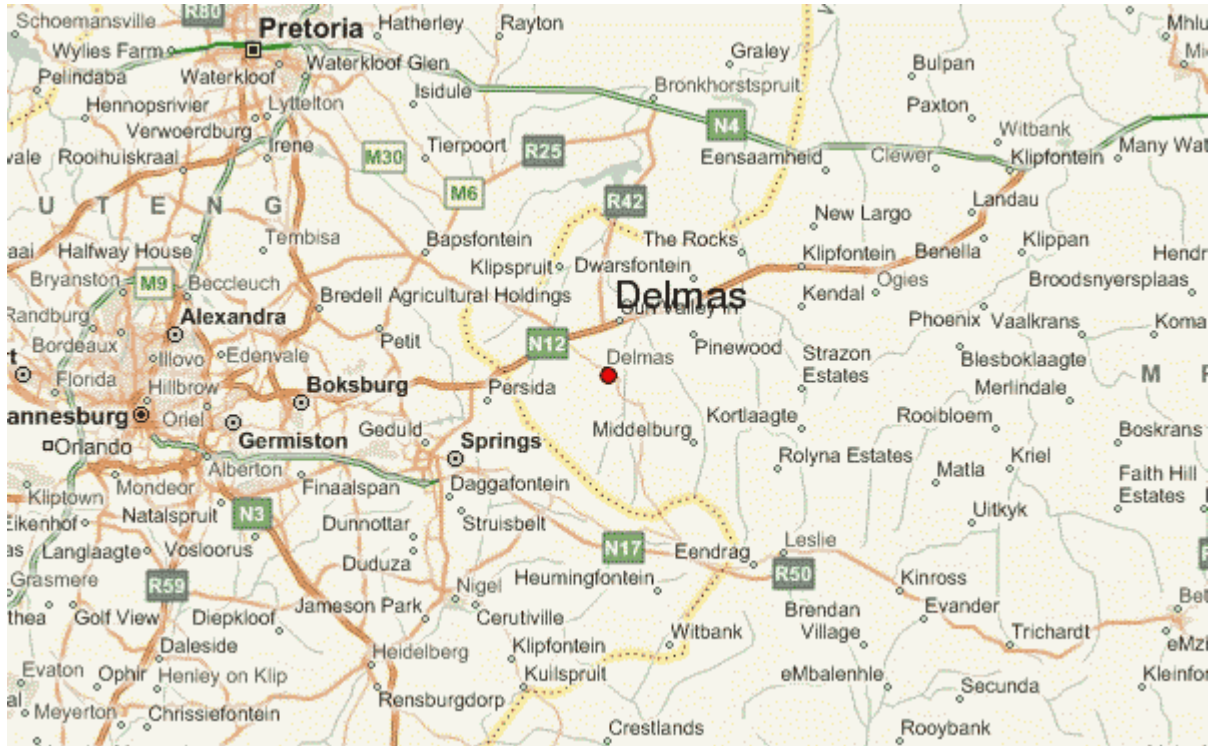


Figure 5: Road network around proposed project area



4. 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)

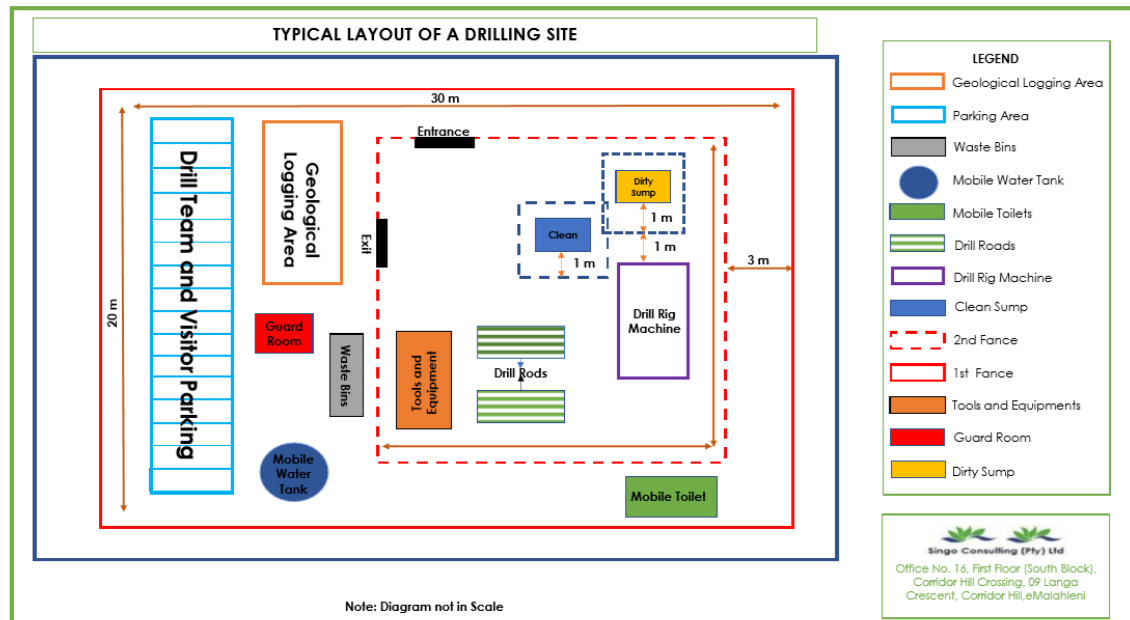


Figure 6: General layout of prospecting site and activities

4.1 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).

The following section presents a detailed description of all the activities associated with the proposed Prospecting Application. Due to the nature of the Prospecting Works Programme, and the fact that the specific prospecting activities required are dependent on the preceding phase, assumptions are presented where required. These assumptions are based on similar projects undertaken and therefore regarded as indicative of what will be undertaken.

Access Roads

Access to the site will be required during pegging of holes, and drilling activities (Phase 2 and 3). Access requirements can only be determined after Phase 1 has been concluded. Several existing roads and tracks already traverse the proposed prospecting site and where practicable, these roads will be used. During pegging activities, vehicle access will have gained to site through the veld and the establishment of a track to gain repeated access to a borehole site will not be required. Once drill sites have been identified, temporary access roads may be established for repeated access to the drill site if the identified drill site cannot be access via existing roads and tracks.



Water Supply

Upon site inspection and investigation, there were two windmills indicating the presence of boreholes located on the site. According to the meeting held with Mr. Parrott and Mr. Olckers, landowners of portion 7 and 14 respectively, there are four boreholes on portion 7 which supply water.

Ablution

Ablution facilities at the drill site will involve the installation of drum or tank type portable toilets.

Temporary Office Area

A temporary site office shaded area will be erected at the drill sites. No on-site electricity generation using generators will be undertaken. Meals will be provided to the staff and workers as no heating and / or cold storage facilities will be available. A shaded eating area will be provided.

Accommodation

No accommodation for staff and workers will be provided on-site and all persons will be accommodated in nearby towns (i.e. Delmas). Workers will be transported to and from the prospecting site daily. Night security staff will be employed once equipment has been established on site.

Blasting

As the Prospecting Works Programme for this particular application does not allow for bulk sampling, no blasting will take place.

Storage of Dangerous Goods

During the drilling activities limited quantities of diesel fuel, oil and lubricants will be stored on site. The only dangerous goods that will be stored in any significant quantity is diesel fuel. A maximum amount of 60 m³ will be stored in above ground diesel storage tanks.

The detailed geology and coal potential of the area is relatively known, and as such exploration work will commence from a very advanced level. The Prospecting Work Programme is designed in phases and the prospecting activities will be conducted over a period of five years. Each phase is conditional on the success of the previous phase and will include:

Phase 1: Data acquisition and a Desktop study

A desktop study of all available data for the area will be undertaken to accumulate as much regional and historical data around the area as possible. This includes published geological



reports, infrastructure mapping, satellite imagery and existing geophysical information (if available).

Phase 2: Drilling

Targets that have been prioritised through detailed desktops will be tested by initial diamond or percussion drilling.

It should be noted that no bulk sampling will be undertaken as part of this Prospecting Works Programme. Should the initial evaluation of the deposit indicate a sufficient size and grade, bulk sampling may be required. In this event, the Prospecting Works Programme will be amended, and a new Environmental Authorisation Process will be required for submission to the DMR.

Phase 3: Drilling and Reconnaissance Resource Generation

If the present application is approved and areas with possible targets for the minerals applied for, this identified prospective target will require further subsurface investigation. Diamond drilling of the prospective areas will commence to establish presence of mineralization. Geological borehole logging, down the hole logging and sampling will also be carried out. Whole rock analysis of all the potential intersections will be carried out. For budgeting purposes, it is assumed that every meter of the initial holes will be analysed. It is anticipated that initially approximately 15 boreholes will be drilled. Drill holes could vary in depth from 25m to 110m. The total amount of drilling to be budgeted for at this stage is 110 meters.

Table 4: Summary of Drilling Activity

Drilling method	Diamond drilling
Number of boreholes	15
Depth of boreholes	110m
Duration of drilling	A borehole takes about 2 days to complete; 15 boreholes will take at least 30 days.
Demarcated working area	0.06 ha for all 15 drilling sites
Total area to be disturbed	0.9 ha of 468.95 ha

Phase 4: Resource Drilling, Sampling and Analysis, Resource Estimation and Prefeasibility Study

Dependent on the results of Phase 3 drilling further 2 drill-holes totalling between 100-700 meters may be required. The geological information generated will be used to model and estimate



resource. The resources will at least be expected to be in the Indicated Category according to the appropriate reporting standard (SAMREC, JORC, or NI43 -101).

Phase 5: Feasibility Study

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

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

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

All listed activities will be done or performance within the radius of 30m*20m=600m²

The activities associated with the Prospecting Work Programme will be scheduled over a period of five years as is detailed in the following table:



Table 5: Prospecting Timeframes and Activities

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	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 Rock core samples Coal core analyses Rock core analyses	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



As is clear from the information provided above, each of the phases is dependent on the results of the preceding phase. The location and extent of drill sites, and possible diamond drilling can therefore not be determined at this stage. Mapping of the prospecting activities could thus not be undertaken. In the subsequent sections (Section ii) more details are provided in terms of each of the prospecting activities.

The applicant must submit a plan indicating the location of drilling activities, once these areas have been finalized to at least all landowners, as well as the Department of Mineral Resources and the Department of Water and Sanitation.



Figure 7: Typical examples of drill rig site

4.2 Listed and specified activities

Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) requires, upon request by the Minister that an Environmental Management Plan be submitted, and that the applicant must notify and consult with Interested and Affected Parties (I&APs). Section 24 of the NEMA requires that activities, which may impact on the environment must obtain an environmental authorisation from a relevant authority before commencing with the activities. Such activities are listed under Regulations Listing Notice 1 Government Notice (GN) 983, Listing Notice 2 GN 984 and Listing Notice GN 985 (dated 4 December 2014) of NEMA. The proposed prospecting activity triggers:



NEMA Government Notice 983: Listing Notice 1:

Activity 20: “Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource...”

Activity 27: “The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation...”

Please refer to the following table for the details in terms of the listed activities.

Table 6: Prospecting Timeframes and 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 983, GNR 984 or GNR 985)	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Prospecting Area	20*30=600 m ² *15 boreholes=9 000m ² 9 000 m ² ÷10000=0.9 ha	X	GNR 327 Listing Notice 1, Activity 20.	Not required
Vegetation clearing	0.9ha	X	GNR 983, Listing 20	
Site camp	600 m ²		Not Listed	
Drilling	0.9 ha to be disturbed per site	X	GNR 983, Listing 20	
Equipment storage	50 m ²		Not Listed	
Site clearance	Less than 20 ha	X	GNR 983, Listing 27	
Ablution facilities	30 m ²		Not Listed	
Sample storage	40 m ²		Not Listed	



Calculations

The drilling layout of the project area is: 600m²

The proposed number of boreholes: 15

• Total Disturbed Area(ha)= 600m² ×15= 9 000 m²

= 9 000 m²/10 000

= 0.9 ha

Percentage of Disturbance (%) = $\frac{0.9}{468.95} \times 100$

= 0.19 %

The above calculations resemble that, drilling 15 boreholes will only disturb 0.9 ha of the applied area (468.95 ha). The proposed activity does not adversely affect the environment because only 0.19% will be utilized for drilling and the affected areas will be rehabilitated immediately.

5. Policy and Legislative Context

Table 7: Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
Specific Environmental Management Acts (SEMA's)		
National Heritage Resources Act, 1999	The activity will trigger the requirements under Section 38 of the NHRA. However, the requirements for permits are not yet known.	The South African Heritage Resources Agency (SAHRA) requires that the drafted BA& and EMP be submitted on their online system for comments. This will be done during review period (04/07/2020). The feedback from the SAHRA will guide whether permits will be required.
National Legislation		



National Environmental Management Act, 1998	This Basic Assessment Report & EMP	An Application for Environmental Authorisation was submitted to the DMR during March 2020. The application was accepted by the DMR on the 10 th of March 2020. The DMR requested the submission of the Basic Assessment Report and EMP within 90 days after receiving the letter but due to the Covid-19 Pandemic an extension was granted as the submission and site assessment were prohibited due to the Level 4 and :Level 5 restrictions. Submission will now be on the 11 th of August 2020
APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT
National Water Act, 1998	Groundwater abstraction as part of drilling activities	There are boreholes located on the site. It is anticipated that water will be brought onto the site and will be sourced from the private water dealer. No WUL is needed.
Mineral and Petroleum Resources Development Act, 2002	Application for Prospecting in terms of Section 16	A Prospecting Right Application has been submitted to the DMR by the Applicant. The application was accepted by the DMR on the 10 th of March 2020.
Municipal Plans		
Integrated Development Plan (IDP)	Land Claims	This department was consulted to ensure that the project does not



<p>SDC: Record & Information Management Unit</p> <p>Department of Rural Development and Land Reform: Mpumalanga</p> <p>Email: Petruscha.Lindoor@drrdlr.gov.za</p>		<p>take place where there is a land claim and the claimants not knowing about the project. In addition to acquire the claimant's information so that we can consult them before the project commence.</p>
<p>APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT</p>	<p>REFERENCE WHERE APPLIED</p>	<p>HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT</p>
<p>Strategic Development Framework (SDF)</p>	<p>Alternatives</p>	<p>In terms with the SDF of the Victor Khanye Local municipality, focuses on integrating the fragmented spatial structure of the municipality with the emphasis of ensuring that all communities have equitable access to sustainable services furthermore it also ensures that economic, cultural, recreational and educational activities and opportunities reach communities in dispersed rural areas in an efficient manner.</p> <ul style="list-style-type: none"> • The SDF creates a spatially based policy framework whereby change, needs and growth in the Municipality is managed positively in a coordinated manner to the benefit of all stakeholders • Focuses on effective, optimised land usage



		<p>within the broader context of protecting the existing values of the Municipality environs, i.e. as a tourism destination and a rich historical and cultural area</p> <ul style="list-style-type: none">• It protects the functioning of the current environmental ecosystems and ensures that future developments take full cognisance of these factors and incorporates them in the strategies developed
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6. 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).

Mining in South Africa directly contributed to the establishment of the Johannesburg Stock Exchange in the late 19th century, and today it still accounts for a large portion of its market capitalization. From this, it is clear that mining in South Africa has shaped the country politically, culturally, and economically and that the South African mining sector has provided the critical mass for a number of industries that are either suppliers to the mining industry, or users of its products. These include, but are not limited to, energy, financial services, water and engineering services, and specialist seismic geological and metallurgical services. The proposed coal prospecting right will not only contribute directly to the South African economy but will also contribute to the development and growth of other industries supporting the mining sector.

The definition of Prospecting in terms of the MPRDA states: "intentionally searching for any mineral by means of any method which disturbs the surface or subsurface of the earth, including any portion of the earth that is under the sea or under other water...".

The proposed prospecting right in search for coal resources that is prior to mining project, will contribute to favourable economic impacts on the local, regional, and national scale. This will result in numerous job creation and skills development opportunities and provide an economic injection in the region. If the project does not proceed; the additional economic activity, skills development and available jobs will not be created, and the coal reserves would remain unutilized.

The coal mineral, which is being prospected, is important in numerous industries and has a number of uses of which all are beneficial to people. Some of the most important uses of coal are in electricity generation, steel production, cement manufacturing, agriculture and some food production.

The coal that is being prospected has the potential to supply local & regional power stations. Coal is crucial for the generation of electricity in South Africa, supplying more than 90% of the population. After prospecting activities, which is the thorough search of a mineral through core drilling, it will be accessed if mining coal will be viable not only for the company but also for the community. The success of the project will contribute to the economic development in the Local Municipal area.



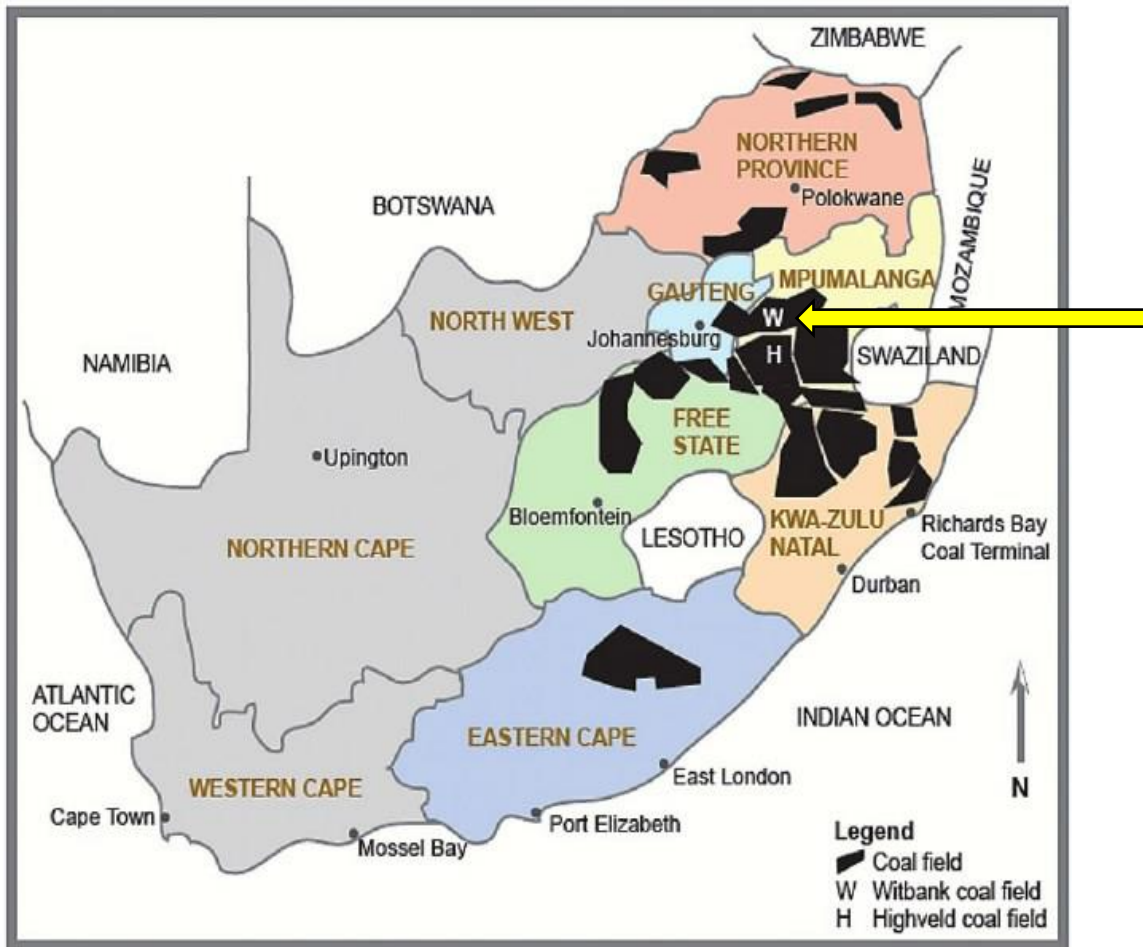


Figure 8: South Africa's Coalfields Map illustrating that the proposed prospecting area falls within the Witbank Coalfield

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

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 Mpumalanga province is rich in coal resources, which can provide major employment opportunities in the area.



- There are several mining companies in close proximity to the proposed area which mine coal such as: Leeuwpan Mine, Schoongezicht Mine and Delmas Coal [Kuyasa Mining (Pty) Ltd]. Combined these mines employ approximately 13.3% of the population and produce 3 Mtpa final coal products;
- This information indicates that there are high chances of finding the sought-after mineral;
- Very little natural vegetation needs to be disturbed in order to establish the prospecting area as most of the area has agricultural activities;
- The prospecting area can be reached by an existing access road from the gravel;
- No residual waste as a result of the mining activity 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; and
- 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 and more information will be discussed after the granting of the prospecting right



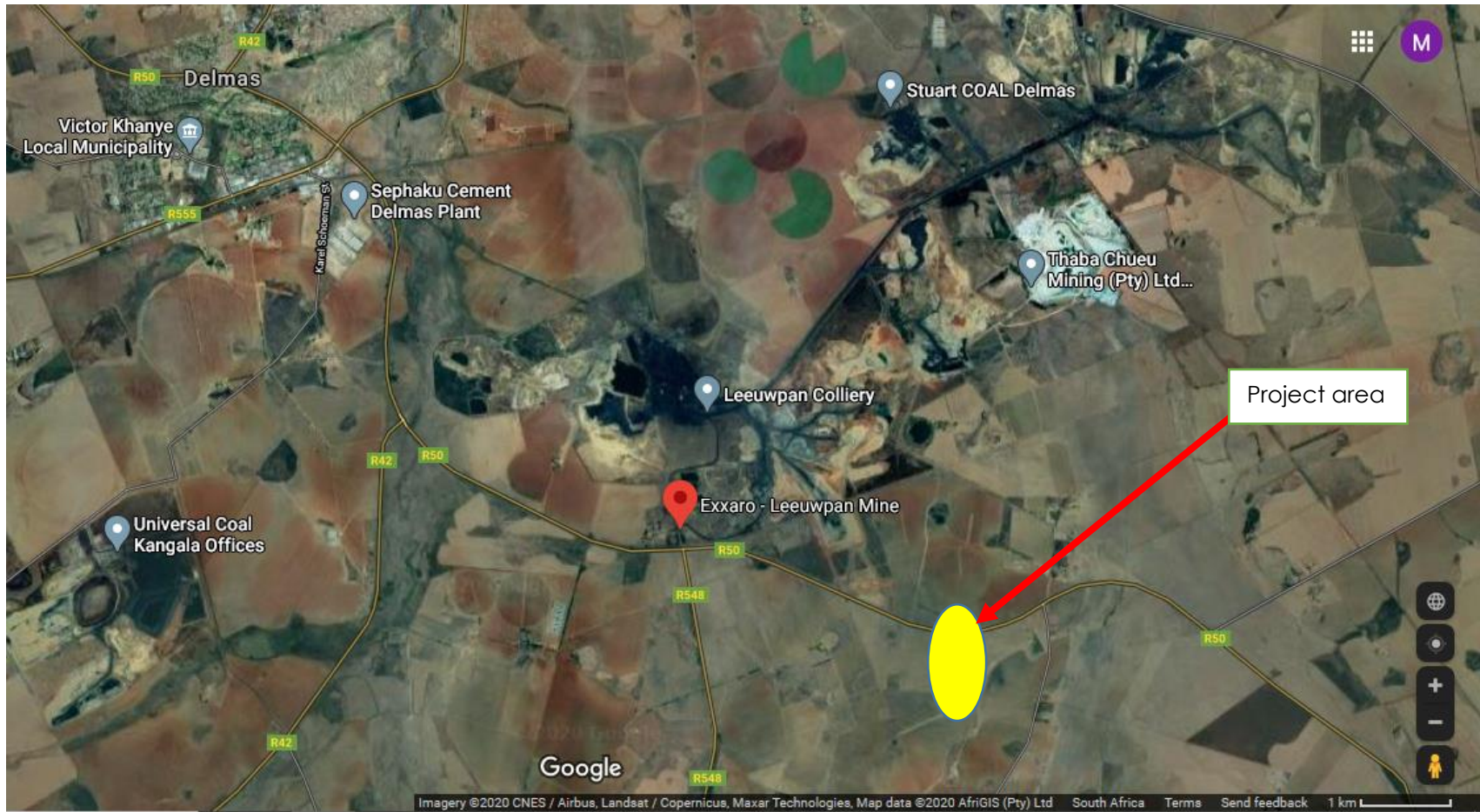


Figure 9: Surrounding mines near proposed project area



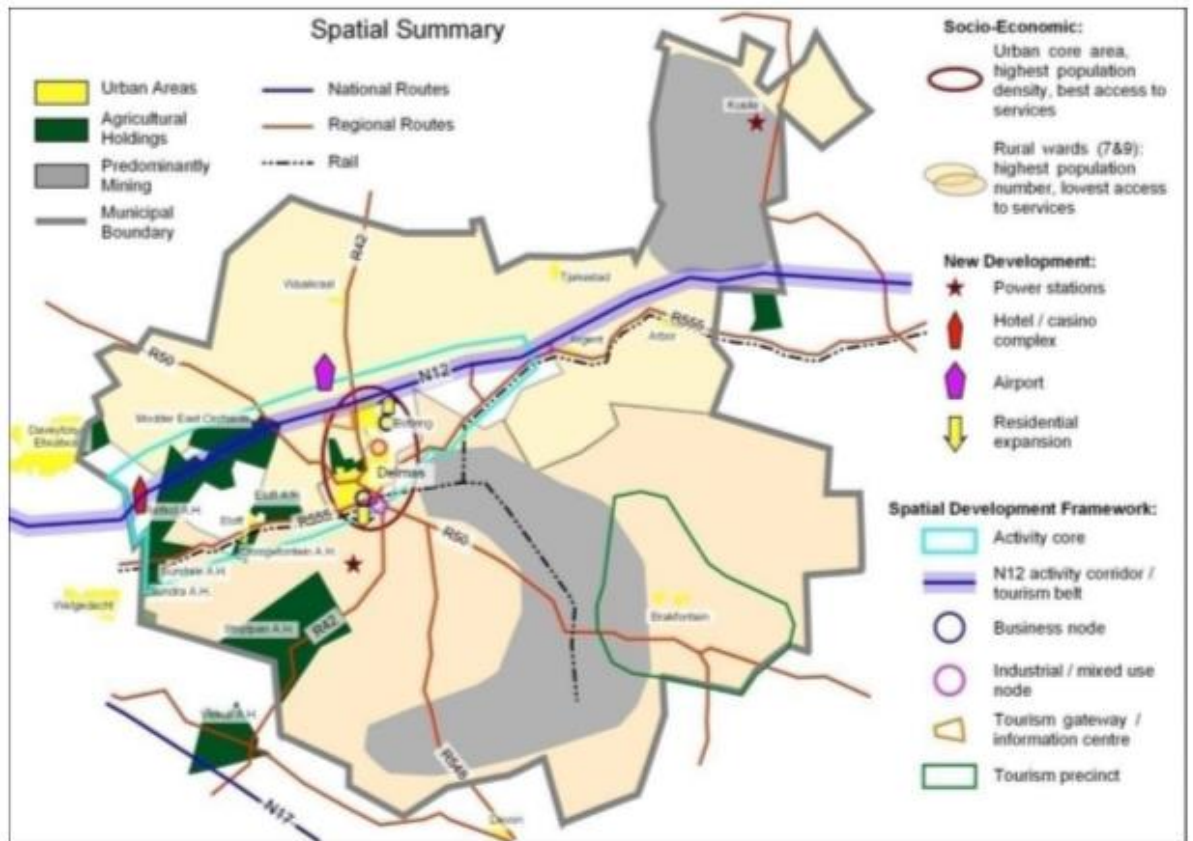


Figure 10: Spatial Summary with the shaded grey area illustrating predominantly mining activities

From the figure above it is evident that the proposed project/municipal area has potential to establish a mining operation.

8. 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)

Each of the phases are dependent on the results of the preceding phase. The location, Portions 3, 4, 7, 14 & 18 of the farm Middelburg Alias Jesgodkuil 266 IR, is the only site that is considered thus there are no alternatives and the extent of coal sampling, and possible core drilling cannot be determined at this stage.

The stakeholder consultation phase has been completed at this time, and therefore the comments raised by I&APs have been incorporated within this report.



9. Details of the development footprint alternatives considered

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

- i. the property on which or location where it is proposed to undertake the activity;
- ii. the type of activity to be undertaken;
- iii. the design or layout of the activity;
- iv. the technology to be used in the activity;
- v. the operational aspects of the activity; and
- vi. the option of not implementing the activity)

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

Aartoon Mining (Pty) Ltd applied for prospecting on the properties as discussed in this report to determine the presence of coal, and whether these are feasible to enter into further studies towards a Mining Right.

A coalfield with Vryheid formation and alluvium holds the sub-surface of the area, the boreholes will be planned based on geology and existing infrastructure consideration. Vryheid formation and alluvium favour the location of boreholes.

As per the site assessment, the area of interest is used for farming. It is important to note that until such time that the non-invasive activities have been completed the exact location of the drill sites cannot be confirmed. However, the following buffers will be applied to the final site selection:

- No drill site will be positioned within 50m of a structure
- No drill site will be positioned within 100m of a water course or wetland
- Where possible existing access roads will be utilised to access the drill sites.

b. The type of activity to be undertaken

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

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



These records will need to be captured into a GIS format for geological modelling and exploration scheduling analysis. Should mineralisation be encountered then further drilling will be undertaken. A suitable level of feasibility study (technical and economic evaluation) will also be undertaken if the results of the phase justify it.

- A total of 15 drill holes are proposed for the site;
- It will be possible to drill 30-40m per day, covering about 1-2 days to drill one hole;
- All holes will be drilled by means of a diamond drill rig. The drilled holes will be coordinated by GPS and logged onto a modelling system. It will be mapped onto an ortho-photo (1:10 000) scale.
- The holes will be drilled to an average of 100m and broadness (diameter) may vary between 60 mm - 75.7 mm. This will allow establishment of the thickness of the overburden.
- Holes will not be drilled closer than 100m from any stream/river and not within 100m from a natural wetland. Identified heritage sites will be marked and avoided.
- Overburden will be recorded, and the holes filled back simultaneously.
- Drilling will take place one hole at a time. The drill site will be cleared of obstructions and debris and then drilled. Rehabilitation will occur concurrently with drilling.

c. The design or layout of the activity

The location of activities will be determined based on the location of the prospecting activities, which will only be determined during Phase 1 of the Prospecting Works Programme. All infrastructure will be temporary and/or mobile and negotiations and agreements will be made with landowners to use existing infrastructure such as access roads.

- Portable ablution facilities will be used.
- Activities will be limited to the drilling of 13 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 tightly controlled, and supervision will be focussed.
- No changes to the layout are considered but with the geophysical survey information, the holes can be orientated to match the shape of the good quality of resource.



d. The technology to be used in the activity

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.

Geophysical surveys also provide an added advantage of being done quickly and so execution can commence early. The safety factor of utilising geophysical surveys is also apparent, as there is less time to keep people exposed to moving machinery.

e. The operational aspects of the activity

Due to the nature of the prospecting activities, no permanent services in terms of water supply, electricity, or sewerage facilities are required.

The activities will commence with desktop study (as previously discussed), which will comprise of literature search. This manner of survey will ensure that the client can clearly delineate areas which are regarded as suitable for further investigation and no unnecessary surface disturbance will be undertaken.

Based on the outcomes of the desktop study, drilling and coal sampling will be undertaken for target areas only. Drilling and sampling are minimal impact exploration methods in terms of environmental disturbance. After the preliminary exploration work, the anomalies identified will be ranked for exploratory drilling. Site activities as it relates to exploratory drilling will comprise the establishment of the drill pad (drill pad clearing and compaction), drilling operations (drill maintenance, refuelling, core extraction and core storage) and rehabilitation activities (drill pad ripping and re-vegetation). No feasible alternative to the proposed exploratory drill methods currently exists. Impact associated with the drilling operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

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

f. The option of not implementing the activity.

The option of not approving the activities will result in a significant loss to valuable information regarding the mineral status (in terms of coal) present on these properties.

The proposed activities have very low significance since these are short term activities. The probability of occurrence of an impact was determined and most of these activities can be controlled and impacts can be reduced or avoided. The probability was also used based on



looking at other prospecting activities of similar nature. Generally prospecting activities have low impact on the environment.

The planned activities negative impacts can be controlled and avoided or minimised therefore the layout does not require revision. Changes in plan will be discussed with the farmers and approvals will be signed. In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilize the said reserves for future phases will be lost. Loss of potential employment opportunities for Mpumalanga as a province.

10. Details of the Public Participation Process Followed

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

10.1 Regulatory Framework

This section of the report provides an overview of the tasks undertaken for the public participation process to date. The public participation process was undertaken in accordance to the requirements of the EIA Regulations, 2014 (as amended, 07 April 2017) particularly Chapter 6 of this Regulation. It provides a guideline on how public participation processes must be conducted; it further stipulates timeframes in which these processes must be conducted in accordance to.

10.2 Identification of Interested and Affected Parties

Settlements were searched using satellite imagery. No formal communities are situated on the said properties though there are a few farmhouses on the proposed project area. There is an informal settlement that has sprung up on adjacent properties and houses which seem to accommodate the miners working in the adjacent mine to the project area. All the affected properties belong to private farmers and no portions are state owned land. Other I&APs identified, include Organs of State, who have jurisdiction over, or might have an interest in the proposed protecting activities, adjacent and other landowners, non-governmental organisations and other organisations and / private persons. A list of the stakeholders (interested and affected parties) identified is included in Table 8.



10.3 Methodology of Notification

The following should be noted as it relates to the stakeholder consultation process and key stakeholder meetings:

- WinDeed searches to identify farm portions
- Newspaper Advertisements and Site Notices to notify stakeholder
- Distribution of BIDs with comments sheet requesting the recommendation of any other stakeholders
- Site Visit to consult with stakeholder or Community or Communities Identified and whether these parties are the landowner

No communities are situated on the said properties and all properties are privately owned .

10.4 Land Claims

A Land Claim Enquiry was e-mailed to Petruscha Lindoor and Vusi Khoza (see appendices for email) on the 1st of April 2020 from the Mpumalanga Department of Rural Development and Land Reform and the response received by Singo Consulting (Pty) Ltd was as follows:





OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: MPUMALANGA
18 Bell Street, Bell Tower building, Restitution House, Nelspruit | Private Bag X11330, Nelspruit, 1200
Tel: (013) 752 4054 | Fax: (013) 752 5410

Enquiries: T DHLAMINI

SINGO CONSULTING

ATTENTION: NOKUTHULA

**LAND CLAIM IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994
AND AS AMENDED IN TERMS OF THE RESTITUTION OF THE LAND RIGHTS
AMENDMENT ACT 2014 (ACT NO 15 OF 2014).**

PROPERTY DESCRIPTION:

**PORTIONS: 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT
JESGODKUIL 266 IR**

REFERENCE NUMBER:

**R/6/143/288/35027
R/6/143/288/39623
R/6/143/288/46798
R/6/143/284/56941**

We refer to the above-mentioned matter and your enquiry received on the 24 June 2020.

Note that the lodgement of land claim is based on the Restitution of Land Rights Act, Act no 22 of 1994 and the Restitution of Land Rights Amendment Act, (Act no 15 of 2014).

Please note that, there is registered land claims lodged before 1998 period, however there is new claim as mentioned above lodged in 2014. The Commission is empowered to investigate all land claims and where applicable issues a Government Gazette to interested and affected parties if such land claims has been approved as valid claims.

The above claim was lodged in terms of the Restitution of Land Rights Amendment Act, 2014 (Act No 15 of 2014) ("the Amendment Act") which, amongst others, reopened the lodgement of claims for a period of five years.



The validity of the Amendment Act was challenged in the Constitutional Court. The Constitutional Court found the Amendment Act to be invalid because of the failure of Parliament to facilitate public involvement as required by the Constitution. The Amendment Act ceased to be law on 28 July 2016 and the Commission is no longer allowed to accept lodgement of new claims from that date.

The Constitutional Court ordered that the claims that were lodged between 1 July 2014 and 27 July 2016 are validly lodged, but it interdicted the Commission from processing those claims until the Commission has finalised the claims lodged by 31 December 1998 or until Parliament passes a new law providing for the re-opening of lodgement of land claims. Parliament was given until 27 July 2018 to pass such a law.

The Commission will therefore not be processing these new claims until it finishes claims lodged by 31 December 1998 or until Parliament passes a new law providing for re-opening of lodgement of claims.

We apologise for the inconvenience caused.

Please quote the claim reference number in all correspondence with the Commission.

Yours sincerely,


Mr. E.S. NKOSI
CHIEF DIRECTOR
MP: OFFICE OF REGINAL LAND CLAIMS COMMISSION
DATE: 24/06/2020

Figure 11: Land Claim Letter

10.5 Traditional Authorities

No Traditional Authority was identified.

10.6 Municipalities

The project is located within the Magisterial District of Delmas, under the jurisdiction of the Victor Khanye Local Municipality, located within the Nkangala District Municipality. The Municipality representative was informed via phone and e-mail 013 665 6000 and (secmayor@victorkhanyelm.gov.za) respectively of the said application. A BID was also provided with all necessary documents to support for comments on the application. This email was sent on the 20th of April 2020 (see appendixes).

10.7 Landowners and Notification Methodology

The Landowners involved are all private farmers. Singo Consulting (Pty)Ltd obtained the details for each landowner from the WinDeed search done. Each landowner was contacted and informed of the said application via email. No Landowners were found at the site, only the farm workers who stated that they would hand the notifications to the landowners. A BID, Land Notification Letter and Regulation map were attached to the consultation email (See WinDeed results for landowner information). In addition, a Site Visit/Assessment was arranged for the 17th of June 2020 (please refer to Annexure E: Minutes



AARTOON MINING (PTY) LTD MEETING WITH PTN 7 & 14 LANDOWNER

Date: 06th July 2020

Time: 10:00 am

Location: Schoeman Broedery

Attendees:

Landowner: Brent Parrott | Tommie Olckers

Singo Consulting (Pty) Ltd: | Owen Netshavha | Nokuthula Nkosi

Meeting Objective: Inform and engage with landowner regarding the prospecting right application submitted on portions of the Middelburg Alias Mat Jesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Landowner Remarks:

- Problem with small mines is that they prospect then sell the rights to a bigger company, so their intentions are not to mine.
- They do not rehabilitate the affected area
- There is an abandoned Gupta mine close by. It is a hazard and has affected all our water. So, we need to keep in mind the drinking water and water we supply to make a living will be gone if there is mining in the area.
- There is a wetland so sometimes of the year the non-perennial river is flowing and sometimes it's not (seasonal)
- There are three legal dams to capture the water. So, if it rains it will overflow. We did some groundwork to divert the water out faster
- The road goes through the project area
- There is a pipeline going through portion 3 and 4
- There are 4 ESKOM powerlines and an additional 2 will be added. The servitude is ready and has been paid for



- Delmas colliery is an underground mine that is already mining under portion 7. The house is standing on a pillar. The farm hose started to crack at some point but Delmas colliery stabilized the column.
- Another concern is that if you start mining on that side you will close the access routes to the farms.
- One doesn't know how the area will be mined. It will probably be underground as coal is deep here.
- I think what's best is to transpose the borehole locations onto a google map which will show all features.
- We have created water courses to drain water out of the fields, so they are manmade
- I have water rights on portion 7 and brail logistics operate on the Hawerklip rail siding. They export coal for universal and Eskom. They have the water license and they use that water for dust suppression. If anything happens to these boreholes, I will lose an income of R140k monthly.
- This is a sensitive area. There is an informal settlement on the boarder
- If Delmas colliery are mining this area, how is it a part of your application?
- We have had numerous instances of overlapping
- With regards to portion 14 Borehole if you can place it away from the fields as site establishments and traffic will compact the land. But you may drill anywhere in the waterway
-

The Consultant Remarks:

- Two maps, Regulation map illustrating the features in the area and the geology map illustrating the coal formation. There are 15 proposed boreholes.
- Regulation map shows a non-perineal river flowing but we didn't see it during site assessment.
- There are 5 proposed boreholes on portion 7 and 1 on portion 14. These are not final and can be moved should there be a need.
- During consultation with Delmas colliery, it was mentioned that they have rights somewhere on our prospecting application so they will confirm the portions.



- Currently we are in the process of prospecting so we haven't reached the stage of the mine layout logistics. The Applicant wants to prospect/check if there is a viable coal resource
- The proposed boreholes are preliminary plans we use to engage with stakeholders and landowners. Based on your comments regarding the groundwork or sensitivity we might have to shift boreholes. Once we have a clear and detailed site assessment we will finalize the position of the boreholes. This map is planned according to the geological map. We will have to include 500m buffer from wetland/waterbodies and 100m from infrastructure
- We will have to investigate how we got acceptance for the Delmas colliery portion after the representative has shared documents. We will also investigate when they were accepted and when their rights expire as the SAMRAD system shouldn't accept our application if there are already rights in the area
- Our acceptance letter refers to consultation and site assessment and not as rights to drill
- So we must check validity of Delmas colliery rights
- The supporting documents will be sent via email and final submission is in August

Way Forward:

- Before going forward, you need to investigate portion 7 rights
- Draft will be sent via email
- Decision will be communicated by DMR then only can we engage in terms of compensation



Attendance Register

SINGO CONSULTING (Pty) Ltd
 Meeting venue: Schorman Bredaey
 Date: 06-07-2020
 Time: 10:00 am



ATTENDANCE REGISTER						
No.	Name & Surname	Designation	Company/LandOwner/ Other(Specify)	Contact Details	Email Address	Signature
1	Nokuthula Nkosi	Consultant	Singo Consulting	07660404	nokuthula@singoconsulting.co.za	
2	BRETT PATRICK	PP OWNER	SCHORMAN	0716783730	BRETT@WITKOP.CO.ZA	
3	Tommie Olakhe	PP owner	Cygnus Farming	0823881012	tommie@cygnusfarming.co.za	
4						
5	Owen Ntshwaha	consultant	singo consulting	0767756359	Owen@singoconsulting.co.za	
6						
7						
8						
9						
10						
11						
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19						
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21						
22						
23						
24						
25						

Minutes prepared by:



AARTOON MINING (PTY) LTD MEETING WITH PTN 18 LANDOWNER

Date: 09th July 2020

Time: 09:15 am

Location: Zoom Online Meeting

Attendees:

Landowner: Nkaki Matlala

Singo Consulting (Pty) Ltd: | Owen Netshiavha | Nkosi Nokuthula

Meeting Objective: Inform and engage with landowner of ptn 18 regarding the prospecting right application submitted on portions of the Middelburg Alias Matjesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Consultant Remarks:

- Aartoon Mining (Pty) Ltd is a new establishment lead by Mr. Harry Kekana
- Singo Consulting (Pty) Ltd was appointed as the EAP to foresee the PPP and BA & EMPr
- Total area of proposed project is 468.95 ha
- Application was lodged in March but due to Covid-19 Lockdown Regulations we could not carry out assessments required thus there has been an extension to the timelines.
- 15 planned boreholes and 2 are within portion 18
- 0.9 ha disturbance per borehole.
- The proposed borehole map will be sent via email. This is preliminary so it is not the final borehole map meaning you have a say in the positioning of the boreholes should the proposed areas affect your development/infrastructure.
- Entire process is transparent so all information will be shared with you including results of the coal.



- DMR correspondence will be shared

The Landowner Questions and Answers:

- Date for drilling?
 - It can take 4-6 before we have a set date and that is if the right is granted.
- According to that answer drilling will commence during planting and plowing season
 - No. Drilling will be done at a convenient time where your operations are not disturbed. A Prospecting Right is a right that lasts for 5 years so it is not compressed in short amount of time.
- What does it mean for me when you find the desired resource?
 - A way forward will be dependent on the client. They may either apply for a mining permit or mining right. Engagement between the landowner and the applicant will commence to reach an agreement. ,

Way Forward:

- Draft EMPR will be sent for review



1. Proof of Attendance

Minutes prepared by:



Annexure F for the proof of erected site notifications):



Office No. 16, First Floor (South Block), Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill, eMalahleni (Witbank), 1040, Mpumalanga Province, ZA
T: +27 78 2727 839/072 081 6682 F: +27 86 5144 103; kenneth@singoconsulting.co.za

WinDeed Property Search

Printed: 2020/03/30 16:45

Farm List

windeed
A LexisNexis® Product

Date Requested: 2020/03/30 16:42
Deeds Office: MPUMALANGA
Registration Division: IR
Farm Name: MIIDELBURG ALIAS MAT JESGODKUIL
Farm Number: 286
Remaining Extent: NOT SELECTED

PORTION LIST				
Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
0	COWENBURG BOERDERY PTY LTD	T116872/1997	1997/11/06	R600000.00
1	TRANSNET LTD	T45909/1984	1984/12/15	R0.00
3	VANGGATFONTEIN BELEGGINGS PTY LTD	T7379/2013	2013/07/19	R850000.00
4	VANGGATFONTEIN BELEGGINGS PTY LTD	T7379/2013	2013/07/19	R850000.00
5	RAPPARD GUSTAV MARTINUS HUGO	T112277/1997	1997/10/24	R0.00
6	KALLIE MADEL TRUST	T15489/2014	2014/10/22	R18468000.00
7	CYGNUS FARMING PTY LTD	T6814/2017	2017/06/23	R440000.00
8	KALLIE MADEL TRUST	T15489/2014	2014/10/22	R18468000.00
9	COWENBURG BOERDERY PTY LTD	T643/1998	1998/01/06	R625000.00
10	SCHALEKAMP CORNELIA MARIA	T35215/2007	2007/03/16	R1000000.00
11	M A SCHALEKAMP TRUST	T11494/2017	2017/09/18	R3748186.00
12	KALLIE MADEL TRUST	T11641/2014	2014/08/07	R5728500.00
13	SCHALEKAMP CORNELIA MARIA	T35215/2007	2007/03/16	R1000000.00
14	KALLIE MADEL TRUST	T6274/2013	2013/06/26	R4350000.00
15	KALLIE MADEL TRUST	T11641/2014	2014/08/07	R5728500.00
16	KALLIE MADEL TRUST	T15489/2014	2014/10/22	R18468000.00
17	SCHALEKAMP CORNELIA MARIA	T35215/2007	2007/03/16	R1000000.00
18	RALETHONGOANE TRUST INV PTY LTD	T18016/2015	2015/11/03	R11500000.00
19	*** NO LONGER EXISTS - SEE ENDORSEMENTS ***		-	
20	TRANSNET LTD	T19990/1977	1977/07/06	R0.00
21	TRANSNET LTD	T15640/1977	1977/06/27	R0.00
22	TRANSNET LTD	T15767/1977	1977/06/30	R0.00
23	TRANSNET LTD	T1290/1979	1979/01/18	R0.00
24	TRANSNET LTD	T20067/1978	1978/07/28	R0.00
25	TRANSNET LTD	T36578/1977	1977/12/19	R0.00
26	AFGRI GRAIN SILO CO PTY LTD	T2976/2019	2019/04/04	R26929256.00

DISCLAIMER
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Figure 12: WinDeed Results



Contact Information

Lexis® WinDeed

CLAASSENS, JOHANNES HENDRIKUS

GENERAL INFORMATION			
Date Requested	2020/03/30		
Reference	-		
PERSON INFORMATION			
Surname	CLAASSENS		
Full Name	JOHANNES HENDRIKUS		
Date of Birth	1955/08/30		
ID Number	5508305013085		
CONTACT INFORMATION			
Address	1 FARM RD KINGSBURGH DELMAS MPUMALANGA 1000 (Latest Date Provided: 2020/03/06)	Email Address	jhclaas@telkomsa.net (Latest Date Provided: 2004/06/10)
Phone (Home)	0136652031 (Latest Date Provided: 2020/02/29)	Phone (Work)	0136658909 (Latest Date Provided: 2005/11/02)
Mobile Number	0829444590 (Latest Date Provided: 2020/02/29)	Employment	VANGGATFONTEIN LANDG - (Latest Date Provided: 2020/02/29)
DISCLAIMER			
This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. WinDeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the WinDeed End User Licence Agreement (EULA) .			

Figure 13: **Portion 3 & 4 Landowner**

Contact Information

Lexis® WinDeed

OLCKERS, JOHANNA CORNELIA

GENERAL INFORMATION			
Date Requested	2020/03/30		
Reference	-		
PERSON INFORMATION			
Surname	OLCKERS		
Full Name	JOHANNA CORNELIA		
Date of Birth	1979/03/14		
ID Number	7903140091081		
CONTACT INFORMATION			
Address	FARM MATJIES GOEDKUIL DELMAS - ZA 2210 (Latest Date Provided: 2020/03/02)	Email Address	-
Phone (Home)	0136657700 (Latest Date Provided: 2020/02/29)	Phone (Work)	-
Mobile Number	0823881012 (Latest Date Provided: 2020/03/02)	Employment	STANDER AND PARTNERS - (Latest Date Provided: 2020/02/29)
DISCLAIMER			
This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. WinDeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the WinDeed End User Licence Agreement (EULA) .			

Figure 14: Portion 7 Landowner



Contact Information

Lexis® WinDeed

MATLALA, NKAKI SYDWELL

GENERAL INFORMATION			
Date Requested	2020/03/30		
Reference	-		
PERSON INFORMATION			
Surname	MATLALA		
Full Name	NKAKI SYDWELL		
Date of Birth	1953/03/10		
ID Number	5303105669082		
CONTACT INFORMATION			
Address	102 DRIEKOPPEN RD KINGSBURGH PRETORIA GAUTENG 0181 (Latest Date Provided: 2020/03/06)	Email Address	NKAKI.MATLALA@MEDICLI NIC.CO.ZA (Latest Date Provided: 2011/12/26)
Phone (Home)	0124219106 (Latest Date Provided: 2020/03/02)	Phone (Work)	0123176916 (Latest Date Provided: 2019/04/25)
Mobile Number	0832526669 (Latest Date Provided: 2019/04/30)	Employment	POLOCLINIC - (Latest Date Provided: 2020/02/29)
DISCLAIMER			
This report contains information gathered from our suppliers and we do not make any representations about the accuracy of the data displayed nor do we accept responsibility for inaccurate data. WinDeed will not be liable for any damage caused by reliance on this report. This report is subject to the terms and conditions of the WinDeed End User Licence Agreement (EULA) .			

Figure 15: **Portion 18 Landowner****10.8 Newspaper Advertisement**

A newspaper notice was placed in the Streeknuus/news Delmas on the 27th of March 2020 and in the Streeknuus/news Bronkhorstspuit on the 12th of June 2020 advertising the prospecting right application (See Figure 17 and Figure 17). Notices about the application were placed around the site of the prospecting right application area inviting interested persons to register as I&APs.



- BID and Registration Sheet with a Locality map was sent to all interested and affected parties via e-mail between 03 June 2020 and 03 July 2020
- A site visit was conducted on 17 June 2020
- All Government department where informed of the said application via e mail and phone.

10.9 Site Notice Placement

Eight (8) A2 Site Notices were erected on the 17th of June 2020. These were erected at the site boundary and around as well as at the local spaza shop in the informal settlement adjacent to the project boundary. Where we did not find the landowners or farm workers, the notice was placed at the gate to notify and prompt landowners to contact us. Lastly, the site notices clearly stipulated where and how the DBAR and EMPr can be accessed (see pictures below).



NOTICE OF PUBLIC PARTICIPATION FOR COAL PROSPECTING RIGHT APPLICATION AND ENVIRONMENTAL AUTHORIZATION APPLICATION ON PORTION 3, 4, 7, 14, & 18 OF THE FARM MIDDELBURG ALIAS MAT JESGODKUIL 266 IR IN THE DELMAS MAGISTERIAL DISTRICT, MPUMALANGA PROVINCE
DMR REF: MP 305/1/1/2/15628 PR

This notice serves to inform all interested and affected parties that in terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002); National Environmental Management Act (Act No. 107 of 1998) as amended in (April 2017) of a **Coal Prospecting Right Application** on the farm **Middelburg Alias Mat Jesgodkui 266 IR**, situated in the Local Municipality of Victor Khanya, under Nkangala District Municipality, Mpumalanga Province.

Project Location: The project area, as illustrated in the figure below, is situated approximately 14.86 km south-east of Delmas, roughly 15.73 km north-west of Leandra and about 29.23 km north-east of Opies. There are two road networks close to the project area: a provincial R42 & R50

Size of the site: The application covers approximately **468.95 hectares (ha)** in extent.



Figure 1: Reg 2.2 Map (-26.2214, 28.8087)

INVITATION TO LANDOWNERS/STAKEHOLDERS

Notice is given in terms of the Mineral and Petroleum Development Act (MPRDA) (Act 28 of 2002) and EA regulations 2014, published under Government Notice No. 962 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017, **Aarlon Mining (Pty) Ltd** has applied for a Prospecting Right.

As part of the public participation process, any comments or concerns regarding the project are to reach Mr. Nokufulwa Nkosi using the contact details provided below. The Background Information Document will be available from the **03rd of June 2020** so that interested or affected parties may receive further information on the intentions of **Aarlon Mining (Pty) Ltd**.

Due to the fact that we may not have all the landowner contact details, landowners are invited to reach out to us, so that we may effectively consult them and share any information regarding the proposed project as per regulations. **Singo Consulting (Pty) Ltd** has been appointed as the independent Environmental Assessment Practitioner. The draft Basic and Environmental Management Plan Report will be available for a 30-day calendar period from the 04/07/2020 -02/08/2020. This report will be available **ONLY** via email and upon request in order to adhere to the Covid-19 Lockdown Regulations. For further information, please do not hesitate to contact us on the details below.

ENVIRONMENTAL ASSESSMENT PRACTITIONER AND CLIENT DETAILS:



Singo Consulting (Pty) Ltd
 Office No. 16, Corridor Hill Crossing
 09 Langa Crescent, Corridor Hill
 eMalahleni, 1035.
 Junior Consultant: Nokufulwa Nkosi
 Tel No.: +27 13 6920 041
 Fax No.: +27 86 5144 103
 Cell No.: 076 607 4041
 Email: nokufulwa@singoconsulting.co.za

AARLON MINING (PTY) LTD

P.O Box 71534, Mamelodi, Pretoria, 0041

Applicant: Mr. Kekana
 Fax: 086 5144 103
 Tel: 079 024 2252 / 073 226 4578
 Email: kabonamofa@gmail.com







- BIDs were printed and made available to any person passing by or around the proposed project area.
- Landowner notification and consent forms were sent to farmers via email



- The draft was available for review for a 30 days calendar period from 04 July 2020 to 02 August 2020.

10.10 Public Community Meeting

The project is located far from communities and due to the Covid-19 pandemic and the regulations put in place to flatten the curve, a public day/ community meeting was not held. Level 3 of the National Lockdown restrict libraries from operating thus the DBAR and EMPr was not delivered to any library. Instead, as per the site notices that were erected, we prompted all interested and affected parties to contact us so that we may have their email address stored on our database which we will utilise to share any information regarding the proposed project.

Furthermore the DBAR and EMPR was sent via emails for stakeholders to comment. The DBAR and EMPR will be uploaded online during the review period (04/07/2020 – 02/08/2020) to The South African Heritage Resource Agency for them to comment.

10.11 Relevant Government Departments

Personnel representing Government Departments and Non-governmental organizations were consulted via Consultation emails email using Background Information Document (BID) as part of notification of the project, draft BAR & EMPr and in some instances, consultations were conducted telephonically. The following departments and organization formed part of the consultation process;

- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Department of Water and Sanitation
- Department of Environmental Affairs
- MTPA
- Transnet
- Eskom
- Sanral
- Victor Khanye Local Municipality



Table 8: Identified Stakeholders (Including Landowners)

REF.					
Reg.	SECTOR	CONTACT PERSON	ALTERNATIVE	DESIGNATION	
NO.					
	41(b)(i))	Occupiers of the site, if the proponent or applicant is not the owner or person in control of the site			
1		Vanggatfontein Beleggings (Pty) Ltd	Johannes Claassens	T: 013 665 2031 C: 082 944 4590 E: johan@vanggatfontein.co.za	Landowner
2		Cygnas Farming	Johanna Olckers	T: 013 665 7700 C: 082 388 1012 E: brent@witklip.co.za	Landowner
3		Kallie Model Trust	Brent Parrott	T: 013 665 7700 C: 071 678 3730 E: brent@witklip.co.za	Landowner



4	Ralethongoane Trust Inv (Pty) Ltd	Nkaki Matlala	T: 012 421 9106 C: 083 252 6669 E: info@mediclinic.co.za	Landowner
5	DRDLREA	Petruscha Lindoor Yusi Khoza	E: Petruscha.Lindoor@drdlr.gov.za ; Yusi.Khoza@drdlr.gov.za	
6	DAFF	Rhulani Chabalala	E: RhulaniC@daff.gov.za	
7	Eskom	Wayleaves	E: WayleavesNWOU@eskom.co.za	
8	DEA	T Ramavhona	E: TRamavhona@environment.gov.za	
9	DWS	Seani Nevondo	E: NevondoS@dws.gov.za	
10	SANRAL	Statatory	E: nrstat@nra.co.za	
11	Transnet	Yuza Chabalala	E: Yuza.Chabalala@transnet.net	
12	Victor Khanye Local Municipality		T: 013 665 6000	Jurisdictional area



				E: secmayor@victorkhanyelm.gov.z a	
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10.12 Details of the Engagement Process

Table 9 below provides a detailed account of the activities and the associated timeframes of the stakeholder consultation process.

Table 9: Details of the Stakeholder Engagement Process.

Action	On or Before	Comment
Request for registration as a stakeholder and / or to attend a stakeholder meeting	A comment should be submitted by 03 July 2020 to the public participation officer (Nokuthula Nkosi)	Stakeholders are invited to register as Interested and Affected Parties please contact: Singo Consulting (Pty) Ltd Nokuthula Nkosi T: +27 81 386 8589 F: +27 86 5144 103 E: nokuthula@singoconsulting.co.za Private Bag X 7214, Postnet suite 125, Witbank, 1035. Office No. 16, First Floor (South Block), Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill, eMalahleni (Witbank), 1040
Stakeholder Meetings	N/A	Site visits to landowners and relevant government departments may be scheduled provided they adhere to Lockdown Regulations.
Submit comments and concerns		Stakeholders are required to submit all their comments by no later than 03 July 2020 (covering holidays and weekends).
Review of Environmental Management Plan	The draft will be available for review for a 30 days calendar period from 04 July 2020 to 02 August 2020. DBAR and EMPr will be made available via	The public day will not be held due to Covid-19 Lockdown Regulations. Only Where mandatory will a meeting be held with landowners/adjacent landowners.



	email upon request as Libraries are currently closed due to the Covid-19 Lockdown Regulations.	
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11. Summary of issues raised by I&APs

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

Table 10: Issues raised by Stakeholders

Interested and Affected Parties List the name of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted	Date Comments Received(Call, Fax, emails)	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.	
<u>AFFECTED PARTIES</u>					
Landowner/s	X				
Vanggatfontein Belleggings (Pty) Ltd Ptn 3 & Ptn 4 Johanes Swanepoel C: 082 415 5782 E: johan@vanggatfontein.co.za	X	20/04/2020 (email) 03/06/2020 (email) 03/07/2020(email) 03/07/2020(phone call)	Both portions are in the process of being sold. There will be a new landowners in a few weeks.	Email was sent to Orendal requesting information for	



			Contact Orendal Kree my lawyer facilitating the process and request buyers contact details from him. (013 665 5088, odenkrug5@penta-net.co.za)	consultation purposes. No response has been received yet.	
Cygnas Farming (Pty) Ltd	X	20/04/2020 (email)			
Ptn 7					
Johana/Tommie Olckers					
C: 082 388 1012					
E: brent@witclip.co.za					
		29/06/2020 (phone call)	There are 3 boreholes on property. Supply water to industries such as Eskom. Meeting may be the following week (06/07/2020 – 10/07/2020)	Request for meeting during the coming week.	
		03/07/2020 (phone call)	Meeting will be on 06/07/2020 along with Mr. Oclckers of ptn 7	Meeting will be held on Monday 06/07/2020	
		06/07/2020 (meeting)	<ul style="list-style-type: none"> • 3 boreholes surrounding farmhouse and one within the yard. • Kuyasa Mining (Pty) Ltd is already mining underground of portion 7 	<ul style="list-style-type: none"> • Currently consulting Kuyasa Mining (Pty) Ltd as they confirmed to have mineral rights over 	



			<ul style="list-style-type: none"> • Mining will disturb the water table and quality thus affecting water supply business. • Pipeline with diesel and paraffin runs through portion 3 & 4) • Eskom already has servitude for an additional 2 lines • There are 3 water courses witch flow into a vlei form outside the prospecting area. The wetland then flows into the non-perineal river during certain seasons. • Work has been done to control the water flow from the wetland into the non-perineal river. • Proposed borehole map needs to be redone as boreholes fall near sensitive areas(house, near another borehole) • Location of boreholes will be sent telephonically • There is an informal settlement near Hawerklip and water courses 	<p>some of the applied for portions.</p> <ul style="list-style-type: none"> • Currently boreholes are proposed and not final. From the information gathered from you, we may move accordingly and adhere to the 100m distance from house to borehole and 500m from a water course. 	
<p>Kallie Madel Trust</p> <p>Ptn 14</p> <p>Brent Parrott</p>	X	<p>20/04/2020 (email)</p> <p>29/04/2020(email)</p>	Notification acknowledged.	Comments captured.	



<p>C: 071 678 3730</p> <p>E: brent@witklip.co.za</p>	<p>28/05/2020 (email)</p>	<p>Legal representative Mr. Johann Minaar (076 463 8750., jm.mineralrights@iclou.com)</p> <ul style="list-style-type: none"> • Acceptance Letter received from the Department of Mineral Resources confirming the acceptance of the application for a Prospecting Right • Draft Prospecting Work Programme; • The technical competency of the Applicant; The financial resources of the Applicant; • The BEE status of the Applicant • The "NEED" as recorded on page 6 of the BID is very general and lacks any motivation why coal reserves on the prospecting area must be mined, and in doing so, will destroy crops much needed for food security. • Access roads on my client's property will not be allowed as such new roads will cause irreparable damage to the arable land • The methods proposed by the Applicant to avoid soil contamination and the remedial methods proposed in case of oil spills are inadequate and will cause 	<p>Comments captured.</p> <p>Acceptance letter will be provided at the one on one meeting</p> <p>Other requested information will be emailed.</p> <p>Petrol Pipeline is being investigated and a request was sent for the exact demarcation of the pipeline.</p> <p>There is a non-Perineal river according to the data of our GIS.</p>	
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	<p>01/07/2020 (email)</p> <p>06/07/2020 (meeting)</p>	<p>more harm to the environment than good.</p> <ul style="list-style-type: none"> The Bid fails to address the socio-economic consequences with regards to the potential loss and damages that is more like to be suffered by my client in the case where arable lands and crops are loss due to exploration drilling and subsequent mining. Your attention is drawn to the fact that a petrol pipeline traverses the proposed prospecting area. It appears that the locality plan is incorrect in the sense that it indicates a dam on the affected property which is incorrect <p>Directions to office shared for the scheduled meeting on 06/07/2020 at 9am.</p> <ul style="list-style-type: none"> Aartoon Mining (Pty) Ltd is nowhere on the internet. Opinion is that the applicant will only prospect to get the right then sell to larger mining companies. Where are the documents requested via email on the letter dated 28/06/2020? 	<p>Proposed date and time acknowledged.</p> <ul style="list-style-type: none"> Aartoon Mining (Pty) Ltd is a newly established mine Requested documents will sent via email. 	
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			<ul style="list-style-type: none"> Companies come to prospect and leave without rehabilitation Proposed borehole should not be in the field. Rather place it anywhere on the water course created as a drainage system leading away from the pan Illustrate boreholes on a detailed map that shows all infrastructure. 	<p>Acceptance letter was presented.</p> <ul style="list-style-type: none"> Negotiations between the landowner and applicant may happen to discuss the compensation 	
<p>Ralethongoane Trust Inv (Pty) Ltd</p> <p>Ptn 18</p> <p>Nkaki Matlala</p> <p>C: 083 252 6669</p> <p>E: nkaki@ralethongoane.co.za</p>	X	<p>20/04/2020 (email)</p> <p>03/06/2020 (email)</p> <p>01/07/2020 (email)</p> <p>07/07/2020 (phone call)</p> <p>09/07/2020 (zoom meeting)</p>	<p>Email address has changed. Unavailable at proposed date and time thus a virtual meeting can be arranged in the coming week.</p> <p>Physical or online meeting are both ok.</p> <ul style="list-style-type: none"> Date for drilling? So during ploughing or planting? 	<p>Request for time and date.</p> <p>Request for any infrastructural information on ptn 18</p> <p>Meeting scheduled for Thursday (09/07/2020) at 9 am via Zoom Meetings</p> <ul style="list-style-type: none"> Approximately 4-6 monmths 	







			<ul style="list-style-type: none"> • What does it mean for me if you find coal? • 	<ul style="list-style-type: none"> • No, we work according to your convenience. Should the PR be granted, it lasts for 5 years. • That will be dependent on the Applicant. They may apply for mining permit or mining rights. Should the resource be viable there will be engagement. 	
Lawful occupier/s of the land					
N/A					
Landowner or lawful occupier on adjacent properties					
 Themba Mthembu	X	01/07/2020(email)			



E:thembekam@delcoal.co.za				
Municipal councillors				
Local Municipality: Victor Khanye (Mayors Office)				
 <p>T: 013 665 6000</p> <p>E: secmayor@victorkhanyelm.gov.za</p>	X	<p>09/04/2020 (email)</p> <p>03/06/2020 (email)</p> <p>07/07/2020 (email)</p>		
District Municipality: Nkangala				
Organs of state (Responsible for infrastructure that may be affected: Roads, Departments, Eskom, Telkom& DWA)				





 <p>water & sanitation Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA</p> <p>Nevondo Seani E: NevondoS@dws.gov.za</p>	X	<p>09/04/2020 (email) 03/06/2020 (email)</p>		
 <p>agriculture, forestry & fisheries Department: Agriculture, Forestry and Fisheries REPUBLIC OF SOUTH AFRICA</p> <p>Rhulani Chavalala Tel.: 013 754 0729 Cell: 078 608 3909 E: RhulaniC@daff.gov.za</p>	X	<p>09/04/2020 (email) 03/06/2020 (email)</p>		
 <p>nrstat@nra.co.za</p>	X	<p>07/07/2020(email)</p>		
 <p>N Wayleaves E: WayleavesNWOU@eskom.co.za</p>	X	<p>09/04/2020(email) 03/06/2020 (email)</p>		<p>Error! Reference source not found.</p>





Communities				
Hawklip				
<p>Joseph Nkosi</p> <p>C: 079 920 5973 /067 201 6377</p> <p>E: nkosi.jsp@gmail.com</p>	<p>03/07/2020 (email)</p>	<ul style="list-style-type: none"> • A lot of noncompliance in the past. Who do we contact if mitigation measures are not followed? • If there are any post may the community get first preference? • Time of Drilling? • Are the marked spots we have seen around the community where you plan to drill? If so, what are the effects going to be? • What happens to the community should invasive prospecting occur? 	<ul style="list-style-type: none"> • Upon granting a DMR case officer will be allocated to the project. They may be contacted should you need to report noncompliance. • Drilling is done by contractors with a minute work force. Request will be passed on to applicant • Only drill during the day • Project has not commenced thus no markings have been made by us. No activity will take place until right is granted. Planed boreholes are over 100m radius away from communities • Regulations will be adhered to regarding the distance from any prospecting activities to 	




				avoid harm to the community.	
Dept. Land affairs					
 <p>rural development & land reform Department: Rural Development and Land Reform REPUBLIC OF SOUTH AFRICA</p> <p>William Nyoni William.Nyoni@drdlr.gov.za</p> <p>Happy Motha /Happy.Motha@drdlr.gov.za</p> <p>Fedrick Motha E: Fedrick.Motha@drdlr.gov.za</p> <p>George Mhlanga E: George.Mhlanga@drdlr.gov.za</p>	X	12/02/2020 (email)			
 <p>COMMISSION ON RESTITUTION OF LAND RIGHTS</p>	X	20/04/2020(email)			



Petruscha Elaine Lindoor Petruscha.Lindoor@drdlr.gov.za					
Themba Mkhonto Themba.Mkhonto@drdlr.gov.za					
Tribal leaders	X				
N/A					
Dept. of Environmental affairs					
 environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA	X	20/04/2020(email)			
T Ramavhona E: TRamavhona@environment.gov.za					
Other competent authority					
 Mpumalanga TOURISM AND PARKS AGENCY	X	/2020 (email)			
Phumla Nkosi					



E: Phumla.Nkosi@mtpa.co.za					
SAHRA					
https://sahris.sahra.org.za/node/add/heritagereports	X	/2020 (online submission)			
Other Affected Parties					
 Universal Coal Mokgadi Mudau E: m.mudau@universalcoal.com T: 010 900 2062 C: 071 624 3154	X	03/07/2020 (email)	Thank you		
Interested parties					



Concluding Remarks on Stakeholder Consultation

According to the Ptn 14 Landowner, who is represented by his legal team stated in his comment form that there is a petrol pipeline that transverses the proposed project area. Investigations regarding this information are underway.

However, apart from that, no other key environmental or social issues have been raised to date. The remaining landowners have not yet raised their disapproval or early objection to this application.

The consultation commenced one month before the submission of the draft report and therefore the findings in this section should not be considered final and any other comments will be updated prior to the submission of the final report.

Due to the Covid-19 Pandemic and the Lockdown Regulations set therefore, a community meeting was not held. Though, site notices were plugged in prominent areas near the informal settlement, mine housing and around the project boundaries to encourage residents to contact us. During the site inspection, it was made a point to verbally inform any people passing near the proposed project area and a BID was given to them to further study and revert with any comments they may have.

We have conducted two meetings with 3 out of the 4 Landowners namely: Brent Parrott (Portion 14), Tommie Olckers (Portion 7) and Nkaki Matlala (Portion 18).

Where we did not find Landowners, we left a site notice along with a BID at the gate as an effort to reach out to those farm owners who have not responded to our calls or notification emails.

The proof of advertisements and notifications were available at the time of the compilation of the draft report (see Annexure E: Minutes

AARTOON MINING (PTY) LTD MEETING WITH PTN 7 & 14 LANDOWNER

Date: 06th July 2020

Time: 10:00 am

Location: Schoeman Broedery

Attendees:

Landowner: Brent Parrott | Tommie Olckers

Singo Consulting (Pty) Ltd: | Owen Netshiavha | Nokuthula Nkosi



Meeting Objective: Inform and engage with landowner regarding the prospecting right application submitted on portions of the Middelburg Alias Mat Jesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Landowner Remarks:

- Problem with small mines is that they prospect then sell the rights to a bigger company, so their intentions are not to mine.
- They do not rehabilitate the affected area
- There is an abandoned Gupta mine close by. It is a hazard and has affected all our water. So, we need to keep in mind the drinking water and water we supply to make a living will be gone if there is mining in the area.
- There is a wetland so sometimes of the year the non-perineal river is flowing and sometimes it's not (seasonal)
- There are three legal dams to capture the water. So, if it rains it will overflow. We did some groundwork to divert the water out faster
- The road goes through the project area
- There is a pipeline going through portion 3 and 4
- There are 4 ESKOM powerlines and an additional 2 will be added. The servitude is ready and has been paid for
- Delmas colliery is an underground mine that is already mining under portion 7. The house is standing on a pillar. The farm hose started to crack at some point but Delmas colliery stabilized the column.
- Another concern is that if you start mining on that side you will close the access routes to the farms.
- One doesn't know how the area will be mined. It will probably be underground as coal is deep here.
- I think what's best is to transpose the borehole locations onto a google map which will show all features.
- We have created water courses to drain water out of the fields, so they are manmade
- I have water rights on portion 7 and brail logistics operate on the Hawerklip rail siding. They export coal for universal and Eskom. They have the water license



and they use that water for dust suppression. If anything happens to these boreholes, I will lose an income of R140k monthly.

- This is a sensitive area. There is an informal settlement on the boarder
- If Delmas colliery are mining this area, how is it a part of your application?
- We have had numerous instances of overlapping
- With regards to portion 14 Borehole if you can place it away from the fields as site establishments and traffic will compact the land. But you may drill anywhere in the waterway
-

The Consultant Remarks:

- Two maps, Regulation map illustrating the features in the area and the geology map illustrating the coal formation. There are 15 proposed boreholes.
- Regulation map shows a non-perineal river flowing but we didn't see it during site assessment.
- There are 5 proposed boreholes on portion 7 and 1 on portion 14. These are not final and can be moved should there be a need.
- During consultation with Delmas colliery, it was mentioned that they have rights somewhere on our prospecting application so they will confirm the portions.
- Currently we are in the process of prospecting so we haven't reached the stage of the mine layout logistics. The Applicant wants to prospect/check if there is a viable coal resource
- The proposed boreholes are preliminary plans we use to engage with stakeholders and landowners. Based on your comments regarding the groundwork or sensitivity we might have to shift boreholes. Once we have a clear and detailed site assessment we will finalize the position of the boreholes. This map is planned according to the geological map. We will have to include 500m buffer from wetland/waterbodies and 100m from infrastructure
- We will have to investigate how we got acceptance for the Delmas colliery portion after the representative has shared documents. We will also investigate when they were accepted and when their rights expire as the SAMRAD system shouldn't accept our application if there are already rights in the area



- Our acceptance letter refers to consultation and site assessment and not as rights to drill
- So we must check validity of Delmas colliery rights
- The supporting documents will be sent via email and final submission is in August

Way Forward:

- Before going forward, you need to investigate portion 7 rights
- Draft will be sent via email
- Decision will be communicated by DMR then only can we engage in terms of compensation



Attendance Register

SINGO CONSULTING (Pty) Ltd	
Meeting venue: Schuurman Bredaey	
Date: 06-07-2020	
Time: 10:00 am	



ATTENDANCE REGISTER						
No.	Name & Surname	Designation	Company/LandOwner/ Other(Specify)	Contact Details	Email Address	Signature
1	Nokuthula Nkosi	Consultant	Singo Consulting	07607404	nokuthula@singoconsulting.co.za	[Signature]
2	BRETT PATRICK	PP OWNER	SCHURMAN	0716783730	BRETT@WITKLEIP.CO.ZA	[Signature]
3	Tommie Ocker	PP OWNER	Cygnus Farming	0823881012	tommie@cygnusfarming.co.za	[Signature]
4						
5	Owen Nethintha	consultant	Singo Consulting	0767756359	Owen@singoconsulting.co.za	[Signature]
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Minutes prepared by:



AARTOON MINING (PTY) LTD MEETING WITH PTN 18 LANDOWNER

Date: 09th July 2020

Time: 09:15 am

Location: Zoom Online Meeting

Attendees:

Landowner: Nkaki Matlala

Singo Consulting (Pty) Ltd: | Owen Netshiavha | Nkosi Nokuthula

Meeting Objective: Inform and engage with landowner of ptn 18 regarding the prospecting right application submitted on portions of the Middelburg Alias Matjesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Consultant Remarks:

- Aartoon Mining (Pty) Ltd is a new establishment lead by Mr. Harry Kekana
- Singo Consulting (Pty) Ltd was appointed as the EAP to foresee the PPP and BA & EMPr
- Total area of proposed project is 468.95 ha
- Application was lodged in March but due to Covid-19 Lockdown Regulations we could not carry out assessments required thus there has been an extension to the timelines.
- 15 planned boreholes and 2 are within portion 18
- 0.9 ha disturbance per borehole.
- The proposed borehole map will be sent via email. This is preliminary so it is not the final borehole map meaning you have a say in the positioning of the boreholes should the proposed areas affect your development/infrastructure.
- Entire process is transparent so all information will be shared with you including results of the coal.



- DMR correspondence will be shared

The Landowner Questions and Answers:

- Date for drilling?
 - It can take 4-6 before we have a set date and that is if the right is granted.
- According to that answer drilling will commence during planting and plowing season
 - No. Drilling will be done at a convenient time where your operations are not disturbed. A Prospecting Right is a right that lasts for 5 years so it is not compressed in short amount of time.
- What does it mean for me when you find the desired resource?
 - A way forward will be dependent on the client. They may either apply for a mining permit or mining right. Engagement between the landowner and the applicant will commence to reach an agreement. ,

Way Forward:

- Draft EMPR will be sent for review



2. Proof of Attendance

Minutes prepared by:



Annexure F for proof of placement)



Office No: 6 Springbok Park Tasbet Park Ext 17 Witbank, 1040 P/Bag X7214, Postnet Suite 125, Witbank, 1035, Mpumalanga Province, ZA
T: +27 78 2727 839/072 081 6682 F: +27 86 5144 103; kenneth@singoconsulting.co.za

12. The Environmental attributes associated with the alternatives

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

As discussed in the previous section, Aartoon Mining (Pty) Ltd applied for prospecting rights over the area interest in the close vicinity of the coal mines. Based on the outcomes of that study, the possibility to encounter further coal reserves on the properties subject to this Prospecting Right Application was identified.

The company therefore applied for prospecting on the properties as discussed in this report to determine the presence of coal, and whether these are feasible to enter into further studies towards a Mining Right. No alternatives are available that will have an impact on a different setting than the environment discussion provided for below.



12.1 Baseline Environment

Type of environment affected by the proposed activity

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

12.1.1 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.

Topography in a narrow sense involves the recording of relief or terrain, the three-dimensional quality of the surface, and the identification of specific landforms. This is also known as geomorphometry. In modern usage, this involves generation of elevation data in digital form (DEM). It is often considered to include the graphic representation of the landform on a map by a variety of techniques, including contour lines, hypsometric tints, and relief shading.

Topography is an important factor in site analysis. If a site is flat, topography will not affect the location and layout of the building. But on a sloping site topography is a significant factor. The slope of a site or slope of an adjacent site will affect the access of sun & views. Topography refers to the slope and level of the land, whether the land is flat and plain, or in sloping. Topography is a measurement of elevation and slope is the percentage change in that elevation over a certain distance. Topography is measured by connecting points of same elevation. These points are known as the topographic contours. Slope is measured by the distance between one point to another point and this distance is divided by the lateral distance between them.



Mpumalanga

Topographic maps > South Africa > Mpumalanga > Mpumalanga

Click on the map to display elevation.

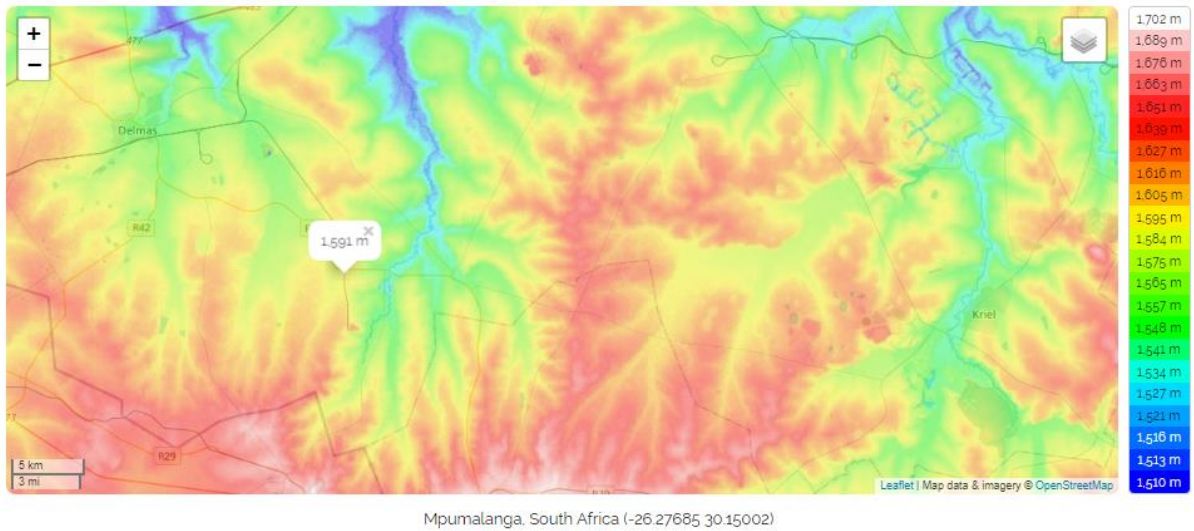


Figure 18: Topography of Mpumalanga Province

The proposed project site falls within the Mpumalanga region which has generally steep topography, typical of the region. However, the proposed project area falls on a more uniform plane. **Figure 19** below illustrates the topology of the proposed project area consisting of mostly level ground and has an average height above sea level ranging from 1580 masl to 1590 masl



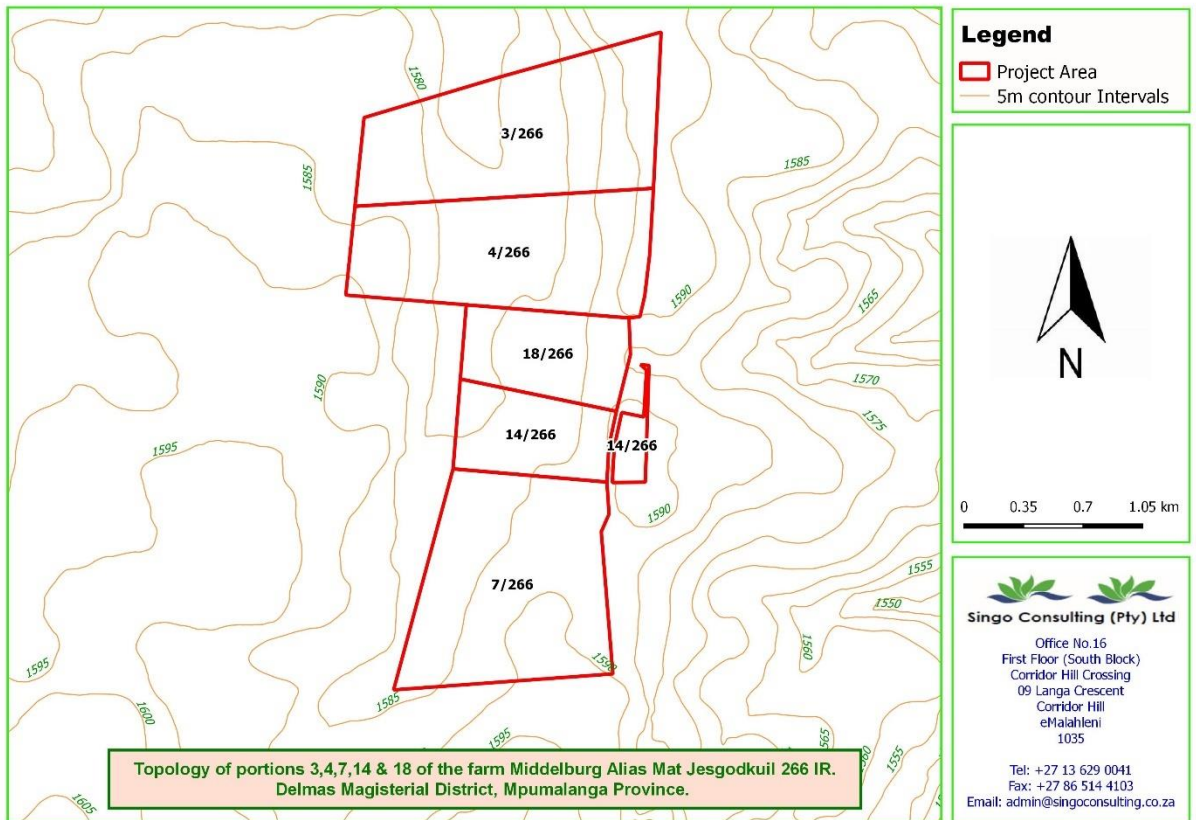


Figure 19: Topographical map

12.1.2 Climate

Climate (from Ancient Greek klima, meaning inclination) is commonly defined as the weather averaged over a long period. The standard averaging period is 30 years, but other periods may be used depending on the purpose. Climate also includes statistics other than the average, such as the magnitudes of day-to-day or year-to-year variations. The Intergovernmental Panel on Climate Change (IPCC) 2001 glossary definition is as follows: Climate in a narrow sense is usually defined as the “average weather,” or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years. The classical period is 30 years, as defined by the World Meteorological Organization (WMO). These quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

The difference between climate and weather is usefully summarized by the popular phrase “Climate is what you expect, weather is what you get.” Over time spans there are a number of nearly constant variables that determine climate, including latitude, altitude, proportion of land to water, and proximity to oceans and mountains.



Climate data was obtained from World Weather Online which records the temperature, rainfall, wind speed and humidity for the varying seasons.

Rainfall and Temperature

Delmas normally receives about 688mm of rain per year, with most rainfall occurring during mid-summer. It receives the lowest rainfall in winter and the highest in January. The difference in precipitation between the driest month and the wettest month is 123 mm. Figure 20 below illustrate the annual rainfall experienced within the proposed project area.

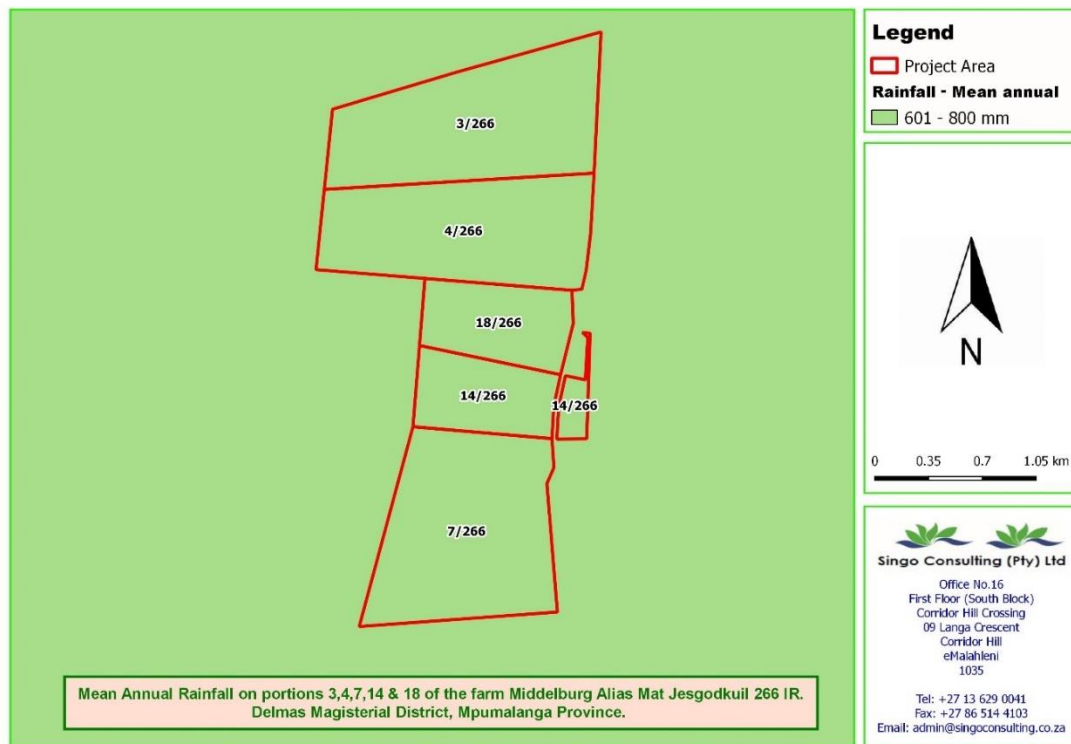


Figure 20: Average Annual Rainfall



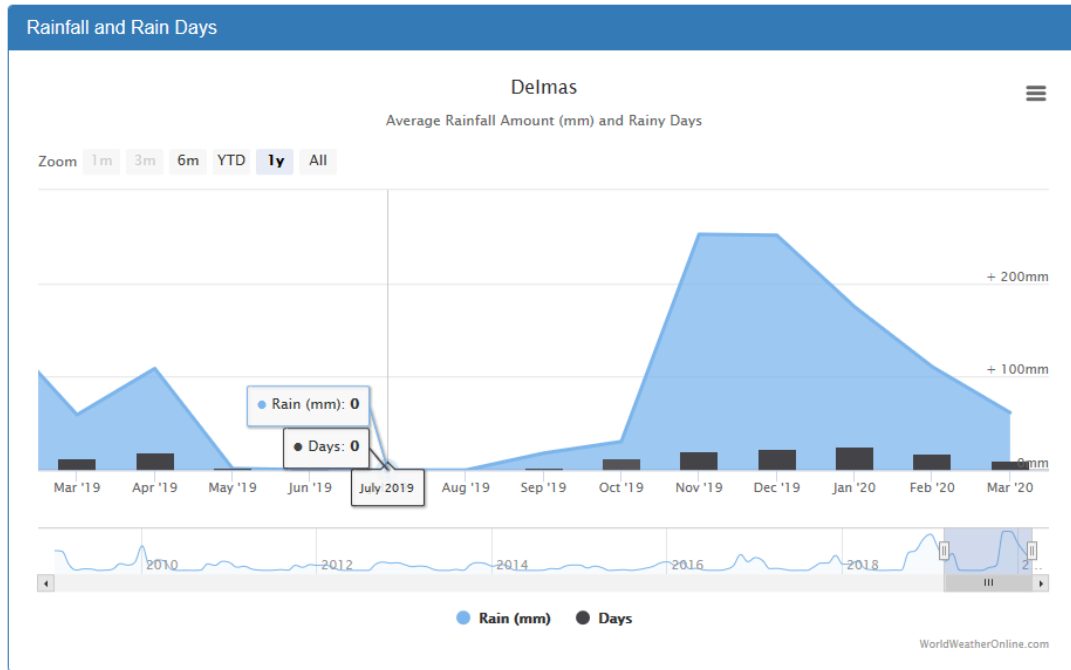


Figure 21: Rainfall in Delmas (Source: WorldWeatherOnline.com)

The average midday temperatures for Delmas ranges from 22.3°C in June to 31.9°C in January. The region is the coldest during July when temperatures drop to 3.7°C on average during the night.

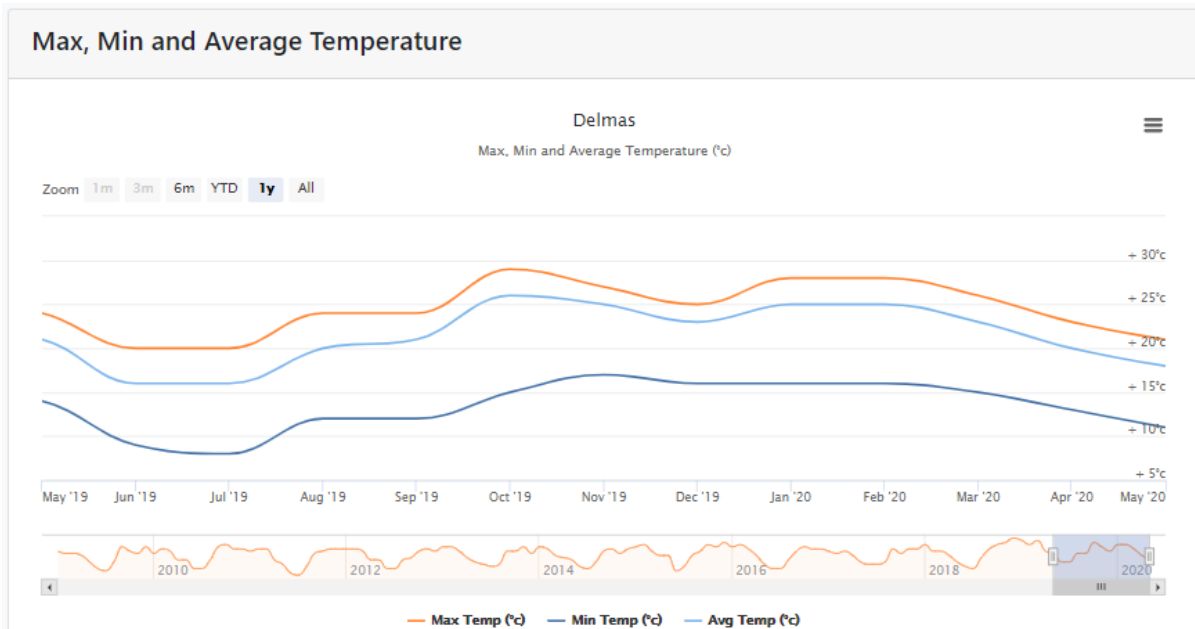


Figure 22: Max, Min and Average Temperature



12.1.3 Air Quality

The assessment of the ambient air quality is based on available ambient air quality information identified in the literature review and data supplies by the Department of Environmental Affairs (DEA) and the South African Weather Service (SAWS).

Regional Ambient Air Quality

Mpumalanga experiences a wide range of both natural and anthropogenic sources of air pollution ranging from veld fires to industrial processes, agriculture, mining activities, power generation, paper and pulp processing, vehicle use and domestic use of fossil fuels. Different pollutants are associated with each of the above activities, ranging from volatile organic compounds and heavy metals to dusts and odours.

Ambient air quality in Mpumalanga is strongly influenced by regional atmospheric movements, together with local climatic and meteorological conditions. The most important of these atmospheric movement routes are the direct transport towards the Indian Ocean and the recirculation over the sub-continent (Scholes, 2002). It is these climatic conditions and circulation movements that are responsible for the distribution and dispersion of air pollutants within Mpumalanga and between neighbouring provinces and countries bordering South Africa.

Mpumalanga experiences distinct weather patterns in summer and winter that affect the dispersal of pollutants in the atmosphere. In summer, unstable atmospheric conditions result in mixing of the atmosphere and rapid dispersion of pollutants. Summer rainfall also aids in removing pollutants through wet deposition. In contrast, winter is characterized by atmospheric stability caused by a persistent high-pressure system over South Africa. This dominant high-pressure system results in subsidence, causing clear skies and a pronounced temperature inversion over the Highveld. This inversion layer traps the pollutants in the lower atmosphere, which results in reduced dispersion and a poorer ambient air quality. Preston-Whyte and Tyson (1988) describe the atmospheric conditions in the winter months as highly unfavourable for the dispersion of atmospheric pollutants.





Figure 23: Major Source of Pollution in Mpumalanga

Plumes emitted at night from stacks during stable conditions can be transported up to thousands of kilometres downwind of the source before reaching ground level in a well diluted state. During daytime however, strong convection currents transport plumes upward and downward whilst drifting downwind (Mpumalanga State of Environment report, 2003). Pollutants thus reach ground level close to the point source of emission and are well diluted due to convective mixing (Turner, 2001). Emissions at low levels (such as from mine residue deposits, households, or vehicles) do not disperse much at night because of the atmospheric stability, resulting in high concentrations of pollutants at ground level despite the relatively low emissions quantities. During the day, these low-level emissions are readily mixed into the convective layer close to the earth's surface (Turner, 2001), which results in lower concentrations of pollutants at ground level and better air quality.



According to AccuWeather.com, the current air quality in Delmas is fair (see

DELMAS CURRENT AIR QUALITY

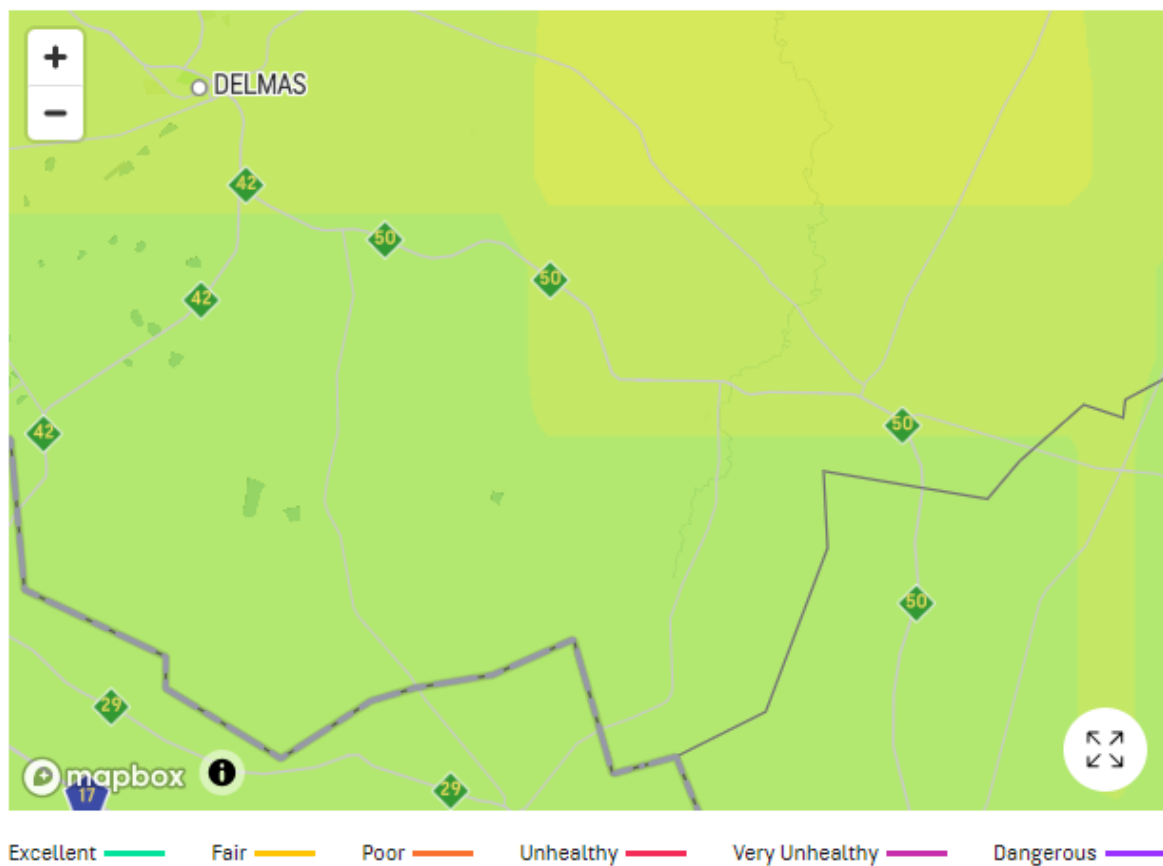


Figure 24: Delmas Air Quality (Source: www.accuweather.com)

12.2 Geology

According to Wikipedia, geology is defined as an earth science that focuses on the solid Earth, the rocks of which it is composed, and the processes by which they change over time.

12.2.1 Regional Geology

The coal bearing Vryheid Formation of the Ecca Group has been extensively investigated during the twentieth century by various authors of which some are Le Blanc Smith (1980), Falcon (1981,1988), Winter (1985), Cadle (1986) and Cairncross (1986). The Pietermaritzburg Formation shales, the basal part of the Ecca Group, are absent in the Witbank Coalfield thus the Vryheid Formation either conformably overlies the glaciogenic Dwyka Formation or unconformably overlies the pre-Karoo basement (Cairncross, 1987). This background discussion focuses primarily on the palaeo depositional environments and stratigraphy of the Vryheid Formation in the Witbank Coalfield. However, broad similarities and contrasts between



the latter and the adjacent Highveld Coalfield have been found and comparatively compiled by Jeffrey (2001).

A generalised stratigraphic column of the Vryheid Formation in the Witbank with lithologies, coal seams and interpreted depositional environments. In the Witbank Coalfield the pre-Karoo rocks pre-dominantly consist of Rooiberg felsites of the Proterozoic Bushveld Complex forming palaeo topographic ridges and valleys. The pre-Karoo basement owes its rugged topographical character to the scouring effect of the PermoCarboniferous Dwyka glaciers and continental ice sheets prior to the deposition of the coal bearing Vryheid Formation sediments (Snyman, 1998). According to the work of Cairncross (1989), the sediment dispersal and distribution of the coal seams was largely controlled by the undulating preKaroo topography.

Extensive deposits of glacial moraines and glaciolucustrine varved sediments are evidence of glaciation dominated sedimentary processes. Subsequently to those a reworked glaciofluvial outwash plain emanated from the northward retreating ice sheets as a consequence of climatic amelioration. Immediately after this active sedimentation took place, peat accumulated on the glaciofluvial sedimentary platform (Cadle et al., 1990).



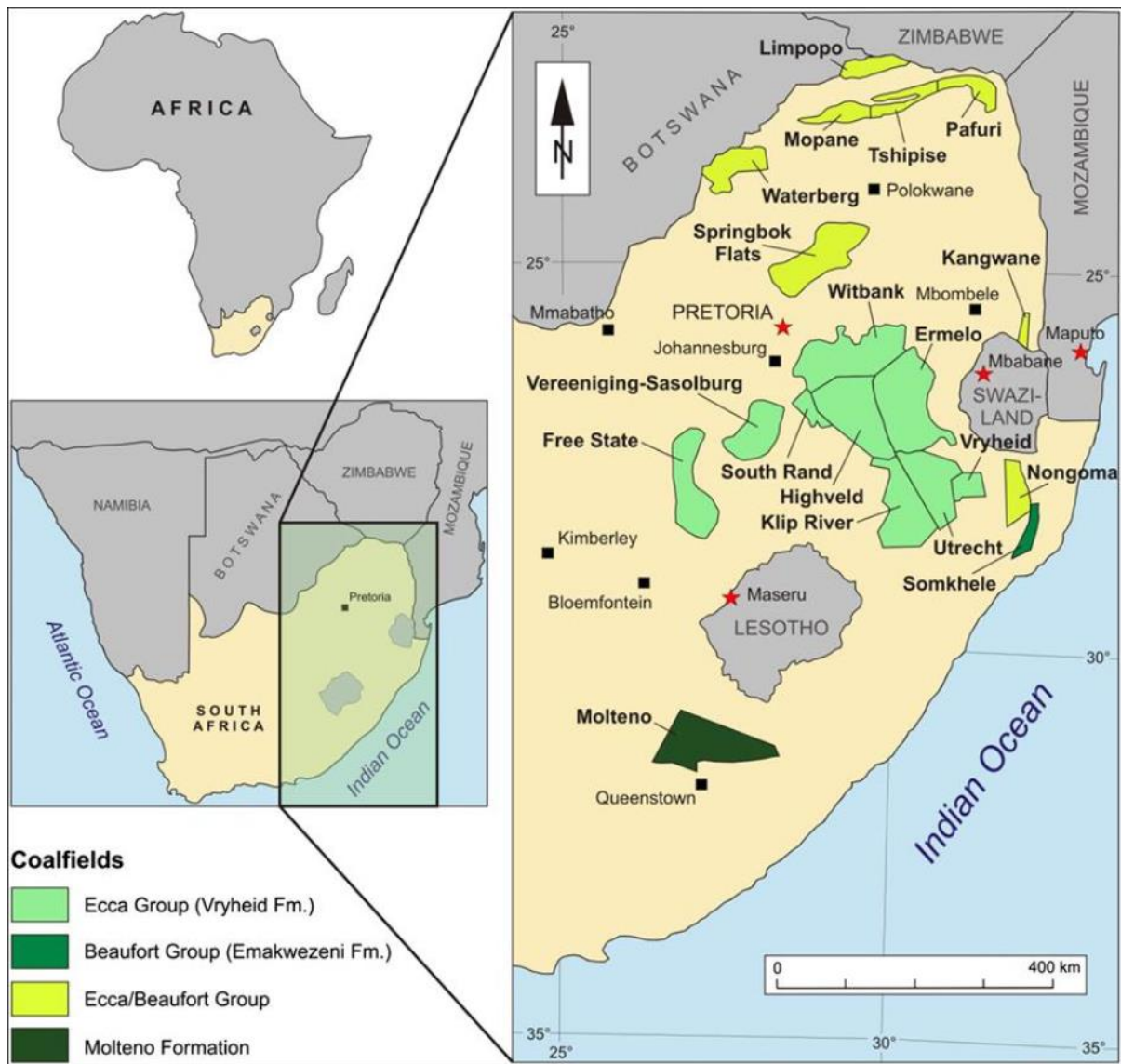


Figure 16: Regional Geology

In the Springs-Vischkuil block the coal seams are inconsistently developed, and where present, more closely resemble those of the South Rand Coalfield. Three seams: Top, Mid and Bottom seams are recognized. The Top and Mid seams can possibly be correlated with the No.5 and No.4 and No.3 seams of the Witbank Coalfield and the thicker Bottom seam appears to represent a combination of the No.2 and No.1 seams.

Dolerite intrusions, in the form of dykes and sills, have adversely affected certain parts of the Coalfield. Large areas of coal-bearing ground have been devolatilised or burnt and rendered unsuited to exploitation. Transgressive sill intrusions can cause significant displacement of seams, which seriously affects exploitation in many areas.



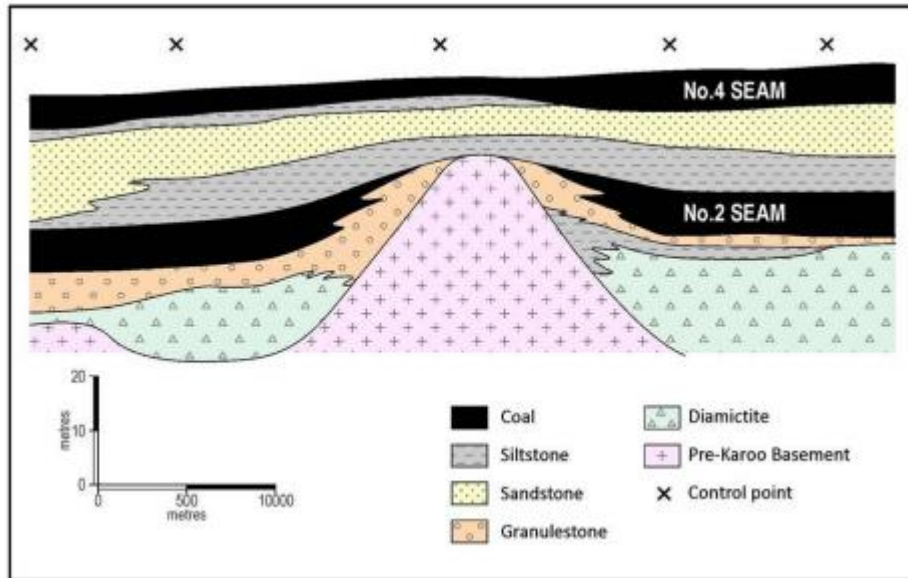


Figure 25: Undulating pre-Karoo palaeo-topographic terrain

12.2.2 Local Geology

The Witbank Coalfield extends from Brakpan in the west through to Belfast in the east. The northern boundary is a very irregular sub-crop against the pre-Karoo basement rocks of predominantly Waterberg sandstones with the most northerly limit about 15km NW of Witbank, with many “inlets” to the east and west. The south boundary is a prominent pre-Karoo felsite contact called the Smithfield ridge. This basin was first exploited in the late 1800s in the Brakpan (Apex Mines) region and has been the focus of concerted exploration and exploitation ever since. The basin is a multiple seam deposit type with the development of five major seam horizons which may in places be composite seams.

The major controls for the development of the coal are proximity to undulations of the “basement” topography, through erosion channelling and sediment influx into swamp beds and finally erosion of the current erosion surface. The primary economic coal seams have been the No. 2 Seam and No. 4 Lower Seam and, in places, the No. 5 Seam. Structurally, the coal horizons are un-deformed with each displaying a very slight dip to the south east of less than a degree and minor discrete faulting events that have a south west to north east trend of graben features and other minor faulting events. The most distinctive post-depositional feature is the intrusion of dolerites related to the Lesotho Basalts that have resulted in a variety of sills and dykes of various ages. The most prominent of the dykes is the Ogies dyke, a 12 to 20m thick essentially vertical intrusion with an east-west strike. The No. 4 Dolerite sill, a 20 to 70m thick multiple flow event, has a preferential intrusion horizon above the No. 5 coal Seam, but in places it transgresses through the coal bearing strata to the pre-Karoo basement and forms in other places a barrier to erosion.



The project area is situated within the Witbank Coalfield. The Witbank Coalfield extends from Brakpan in the west through to Belfast in the east. The northern boundary is a very irregular sub-crop against the pre-Karoo basement rocks of predominantly Waterberg sandstones with the most northerly limit about 15 km NW of Witbank, with many "inlets" to the east and west. The south boundary is a prominent pre-Karoo felsite contact called the Smithfield ridge.

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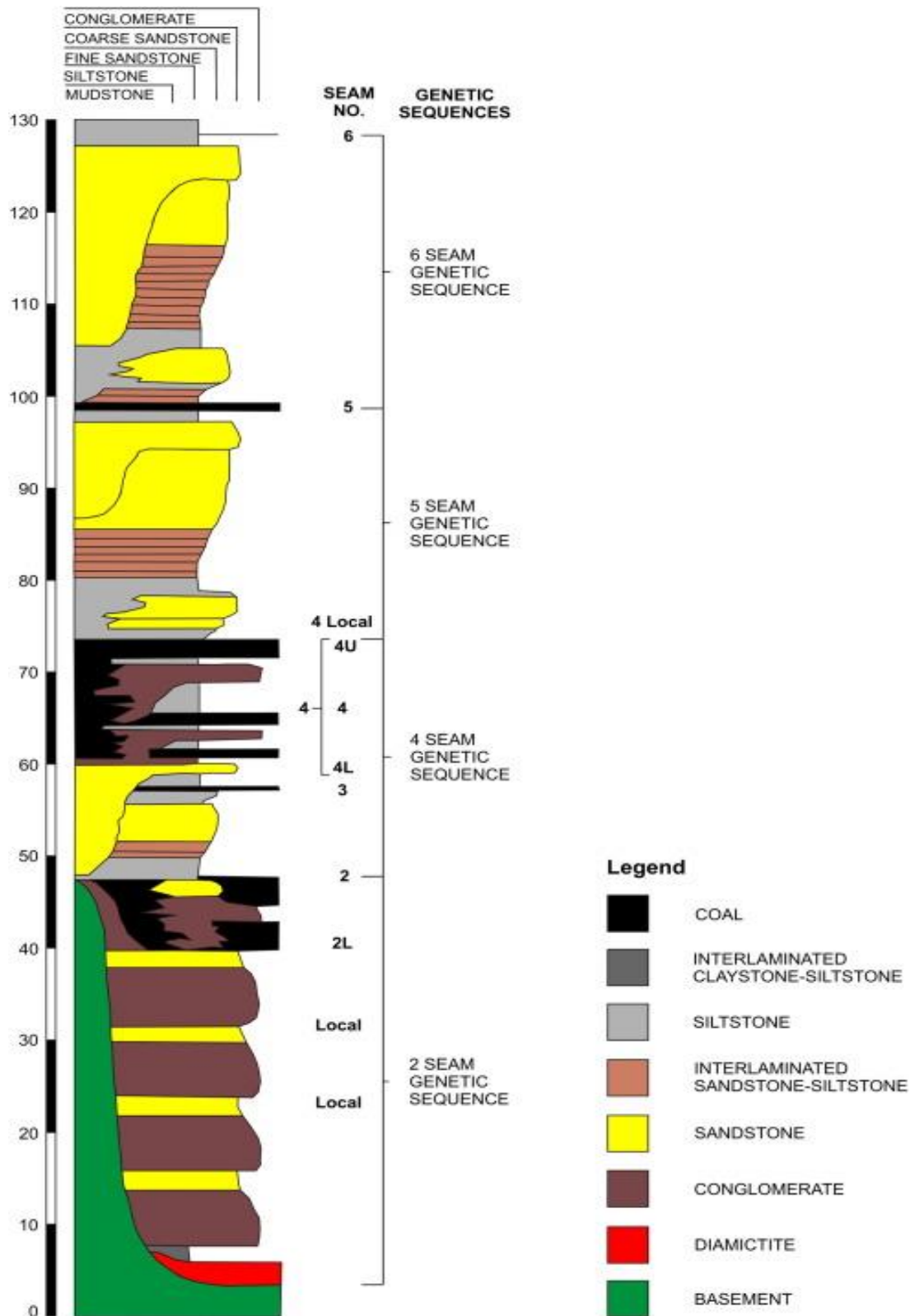


Figure 26: General stratigraphic sequence and coal seams of the Witbank Coalfield



12.2.3 Local Geology

The proposed project area is located within the Witbank Coalfield and underlain mostly by the Vryheid formation and Ecca group of the Karoo Supergroup which contains bands coal within its layers (see **Figure 27** below).

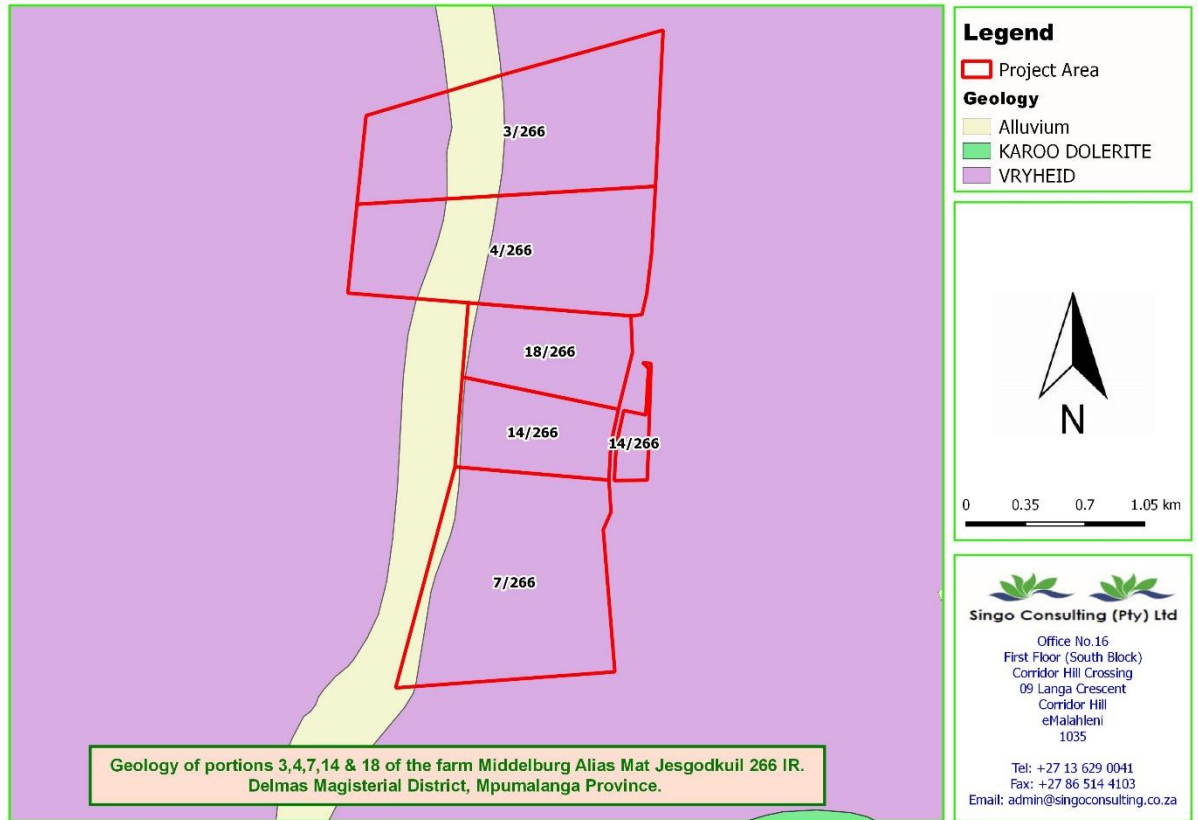


Figure 27: Geological map of the proposed project area

12.3 Soil Assessment

Soil is not only a support for vegetation, but it is also the pedosphere, the locus of numerous interactions between climate (water, air, temperature), soil life (micro-organisms, plants, animals) and its residues, the mineral material of the original and added rock, and its position in the landscape. During its formation and genesis, the soil profile slowly deepens and develops characteristic layers, called 'horizons', while a steady state balance is approached.

Soil users (such as agronomists) showed initially little concern in the dynamics of soil. They saw it as medium whose chemical, physical, and biological properties were useful for the services of agronomic productivity. On the other hand, pedologists and geologists did not initially focus on the agronomic applications of the soil characteristics (edaphic properties) but upon its relation to the nature and history of landscapes. Today, there is an integration of the two disciplinary approaches as part of landscape and environmental sciences.



Pedologists are now also interested in the practical applications of a good understanding of pedogenesis processes (the evolution and functioning of soils), like interpreting its environmental history and predicting consequences of changes in land use, while agronomists understand that the cultivated soil is a complex medium, often resulting from several thousands of years of evolution. They understand that the current balance is fragile and that only a thorough knowledge of its history makes it possible to ensure its sustainable use.

Soil science is the study of soil as a natural resource on the surface of the Earth including soil formation, classification and mapping; physical, chemical, biological, and fertility properties of soils; and these properties in relation to the use and management of soils.

Sometimes terms which refer to branches of soil science, such as pedology (formation, chemistry, morphology, and classification of soil) and edaphology (how soils interact with living things, especially plants), are used as if synonymous with soil science. The diversity of names associated with this discipline is related to the various associations concerned. Indeed, engineers, agronomists, chemists, geologists, physical geographers, ecologists, biologists, microbiologists, silviculturists, sanitarians, archaeologists, and specialists in regional planning, all contribute to further knowledge of soils and the advancement of the soil sciences.

Soil scientists have raised concerns about how to preserve soil and arable land in a world with a growing population, possible future water crisis, increasing per capita food consumption, and land degradation. Dependence on and curiosity about soil, exploring the diversity and dynamics of this resource continues to yield fresh discoveries and insights. New avenues of soil research are compelled by a need to understand soil in the context of climate change, greenhouse gases, and carbon sequestration. Interest in maintaining the planet's biodiversity and in exploring past cultures has also stimulated renewed interest in achieving a more refined understanding of soil.

Most empirical knowledge of soil in nature comes from soil survey efforts. Soil survey, or soil mapping, is the process of determining the soil types or other properties of the soil cover over a landscape, and mapping them for others to understand and use. It relies heavily on distinguishing the individual influences of the five classic soil forming factors. This effort draws upon geomorphology, physical geography, and analysis of vegetation and land-use patterns. Primary data for the soil survey are acquired by field sampling and supported by remote sensing



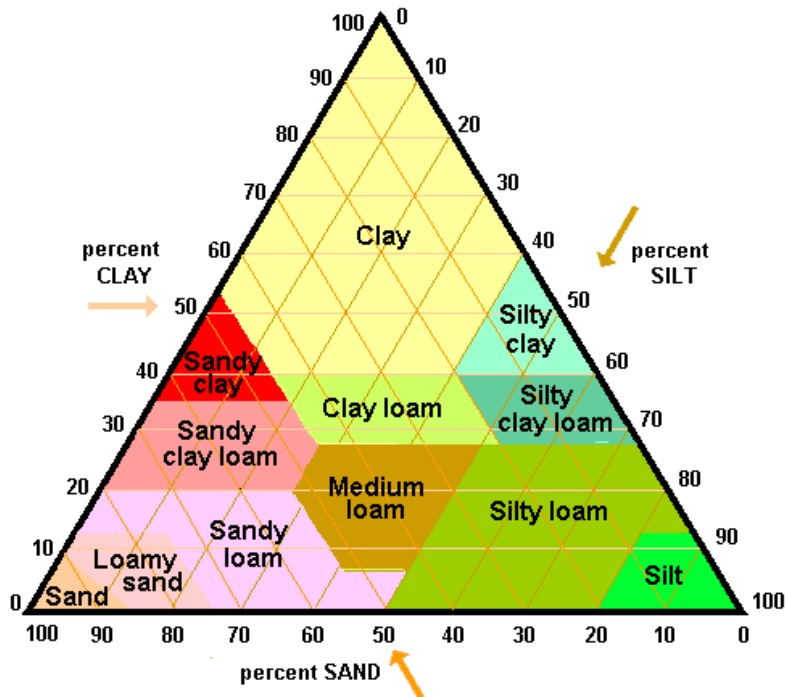


Figure 28: Soil Textural Triangle

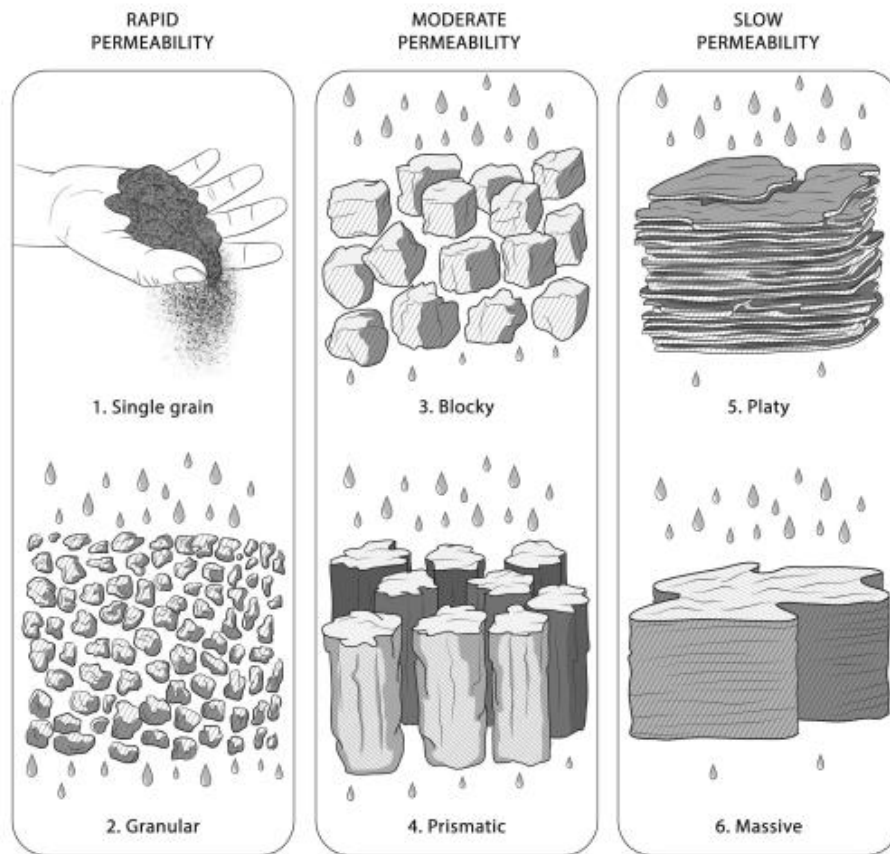


Figure 29: Soil Structure & Its Effects on Permeability



The proposed area of interest is composed of one dominant soil class namely red or yellow structureless soil. The main activity that is practiced on this area is farming and through site visit the soil colour encountered was a dark brown near the cultivated land and reddish yellow on the uncultivated parts of the land. The variation of soil colours from red and brown indicate a potential wetness gradient.

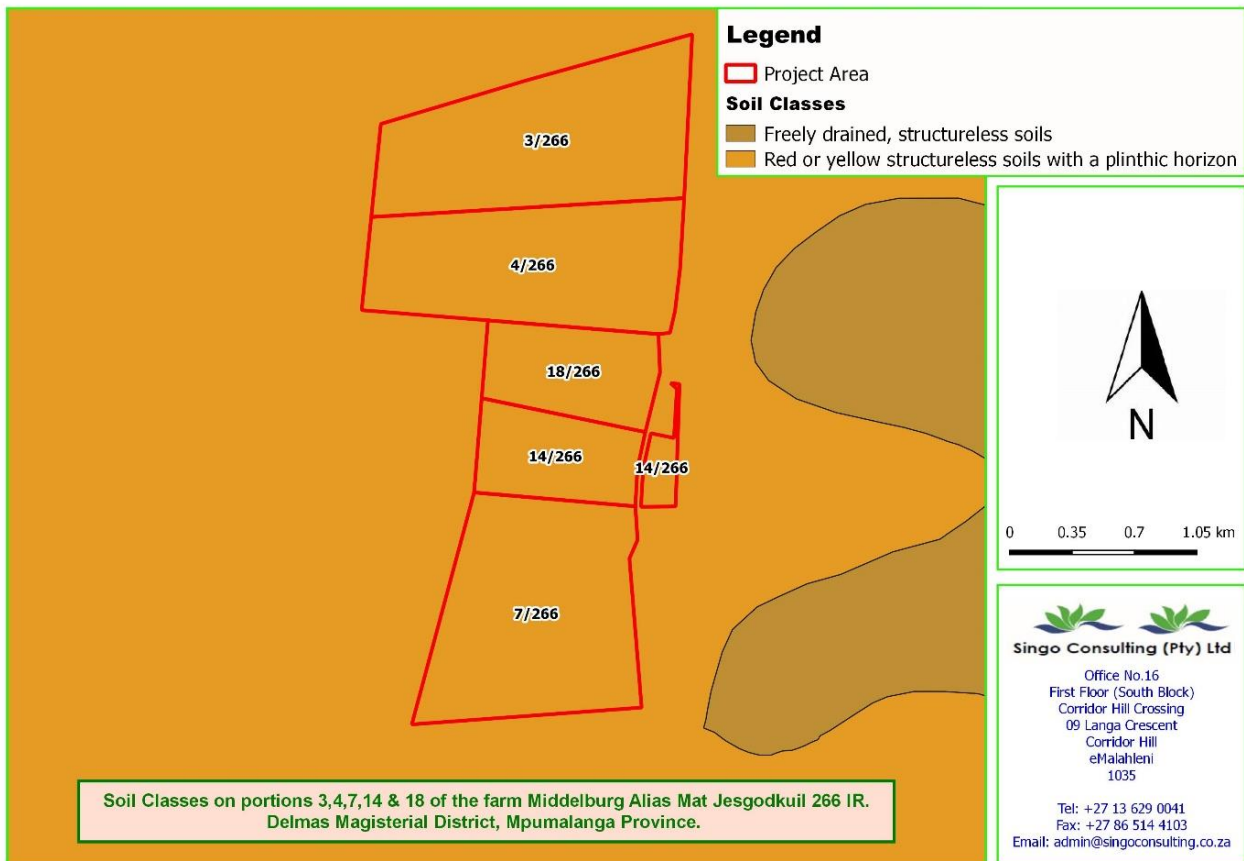


Figure 10. Soil class map of the proposed project area



Figure 30: Soil types observed on site



12.4 Water Resources

An excerpt from a Surface Water hydrology Report states that South Africa is divided into 19 water management areas (National Water Resource Strategy, 2004), managed by its separate water board. Each of the water management areas (WMA) is made up of quaternary catchments, which relate to the drainage regions of South Africa, ranging from A – X (excluding O). These drainage regions are subdivided into four known divisions based on size.

It further elaborates that the letter A represents the primary drainage catchment, A2 for example will represent the secondary catchment, A21 represents the tertiary catchment and A21D would represent the quaternary catchment, which is the lowest subdivision in the Water Resources 2005 Study (WR2012, 2015) manual. Each of the quaternary catchments have associated hydrological parameters including area, mean annual precipitation (MAP) and mean annual runoff (MAR) to name a few.

The project area falls within the north eastern boundary of the B20A quaternary catchments. The quaternary catchment B20A has a net mean annual runoff (MAR) of 25.60 million cubic meters (mcm), and is based on the (WR2012, 2015). The Bronkhorstspuit River has its headwaters at the B20A quaternary catchment, and eventually flows into the Wilge River further downstream, which joins the larger Olifants River. The Olifants River then flows eastwards into Mozambique beyond the Olifants WMA.



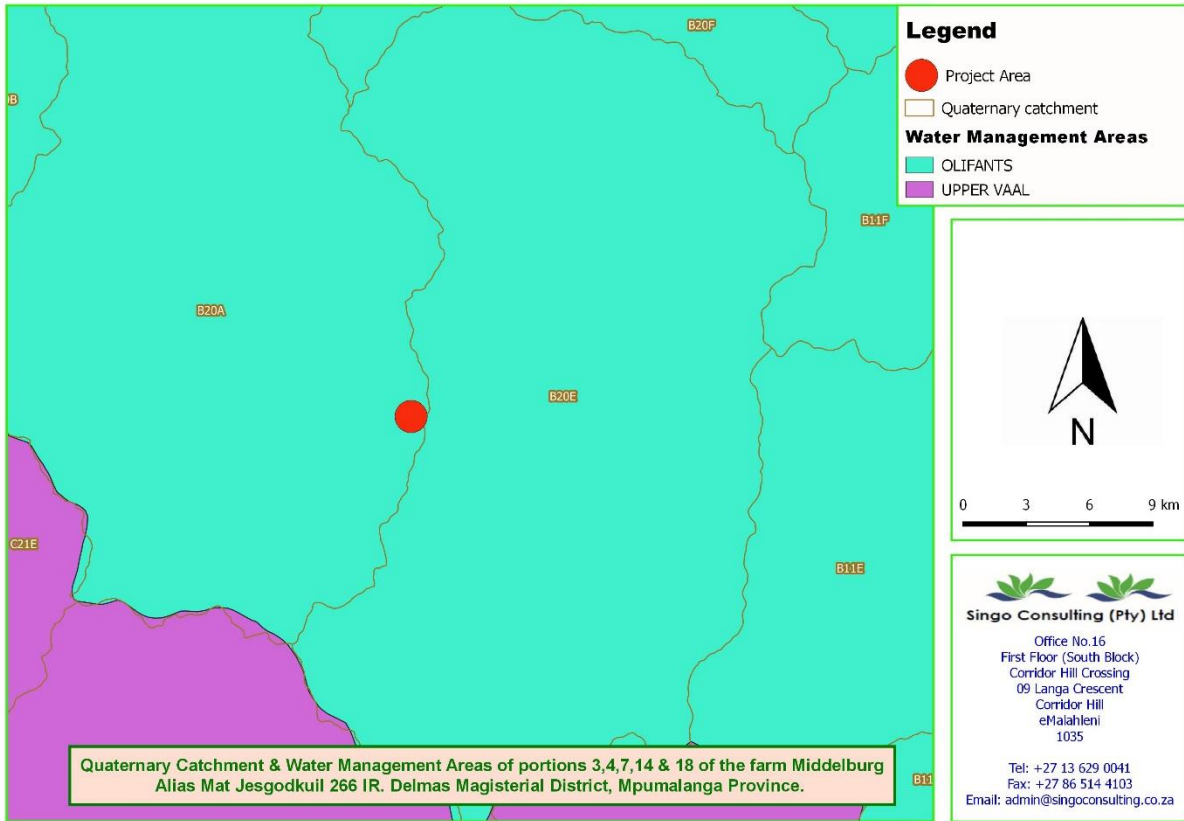


Figure 31: Quaternary catchment & water management area map

The proposed project area is located on the joint upstream boundary of the Olifants WMA and quaternary catchment B20A. All runoff emanating from the upstream boundary of the project area contributes to flow in the downstream tributaries of the Bronkhorstspuit. Average elevations at the upstream boundary of quaternary catchment B20A range from 1600 meters above mean sea level (mamsl) to 1690 mamsl and decreases to between 1570 – 1590 mamsl further downstream at the banks of the downstream tributaries. Average slopes range between 1% and 3 % and is characterised as flat.

12.4.1 Surface Water

According to the hydrology map below, there is a non-perennial river that transverses the proposed project area along with other water bodies. Furthermore, the presence of water bodies means that water resources on site must be protected. All activities must take place 500m away from the water bodies and if that cannot be then the water bodies must be channelled away from the site.



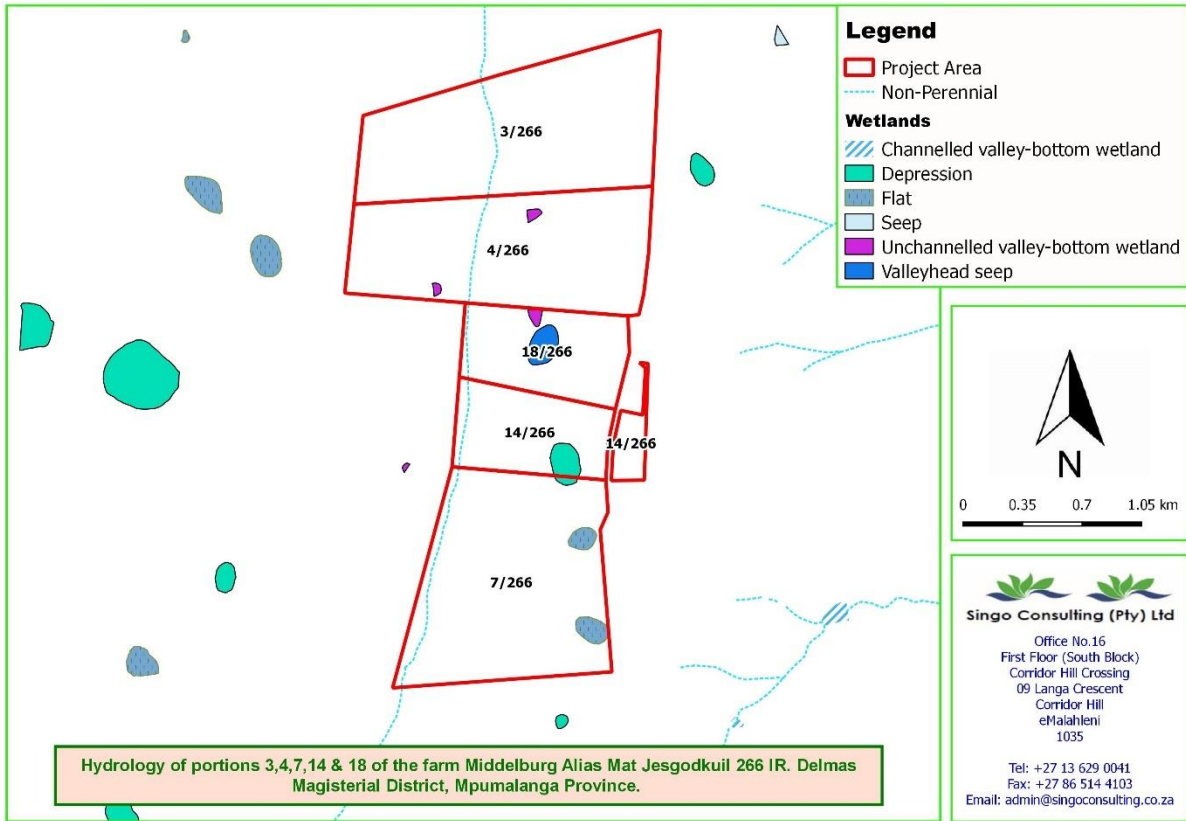


Figure 32: Hydrology Map of the proposed project area

No water bodies were observed during site assessment though it is a note that all activities must be conducted in a manner that ensures the protection of water resources from pollution; best practice guidelines must be applied. See Figure 33 for the hydrology buffer map of the applied for area should the water bodies be present during the rainy seasons.



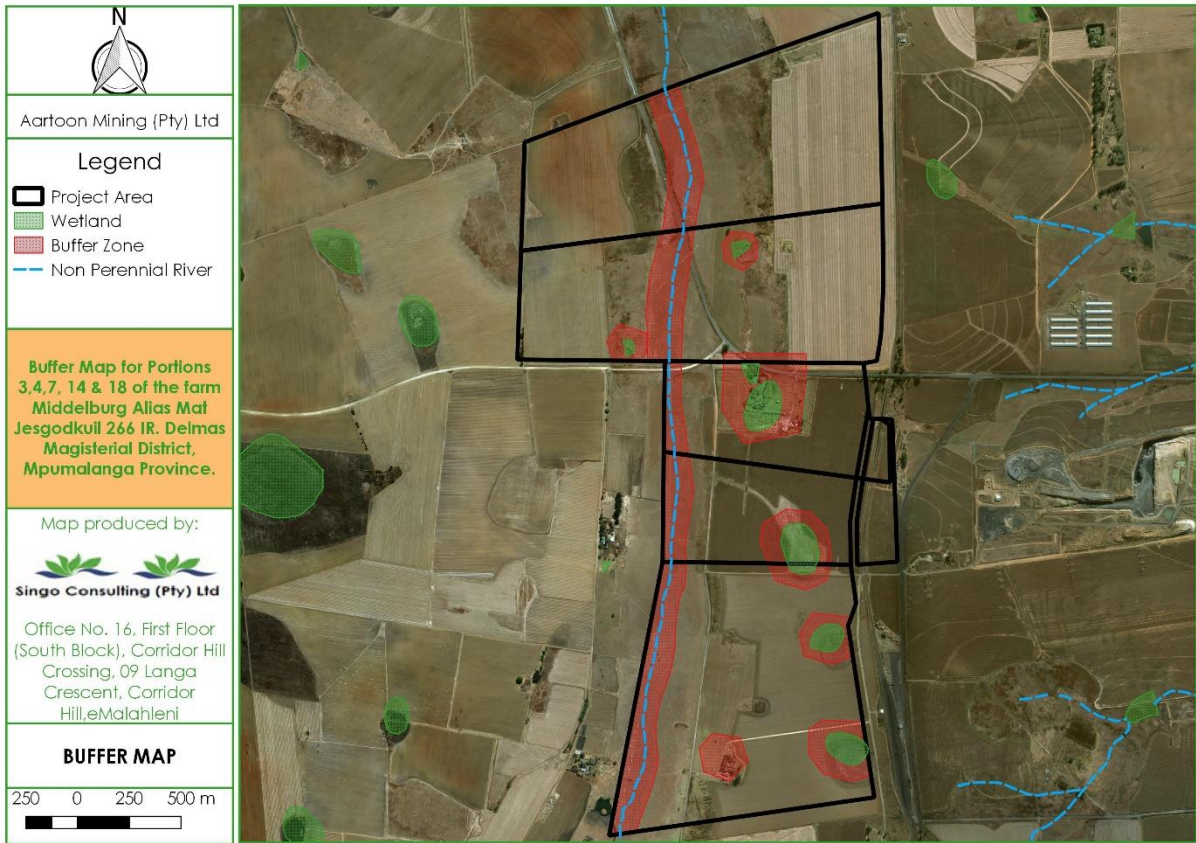


Figure 33: Buffer Map for Waterbodies within proposed project area

12.4.2 Ground Water

The rock types underlying the study site can be divided into two distinct aquifers, namely a shallow weathered aquifer and a deeper fractured aquifer (source: Trans alloys Groundwater Model – MVB Groundwater Consulting).

Shallow aquifer: This aquifer mainly comprises unconsolidated sand and clay. The depth of weathering based on the geological borehole logs and some field investigations varies between 0m to 12m in depth. Recharge to this aquifer occurs from rainfall as well as from surface water sources. (source: Trans alloys Groundwater Model – MVB Groundwater Consulting).

Deep fractured aquifer: A deeper fractured aquifer also underlies the study area in the fresh shale, sandstone and coal seams underlying the weathered material. The primary porosity of the Ecca Group rocks does not allow significant groundwater flow, except where the porosity has been increased by subsequent secondary structures, such as faults and dykes. No dykes were however, detected in the study area.



12.5 Flora and Fauna

12.5.1 Flora

Eastern Highveld Grassland

Eastern Highveld Grassland occurs in the Mpumalanga and Gauteng Provinces: It occurs in the plains between Belfast in the east and the eastern side of Johannesburg in the west and extending southwards to Bethal, Ermelo and west of Piet Retief. Altitude ranges from 1520 m to 1780 m, but also declines as low as 1300 m (Mucina & Rutherford, 2006). The vegetation is species-rich, wiry, sour grassland alternating with low, sour shrub land on rocky outcrops and steeper slopes. Most common grasses on the plains belong to the genera Themeda, Eragrostis, Heteropogon and Elionurus. High diversity of herbs, many of which belong to the Asteraceae, is also a typical feature. Rocky hills and ridges carry sparse (savannoid) woodlands with *Protea caffra* subsp. *caffra*, *Protea welwitschii*, *Acacia caffra* and *Celtis africana*, accompanied by a rich suite of shrubs among which the genus *Sersia* (*S. magalisonata*) is most prominent.

Rand Highveld Grassland

Rand Highveld Grassland occurs in Gauteng, North-West, Free State and Mpumalanga Provinces. In areas between rocky ridges from Pretoria to Witbank, extending onto ridges in the Stoffberg and Roosenekal regions as well as west of Krugersdorp centred in the vicinity of Derby and Potchefstroom, extending southwards and northwards from there. Altitude 1 300-1 635 m but reaches 1 760 m in places (Mucina & Rutherford, 2006). The vegetation is species-rich, wiry, sour grassland alternating with low, sour shrub land on rocky outcrops and steeper slopes. Most common grasses on the plains belong to the genera Themeda, Eragrostis, Heteropogon and Elionurus. High diversity of herbs, many of which belong to the Asteraceae, is also a typical feature. Rocky hills and ridges carry sparse (savannoid) woodlands with *Protea caffra* subsp. *caffra*, *Protea welwitschii*, *Acacia caffra* and *Celtis africana*, accompanied by a rich suite of shrubs among which the genus *Sersia* (*S. magalisonata*) is most prominent.



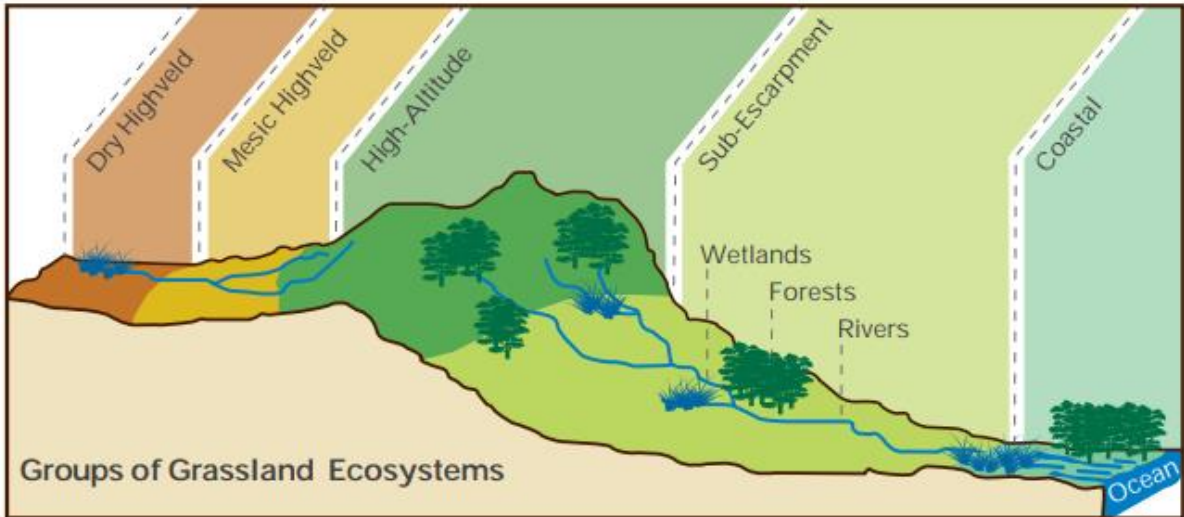


Figure 34: Groups of Grassland Ecosystems

The project area is composed of moist cool highveld grasslands on the northern side of the proposed project area and moist clay highveld grasslands on the southern end of the proposed project area.

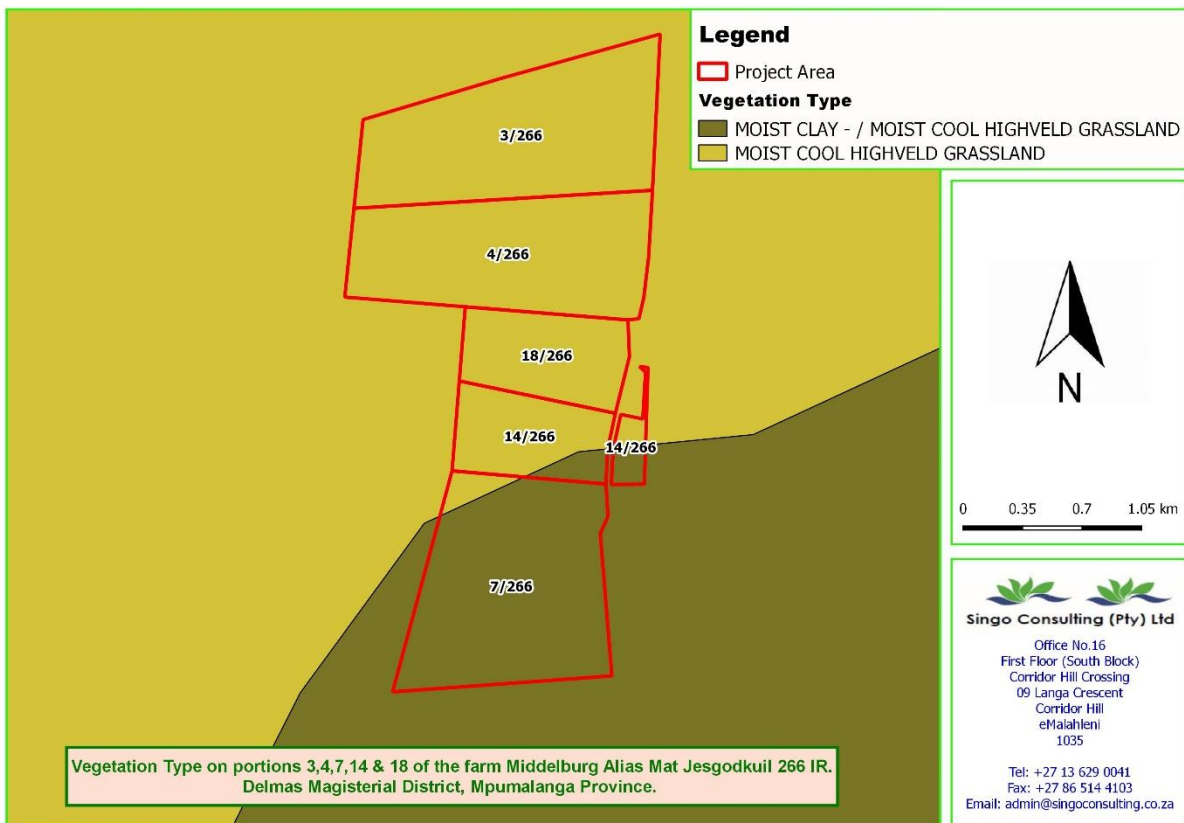


Figure 35: Vegetation Map of Proposed Project Area



Grasslands all over the world have experienced dramatic habitat destruction as a result of anthropogenic changes. The Highveld Grassland is no exception, with agriculture severely fragmenting this once-expansive region. This ecoregion now provides the last remaining stronghold of several grassland species that have suffered major reductions in abundance in the grassland biome, and which are consequently threatened with extinction (e.g. the blue crane (*Anthropoides paradisea*)).



Photo 1: Vegetation seen at the site

12.5.2 Fauna

Mpumalanga is faunally diverse with approximately 163 mammal species consisting of 98 smaller and 64 larger species. It is the objective of Mpumalanga Tourism and Parks Agency (MTPA) to conserve all these species in situ.

The grassland and forest biomes sustain many endemic and red data mammal species. The grassland biome is one of the biomes in which Red Data Book (RDB) insectivore richness is concentrated (Gelderblom, Bronner, Lombard & Taylor, 1995). High mammalian species richness occurs in savannahs, which could be because of the wide variety of habitats available.



In Mpumalanga Province, savanna areas with the availability of sufficient cover, karst areas, wetlands, pans, and a well-managed mosaic of short and tall grassland, are habitats that significantly contribute towards the ecological requirements of certain mammal species.

Upon site assessment, only cattle were spotted grazing on the proposed project area. AFGRI is adjacent to the proposed project area (see Photo 2 below).



Photo 2: Cattle Spotted during site assessment

Avifauna

According to Birdlife South Africa (BLSA), the study area does not fall within any Important Bird Areas (IBA), which has been highlighted as important conservation areas within South Africa (Birdlife South Africa, 2014). All avifaunal species seen or heard during the time of the assessment were recorded. Surveys were conducted across the entire study area and in the immediate surroundings. It must be noted that some migratory birds may not have been identified during the site survey period. The majority of the study area comprises of habitat suitable for grassland and wetland birds. Several bird species were identified, primarily throughout the transformed habitat areas and in and around the wetland areas and pans located in the study area.

In terms of avifaunal SCC, only *Geronticus calvus* (Southern Bald Ibis) was identified during the site survey (Photo 6). There is however a high probability that *Circus ranivorus* (African Marsh Harrier) and *Tyto capensis* (African Grass Owl) may possibly utilise the study area specifically for foraging purposes.



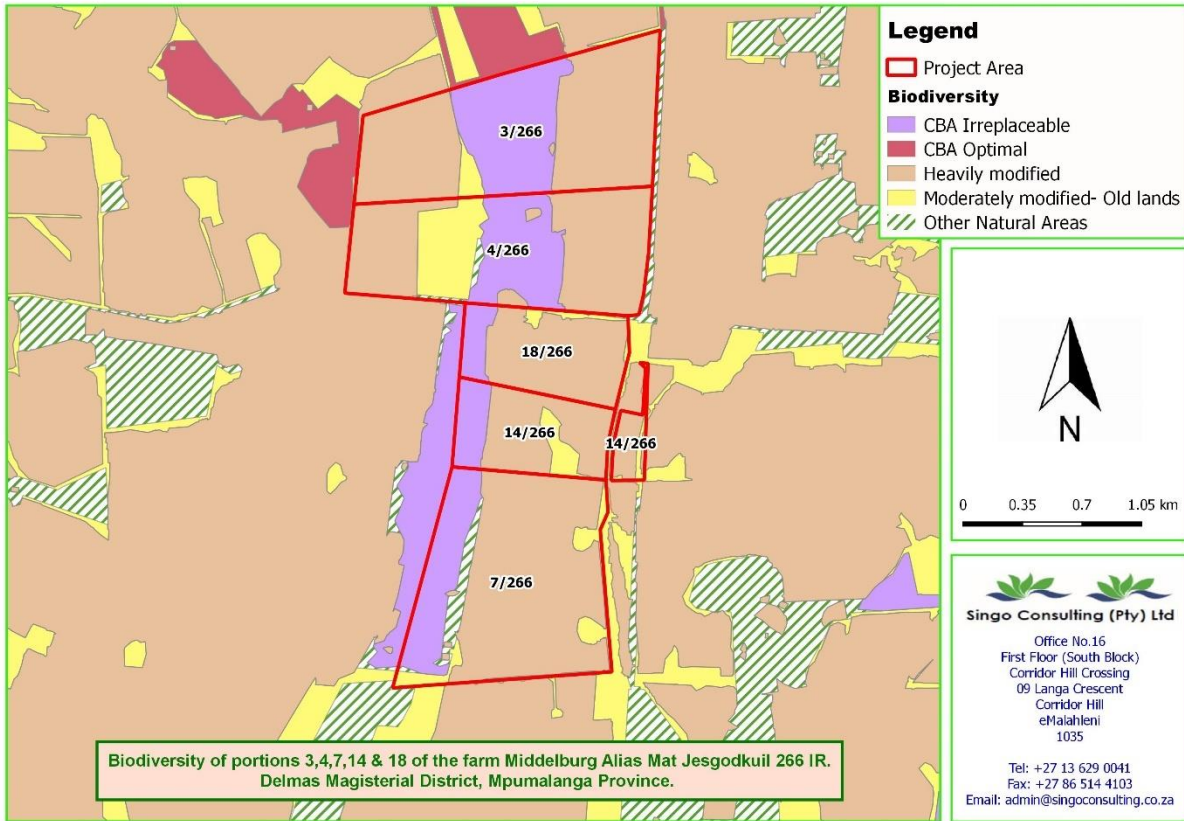


Figure 36: Critical Biodiversity Map of the Proposed Project Area

According to Figure 36 majority of the proposed project area falls on heavily modified land. The non-perennial river falls on the CBA Irreplaceable land thus we have a buffer in place (refer to Figure 33 for the buffer map).

All Flora and Fauna species will be conserved, & all potential impacts on Floral and faunal species will be managed using management framework stipulated on the National Environmental Management: Biodiversity Act (Act No. 10 of 2004).

12.6 Heritage Resources

Heritage resources such as Stone Age sites, rock paintings and engravings; stone tools; small, inconspicuous stone walled sites from the Late Iron Age farming communities; formal and informal graveyards, etc. may occur in the study area.

It is essential to note that it is possible that the Phase 1 HIA may have missed heritage resources in the project area, as some heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once development commences.

Should, however, any heritage resources of significance be exposed during the rather operational phase of the project, the South African Heritage Resources Authority (SAHRA)



should be notified immediately, all development activities should be stopped, and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary authorisation (permits) from SAHRA to conduct the required mitigation measures.

The site assessment revealed that there are graves within the proposed project area. Refer to Photo 3 below.



Photo 3: Graves identified on site

13. Socio-Economic Environment

The study area for the proposed projects is in the Victor Khanye Local Municipality (VKLM), strategically located within the Nkangala District in the Highveld of the Mpumalanga Province. It is situated on the border of the Gauteng Province and is the home of numerous mine operations producing coal and silica.

13.1 Population Distribution

The total population of Victor Khanye Local Municipality is approximately 75 452 persons, which amounts to 5,8% of the total Nkangala District Municipality population of 1 308 129 and 1,8% of the Mpumalanga province population of 4 039 939.



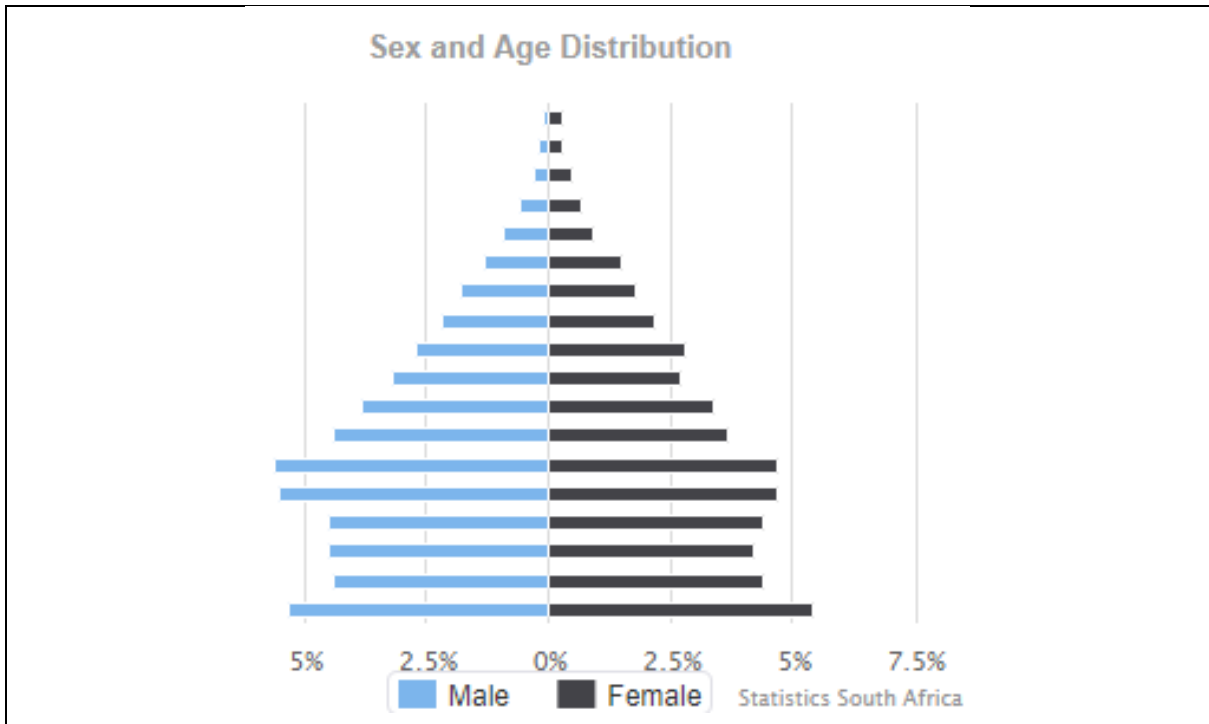


Figure 37: Population Distribution by Age and Gender (Source: Stats SA)

13.2 Economy

According to the draft 2020/2021 IDP, the growing sector is trade sector followed by the agriculture sector and the mining sector. During recent years, the total output of the agriculture sector experienced significant levels of growth while the mining and minerals sector declined.

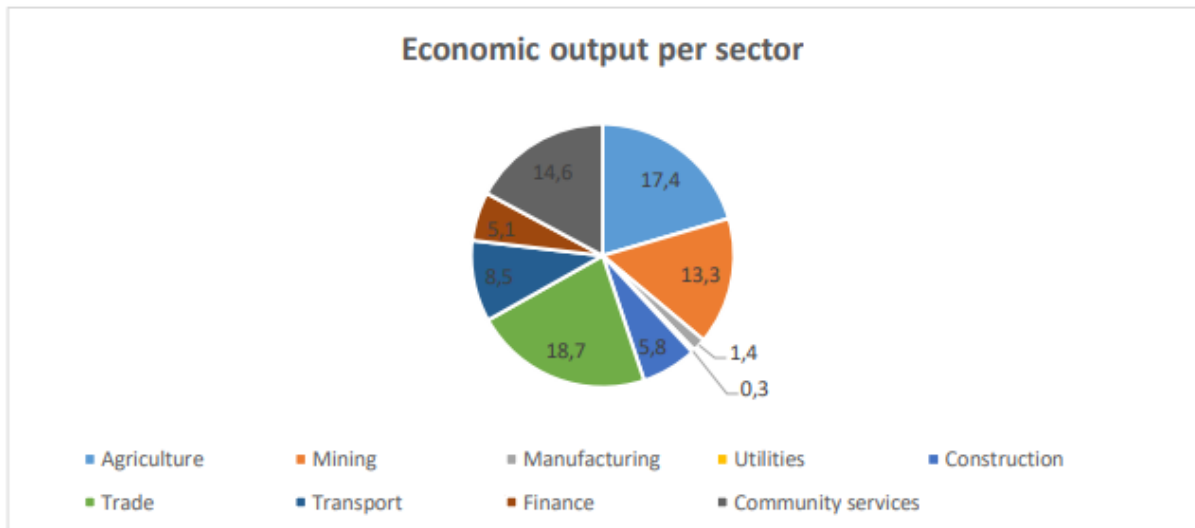


Figure 38: Output Per Sector (Source: Stats SA 2011)

13.3 Unemployment Rate

According to the municipal IDP, the unemployment level has been reduced from 28.2 to 21.6 in terms of Global insight figures this reduction is as a results of an increase in investments in our local economy. The employment situation is expected to improve over the medium term with



additional jobs expected in the mining sector. The latest statistic reflects that the employment level in the Victor Khanye Local Municipality is currently at 28, 9%. Based on the 2016 definition of Economically Active Population (EAP) of 30,415 the unemployment rate is reflected at 21.6, this represents an overall gain in employment compared to 2011 (Draft 2020/2021 IDP).

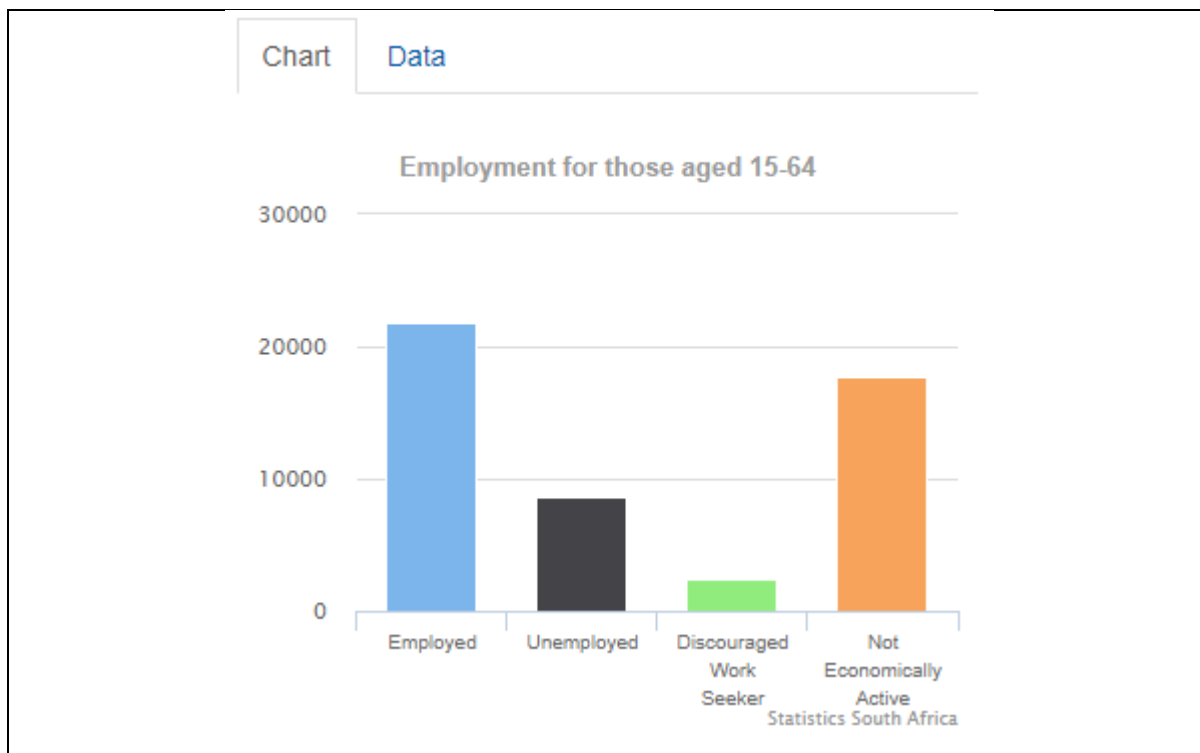


Figure 39: Employment Status (Source: Stats SA)

13.4 Income Distribution

According to the VKLM IDP, the income level per household is considered a better barometer of poverty and reflects that 42% can be classified as Indigent as they earn less than R1, 600 per month, as per Stats SA 2016. Not all these households have registered to qualify for access to free basic services as provided in the Indigent Policy guidelines. This issue is currently being progressed by the municipal administration.

There is a negative trend developing as more households are reportedly below the poverty line. The average household income level in the Victor Khanye Local Municipality areas is reflected as R80 239 per annum, ranking it 9th with respect the overall province statistics standing. The income levels by Ward are demonstrated below and show where the highest level of unemployment and subsequently high poverty conditions prevail (Draft 2020/2021 IDP)

14. Description of the current land uses

The determination of the existing site specific and surrounding land use provides input into the process of impact identification and the establishment of closure objectives. Site specific land



use has been confirmed as farming and prospecting activities may present a disturbance to the current vegetation. Rehabilitation objectives to restore the site to pre-prospecting state must consider safety matters and an effective re-vegetation effort to reverse the impacts as far as is practicable.

According to the land use map below the prospecting area comprises mostly of cultivated land which allows for the farming of grains. A non-perennial river runs through the natural lands on the eastern side of the proposed project area although it was dry during site assessment. No water bodies were observed during the site assessment. This could differ during rainy seasons and thus a buffer will be made to protect waterbodies.

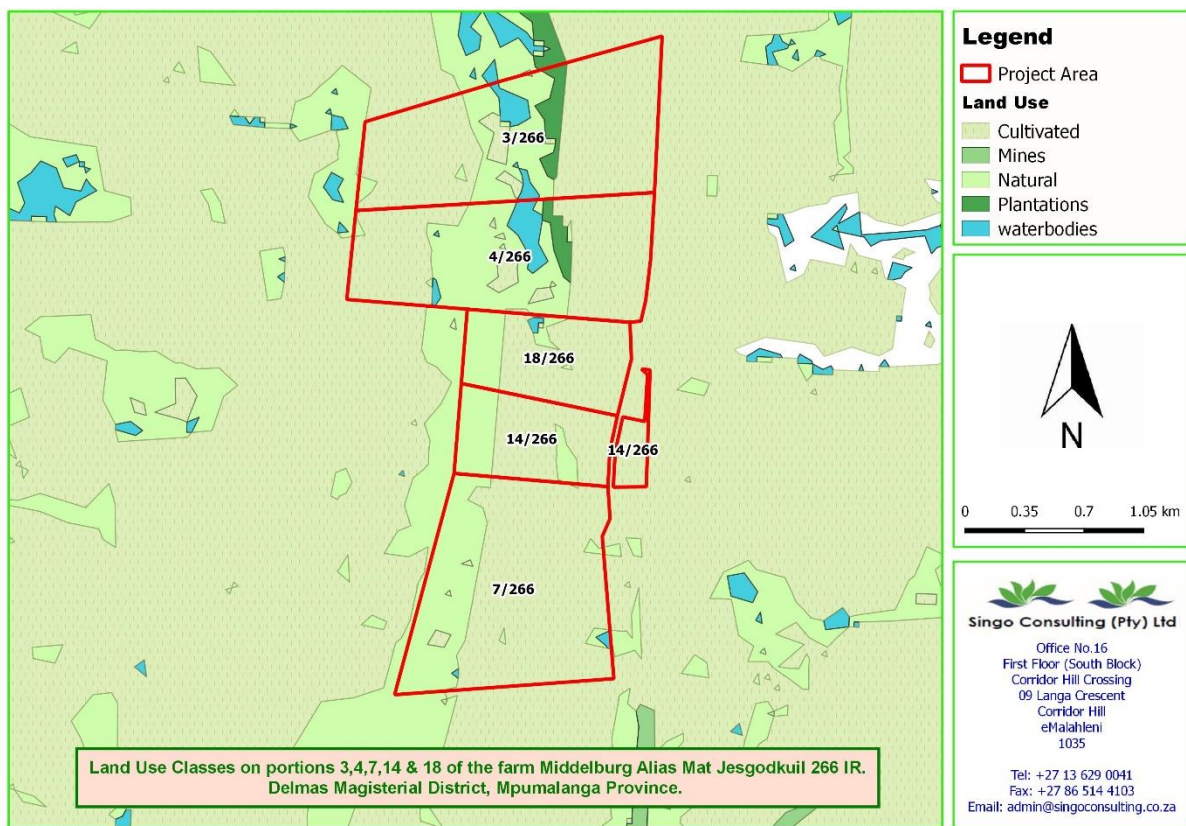


Figure 40: Land use map

The proposed project area is surrounded by existing mines such as Kuyasa Mining (Pty) Ltd where a North Shaft is found towards the southern side of the proposed project boundaries.





Photo 4: Entrance to North Shaft of Kuyasa Mining (Pty) Ltd

Other current land uses observed were farming and soil remediation which is being conducted between portions 3 and 4 of the proposed project area.





Typical climate conditions of Mpumalanga allow for successful farming of grains. The farming type of the project area, due to the favourable soil composition and climate, allows for the farming of crop which was observed on site. Due to the level terrain water related soil erosion is not a major factor.

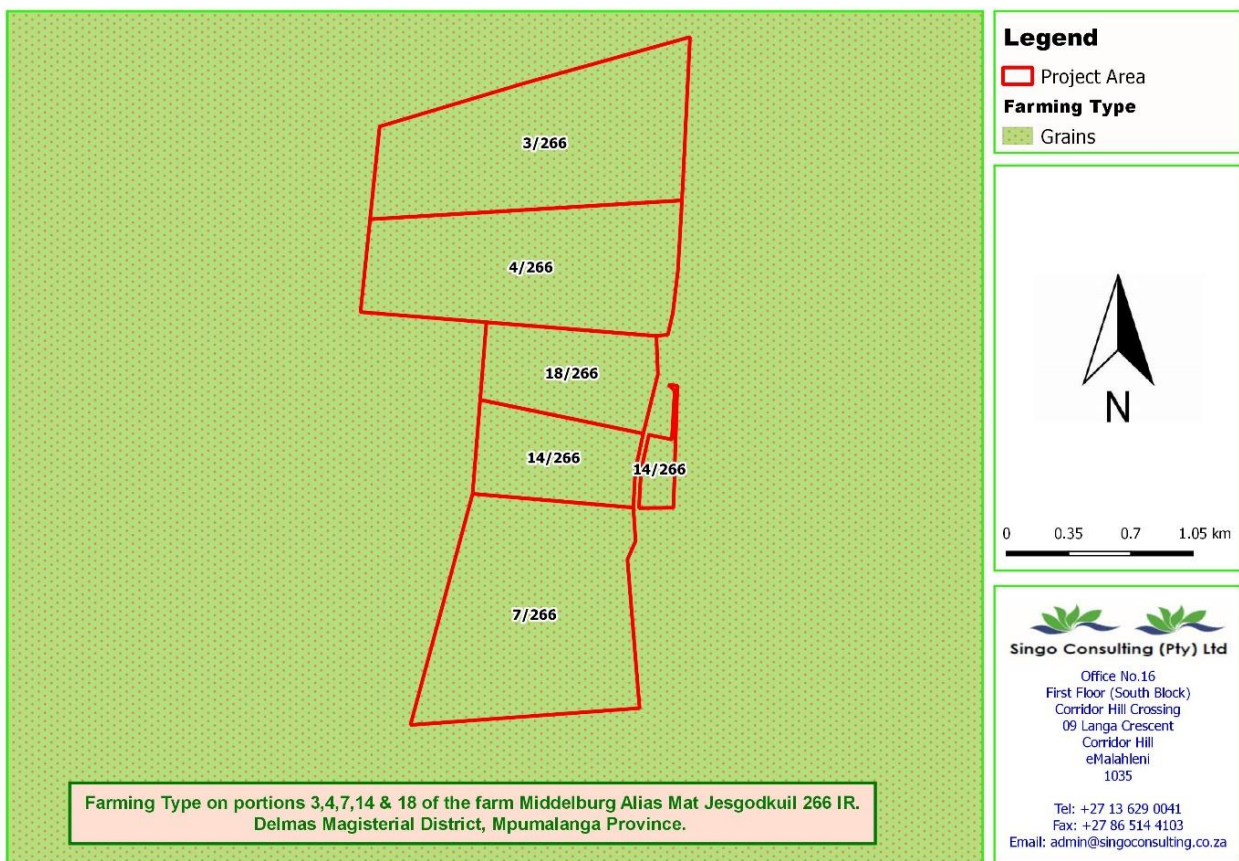


Figure 41: Map Illustrating Farming Type within Prospecting Area



15. Description of specific environmental features and infrastructure on the site

On the project area there's existing buildings or infrastructure such as farmhouses, powerlines passing-by, power stations and a railway line adjacent the proposed project area. From the desktop survey of the project areas together with the actual site assessment, there are no critical biodiversity area.



Photo 5: Farmhouse Observed on Site



Photo 6: Soil Remediation in Progress on Proposed Project Area





Photo 7: Eskom Brakfontein Sub Station Near Proposed Project Boundaries



Photo 8: Railway Line Near Proposed Project Boundaries and Powerlines Passing Over Proposed Project Area



There was infrastructure observed on adjacent properties (informal settlement and mine housing).



Photo 9: Infrastructure on Adjacent Property

The Basic Assessment and Environmental Management Plan must be amended to include direct and indirect impacts on any water courses if any prospecting activities are undertaken within such areas or within 500 m of any water course that was not seen during the site assessment conducted on the 17th of June 2020.



16. Environmental and current land use map

(Show all environmental, and current land use features)

Please refer to topography, hydrology and vegetation and land use map, indicating the environmental and land use features associated with the proposed prospecting area. Below is the current land use map.

17. Impacts and risks identified including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which these impacts can be reversed

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

The following table illustrates the potential impacts associated with each activity.



Table 11: Potential impacts per activity and listed activities

Phase		Activities	Potential Impacts	Reversible	Irreplaceable Damage	Can impact be avoided
Phase 1: Data Acquisition and Desktop Study						
Phase 1: Data Acquisition	Data	N/A	Data collection and assessment (desktop only)	1. None identified.	N/A	N/A
Phase 1: Desktop Study		N/A	Data Assessment	2. None identified.	N/A	N/A

Phase		Activities	Potential Impacts	Reversible	Irreplaceable Damage	Can impact be avoided
Phase 2: Drilling						
	Construction	Site Access	3. Destruction and / or disturbance of on-site fauna and flora.	Partial	No	Yes
			4. Soil compaction resulting from repeated use of access roads to drill sites.	Yes	No	No
			5. Vehicle traffic noise impact affecting cattle and / or wildlife.	Yes	No	No

			6. Poor access control resulting in impacts on cattle movement, breeding, and grazing practices.	Yes	No	Yes
			7. Potential destruction of heritage resources.	No	Yes	Yes
		Site establishment activities including:	8. Destruction and / or disturbance of on-site fauna and flora.	Partial	No	Yes

Phase	Activities	Potential Impacts	Reversible	Irreplaceable Damage	Can impact be avoided
	(a) <i>Vegetation clearing of drill pad area</i> (b) <i>Topsoil stripping and stockpiling</i>	9. Soil disturbance and compaction and topsoil stockpiling resulting in soil erosion.	Yes	Partial	No
	(c) <i>Drill pad compaction</i> (d) <i>Excavation and lining of drill water sump</i> (e) <i>Erection of temporary site office shaded area, potable ablution facilities and water storage tanks and core bay</i>	10. Dust emission resulting from site clearing, soil stripping and construction activities (including vehicle entrained dust).	Yes	No	Yes
		11. Visual impact affecting visual character and "sense of place".	Yes	No	Partial

	(f) <i>Erection of fuel storage tank</i> (g) <i>Erection of safety barrier</i> (h) <i>Waste generation and management</i>	12. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Yes	No	Partial
		13. Potential destruction of heritage resources.	No	Yes	Yes
Operation	Exploration drilling and core sample collection and storage including: (a) <i>Scout and delineation drilling</i> (b) <i>Drill maintenance and</i>	14. Water and soil pollution resulting from disposal of drill fluids.	Yes	Partial	Yes
		15. Continued soil erosion from topsoil stockpile and compaction from drill pad platform.	Yes	No	Yes

Phase	Activities	Potential Impacts	Reversible	Irreplaceable Damage	Can impact be avoided
	<i>re-fuelling</i> (c) <i>Core sample collection and storage</i> (d) <i>Drill fluid collection, storage and evaporation</i> (e) <i>Waste generation and management</i>	16. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.	Yes	Partial	Yes
		17. Dust emissions from drilling and general site activities (including vehicle entrained dust).	Yes	No	Yes

		18. Visual Impact affecting visual character and "sense of place".	Yes	No	Partial
		19. Vehicle traffic and drill noise impact affecting wildlife game farm animals.	Yes	No	Partial
		20. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	No	No	Yes
		21. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Yes	No	Partial
		22. Impact on the pans and associated ecosystems in the area.	No	Yes	Yes

Phase	Activities	Potential Impacts	Reversible	Irreplaceable Damage	Can impact be avoided
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	Decommissioning	Removal of temporary infrastructure including: <i>(a) Removal of temporary site office shaded area, potable ablution facilities, water storage tanks and core bay</i>	23. Dust emissions from decommissioning activities (including vehicle entrained dust).	Yes	No	Yes
		<i>(b) Borehole capping</i>	24. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	No	No	Yes
		Drill pad rehabilitation including: <i>(a) Ripping of drill pad and access road</i>	25. Potential water and soil pollution resulting from hydrocarbon spills.	Yes	Partial	Yes
		<i>(b) Re-spreading of stockpiled topsoil</i> <i>(c) Re-vegetation</i>	27. Soil erosion resulting from the re-spreading of topsoil before vegetation is re-established.	Yes	No	Yes

18. 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).

18.1 Criteria of assigning significance to potential impacts

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

The evaluation of impacts is conducted in terms of the criteria detailed in Table 12 to Table 18. 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.

To adequately assess and evaluate the impacts and benefits associated with the project it was necessary to develop a methodology that would scientifically achieve this and to reduce the subjectivity involved in making such evaluations. To enable informed decision-making, it is necessary to assess all legal requirements and clearly defined criteria in order to accurately determine the significance of the predicted impact or benefit on the surrounding natural and social environment.

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

- **Nature** of impact: An indication of the extent of the damage (negative impacts) or benefit (positive impacts) the impact inflicts on natural, cultural, and/or social functions (environment).

Table 12: Nature of Impact

Rating	Description	Quantitative rating
Positive	A benefit to the receiving environment.	P
Neutral	No cost or benefit to the receiving environment.	-
Negative	A cost to the receiving environment.	N



- **Extent** of impact: A spatial indication of the area impacted (i.e. how far from activity the impact is realised). The extent of an impact is considered as to whether impacts are either limited in extent or if it affects a wide area or group of people. Impact extent can be site specific (within the boundaries of the development area), local, regional or national and/or international.

Table 13: Extent of Impact

Rating	Description	Quantitative rating
Low	Site-specific: Occurs within the site boundary.	1
Medium	Local: Extends beyond the site boundary. Affects the immediate surrounding environment (i.e. up to 5 km from the project site boundary).	2
High	Regional: Extends far beyond the site boundary, widespread effect (i.e. 5 km and more from the project site boundary).	3
Very high	National and/or international, extends far beyond the site boundary, widespread effect.	4

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- **Duration** of impact: A temporal indication of the how long the effects of the impact will persist, assuming the activity creating the impact ceases. For example, the impact of noise is short lived (impact ceases when activity ceases) whereas the impact of removing topsoil exists for a much longer period of time.

Table 14: Duration of impact

Rating	Description	Quantitative rating
Low	Short term: Quickly reversible, less than project lifespan, 0-5 years.	1
Medium	Medium term: Reversible over time, approximate lifespan of the project, 5-17 years.	2
High	Long term: Permanent. Extends beyond the decommissioning phase, >17 years.	3

- **Impact Probability:** The probability of the impact describes the likelihood of the impact actually occurring.

Table 15: Probability of Impact

Rating	Description	Quantitative rating
Improbable	Possibility of the impact materialize is negligible, chance of occurrence <10%.	1
Probable	Possibility that the impact will materialize is likely, chance of occurrence 10 – 49.9%.	2



Highly probable	It is expected that the impact will occur, chance of occurrence 50 – 90%.	3
Definite	Impact will occur regardless of any prevention measures, chance of occurrence >90%.	4
Definite and cumulative	Impact will occur regardless of any prevention measures, chance of occurrence >90% and is likely to result in in cumulative impacts	5

- **Frequency of the impact occurring:** An indication of how often an aspect, as a result of a particular activity, is likely to occur. Note that this does not assess how often the impact occurs. It applies only to the aspect. For example driving takes place daily whilst other activities take place monthly while the resultant frequency of the impacts occurring will vary based on a number of factors.
- **Impact Intensity:** The intensity of the impact is determined to quantify the magnitude of the impacts and benefits associated with the proposed project.

Table 16: Beneficiation of Impact

Rating	Description	Quantitative rating
Maximum benefit	Where natural, cultural and / or social functions or processes are positively affected resulting in the maximum possible and permanent benefit.	+5
Significant benefit	Where natural, cultural and / or social functions or processes are altered to the extent that it will result in temporary but significant benefit.	+4
Beneficial	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a modified, beneficial way.	+3
Minor benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally benefited.	+2
Negligible benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly benefited.	+1
Neutral	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are not affected.	0
Negligible	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly affected	-1
Minor	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally affected.	-2
Average	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a	-3



	modified way.	
Severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will temporarily cease.	-4
Very severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will permanently cease.	-5

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

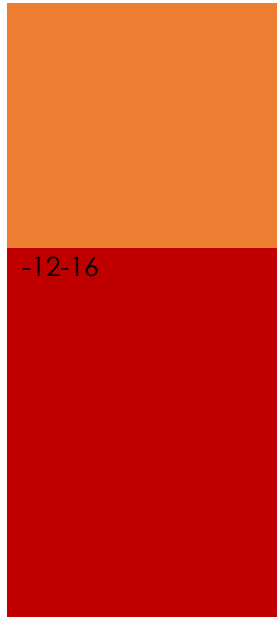
- **Impact Significance:** The impact magnitude and significance rating are utilised to rate each identified impact in terms of its overall magnitude and significance.

Table 17: Significance of Impact

Impact	Rating	Description	Quantitative rating
Positive	High	Of the highest positive order possible within the bounds of impacts that could occur.	+12-16
	Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. Other means of achieving this benefit are approximately equal in time, cost and effort.	+6-11
	Low	Impacts is of a low order and therefore likely to have a limited effect. Alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time consuming.	+1-5
No impact	No impact	Zero impact	0
Negative	Low	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts, mitigation is either easily achieved or little will be required, or both. Social, cultural, and economic activities of communities can continue unchanged.	-1-5
	Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case	-6-11



High of adverse impacts, mitigation is both feasible and fairly possible. Social cultural and economic activities of communities are changed but can be continued (albeit in a different form). Modification of the project design or alternative action may be required. Of the highest order possible within the bounds of impacts that could occur. In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or a combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt.



19. 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 area is targeted as, historically, several coal occurrences are known in the area, and number of these are currently being exploited for coal in the [e.g. Kuyasa Mining (Pty) Ltd]. The site is therefore regarded as the preferred site and alternative sites are not considered.

19.1 Potential impact on heritage resources

There are two graves in the proposed prospecting area. The area has been extensively used for agriculture. It is not anticipated that there will be any impact on heritage resources. The major activity involved is drilling and it is going to be done along current access routes as much as possible.

There is no potential for the presence of stone kraals as also likely based on the past studies in the surrounding areas. It is anticipated that these features might not have heritage and / or archaeological value.

The Heritage Impact Assessment will be conducted over identified localised drill sites to identify any cultural, heritage and or archaeological features which may be impacted on.



19.2 Potential impacts on communities, individuals or competing land uses in close proximity

The following impacts are regarded as community impacts:

- Potential water and soil pollution resulting from chemical spills and soil erosion;
- Noise due to the undertaking drilling machines;
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices;
- Influx of persons (job seekers) to site because of increased activity and the possible resultant increase in opportunistic crime; and
- Visual Impact

Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and / or regional communities will result from the prospecting activities.

19.3 Potential Impacts on Water and Vegetation

There is one major non-perennial river and three water bodies (small dam) on site. Possible pollution sources include stockpiled soil and all areas cleared of vegetation. The eroded soil particles may be carried by stormwater to these river which will result in an increase in the Total Suspended Solids (TSS) and Total Dissolved Solids (TDS) of the water courses. The storage of dangerous goods, temporary ablution facilities and discharge of drill fluids may also lead to surface water pollution if not managed appropriately.

Limited quantities of dangerous goods (fuel, oil, and lubricants) will be stored on site. The transportation, handling and storage of such materials may result in spills and further water quality impacts in the events of spills when carried by stormwater to the water courses.

This impact is also regarded as a cumulative impact due to the potential contribution to water quality deterioration of the river systems if not managed appropriately.

Prospecting site will be cleared to a maximum of 100 m². Therefore, vegetation clearance will be limited, and sites will be sited as to avoid large trees or shrubs. The site camp will be established at the existing farmhouses therefore no vegetation clearance will be required. Existing access roads will be utilised.

19.4 Possible Impacts

Influx of persons resulting in increased crime rates

The potential impacts of an increase in crime rates associated with an influx of unemployed persons travelling to mine sites seeking employment may occur.



Visual impact

The general characteristics of the site and that of the surrounding area are regarded to be that of "wilderness" and prospecting activities may result in localised visual impacts.

Positive Impacts (Advantage)

While no significant short-term positive impacts are associated with the prospecting activities, in the event that a viable coal reserve is confirmed and pending the outcome of a detailed social & environmental impact assessment process, positive socio-economic benefits must be investigated and optimized.

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

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

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

The applicant shall ensure that this Environmental Management Programme is provided to the Project Manager and any other person or organisation who may work on the site. Aartoon Mining (Pty) Ltd development shall ensure that any person or organisation that works on the site complies with the requirements of this Environmental Management Programme Report.

20.1 Measures to manage the potential impact on heritage resources

The fact that the prospecting activities will be undertaken in a phased approach will provide the opportunity to the prospecting team to demarcate areas of cultural and/or heritage significance (such as graves and stone kraals). With the early identification of these the impact on these will be avoided.

A Heritage Impact Assessment will be undertaken on each identified area where drilling activities are planned.

Prior to the establishment of new access roads, a heritage impact assessment must be undertaken and mitigation and / or management measures for the protection of such resources must be implemented.



Should any unknown heritage sites be identified during the drilling activities, all activities will cease immediately and the SAHRA will be contacted and an appropriate Heritage Impact Assessment will be undertaken on the site identified.

20.2 Measures to manage the potential impacts on communities, individuals or competing land uses in close proximity

o Pollution Prevention

- Mitigation and management measures must be implemented to prevent environmental pollution which may impact on environmental resources utilized by communities, landowners, and other stakeholders. These mitigation and management measures are discussed in the following section.

o Noise due to drilling and prospecting activities.

- Directly affected, adjacent landowners and farms in proximity to the site will be informed of the planned drilling and a grievance mechanism will be made available.
- Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances and night-time collisions with fauna.

o Poor access control resulting in impacts on cattle movement, breeding and grazing practices.

- Access control procedures must be agreed on with farm owners and all staff trained on these procedures.

o Influx of persons (job seekers) to site because of increased activity and the possible resultant increase in opportunistic crime.

- Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.
- The landowners (all private and state landowners) will be notified of unauthorised persons encountered on site.
- If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.

o Visual Impact

- Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as and when needed. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered to conserve water resources.
- The portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.



- A waste management system will be implemented, and sufficient waste bins will be provided for on-site. A fine system will be implemented to further prohibit littering and poor housekeeping practices.

20.3 Measures to manage the potential impact on Water quality and availability

- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion will be mitigated and managed as follows:
 - Existing tracks and roads must be used as far as is practicable to minimize the potential for soil erosion. In instances where access to drill sites are to be established, and if required, raised blade clearing will be undertaken with a view to maintain vegetation cover to limit soil erosion potential.
 - Soil disturbances are to be limited as far as is practicable to minimize the potential for soil erosion.
 - When establishing the drill pad, topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad. Stockpiled topsoil will be used during rehabilitation efforts.
 - Where practicable topsoil will be stripped to a depth of 10 cm.
 - Topsoil will be stockpiled to a maximum height of 1.5 m with a side slope of not more than 1:3.
 - Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles to stabilise slopes.
 - Where there are water bodies, a buffer zone will be implemented and the area will be deemed a no-go zone, so that drilling does not occur near the water bodies thus leading to water pollution.
 - To reduce the potential for water pollution during the drilling activities, a sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation.
 - The sump will be constructed to divert storm water away and / or around the sump to avoid clean storm water inflow.
 - Oils and lubricant will be stored within secondary containment structures.
 - Where practicable, vehicle maintenance will be undertaken off -site.
 - If vehicle maintenance is undertaken on-site (i.e. such as breakdown maintenance), drip trays and / or UPVC sheets will be used to prevent spills and leaks onto the soil.
 - A waste management system will be implemented, and sufficient waste bins will be provided for onsite. A fine system will be implemented to further prohibit littering and poor housekeeping practices.
 - Waste separation will be undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).



- Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.
- Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.
- Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.
- Drill holes must be permanently capped as soon as is practicable.
- The company will operate on the principle that “prevention is better than cure” and so will institute procedures to reduce the risk of emergencies taking place. These will include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMP, environmental awareness training, on-going risk assessment and emergency preparedness.
- All employees shall have the telephone numbers of emergency services, including the local ambulance and firefighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.
- The company shall ensure that there is basic firefighting equipment available on site at all times. This shall include at least two rubber beaters and at least one fire extinguisher. The company shall advise the relevant authority responsible for fire incidents as soon as one starts and shall not wait until the fire is out of control.
- The company shall ensure that all employees are aware of the procedures to be followed for dealing with hydrocarbon spills. The company shall ensure that the necessary materials and equipment for dealing with hydrocarbon spills and leaks is available on Site at all times.
- The company shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible is designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 l of hydrocarbon liquid spill. There are a number of different products on the market, which can be used as absorbents and encapsulators of hydrocarbons. The following are examples of these products:

✦ Spill-Sorb

✦ Drizzit

✦ Enretech

✦ Peat Moss



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

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

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

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21. Motivation where no alternative sites were considered

The proposed prospecting area is targeted as, historically, several coal occurrences are known in the area, and number of these have been exploited for coal in the past. The site is therefore regarded as the preferred site and alternative sites are not considered.

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

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

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

As is clear from the information provided, each of the phases is dependent on the results of the preceding phase. The location and extent of possible drilling will be determined based on information derived from the desktop study. Drill sites will be selected to avoid known heritage features and water courses where practicable and no permanent structure will be conducted. Negotiations and agreements will be made with the farm owners to use existing infrastructure as mentioned above.



23. 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.)

To identify the potential impacts associated with the proposed prospecting activities the following steps were undertaken:

The stakeholder consultation process is currently undertaken in a manner to be interactive, providing landowners and identified stakeholders with the opportunity to provide input into the project. This is a key focus, as the local residence have capabilities of providing site specific information, which may not be available in desktop research material. Stakeholders are requested (as part of the BID) to provide their views on the project and any potential concerns which they may have. All comments and concerns will be captured and formulated into the impact assessment.

A detailed desktop investigation was undertaken to determine the environmental setting in which the project is located. Based on the desktop investigations various resources were used to determine the significance and sensitivity of the various environmental considerations. The desktop investigation involved the use of:

- South African National Biodiversity Institute (SANBI) Biodiversity Geographic Database LUDS system;
- Geographic Information System base maps;
- Department of Water Affairs information documents such as the (ISP and Groundwater Vulnerability Reports);
- Municipal Integrated Development Plan;
- Municipal Strategic Development Framework; etc.

A site visit was undertaken on 17 June 2020. This site visit was utilized to ensure that the information gathered as part of the desktop investigation reflects the status of the land.

The rating of the identified impacts was undertaken in a quantitative manner as provided by Table 17 **Error! Reference source not found.**. The ratings are undertaken in a manner to calculate the significance of each of the impacts. The EAP also assesses the outcomes of the calculation to determine whether the outcome reflects the perceived and actual views.



The identification of management measures is done based on the significance of the impacts and measures that have been considered appropriate and successful, specifically as Best Practical and Economical Options.



24. Assessment of each identified potentially significant impact and risk

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

Table 18: Impact Assessment and Management Type

NAME OF ACTIVITY (E.g. For prospecting - drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc.	POTENTIAL IMPACT (Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination,	ASPECTS AFFECTED	PHASE In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post closure)	SIGNIFICANCE if not mitigated	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)	SIGNIFICANCE if mitigated
Phase1: Data Acquisition and Desktop Study						
Data collection and assessment (desktop only)	1. None identified.	N/A	Planning	N/A	1. No mitigation proposed	N/A
Data Assessment	2. None identified.	N/A	Planning	N/A	2. No mitigation proposed	N/A



Phase 3: Drilling

Site Access	3. Destruction and / or disturbance of onsite fauna and flora.	Loss of Fauna and Flora	Construction Phase	10	<p>3. Map indicating the location of each of the drilling sites must be submitted to the relevant landowners, as well as to the DMR and DWS. Upon agreement of the location of the activities can the applicant proceed.</p> <p>4. Use existing track and roads in all instances as far as is practicable.</p> <p>5. Where track clearing is necessary, raised blade clearing will be conducted to minimise disturbance and aid rehabilitation efforts and significant vegetation such as trees and large shrubs will be avoided.</p>	6
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					<p>6. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances and night-time collisions with fauna.</p> <p>7. Vehicle speed will be reduced, particularly in highly vegetated areas is one way to avoid deaths by vehicle impacts.</p>	
	4. Soil compaction resulting from repeated use of access roads to drill sites.	Loss of soil resources	Construction Phase	8	<p>8. Where track clearing is necessary, raised blade clearing be conducted to minimise disturbance and aid rehabilitation efforts.</p> <p>9. As part of rehabilitation, all compacted roads and drill pads will be ripped and re-vegetated.</p>	5
	5. Vehicle traffic noise impact affecting cattle and / or wildlife.	Loss of fauna	Construction Phase	6	<p>10. Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night-time noise disturbances.</p>	4



	6. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of fauna	Construction Phase	10	11. Access control procedures must be agreed on with farm owners and staff trained.	8
	7. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significance	Construction Phase		12. Prior to the establishment of new access roads, a heritage impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented	
Site establishment activities including: (a) <i>Vegetation clearing of drill pad area</i> (b) <i>Topsoil stripping and stockpiling</i> (c) <i>Drill pad compaction</i> (d) <i>Excavation and lining of drill water sump</i>	8. Destruction and / or disturbance of onsite fauna and flora.	Loss of Fauna and Flora	Construction Phase	10	13. The removal of vegetation within the drill pad area will be minimized. 14. If practicable, raised blade clearing be conducted for the entire drill pad to minimise disturbance and aid rehabilitation efforts. 15. The design of the drill fluid sump must incorporate effective fauna egress to avoid entrapment. 16. A fire emergency procedure will be developed to contain and minimise the destruction of flora and faunal habitat which may result from fire.	7



<p>(e) Erection of temporary site office shaded area, potable ablution facilities and water storage tanks and core bay</p> <p>(f) Erection of fuel storage tank</p> <p>(g) Erection of safety barrier</p>	<p>9. Soil disturbance and topsoil stockpiling</p>	<p>Loss of soil resources</p>	<p>Construction Phase</p>	<p>11</p>	<p>17. In the event that the drill pad is cleared of all vegetation, lower</p>	<p>7</p>
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<p>(h) <i>Waste generation and management</i></p>	<p>resulting in soil compaction and erosion.</p>			<p>blade clearing will be undertaken prior to the stripping of topsoil.</p> <p>18. Topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p> <p>19. Where practicable topsoil will be stripped to a depth of 10cm.</p> <p>20. Vegetation removed through lower blade clearing will be mixed with topsoil to increase organic content and to preserve the seed bank in order to aid rehabilitation efforts.</p> <p>21. Topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>22. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles to stabilise slopes.</p>	
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	10. Dust emission resulting from site clearing, soil stripping and construction activities (including	Dust emissions	Construction Phase	10	23. Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as	6
	vehicle entrained dust).				and when needed. 24. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered in order to conserve water resources.	
	11. Visual Impact affecting visual character and "sense of place".	Loss in aesthetics	Construction Phase	6	25. The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options	5



				which will blend in with the surrounding area must be favoured.	
12. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Construction Phase	8	26. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment. 27. The landowner (all private and state landowners) will be notified of unauthorised persons encountered on site. 28. If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.	7

13. Potential destruction of heritage resources.	Loss of Cultural and/or	Construction Phase		29. Prior to the site establishment, a heritage impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented	
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		Heritage Significance				
<p>Exploration drilling and core sample collection and storage including:</p> <p>(a) Scout and delineation drilling</p> <p>(b) Drill maintenance and re-fuelling</p> <p>(c) Core sample collection and storage</p> <p>(d) Drill fluid collection, storage and evaporation</p> <p>(e) Waste generation and management</p>	14. Water and soil pollution resulting from disposal of drill fluids.	Loss of water resources, loss of soil resources	Operational Phase	12	<p>30. A sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation.</p> <p>31. The sump will be constructed to divert stormwater away and / or around the sump to avoid clean stormwater inflow.</p>	5
	15. Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.	Loss of soil resources	Operational Phase	11	<p>32. In the event that raise blade clearing is not undertaken, and the drill pad is cleared, topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>33. The topsoil stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p> <p>34. Management efforts through the use of mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.</p>	7



	<p>16. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.</p>	<p>Loss of water resources, loss of soil resources</p>	<p>Operational Phase</p>	<p>35. Fuel storage tanks will have a secondary containment structure with a capacity of 110% of the total tank capacity.</p> <p>36. Oils and lubricant will be stored within secondary containment structures.</p> <p>37. Where practicable, vehicle maintenance will be undertaken off-site.</p> <p>38. In the event that vehicle maintenance is undertaken on-site (i.e. such as breakdown maintenance), drip trays and / or UPVC sheets will be used to prevent spills and leaks onto the soil.</p> <p>39. Unused machinery must be completely drained of oil and other hydrocarbons to ensure that leaks do not develop.</p> <p>40. Regular inspections of all vehicles must be carried out to ensure that all leaks are identified early and rectified.</p> <p>41. A sufficient number of waste receptacles will be provided.</p>	<p>5</p>
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					42. Waste separation will be	
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					<p>undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).</p> <p>43. Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.</p> <p>44. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</p>	
	17. Dust emissions from drilling and general site activities (including vehicle entrained dust)	Increase in dust emissions	Operational Phase	10	<p>45. Based on visual observation wet dust suppression will be undertaken as and when required to manage dust emissions from vehicle movement.</p> <p>46. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.</p>	6



18. Visual Impact affecting visual character and "sense of place"	Loss in aesthetic value	Operational Phase	6	47. Visual impact of structures will be mitigated through measures as included in Item 35. 48. Visual dust dispersion will be mitigated through measures as included in Item 33.	5
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19. Vehicle traffic and drill noise impact affecting wildlife game farm animals.	Loss of fauna	Operational Phase	6	49. Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night-time noise disturbances.	4
20. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	Loss of cattle	Operational Phase	10	50. Access control procedures must be agreed on with farm owners.	8



<p>21. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.</p>	<p>Increase in petty crimes</p>	<p>Operational Phase</p>	<p>8</p>	<p>51. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment. 52. The landowners will be notified of unauthorised persons encountered on site. 53. If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.</p>	<p>7</p>
<p>22. Impact on the pans and associated ecosystems in the area.</p>	<p>Loss of sensitive environments,</p>	<p>Operational Phase</p>	<p>12</p>	<p>54. The prospecting areas must be clearly demarcated. 55. No prospecting activities may be undertaken within the pan areas.</p>	<p>5</p>
		<p>loss of fauna, loss of flora</p>		<p>56. All site plans must indicate the presence of pans.</p>	



<p>Removal of temporary infrastructure including:</p> <p>(a) Removal of temporary site office shaded area, potable ablution facilities, water storage tanks and core bay</p> <p>(b) Borehole capping</p> <p>Drill pad rehabilitation including:</p> <p>(a) Ripping of drill pad and access road</p> <p>(b) Re-spreading of stockpiled topsoil</p> <p>(c) Re-vegetation</p>	<p>23. Destruction and / or disturbance of onsite fauna.</p>	<p>Loss of sensitive environments, loss of fauna, loss of flora</p>	<p>Decommissioning</p>	<p>10</p>	<p>57. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.</p> <p>58. Drill holes must be permanently capped as soon as is practicable</p>	<p>7</p>
	<p>24. Dust emissions from decommissioning activities (including vehicle entrained dust).</p>	<p>Increase in dust emissions</p>	<p>Decommissioning</p>	<p>9</p>	<p>59. Based on visual observation wet dust suppression will be undertaken to manage dust emissions from vehicle movement.</p> <p>60. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.</p>	<p>6</p>
	<p>25. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.</p>	<p>Loss of cattle</p>	<p>Decommissioning</p>	<p>10</p>	<p>61. Access control procedures must be agreed on with farm owners and all staff trained.</p>	<p>8</p>



	26. Potential water and soil pollution resulting from hydrocarbon spills	Loss of water resources, loss of soil resources	Decommissioning	12	62. All fuel storage tanks will be emptied prior to removal.	7
					63. Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination. 64. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.	



	<p>27. Soil erosion resulting from the re-spreading of topsoil before vegetation is re-established.</p>	<p>Loss of soil resources</p>	<p>Decommissioning</p>	<p>11</p>	<p>65. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.</p> <p>66. Re-vegetation will be conducted through hand seeding exposed areas using indigenous grass species as determined by a suitably qualified ecologist.</p> <p>67. Re-vegetation efforts will be monitored every second month for a period of six months after initial seeding.</p> <p>68. An effective vegetation cover of 45% must be achieved. Re-seeding will be undertaken if this cover has not been achieved after six months.</p>	<p>7</p>
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The supporting impact assessment conducted by the EAP must be attached as an appendix, marked Appendix F.

25. 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):-

Table 19: List of Specialist Studies Undertaken



LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
No specialist studies have been undertaken.	N/A	N/A	N/A

26. Environmental impact statement

26.1 Summary of the key findings of the environmental impact assessment

The majority of the prospecting activities are non-invasive and hence will have very low to negligible environmental or social impact. The invasive activities that entail the drilling of approximately 15 exploration holes will have a minimal environmental and social impact as each drill site will be confined to an area of 0.06 hectares (600m²). This needs to be viewed in the context of the entire prospecting license area under application, which covers 468.95 ha.

The proposed prospecting site is classified as arable land where a large area of the land consists of cultivated land. Crop farming is the predominant land use in the proposed prospecting area.

There is one non-perennial river running through the alluvium formation that is found traversing the proposed prospecting area. Three wetlands were illustrated within the boundaries of the proposed prospecting area though no water was visible during site assessment.

Two graves were identified within the prospecting area.

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

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

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



26.2 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)

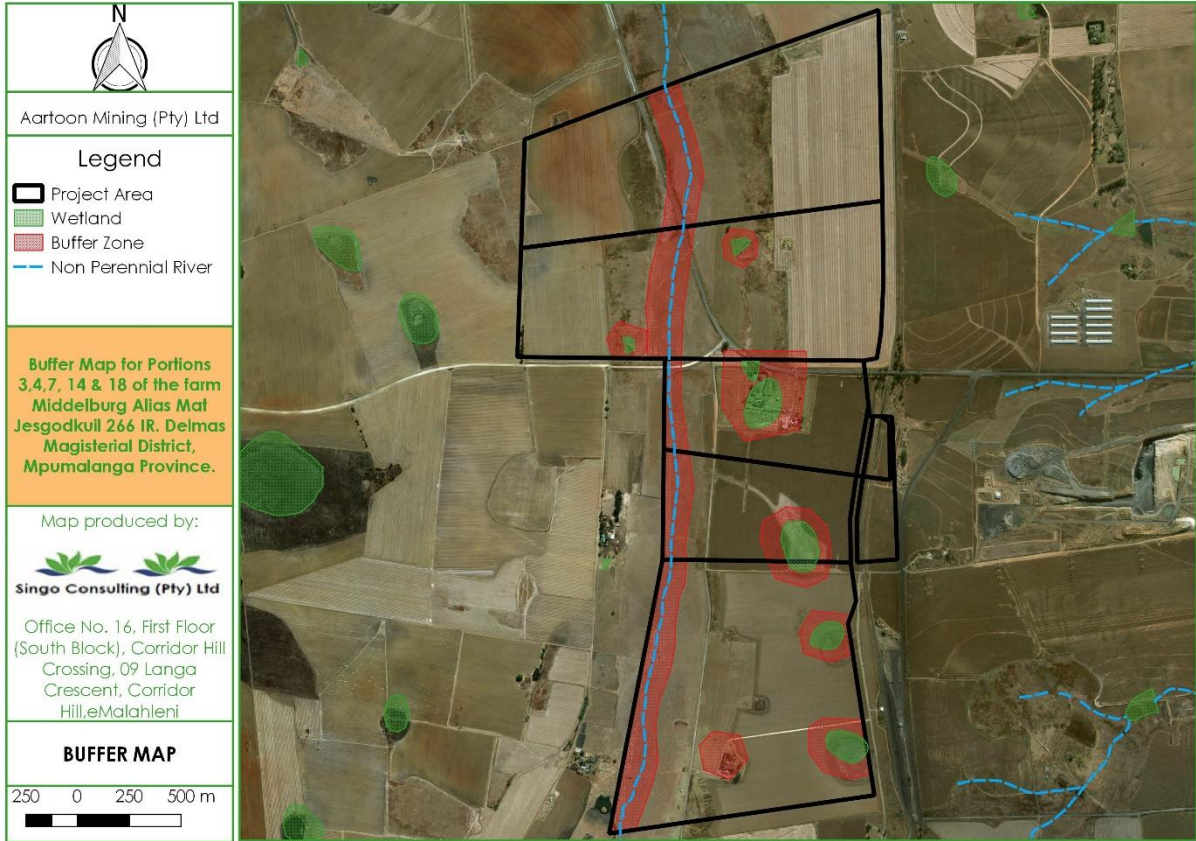


Figure 42: Buffer-Zone Map

Figure 43: Borehole Location Map

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

Table 20: Summary of positive and negative impacts

Proposed Activity	Potential Impacts
Desktop Study	No impacts on site
Airborne / Ground Geophysics	<ul style="list-style-type: none"> • Low impacts from short-term staff and vehicle access to the site, • interfering with the animal grazing paddocks • managing fences and gates • Livestock falling into dug trenches • Creation of employment



Drilling	<ul style="list-style-type: none"> • Access tracks • Disturbance of vegetation and topsoil • Oil & fuel spills • Dust & noise • Labour issues • Litter • Possible discovery of fossils • Creation of employment
Sample processing / evaluation / decision making	No impacts on site.
Rehabilitation	Replacing topsoil, covering with brushwood etc

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

27. 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 authorization)

The objectives of the EMPr will be to:

- Provide sufficient information to strategically plan the prospecting activities as to avoid unnecessary social and environmental impacts.
- Provide sufficient information and guidance to plan prospecting activities in a manner that would reduce impacts (both social and environmental) as far as practically possible.
- Ensure an approach that will provide the necessary confidence in terms of environmental compliance.
- Provide a management plan that is effective and practical for implementation.
- Through the implementation of the proposed mitigation measures, it is anticipated that the identified social & environmental Impacts can be managed and mitigated effectively. Through the implementation of the mitigation and management measures it is expected that:



- Noise impacts can be managed through consultation and through the restriction of operating hours;
- The pollution of soil and water resources can be effectively managed through containment and buffers where necessary.
- Ecological impact can be managed through the implementation of pollution prevention measures, minimizing land clearing, restricting working hours (faunal disturbance) and rehabilitation.
- Concerns regarding access control to farms can be managed through the development and ensuring compliance to an appropriate access control procedure.
- Risks associated with crime can be mitigated through avoiding recruitment activities on site, as well as monitoring and reporting.
- Visual impact can be minimized through giving consideration to drill site infrastructure placement and materials used.
- Dust fall can be managed by application of wet suppression on exposed surfaces and use of water during drilling.
- Soil disturbance and clearance of vegetation at drill pad areas will be limited to the absolute minimum required and disturbed areas will be re-vegetated with locally indigenous species as soon as possible.
- Animal life is protected and preserved at all times and the prospecting activities has minimal disturbance to the surrounding habitat.
- Social friction with landowners can be managed by regular engagement with the landowner and the entering into an access agreement with the landowner.

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

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

28. Aspects for inclusion as conditions of Authorisation.

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

The following conditions should be included into the Authorisation:



- A map detailing the drilling locations should be submitted to the relevant landowners and the DWS and DMR prior to the commencement of these activities;
- Maintain a minimum 100 m buffer from any infrastructure or dwelling;
- The company should comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include;
 - National Environmental Management Act, Act 107 of 1998 (NEMA),
 - Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA),
 - National Water Act, Act 36 of 1998 (NWA)
 - Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA)
- No activities may be undertaken in or near water bodies;
- Heritage Impact Assessment must be undertaken where roads will be cleared and where drilling sites will be established, prior to the commencement of these activities; and
- No activities, with the exception of the driving to fetch, may take place within 100 m from any river.

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

(Which relate to the assessment and mitigation measures proposed)

The following assumptions, uncertainties and gaps are applicable to this project:

Due to considerable time constraints allowed for the assessment of the impacts, and at the time of compiling the draft Basic Assessment Report and EMP:

- The Stakeholder Consultation is not yet complete.
- Not all landowners were consulted with in person.
- Details from the DWS regarding Water Use Licensing requirements is not yet available.
- Feedback from the SAHRA is not yet available.
- Details regarding the presence and status of land claims are not available.
- No Heritage Impact Assessment was undertaken.
- No detailed site layout is available due to the nature of the prospecting activities. The study is therefore undertaken as a holistic assessment of the overall site.
- It is assumed that the description of the proposed project, provided by the applicant is sufficient for providing the authorities with the right information for understanding the proposed project.



30. Reasoned opinion as to whether the proposed activity should or should not be authorised

30.1 Reasons why the activity should be authorized or not

It is the opinion of the EAP that the activity may be authorized as the proposed prospecting area is targeted as, historically, coal occurrences are known in the area, and number of these have been exploited for coal such as Kuyasa Mining (Pty) Ltd, amongst others, in close proximity to the proposed prospecting area.

The spatial extent of the physical impact is less than 600m² per drill site over a prospecting right area of more than 468.95 ha, 15 drill sites will be established in total throughout the duration of the drilling programme. The site is therefore regarded as the preferred site and alternative sites are not considered.

With appropriate care and consideration the impacts resulting from drilling can be suitably avoided, minimised or mitigated; With implementing the appropriate rehabilitation activities, the impacts associated with the drilling activities can be reversed; and monitoring of the required mitigation measures is to take place on site daily by the site geologist.

Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR

The option of not approving the activities will result in a significant loss to valuable information regarding the mineral status (in terms of coal seams) present on these properties. In addition to this, should economical reserves be present, and the applicant does not have the opportunity to prospect, the opportunity to utilize these reserves for future phases will be lost.

30.2 Conditions that must be included in the authorisation

The following conditions should be included into the authorisation:

- A map detailing the drilling locations should be submitted to the relevant landowners and the DWS and DMR prior to the commencement of these activities;
- No activities may be undertaken in the pans;
- Heritage Impact Assessment must be undertaken where roads will be cleared and where drilling sites will be established, prior to the commencement of these activities;
- No activities, except for the driving to fetch water, may take place within 100 m from any river; and



- Record must be kept of the implementation of the EMPr measures and monitoring of the efficiency of the implemented measures; and a suitable closure plan must be submitted to show sufficiently providence for the avoidance, management and mitigation of environmental impacts associated with the decommissioning of the proposed activities

31. Period for which the Environmental Authorisation is required.

The Prospecting Right has been applied for a period of five years. The Environmental Authorisation should therefore allow for the five years of prospecting and one year for decommissioning and rehabilitation.

32. Undertaking

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

Confirmed.

32.1 Financial Provision

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

The financial provision for the environmental rehabilitation and closure of any mine/prospecting and its associated operations forms an integral part of the MPRDA. Sections 41(1), 41(2), 41(3) and 45 of the MPRDA deal with the financial provision for rehabilitation and closure. During 2012 the DMR made updated rates available for the calculation of the closure costs, where contractor's costs are not available these are used in assessments.

The "Guideline Document for the Evaluation of Financial Provision made by the Mining Industry" was developed by the DMR in January 2005, in order to empower the personnel at Regional DMR offices to review the quantum determination for the rehabilitation and closure of mining sites.

With the determination of the quantum for closure it must be assumed that the infrastructure has no salvage value (clean closure). The closure cost estimate (clean closure) was determined in accordance with the DMR guidelines and is based, where possible, on actual costs provided by a third-party contractor

The closure costs are as follows:

Sub Total 1 (Exlc. Vat) = R35 170. 87



Sub Total 2 (Excl. Vat) = R42 908.46

Grand Total (Incl. Vat) = R45 682



32.2 Explain how the aforesaid amount was derived.

(The following section details the methodologies adopted to calculate the quantities, associated rehabilitation (clean closure) rates and eventually the final (clean) closure cost estimate)

Most important to note is that the prescribed method for estimating a closure costs, as provided for by the DMR in the form of the Guideline Document for the Evaluation of Financial Provisions, only acts as a guideline, and therefore indicates the minimum requirements for assessing and reporting on a closure cost estimate.

32.2.1 Method of Assessment

As mentioned before, Singo Consulting (Pty) Ltd made use of the Guideline Document for the Evaluation of Financial Provisions made by the Mining Industry. For the purposes of determining the quantum for closures, it is assumed that the infrastructure will have no salvage value.

32.2.2 Quantity Estimation

For the purposes of this assessment, Singo Consulting (Pty) Ltd can confirm that the method adopted to obtain and compile the schedule of quantities is sound, correct, and provides detail that is required by the DMR. The information will allow for continued monitoring and updating of quantities and provides the ideal platform to manage and monitor the actual on-site rehabilitation measures and costs incurred.

32.2.3 Determination of Rates

The method of determining the applicable rehabilitation rates is based on practical experience and information by third party contractors.

The following table summarises the unit rates for closure components as specified in the DMR Guideline Document and indicates which rates were used by Singo Consulting (Pty) Ltd in this assessment.



Table 21: Financial Provision

CALCULATION OF THE QUANTUM

Applicant: **Aartoon Mining (Pty) Ltd** Ref No.: **MP 30/5/1/1/2/ (15628) PR**
 Evaluator: **Kenneth Singo** Date: **Jun-20**

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	16	0,8	0,08	0
2 (A)	Demolition of steel buildings and structures	m2	0	228	0,08	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	336	0,07	1	0
3	Rehabilitation of access roads	m2	0,01	41	1	1	0,41
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	455	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	238697	1	1	0
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	159131	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	198195	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	575653	1	1	0
9	Rehabilitation of subsided areas	ha	0	133249	1	1	0
10	General surface rehabilitation	ha	0,9	126059	0,31	1	35170,461
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0	47931	0,08	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	16776	1	1	0
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
Sub Total 1							35170,871

1	Preliminary and General	4220,50452	weighting factor 2	4220,50452
			1	
2	Contingencies		3517,0871	3517,0871
Subtotal 2				42908,46

SIGN Ndinanyi Kenneth Singo
 DATE 2020/06/26

VAT (15%)	2773,05
Grand Total	45682



32.3 Confirm that this amount can be provided from operating expenditure.

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

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.

It should be noted that the current expenditure provided for in the Prospecting Works Programme does not included the calculated Financial Provision as included into this Basic Assessment, as these values were not available at the time of the submission of the Prospecting Works Programme.

The provision for closure, should be updated into the Prospecting Works Programme prior the decision by the DMR should this decision be positive.

33. Specific Information required by the competent Authority

33.1 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

33.1.1 Impact on the socio-economic conditions of any directly affected person.

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

Current land uses inside the prospecting area, such as maize farming and grazing, may be temporarily impacted through the presence of the fenced areas that drill rigs will operate within. These are, however, small areas, approximately 10m x10m in total. These areas will be rehabilitated post drilling activities and the areas will once again become available for grazing. The current access roads are fenced.

Potential impacts on communities, individuals or competing land uses in close proximity

The following impacts are regarded as community impacts:

- Potential water and soil pollution resulting from spills and soil erosion;
- Noise due to the undertaking of the drilling;
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices;



- Influx of persons (job seekers) to site because of increased activity and the possible resultant increase in opportunistic crime; and
- Visual Impact
- Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and / or regional communities will result from the prospecting activities.

Measures to manage the potential impacts on communities, individuals or competing land uses in close proximity

- Pollution Prevention
 - Mitigation and management measures must be implemented to prevent environmental pollution which may impact on environmental resources utilized by communities, landowners and other stakeholders. These mitigation and management measures are discussed in the following section.
- Noise due to the undertaking of the prospecting activities;
 - Directly affected, adjacent landowners and game farms in proximity to the site will be informed of the planned dates of drilling. Mitigation alternatives are limited to timing of the drilling which may affect aspects such as hunting activities on game farms.
 - Farms owners must be consulted and informed of activities which may affect cattle being held in restricted holding pens, with a view to prevent possible injury or damage because of animals being startled by the noise.
 - Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances and night-time collisions with fauna.
- Poor access control resulting in impacts on cattle movement, breeding and grazing practices;
 - Access control procedures must be agreed on with farm owners and all staff trained on these procedures.
- Influx of persons (job seekers) to site because of increased activity and the possible resultant increase in opportunistic crime;
 - Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.
 - The landowner (all private and state landowners) will be notified of unauthorised persons encountered on site.



- If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.
- Visual Impact
 - Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as and when needed. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered to conserve water resources.
 - The portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.
 - A waste management system will be implemented, and sufficient waste bins will be provided for on-site. A fine system will be implemented to further prohibit littering and poor housekeeping practices.
- Prospecting will be undertaken by specialist sub-contractors and it is not anticipated that employment opportunities for local and / or regional communities will result from the prospecting activities.

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

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

As outlined in earlier sections of this report, prospecting will be undertaken in phases; the first phase being a desktop assessment, followed drilling.

Where graves or fossils are identified proposed boreholes will be moved to avoid features of this type. If fossils or more graves are discovered, the relevant authorities will be notified immediately, and drilling will be stopped in this area.

The area does not have protected areas, threatened ecosystems or critical biodiversity, however no sensitive parts will be negatively affected by the drilling procedures owing to the small scale of the prospecting activity, the only potential negative impact is related to the proposed borehole sites that will need to be cleared and possibly access roads to some of



these sites. These should be placed on previously disturbed land or tracks. Any natural vegetation should be avoided.

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 have 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 localised 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.

34. 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 proposed site was selected based on extensive research and also following on information from previous and current prospecting as well as mining activities around the area. The area is known for coal resources and there are mines currently mining close to the application area. In terms of the technologies proposed, the proposed prospecting has been chosen based on the history and current state of coal in the area. The prospecting activities proposed in the Prospecting Works Programme (PWP) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.



PART B

35. ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

35.1 Environmental management programme

35.1.1 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).

The requirement for the provision of the details and expertise of the EAP are included in PART A, **section 1(a)**.

35.1.2 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).

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).

35.1.3 Composite Map

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

Exploration is a temporal activity thus no permanent structures will be erected; however a general layout is enclosed.

35.2 Description of Impact management objectives including management statements

35.2.1 Determination of closure objectives.

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

As previously mentioned, each phase of the prospecting activities is dependent on the success of the previous. Depending on the outcome of the Phase 1 assessment, drilling programme will be initiated.

The rehabilitation plan is developed on the basis that the rehabilitated areas are safe, stable, non-polluting and can support a self-sustaining ecosystem similar to surrounding natural environment. To ensure that the rehabilitation plan is aligned with the closure objective, a high-level risk assessment of the prospecting components has been undertaken to establish the potential risks associated therewith.



35.2.2 The closure objectives are to:

- Eliminate any safety risk associated with drill holes and sumps through adequate drill hole capping and backfilling.
- Remove and / or rehabilitate all pollution and pollution sources such as waste materials and spills;
- To establish rehabilitated area which is not subject to soil erosion which may result in the loss of soil, degradation of the environment and cause pollution of surface water resources; and
- Restore disturbed area and re-vegetate these areas with grass species naturally occurring in the area to restore the ecological function of such areas as far as is practicable.

35.3 Environmental Legislation

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

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

As the NEMA is the cornerstone of all environmental legislation, the management measures implemented by Aartoon Mining (Pty) Ltd will strive to adhere to the principles of NEMA:

- That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
- that the disturbance of landscapes and sites that constitute the nations cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
- that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner;
- that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
- that a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
- that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.



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

Water in prospecting activities is required to; reduce the friction between the rock mass and the drill bit hence increasing cutting efficiency of the drill bit, water is also used to cool down the drill bit. Due to the advancement in technology, alternative cutting and cooling mechanisms have been developed whereby air is utilised instead of water. In this project, drill bit which uses air will be used instead of those that use water. Therefore, water needs only relates to portable drinking water of personnel on site. Portable water will be bought from water retailers in containers (25 L) and stored on site.

36.1 Has a water use licence has been applied for?

Section 21 of the National Water Act (Act 36 of 1998) list activities that triggers water use license, after careful assessment of the project area, activities to be undertaken were not found to trigger water use application. Instead appropriate water management measures will be considered to reduce impact on water resources. Best Practice Guidelines will be utilised throughout the prospecting duration of the prospecting activities.



36.2 Impacts to be mitigated in their respective phases

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

Table 22: Impacts and their Respective Phases

ACTIVITIES	PHASE	SIZE AND SCALE of disturbance	MITIGATION MEASURES	COMPLIANCE WITH STANDARDS	TIME PERIOD FOR IMPLEMENTATION
Phase 1: Desktop Study					
Data collection and assessment (desktop only)	Planning	Entire property	1. No mitigation proposed	Identification of the potential coal seams and prospecting activities to occur within sensitive environments such as the pans and river systems, in this event the necessary consultation must be initiated with the DWS.	N/A
Phase 3: Drilling					



Site Access	Construction	Less than 16 000m ²	<p>2. Map indicating the location of each of the drilling sites must be submitted to the relevant landowners, as well as to the DMR and DWS. Upon agreement of the location of the activities can the applicant proceed.</p> <p>3. Use existing track and roads in all instances as far as is practicable.</p> <p>4. Where track clearing is necessary, raised blade clearing will be conducted to minimise disturbance and aid rehabilitation efforts and significant vegetation such as trees and large shrubs will be avoided.</p>	<p>The prospecting activities must be undertaken in line with the approved Prospecting Works Programme.</p> <p>The financial provision required for rehabilitation must be guaranteed before the commencement of prospecting activities.</p> <p>Activities should stay clear of pans and outside of the 32m river buffer in order to avoid the need to apply for a Section 21 (c) and (i) Water Use License.</p>	Concurrently with the completion of prospecting activities in an area.
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			<p>5. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances and night-time collisions with fauna.</p> <p>6. Vehicle speed will be reduced, particularly in highly vegetated areas is one way to avoid deaths by vehicle impacts.</p> <p>7. Where track clearing is necessary, raised blade clearing be conducted to minimise disturbance and aid rehabilitation efforts.</p> <p>8. As part of rehabilitation, all compacted roads and drill pads will be ripped and re-vegetated.</p> <p>9. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances.</p> <p>10. Access control procedures must be agreed on with farm owners and staff trained.</p> <p>11. Prior to the establishment of new access roads, a heritage</p>	
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			impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented		
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<p>Site establishment activities including:</p> <p>(i) Vegetation clearing of drill pad area</p> <p>(j) Topsoil stripping and stockpiling</p> <p>(k) Drill pad compaction</p> <p>(l) Excavation and lining of drill water sump</p> <p>(m) Erection of temporary site office shaded area, potable ablution facilities and water storage tanks and core bay</p> <p>(n) Erection of fuel storage tank</p> <p>(o) Erection of safety barrier</p>	<p>Construction</p>	<p>Approximately 4000m²</p>	<p>12. The removal of vegetation within the drill pad area will be minimized.</p> <p>13. If practicable, raised blade clearing be conducted for the entire drill pad to minimise disturbance and aid rehabilitation efforts.</p> <p>14. The design of the drill fluid sump must incorporate effective fauna egress to avoid entrapment.</p> <p>15. A fire emergency procedure will be developed to contain and minimise the destruction of flora and faunal habitat which may result from fire.</p> <p>16. In the event that the drill pad is cleared of all vegetation, lower blade clearing will be undertaken prior to the stripping of topsoil.</p>	<p>The prospecting activities must be undertaken in line with the approved Prospecting Works Programme.</p> <p>The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in terms of waste management and that all activities are undertaken with a precautionary approach. Where impacts may result a proactive manner should be implemented to ensure that potential negative results are avoided.</p> <p>The applicant must comply with the conditions of the Environmental Authorisation at all times.</p>	<p>Concurrently with the completion of prospecting activities in an area.</p>
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(p) Waste generation and					
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<p><i>management</i></p>			<p>17. Topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p> <p>18. Where practicable topsoil will be stripped to a depth of 10cm.</p> <p>19. Vegetation removed through lower blade clearing will be mixed with topsoil to increase organic content and to preserve the seed bank in order to aid rehabilitation efforts.</p> <p>20. Topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>21. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles to stabilise slopes.</p> <p>22. Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as and when needed.</p>		
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			<p>23. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered in order to conserve water resources.</p> <p>24. The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.</p> <p>25. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</p> <p>26. The landowner (all private and state landowners) will be notified of unauthorised persons encountered on site.</p> <p>27. If deemed necessary, the</p>		
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			<p>South African Police Service will be informed of unauthorised persons encountered on site.</p> <p>28. Prior to the site establishment, a heritage impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented</p>		
<p>Exploration drilling and core sample collection and storage including:</p> <p>(a) Scout and delineation drilling</p> <p>(b) Drill maintenance and re-fuelling</p> <p>(c) Core sample collection and storage</p> <p>(d) Drill fluid collection, storage and evaporation</p>	Operational	<p>Included into the Site establishment size of 18 450m²</p>	<p>29. A sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation.</p> <p>30. The sump will be constructed to divert stormwater away and / or around the sump to avoid clean stormwater inflow.</p> <p>31. In the event that raise blade clearing is not undertaken, and the drill pad is cleared, topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>32. The topsoil stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p>	<p>The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in terms of waste management and that all activities are undertaken with a precautionary approach. Where impacts may result a proactive manner should be implemented to ensure that potential negative results are avoided.</p> <p>The applicant must comply with the conditions of the Environmental Authorisation at all times.</p>	<p>Concurrently with the completion of prospecting activities in an area.</p>



<p>(e) Waste generation and management</p>					
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			<p>33. Management efforts through the use of mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.</p> <p>34. Fuel storage tanks will have a secondary containment structure with a capacity of 110% of the total tank capacity.</p> <p>35. Oils and lubricant will be stored within secondary containment structures.</p> <p>36. Where practicable, vehicle maintenance will be undertaken off-site.</p> <p>37. In the event that vehicle maintenance is undertaken onsite (i.e. such as breakdown maintenance), drip trays and / or UPVC sheets will be used to prevent spills and leaks onto the soil.</p> <p>38. Unused machinery must be completely drained of oil and other hydrocarbons to ensure that leaks do not develop.</p>	
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			<p>39. Regular inspections of all vehicles must be carried out to ensure that all leaks are identified early and rectified.</p> <p>40. A sufficient number of waste receptacles will be provided.</p> <p>41. Waste separation will be undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).</p> <p>42. Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.</p> <p>43. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</p> <p>44. Based on visual observation wet dust suppression will be undertaken as and when required to manage dust emissions from vehicle movement.</p>		
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			<p>45. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.</p> <p>46. Visual impact of structures will be mitigated through measures as included in Item 35.</p> <p>47. Visual dust dispersion will be mitigated through measures as included in Item 33.</p> <p>48. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances.</p> <p>49. Access control procedures must be agreed on with farm owners.</p> <p>50. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.</p>		
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			<p>51. The landowner (the Department of Rural Development and Land Reform) will be notified of unauthorised persons encountered on site.</p> <p>52. If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.</p> <p>53. The prospecting areas must be clearly demarcated.</p> <p>54. No prospecting activities may be undertaken within the pan areas.</p> <p>55. All site plans must indicate the presence of pans.</p>		
<p>Removal of temporary infrastructure including:</p> <p>(a) Removal of temporary site office shaded area, potable ablution facilities, water</p>	Decommissioning	<p>Included into the Site establishment size of 18 450m²</p>	<p>56. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes.</p> <p>57. Drill holes must be permanently capped as soon as is practicable.</p>	<p>The applicant must adhere to the NEMA Section 2 Principle and ensure that a cradle to grave approach is followed in terms of waste management and that all activities are undertaken with a precautionary approach. Where impacts may result a proactive manner should be implemented to</p>	<p>Concurrently with the completion of prospecting activities in an area.</p>



<p>storage tanks and core bay</p>				<p>ensure that potential negative results are avoided.</p>	
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<p><i>(b) Borehole capping</i></p> <p>Drill pad rehabilitation including:</p> <p><i>(a) Ripping of drill pad and access road</i></p> <p><i>(b) Re-spreading of stockpiled topsoil</i></p> <p><i>(c) Re-vegetation</i></p>			<p>58. Based on visual observation wet dust suppression will be undertaken to manage dust emissions from vehicle movement.</p> <p>59. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.</p> <p>60. Access control procedures must be agreed on with farm owners and all staff trained.</p> <p>61. All fuel storage tanks will be emptied prior to removal.</p> <p>62. Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination.</p> <p>63. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</p>	<p>The applicant must comply with the conditions of the Environmental Authorisation at all times.</p>	
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			<p>64. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.</p> <p>65. Re-vegetation will be conducted through hand seeding exposed areas using indigenous grass species as determined by a suitably qualified ecologist.</p> <p>66. Re-vegetation efforts will be monitored every second month for a period of six months after initial seeding.</p> <p>67. An effective vegetation cover of 45% must be achieved. Reseeding will be undertaken if this cover has not been achieved after six months.</p>		
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36.3 Impact Management Outcomes

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

Table 23: Impact Management Outcome

ACTIVITY (whether listed or not listed).	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE (In which impact is anticipated)	MITIGATION TYPE	STANDARD TO BE ACHIEVED
Phase 1: Data Acquisition and Desktop Study					
Data collection and assessment (desktop only)	1. None identified.	N/A	Planning	Control potential deviations from the approved Prospecting Works Programme through the effective implementation of the data acquisition and desktop study.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
Phase 2: Drilling					
Site Access	2. Destruction and / or disturbance of on-site fauna and flora.	Loss of Fauna and Flora	Construction Phase	Control through the clear delineation of the prospecting area.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.



3. Soil compaction resulting from repeated use of access roads to drill sites.	Loss of soil resources	Construction Phase	Control through the clear delineation of the prospecting area. Control through the implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as discussed in the EMP.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.
4. Vehicle traffic noise impact affecting cattle and / or wildlife.	Loss of fauna	Construction Phase	Control through the clear delineation of the prospecting area. Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.

ACTIVITY (whether listed or not listed).	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE (In which impact is anticipated)	MITIGATION TYPE	STANDARD TO BE ACHIEVED
	5. Poor access control resulting in impacts on cattle movement,	Loss of fauna	Construction Phase	Control through the clear delineation of the prospecting area. Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.



	breeding and grazing practices.				
	6. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significance	Construction Phase	Control through the clear delineation of the prospecting area.	Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.
Site establishment activities including: (a) <i>Vegetation clearing of drill pad area</i> (b) <i>Topsoil stripping and stockpiling</i> (c) <i>Drill pad compaction</i> (d) <i>Excavation and lining of drill water sump</i> (e) <i>Erection of temporary site office shaded area,</i>	7. Destruction and / or disturbance of on-site fauna and flora.	Loss of Fauna and Flora	Construction Phase	Control through the clear delineation of the prospecting area.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
	8. Soil disturbance and topsoil stockpiling resulting in soil compaction and erosion.	Loss of soil resources	Construction Phase	Control through the clear delineation of the prospecting area. Control through the implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as discussed in the EMP.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.



<p>potable ablution facilities and water storage tanks and core bay</p> <p>(f) Erection of fuel storage tank</p> <p>(g) Erection of safety barrier</p> <p>(h) Waste generation and management</p>	<p>9. Dust emission resulting from site clearing, soil stripping and construction activities</p> <p>(including vehicle entrained dust).</p>	Dust emissions	Construction Phase	Control to the implementation of dust suppression methods when this is required. Dust suppression methods could include wet suppression.	<p>Remain within the designated area demarcated for prospecting activities.</p> <p>Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.</p>
	<p>10. Visual Impact affecting visual character and "sense of place".</p>	Loss in aesthetics	Construction Phase	<p>Control through the clear delineation of the prospecting area.</p> <p>Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p> <p>No removal of vegetation outside of demarcated areas.</p>
	<p>10 Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft</p>	Increase in petty crimes	Construction Phase	Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.	Maintain a 100% crime free area within the control of the prospecting activities and applicant.



	and opportunistic crime.				
	11. Potential destruction of heritage resources.	Loss of Cultural and/or Heritage Significance	Construction Phase	Control through the clear delineation of the prospecting area. Control through the implementation of environmental induction and toolbox talks.	Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.
Exploration drilling and core sample collection and storage including: (a) Scout and delineation drilling (b) Drill maintenance and re-fuelling (c) Core sample collection and storage (d) Drill fluid collection, storage and evaporation	12. Water and soil pollution resulting from disposal of drill fluids.	Loss of water resources, loss of soil resources	Operational Phase	Control through the clear delineation of the prospecting area. Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system. Control through the implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as discussed in the EMP. Control through the implementation	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.



(e) Waste generation and management				of the NWA GN704 water management principles.	
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ACTIVITY (whether listed or not listed).	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE (In which impact is anticipated)	MITIGATION TYPE	STANDARD TO BE ACHIEVED
	13. Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.	Loss of soil resources	Operational Phase	Control through the clear delineation of the prospecting area. Control through the implementation of a soil management programme in terms of the correct topsoil removal,	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.



			stockpiling and rehabilitation practices as discussed in the EMP	
14. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.	Loss of water resources, loss of soil resources	Operational Phase	Control through the clear delineation of the prospecting area. Control through the implementation of the NWA GN704 water management principles.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.
15. Dust emissions from drilling and general site activities (including vehicle entrained dust)	Increase in dust emissions	Operational Phase	Control to the implementation of dust suppression methods when this is required. Dust suppression methods could include wet suppression.	Remain within the designated area demarcated for prospecting activities. Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.



<p>16. Visual Impact affecting visual character and "sense of place"</p>	<p>Loss in aesthetic value</p>	<p>Operational Phase</p>	<p>Control through the clear delineation of the prospecting area. Control through the implementation of the conditions in the EMP.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. No removal of vegetation outside of demarcated areas.</p>
<p>17. Vehicle traffic and drill noise impact affecting wildlife game farm animals.</p>	<p>Loss of fauna</p>	<p>Operational Phase</p>	<p>Control through the clear delineation of the prospecting area. Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>
<p>18. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.</p>	<p>Loss of cattle</p>	<p>Operational Phase</p>	<p>Control through the clear delineation of the prospecting area. Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system. Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>



	19. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	Increase in petty crimes	Operational Phase	Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.	Maintain a 100% crime free area within the control of the prospecting activities and applicant.
	20. Impact on the pans and associated ecosystems in the area.	Loss of sensitive environments, loss of fauna, loss of flora	Operational Phase	Control through the clear delineation of the prospecting area. Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system. Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
Removal of temporary infrastructure including:	21. Destruction and / or disturbance of on-site fauna.	Loss of sensitive	Decommissioning	Control through the clear delineation of the prospecting area.	Remain within the ambits of the Prospecting Works



ACTIVITY (whether listed or not listed).	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE (In which impact is anticipated)	MITIGATION TYPE	STANDARD TO BE ACHIEVED
<p>(a) Removal of temporary site office shaded area, potable ablution facilities, water storage tanks and core bay</p>		environments, loss of fauna, loss of flora		<p>Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p> <p>Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.</p>	Programme and Environmental Authorisation.
<p>(b) Borehole capping</p> <p>Drill pad rehabilitation including:</p> <p>(a) Ripping of drill pad and access road</p> <p>(b) Re-spreading of stockpiled topsoil</p>	22. Dust emissions from decommissioning activities (including vehicle entrained dust).	Increase in dust emissions	Decommissioning	<p>Control to the implementation of dust suppression methods when this is required. Dust suppression methods could include wet suppression.</p>	<p>Remain within the designated area demarcated for prospecting activities.</p> <p>Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.</p>



(c) Re-vegetation

<p>23. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.</p>	<p>Loss of cattle</p>	<p>Decommissioning</p>	<p>Control through the clear delineation of the prospecting area.</p> <p>Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p> <p>Control through the limiting of the activities to the daytime and the implementation of an open and transparent channel of communication.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>
<p>24. Potential water and soil pollution resulting from hydrocarbon spills.</p>	<p>Loss of water resources, loss of soil resources</p>	<p>Decommissioning</p>	<p>Control through the clear delineation of the prospecting area.</p> <p>Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p> <p>Control through the implementation of the NWA GN704 water management principles.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>



<p>25. Soil erosion resulting from the re-spreading of topsoil before vegetation is re-established.</p>	<p>Loss of soil resources</p>	<p>Decommissioning</p>	<p>Control through the clear delineation of the prospecting area.</p> <p>Control through the implementation of environmental induction and toolbox talks, as well as the implementation of a fine system.</p> <p>Control through the implementation of a soil management programme in terms of the correct topsoil removal, stockpiling and rehabilitation practices as discussed in the EMP.</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>
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36.4 Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes contemplated)

Table 24: Impact Management Actions

ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
Phase 1: Data Acquisition and Desktop Study				
Data collection and assessment (desktop only)	1. None identified.	1. No mitigation proposed	N/A	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
Phase 2: Drilling				
ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
	Site establishment	1. Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night-time noise disturbances and night-time collisions with fauna. 2. Vehicle speed will be reduced, particularly in highly vegetated areas		



		is one way to avoid deaths by vehicle impacts.		
	3. Soil compaction	3. Where track clearing is necessary, raised blade clearing be conducted to minimise disturbance and aid rehabilitation efforts. 4. As part of rehabilitation, all compacted roads and drill pads will be ripped and re-vegetated.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. Retain topsoil integrity for the reuse in rehabilitation.
	4. Vehicle traffic noise impact affecting cattle and / or wildlife.	5. Site activities will be conducted during daytime hours 07h00 – 17h30 to avoid night-time noise disturbances.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
	5. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	6. Access control procedures must be agreed on with farm owners and staff trained.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.



	6. Potential destruction of heritage resources.	7. Prior to the establishment of new access roads, a heritage impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented	Concurrently with the completion of prospecting activities	Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.
Site establishment activities including: (a) <i>Vegetation clearing of drill pad area</i> (b) <i>Topsoil stripping and stockpiling</i> (c) <i>Drill pad compaction</i> (d) <i>Excavation and lining of drill water sump</i> (e) <i>Erection of temporary site office shaded area, potable ablution facilities and water storage tanks and core bay</i> (f) <i>Erection of fuel storage tank</i>	7. Destruction and / or disturbance of on-site fauna and flora.	8. The removal of vegetation within the drill pad area will be minimized. 9. If practicable, raised blade clearing be conducted for the entire drill pad to minimise disturbance and aid rehabilitation efforts.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
		10. The design of the drill fluid sump must incorporate effective fauna egress to avoid entrapment. 11. A fire emergency procedure will be developed to contain and minimise the destruction of flora and faunal habitat which may result from fire.		



<p>(g) Erection of safety barrier</p> <p>(h) Waste generation and management</p>				
	<p>8. Soil disturbance and topsoil stockpiling resulting in soil compaction and erosion.</p>	<p>12. In the event that the drill pad is cleared of all vegetation, lower blade clearing will be undertaken prior to the stripping of topsoil.</p> <p>13. Topsoil including the remaining vegetation, will be stripped and stockpiled up-slope of the pad. The stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p> <p>Retain topsoil integrity for the reuse in rehabilitation.</p>
<p>ACTIVITY (whether listed or not listed)</p>	<p>POTENTIAL IMPACT</p>	<p>MITIGATION TYPE</p>	<p>TIME PERIOD FOR IMPLEMENTATION</p>	<p>COMPLIANCE WITH STANDARDS</p>



		<p>14. Where practicable topsoil will be stripped to a depth of 10cm.</p> <p>15. Vegetation removed through lower blade clearing will be mixed with topsoil to increase organic content and to preserve the seed bank in order to aid rehabilitation efforts.</p> <p>16. Topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>17. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles to stabilise slopes.</p>		
	<p>9. Dust emission resulting from site clearing, soil stripping and construction activities (including vehicle entrained dust).</p>	<p>18. Based on visual observation, wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other construction activities as and when needed.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the designated area demarcated for prospecting activities.</p> <p>Remain within the National</p>

ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
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		19. Depending on the need and quantity of water used for wet suppression, a suitable, low environmental impact chemical suppression alternative must be considered in order to conserve water resources.		Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.
	10. Visual Impact affecting visual character and "sense of place".	20. The shaded office area, portable ablution facilities, vertical water tanks and any other infrastructure should be acquired with a consideration for colour. Natural earth, green and mat black options which will blend in with the surrounding area must be favoured.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. No removal of vegetation outside of demarcated areas.
	11. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	21. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment.		Maintain a 100% crime free area within the control of the prospecting activities and applicant.



ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
		<p>22. The landowner (all private and state landowners) will be notified of unauthorised persons encountered on site.</p> <p>23. If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.</p>		
	<p>12. Potential destruction of heritage resources.</p>	<p>24. Prior to the site establishment, a heritage impact assessment must be undertaken and mitigation and / or management measure for the protection of such resources must be implemented</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Comply with the requirements by SAHRA. No damage may result on heritage and cultural significant sites.</p>



<p>Exploration drilling and core sample collection and storage including:</p> <p>(a) Scout and delineation drilling</p> <p>(b) Drill maintenance and re-fuelling</p> <p>(c) Core sample collection and storage</p> <p>(d) Drill fluid collection, storage and evaporation</p> <p>Waste generation and management</p>	<p>13. Water and soil pollution resulting from disposal of drill fluids.</p>	<p>25. A sump will be constructed with a sufficient capacity to receive drill fluids and allow for evaporation.</p> <p>26. The sump will be constructed to divert stormwater away and / or around the sump to avoid clean stormwater inflow.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p> <p>Retain topsoil integrity for the reuse in rehabilitation.</p>
	<p>14. Continued soil erosion from topsoil stockpile and soil compaction from drill pad platform.</p>	<p>27. In the event that raise blade clearing is not undertaken, and the drill pad is cleared, topsoil will be stockpiles to a maximum height of 1.5m with a side slope of not more than 1:3.</p> <p>28. The topsoil stockpile will be shaped to divert stormwater around the drill pad to minimise soil erosion of the pad.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p> <p>Retain topsoil integrity for the reuse in rehabilitation.</p>



		29. Management efforts through the use of mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.		
ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS



	<p>15. Potential water and soil pollution resulting from hydrocarbon spills and drill maintenance activities.</p>	<p>30. Fuel storage tanks will have a secondary containment structure with a capacity of 110% of the total tank capacity.</p> <p>31. Oils and lubricant will be stored within secondary containment structures.</p> <p>32. Where practicable, vehicle maintenance will be undertaken off-site.</p> <p>33. In the event that vehicle maintenance is undertaken on-site (i.e. such as breakdown maintenance), drip trays and / or UPVC sheets will be used to prevent spills and leaks onto the soil.</p> <p>34. Unused machinery must be completely drained of oil and other hydrocarbons to ensure that leaks do not develop.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p> <p>Retain topsoil integrity for the reuse in rehabilitation.</p>
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		<p>35. Regular inspections of all vehicles must be carried out to ensure that all leaks are identified early and rectified.</p> <p>36. A sufficient number of waste receptacles will be provided.</p> <p>37. Waste separation will be undertaken at source and separate receptacles will be provided (i.e. general waste, recyclables and hazardous waste).</p> <p>38. Receptacles will be closed (i.e. fitted with a lockable lid) to eliminate the possibility of access by animals overnight.</p> <p>39. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</p>		
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ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
	16. Dust emissions from drilling and general site activities (including vehicle entrained dust)	40. Based on visual observation wet dust suppression will be undertaken as and when required to manage dust emissions from vehicle movement. 41. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.	Concurrently with the completion of prospecting activities	Remain within the designated area demarcated for prospecting activities. Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.
	17. Visual Impact affecting visual character and "sense of place"	42. Visual impact of structures will be mitigated through measures as included in Item 35. 43. Visual dust dispersion will be mitigated through measures as included in Item 33.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation. No removal of vegetation outside of demarcated areas.
	18. Vehicle traffic and drill noise impact affecting wildlife game farm animals.	44. Site activities will be conducted during daytime hours 07h00 – 17h00 to avoid night-time noise disturbances.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.



	19. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	45. Access control procedures must be agreed on with farm owners.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
	20. Influx of persons (job seekers) to site as a result of increased activity resulting in increased incidents of theft and opportunistic crime.	46. Casual labour will not be recruited at the site to eliminate the incentive for persons travelling to site seeking employment. 47. The landowner (the Department of Rural Development and Land Reform) will be notified of unauthorised persons encountered on site. 48. If deemed necessary, the South African Police Service will be informed of unauthorised persons encountered on site.	Concurrently with the completion of prospecting activities	Maintain a 100% crime free area within the control of the prospecting activities and applicant.
ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS



	21. Impact on the pans and associated ecosystems in the area.	49. The prospecting areas must be clearly demarcated. 50. No prospecting activities may be undertaken within the pan areas. 51. All site plans must indicate the presence of pans.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
Removal of temporary infrastructure including: (a) Removal of temporary site office shaded area, potable ablution facilities, water storage tanks and core bay (b) Borehole capping Drill pad rehabilitation including:	22. Destruction and / or disturbance of on-site fauna.	52. Drill holes must be temporarily plugged immediately after drilling is completed and remain plugged until they are permanently plugged below ground to eliminate the risk posed to fauna by open drill holes. 53. Drill holes must be permanently capped as soon as is practicable	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.



(a) Ripping of drill pad				
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ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
<i>and access road</i> (b) <i>Re-spreading of stockpiled topsoil</i> (c) <i>Re-vegetation</i>				



	23. Dust emissions from decommissioning activities (including vehicle entrained dust).	54. Based on visual observation wet dust suppression will be undertaken to manage dust emissions from vehicle movement. 55. Depending on the need and quantity of water used for wet suppression, chemical suppression alternatives must be considered in order to conserve water resources.	Concurrently with the completion of prospecting activities	Remain within the designated area demarcated for prospecting activities. Remain within the National Environmental Management: Air Quality Act, 2004 Dust Regulation guidelines for rural communities.
	24. Poor access control resulting in impacts on cattle movement, breeding and grazing practices.	56. Access control procedures must be agreed on with farm owners and all staff trained.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
	25. Potential water and soil pollution resulting from hydrocarbon spills.	57. All fuel storage tanks will be emptied prior to removal.	Concurrently with the completion of prospecting activities	Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.
ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS



		<p>58. Drill holes must be permanently capped as soon as is practicable to eliminate the risk of groundwater contamination.</p> <p>59. Wastes will be removed and disposed of at an appropriately licensed landfill (facility disposal licenses will be verified) and recyclables will be taken to a licensed recycling facility.</p>		
	<p>26. Soil erosion resulting from the re-spreading of topsoil before vegetation is re-established.</p>	<p>60. Mechanical erosion control methods will be implemented if required. This may include the use of geotextiles.</p> <p>61. Re-vegetation will be conducted through hand seeding exposed areas using indigenous grass species as determined by a suitably qualified ecologist.</p>	<p>Concurrently with the completion of prospecting activities</p>	<p>Remain within the ambits of the Prospecting Works Programme and Environmental Authorisation.</p>

ACTIVITY (whether listed or not listed)	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
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		<p>62. Re-vegetation efforts will be monitored every second month for a period of six months after initial seeding.</p> <p>63. An effective vegetation cover of 45% must be achieved. Re-seeding will be undertaken if this cover has not been achieved after six months.</p>		
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37. Financial Provision

37.1 Determination of the amount of Financial Provision.

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

As previously mentioned, each phase of the prospecting activities is dependent on the success of the previous. Depending on the outcome of the Phase 1 assessment, drilling programme will be initiated. The location and extent drill sites can therefore not be determined at this stage.

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

- Eliminate any safety risk associated with drill holes and sumps through adequate drill hole capping and backfilling.
- Remove and / or rehabilitate all pollution and pollution sources such as waste materials and spills
- To establish rehabilitated area which is not subject to soil erosion which may result in the loss of soil, degradation of the environment and cause pollution of surface water resources
- Restore disturbed area and re-vegetate these areas with grass species naturally occurring in the area to restore the ecological function of such areas as far as is practicable as committed in the EMPr
- To record and communicate the results of the monitoring programme during decommissioning to the participating stakeholders.
- To receive an effective closure certificate (should the prospect indicate that the resource(s) would not support a sustainable mining operation)

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

This Basic Assessment Report and Environmental Management Plan will be made available to each registered stakeholder for review and comment. All comments will be captured in the issues and response section and will be included into the final report.

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



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

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

39. 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.

As previously mentioned, each phase of the prospecting activities is dependent on the success of the previous. Depending on the outcome of the Phase 1 assessment, an airborne / ground geophysics survey and/or loam sampling programme will be initiated. Targets that have been prioritized through detailed anomaly-specific loam sampling will be tested by initial drilling.

The location and extent of soil sampling and drill sites can therefore not be determined at this stage thus mapping of the prospecting activities could not be undertaken.

Due to the nature of the activities, the impacts will be very limited and of short duration. The management plan is provided in such a manner as to ensure concurrent rehabilitation. The areas for drilling purposes will be the main area experiencing impacts. In this event the activities will be temporary in nature, and a detailed management plan has been provided to address potential impacts associated with these activities.

The only rehabilitation that will specifically be required is borehole capping and revegetation:

- **Borehole capping**

Drill holes must be permanently capped as soon as is practicable Table 25 below provides the rehabilitation plan for the proposed prospecting area.

- **Re-vegetation**

It is recommended that a standard commercial fertilizer high in the standard elements is added to the soil before re-vegetation, at a rate of 10-20kg/ha (application rate to be confirmed based on input from a suitably qualified specialist). The fertilizer should be added to the soil in a slow release granular form.

A suitably qualified ecologist will be appointed to determine the appropriate veld grass mix for hand seeding.



Re-vegetation efforts will be monitored every second month for a period of six months after initial seeding. An effective vegetation cover of 45% must be achieved. Re-seeding will be undertaken if this cover has not been achieved after six months.

Table 25: Rehabilitation Plan

Aspect / Impact	Rehabilitation Measure	Monitoring Frequency & Responsibility
Removal of construction structures	<ul style="list-style-type: none"> • Clear and completely remove from site all construction plant equipment, storage containers, signage, temporary fencing, temporary services, fixtures and any other temporary works (excluding those already on the site); and • Ensure that all access roads utilised during construction (which are not earmarked for closure and rehabilitation) are returned (as far as possible) to their state prior to construction. 	Once off, Aartoon Mining (Pty) Ltd
Vegetation clearing/Replanting	<ul style="list-style-type: none"> • Remove any emerging alien and invasive vegetation to prevent further establishment; • All planting work is to be undertaken by suitably qualified personnel making use of the appropriate equipment; • Transplant during the winter (between April and September); and • Plant indigenous plants to minimise the spread of alien and invasive vegetation. 	When revegetation is done and in blooming season, Aartoon Mining (Pty) Ltd



<p>Topsoil replacement</p>	<ul style="list-style-type: none"> • Replace and redistribute stockpiled topsoil together with herbaceous vegetation, overlying grass and other fine organic matter in all disturbed areas of the prospecting site, including temporary access routes and roads. Replace topsoil to the original depth (i.e. as much as was removed prior to construction). • Prohibiting the use of topsoil suspected to be contaminated with the seed of alien vegetation .Alternatively, the soil is to be sprayed with specified herbicides. • Backfill planting holes with excavated material / approved topsoil, thoroughly mixed with weed free manure or compost (per volume about one quarter of the plant hole), one cup of 2:3:2 fertiliser and an approved ant and termite poison. 	<p>Once off, Aartoon Mining (Pty) Ltd</p>
<p>Waste and Rubble Removal</p>	<ul style="list-style-type: none"> • Clear the site of all inert waste and rubble, including surplus rock, foundations and batching plant aggregates. • Remove from site all domestic waste and dispose of in the approved manner at a registered waste disposal site. 	<p>Once off, Aartoon Mining (Pty) Ltd</p>



Solid & Hazardous Waste	<ul style="list-style-type: none"> • Environmental Management Programme (EMPR). • Dispose of all hazardous waste not earmarked for reuse, recycling or resale at a registered hazardous waste disposal site. • Remove from site all temporary fuel stores, hazardous substance stores, hazardous waste stores and pollution control sumps. Dispose of hazardous waste in the approved manner. • Do not hose oil or fuel spills into a storm water drain or sewer, or into the surrounding natural environment. • Dispose of all visible remains of excess cement and concrete after the completion of tasks. Dispose of in the approved manner (solid waste concrete may be treated as inert construction rubble, but wet cement and liquid slurry, as well as cement powder must be treated as hazardous waste). 	Once off, Aartoon Mining (Pty) Ltd
Erosion protection	<ul style="list-style-type: none"> • Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction site. • Retain shrubbery and grass species wherever possible. • Perform regular monitoring and maintenance of erosion control measures. 	After rainfall events

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

Due to the nature of the activities, the impacts will be very limited and of short duration. The management plan is provided in such a manner as to ensure concurrent rehabilitation. The areas for drilling purposes will be the main area experiencing impacts. In this event the activities will be temporary in nature, and a detailed management plan has been provided to address potential impacts associated with these activities.

This plan will also include:



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

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

The quantum of the financial provision required is therefore: R45 682.00. The Company must annually update and review the quantum of the financial provision (Regulation 54 (2)). Table for calculations attached below.

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

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



Table 26: Financial Provision

CALCULATION OF THE QUANTUM

Applicant: **Aartoon Mining (Pty) Ltd** Ref No.: **MP 30/5/1/1/2/ (15628) PR**
 Evaluator: **Kenneth Singo** Date: **Jun-20**

No.	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighting factor 1	Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	16	0,8	0,08	0
2 (A)	Demolition of steel buildings and structures	m2	0	228	0,08	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	336	0,07	1	0
3	Rehabilitation of access roads	m2	0,01	41	1	1	0,41
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	395	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	216	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	455	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	238697	1	1	0
7	Sealing of shafts adits and inclines	m3	0	122	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	159131	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	198195	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	575653	1	1	0
9	Rehabilitation of subsided areas	ha	0	133249	1	1	0
10	General surface rehabilitation	ha	0,9	126059	0,31	1	35170,461
11	River diversions	ha	0	126059	1	1	0
12	Fencing	m	0	144	1	1	0
13	Water management	ha	0	47931	0,08	1	0
14	2 to 3 years of maintenance and aftercare	ha	0	16776	1	1	0
15 (A)	Specialist study	Sum	0	0	1	1	0
15 (B)	Specialist study	Sum	0	0	1	1	0
Sub Total 1							35170,871
1	Preliminary and General		4220,50452	weighting factor 2			4220,50452
				1			
2	Contingencies			3517,0871			3517,0871
Subtotal 2							42908,46
VAT (15%)							2773,05
Grand Total							45682
SIGN	Ndinanyi Kenneth Singo						
DATE	2020/06/26						



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

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

Table 27: 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
Phase1: Data Acquisition and Desktop Study	None identified.	None	N/A	N/A

Phase 2: Target Generation and Ground Truthing	Noise impacts resulting from site flyovers affecting cattle and game farm animals	Adjacent landowners will be informed of the planned dates of the Airborne geophysics survey and a grievance mechanism will be made available.	Prospecting Manager	<p>Once-off upfront consultation with affected parties.</p> <p>As required as grievances are received.</p> <ol style="list-style-type: none"> 1. Consultation to be signed off by Environmental Management. 2. All grievances to be signed-off by Environmental Management.
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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
				<ol style="list-style-type: none"> 3. All corrective action and close out of grievances to be signed-off by Environmental Management. 4. Proof of consultation to be submitted to the Department of Mineral Resources prior to airborne survey is conducted.

				5. Record of grievances, corrective action taken and close out to be submitted to the Department of Mineral resources at the end of the project phase.
Phase 3: Ground Geophysics and Soil Sampling	All site activities to be undertaken must be communicated with directly affected landowners.	As soon as the extent of site activities are known. These must be communicated with directly affected landowners. The following procedures must develop in conjunction with these landowners: 1. Emergency Preparedness and	Prospecting Manager	1. Confirmation of the extent of site activities to be submitted to the Department of Mineral Resources prior to such activities been undertaken. 2. Proof of consultation with directly affected landowners and the

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
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		<p>Response Plan; and</p> <p>2. Access control procedures and requirements.</p>		<p>outcome of such consultation to be submitted to the Department of Mineral Resources.</p> <p>3. Continuous monitoring of compliance with the access control procedure will be undertaken.</p>
Phase III: Exploratory Drilling	Visual inspection of soil erosion and / or compaction	All exposed areas, access roads, the drill pad and soil stockpiles must be monitored for erosion on a regular basis and specifically after rain events.	Prospecting Manager Contractor	<p>Weekly and after rain events</p> <p>1. Monthly monitoring reports to be signed-off by the Environmental Manager.</p> <p>2. Corrective action to be confirmed and signed-off by the Environmental Manager.</p> <p>3. Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.</p>
	Dust generated will be assessed through visual observation	If dust outfall is excessive and regarded to affect any sensitive receptors a monitoring programme must be initiated based on the input	Prospecting Contractor Manager	On-going

		of a suitably qualified air quality specialist.		
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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
				<ol style="list-style-type: none"> 1. Monthly monitoring reports to be signed-off by the Environmental Manager. 2. Corrective action to be confirmed and signed-off by the Environmental Manager. 3. Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.

	Visual inspection of biodiversity impacts and the occurrence of invader species	Visual inspection of clearing activities and other possible secondary impact on biodiversity will be undertaken. The introduction of alien invasive vegetation species will be determined.	Prospecting Manager Contractor	Once-off during clearing activities Weekly inspection of secondary impacts 1. Monthly monitoring reports to be signed-off by the Environmental Manager. 2. Corrective action to be confirmed and signed-off by the Environmental Manager.
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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
				3. Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources.

	<p>Visual inspection of pollution incidents, the integrity of secondary containment structures and waste management</p>	<p>All secondary containment structure will be inspected on a regular basis to confirm the integrity thereof and to identify potential leaks.</p> <p>All spill incidents will be identified, and corrective action taken in accordance with an established spill response procedure.</p> <p>Waste management practices will be monitored to prevent contamination and littering.</p>	<p>Prospecting Manager Contractor</p>	<p>Daily</p> <ol style="list-style-type: none"> 1. Monthly monitoring reports to be signed-off by the Environmental Manager. 2. Corrective action to be confirmed and signed-off by the Environmental Manager. 3. Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources. 4. Incident reporting will be undertaken as required in terms of the relevant legislation including, but
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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
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				<p>not limited to, the:</p> <p>a) Mineral and Petroleum Resources Development Act 28 of 2002; and</p> <p>b) National Water Act 36 of 1998.</p>
Post Closure Monitoring	Follow up inspections and monitoring of rehabilitation	<p>Inspection of all rehabilitated areas to assess whether any soil erosion is occurring and implement corrective action where required.</p> <p>Confirm that the set target of 45% cover for all re-vegetated areas have been achieved after a period of 6 months and re-seed where required</p> <p>Identify any areas of subsidence around drill holes and undertake additional backfilling if required.</p>	Prospecting Manager	<p>Monthly for a period of 6 months after rehabilitation activities are concluded.</p> <ol style="list-style-type: none"> 1. Monthly monitoring reports to be signed-off by the Environmental Manager. 2. Corrective action to be confirmed and signed-off by the Environmental Manager. 3. Consolidated monthly monitoring reports (including the corrective action taken) to be submitted to the Department of Mineral Resources. 4. Final impact and risk

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
				<p>assessment report for site closure to be submitted to the Department of Mineral Resources for approval.</p>

43.1 Indicate the frequency of the submission of the performance assessment/ environmental audit report

Annual performance assessments must be undertaken on the EMP. These reports must also include the assessment of the financial provision. The reports should be submitted to the DMR.

43.2 Environmental Awareness Plan

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

An Environmental Awareness and Risk Assessment Schedule have been developed and is outlined in the table below. The purpose of this schedule is to ensure that employees are not only trained but that the principles are continuously reinforced.

Table 28: Environmental Training and Awareness Schedule

Frequency	Time allocation	Objective
Induction (all staff and workers)	1-hour training on environmental awareness training as part of site induction	<ol style="list-style-type: none"> 1. Develop an understanding of what is meant by the natural environmental and social environment and establish a common language as it relates to environmental, health, safety and community aspects. 2. Establish a basic knowledge of the environmental legal framework and consequences of non-compliance. 3. Clarify the content and required actions for the implementation of the Environmental Management Plan. 4. Confirm the spatial extent of areas regarded as sensitive and clarify restrictions. 5. Provide a detailed understanding of the definition, the method for identification and required response to emergency incidents.
Monthly Awareness Talks (all staff and workers)	30-minute awareness talks	Based on actual identified risks and incidents (if occurred) reinforce legal requirements, appropriate responses and measures for the adaptation of mitigation and/or management practices.
Risk Assessments (supervisor and workers involved in task)	Daily task-based risk assessment	Establish an understanding of the risks associated with a specific task and the required mitigation and management measures on a daily basis as part of daily toolbox talks.



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

As prescribed in the table above, Task / Issue Based Risk Assessments must be undertaken with all worker involved in the specific task in order to establish an understanding of the risks associated with a specific task and the required mitigation and management measures.

Environmental Awareness Training Content – Induction Training

The following environmental awareness training will be provided to all staff and workers who will be involved in prospecting activities.

- Description of the approved prospecting activities and content of the prospecting right;
- An overview of the applicable legislation and regulations as it relates to environmental, health, safety and community including (but not limited to):
 - General Environmental Legal Principles and Requirements
 - Air Quality Management
 - Water and Wastewater Management
 - Hazardous Substances
 - Non-Mining-Related Waste Management
 - The Appropriate Remediation Strategies & Deteriorated Water Resources
 - Biodiversity
 - Weeds and Invader Plants
 - Rehabilitation
 - Contractors and Tenants
 - Energy & Conservation
 - Heritage Resources
 - General Health and Safety Matters
 - Basic Conditions of Employment
 - Compensation for Occupational Injuries and Diseases
 - General Mine Health and Safety Matters
 - Smoking in the Workplace
 - Noise & Hearing Conservation
 - Handling, Storage and use of Hazardous Substances
 - Weapons and Firearms
- Content and implementation of the approved Environmental Management Plan
 - Allocated responsibilities and functions
 - Management and Mitigation Measures



- Identification of risks and requirements adaptation
- Sensitive environments and features
 - Description of environmentally sensitive areas and features
 - Prohibitions as it relates to activities in or in proximity to such areas
- Emergency Situations and Remediation
 - Methodology for the identify areas where accidents and emergency situations may occur, communities and individuals that may be impacted
 - An overview of the response procedures,
 - Equipment and resources
 - Designate of responsibilities
 - Communication, including communication with potentially Affected Communities
 - Training schedule to ensure effective response.

Development of procedures and checklists

The following procedures will be developed, and all staff and workers will be adequately trained on the content and implementation thereof.

Emergency Preparedness and Response

The procedure will be developed to specifically include risk identification, preparedness, response measures and reporting. The procedure will specifically include spill and fire risk, preparedness and response measures. The appropriate emergency control centres (fire department, hospitals) will be identified and the contact numbers obtained and made available on site. The procedure must be developed in consultation with all potentially affected landowners.

In the event that risks are identified which may affected adjacent landowners (or other persons), the procedure will include the appropriate communication strategy to inform such persons and provide response measures to minimize the impact.

Incident Reporting Procedure

Incident reporting will be undertaken in accordance with an established incident reporting procedure to (including but not limited to):

- Provide details of the responsible person including any person who: (i) is responsible for the incident; (ii) owns any hazardous substance involved in the incident; or (iii) was in control when the incident occurred;
- Provide details of the incident (time, date, location);



- The details of the cause of the incident;
- Identify the aspects of the environment impacted;
- The details corrective action taken, and
- The identification of any potential residual or secondary risks that must be monitored and corrected or managed.

Environmental and Social Audit Checklist

An environmental audit checklist will be established to include the environmental and social mitigation and management measures as developed and approved as part of the Environmental Management Plan. Non-conformances will be identified, and corrective action taken where required.

44. Specific information required by the Competent Authority

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

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



45. 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

Name of company:

Date: 17 April 2018

Undertaking by the client:

Herewith I, the person whose name and identity number is stated below, confirm that I am the person authorised to act as representative of the applicant in terms of the resolution submitted with the application, and confirm that the above report comprises EIA and EMP compiled in accordance with the guideline on the Departments official website and the directive in terms of sections 29 and 39 (5) in that regard, and the applicant undertakes to execute the Environmental management plan as proposed.

Full Names and Surname	Kekana Molefe Harry
Identity Number	6507105590085



Designation	Director
Signature (Cut and Pasted from appointment letter by EAP)	
Date	

-END-



Annexures

Annexure A: Environmental Authorisation Acceptance Letter



terms of section 16(2) of the Act as amended by section 12(b) of the Amendment Act.

2. Please take notice that in terms of section 16(4) of the Act as amended by section 12(d)(a) and 12(d)(b) of the Amendment Act, you are required to:-

2.1. to consult in the prescribed manner with the landowner, lawful occupier and any interested and affected party including the Land Restitution Commission and submit the result of such consultation on or before the 24 April 2020

3. You are in terms of section 17(1) of the Act as amended by section 13(c) of the Amendment Act required to give effect to the objects referred to in section 2(d) of the Act to ensure that you are **BBBEE compliant**. Therefore please submit on or before 24 April 2020 to this office for the attention of the writer here on any documentation proving such including but not limited to:-

- 3.1. Certified copies of share certificates and share holders register
- 3.2. Certified copies of Shareholders agreements
- 3.3. Certified copies articles and memorandum of association of the company
- 3.4. Trust deed documents and letters of authority for any trust holding shares
- 3.5. Details relating to funding (all relevant agreements)
- 3.6. Any other information that may be necessary to explain and serve as evidence that the applicant meets the appropriate HDSA ownership and/or compliance requirements of the aforesaid Act and Mining Charter; **thereby including women and communities in your structure.**

Acceptance of a Prospecting Right of Aarton Mining (Pty) Limited under file reference number 15628PR- Lucky





BACKGROUND INFORMATION DOCUMENT (BID)

For coal prospecting right on portions 3, 4, 7, 14 & 18 of the
farm Middelburg Alias Mat Jesgodkuil 266 IR, Mpumalanga
MP305/1/1/2/15628PR

PREPARED FOR

AARTOON MINING (PTY) LTD

44357 Lesedi Str, Willow Minor Ext 4,

Pretoria, Gauteng, 0184

Tel:079 024 2252

Email: kekanamolfs@gmail.com

PREPARED BY



Singo Consulting (Pty) Ltd

Office No. 16, First Floor (South Block),

Corridor Hill Crossing, 9 Langa Crescent, Corridor Hill,

eMalahleni (Witbank), 1040

Tel: 013 692 0041

Cell: 072-081-6682/078-2727-839

Fax: 086-514-4103

E-mail: kenneth@singoconsulting.co.za

Purpose

The purpose of this Background Information Document (BID) is to consult with lawful landowner(s), stakeholders and all Interested and Affected Parties (I&APs) of the proposed prospecting project and to provide them with the opportunity to receive information, provide comments, and to raise any concerns related to the prospecting right application process.

Introduction

Aartoon Mining (Pty) Ltd has applied for a Prospecting Right with associated Environmental Authorisation in order to prospect coal. The application was lodged with the Mpumalanga Province Department of Mineral Resources and accepted on the 10th of March 2020. In order to undertake prospecting activities, Aartoon Mining (Pty) Ltd requires a granted Prospecting Right (PR) in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act No.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 275: 2017). Aartoon Mining (Pty) Ltd is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998) which requires the submission of an Environmental Management Plan Report. Singo Consulting (Pty) Ltd has been appointed by Aartoon Mining (Pty) Ltd to be the Environmental Assessment Practitioner (EAP) to assist in complying with these requirements.

Table 29: Environmental Assessment Practitioner Details

ENVIRONMENTAL ASSESSMENT PRACTITIONER	SINGO CONSULTING (PTY) LTD
Contact Person(s)	: Nokuthula Nkosi
Cell No.	: 076 607 4041 / 081 386 8589
Tell No.	: 013 692 0041
Fax No.	: 086 5144 103
Email(s)	: nokuthula@singoconsulting.co.za
Physical Address	: Office No: 16 First Floor (South Block) Corridor Hill Crossing 09 Langa Crescent, Corridor Hill, eMalahleni, 1035.
Postal Address	: Private Bag X 7297, Postnet Suite 87, Highveld mall Witbank 1035

Table 30: Project Applicant Details

NAME OF APPLICANT	AARTOON MINING (PTY) LTD
Contact Person	: Mr. Kekana
Tell No.	: 079 024 2252
Fax No.	: 086 5144 103
Email	: kekanamolfs@gmail.com
Physical Address	: 44357 Lesedi Str, Willow Minor Ext 4, Pretoria, Gauteng, 0184
Postal Address	: 44357 Lesedi Str, Willow Minor Ext 4, Pretoria, Gauteng, 0184
DMR Reference No.	: MP305/1/1/2/15628PR

Aim of the BID

This document aims to provide the following:

- To provide background information to landowners and interested and affected parties (I&APs) on the proposed prospecting activities and the legal framework;
- To give an overview of environmental baseline information and environmental impacts that may potentially occur;
- To explain the Public Participation Process (PPP) to be followed; and
- To consult stakeholders and provide them the opportunity to register as I&APs.

NOTE: The proposed application directly affects portions owned by: **VANGGATFONTEIN BELEGGINGS PTY LTD (PTN 3 & 4), CYGNUS FARMING PTY LTD (PTN 7), KALLIE MADEL TRUST (PTN 14), RALETHONGOANE TRUST INV PTY LTD (PTN 18)**. Please kindly contact us immediately so that a formal meeting can be arranged with you, to formally notify, discuss activities to be undertaken and conditions of accessing your land. Your assistance will be highly appreciated.

Locality

The area of interest is approximately 14.86 km south east of Delmas, roughly 15.73 km north west of Leandra and about 29.21 km north east of Ogies within the Delmas Magisterial District. Figure 1 below indicates the locality of the project while **Figure 45** is the google earth view of the proposed project area.

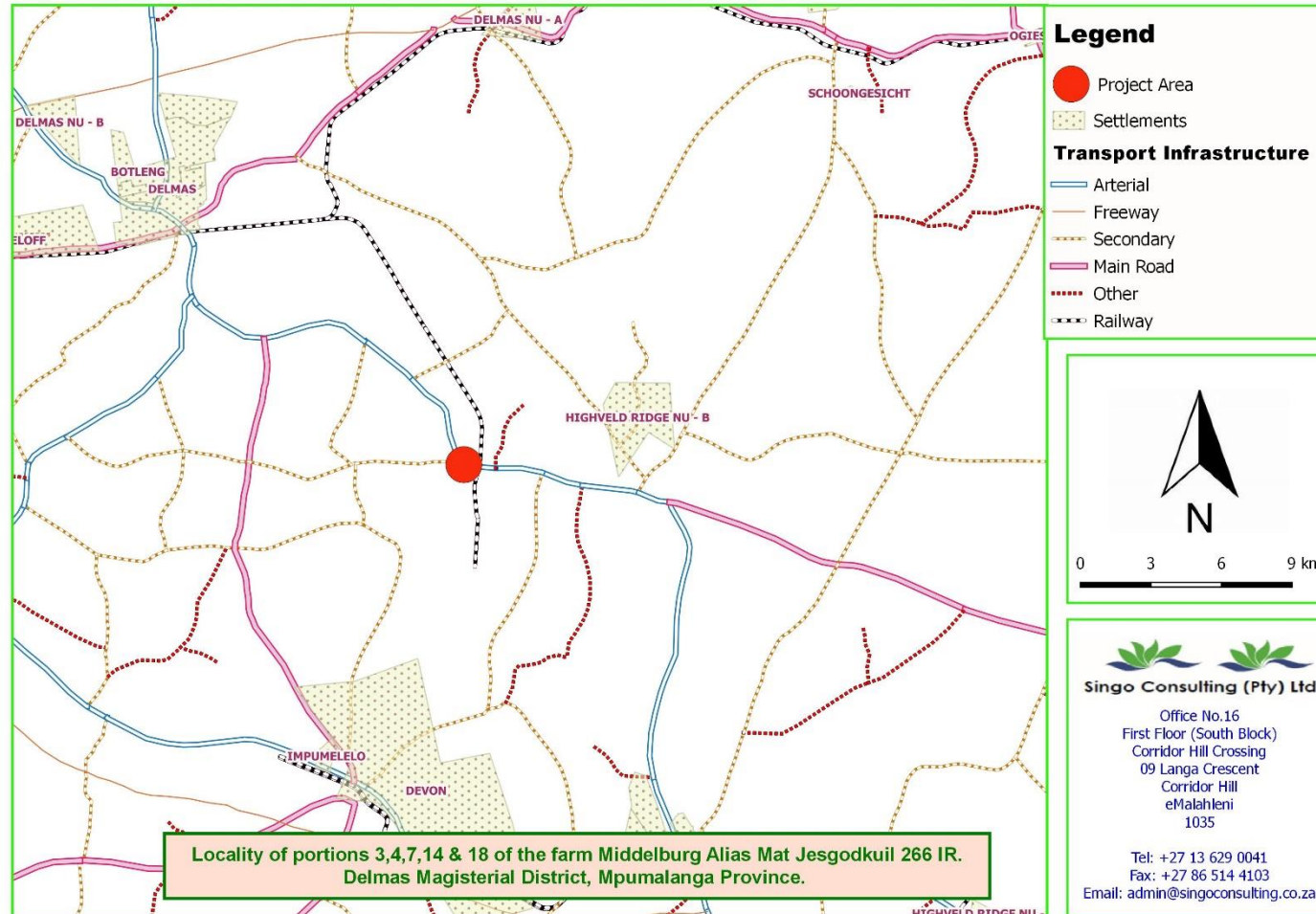


Figure 44: Locality of the proposed project

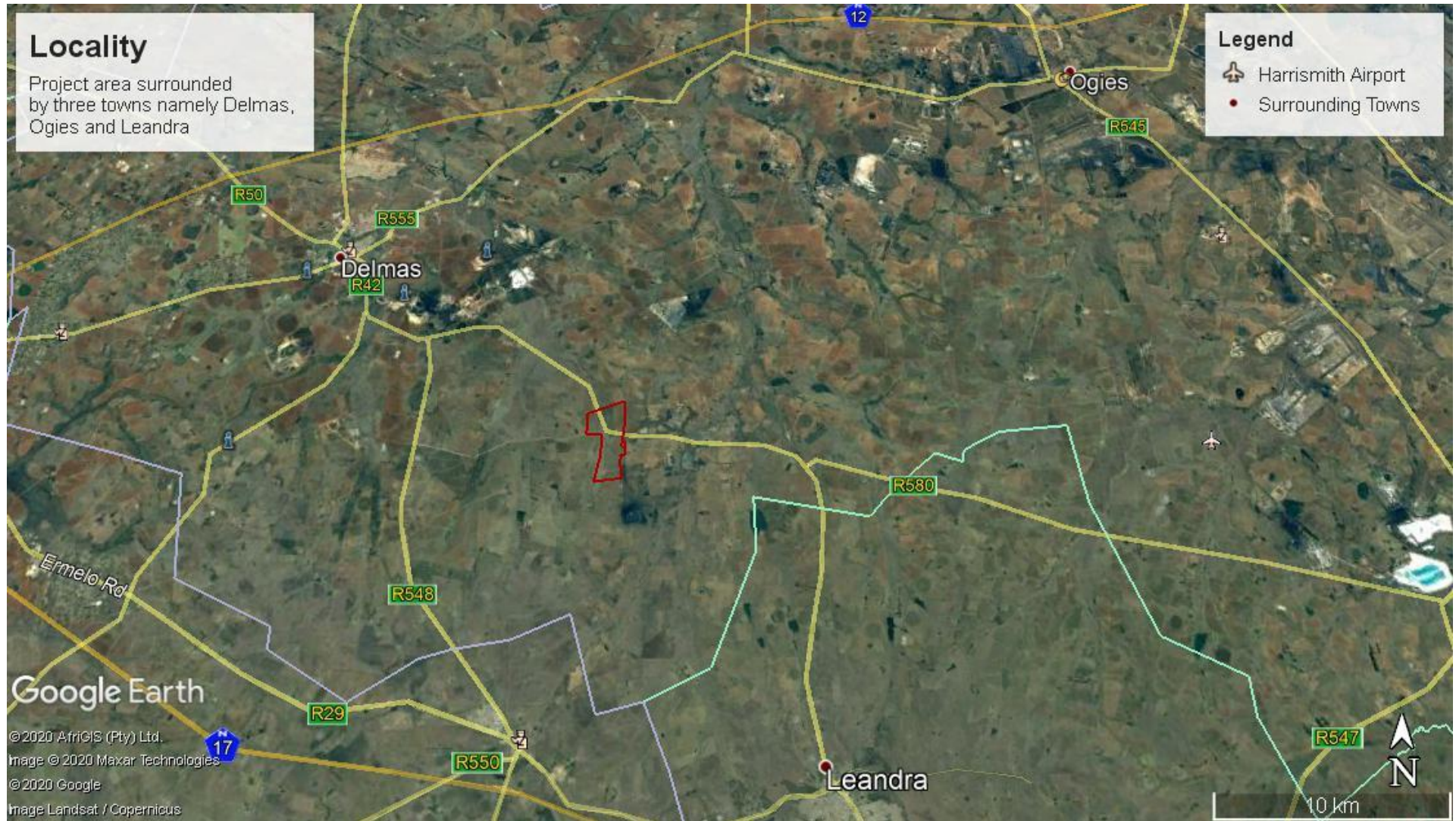


Figure 45: Google earth view of proposed project area .

Need

The coal that is being prospected has the potential to supply local & regional power stations and possible international customers. Coal is crucial for the generation of electricity in South Africa, supplying more than 90% of the population. After prospecting activities, which is the thorough search of a mineral through core drilling, it will be accessed if mining coal will be viable not only for the company but also for the community. The success of the project will contribute to the economic development in the Local Municipal area.

Legislative requirements

The prospecting right application is subjected to the following Acts:

- National Environmental Management Act (Act 38 of 1998)
- Environmental Impact Assessment regulations as amended (April 2017);
- Mineral and Petroleum Resources Development Act, (Act 28 of 2002);
- National Water Act, 1998 (Act 36 of 1998);
- National Air Quality Standards (GN 1210: 2009); and
- National Dust Control Regulations (GN 275: 2017).

Basic and Environmental Impact Assessment Processes

During this process the positive and negative impacts associated with the prospecting activities are assessed; and suitable alternatives and/or management measures are proposed to reduce the environmental impacts.

As the application relates to prospecting activities (Listing Notice 2), an EMPR will be completed. It is intended to supply the competent authority with sufficient information to make an informed decision in granting or refusing an environmental authorisation associated with the prospecting right application.

1. Technical process involves :

- Submitting application forms to DMR;
- Compiling the Draft Environmental Management Plan Report;
- Submit the Draft Environmental Management Plan Report to all I&APs for comments;
- Incorporate comments into final Environmental Management Plan Report; and
- Submit final Environmental Management Plan Report to the DMR.

2. Public participation:

Public input is an important legislated requirement of the prospecting right application process. The proposed PPP for this study will include a number of steps, as listed below:

Issuing notification of this proposal to:

- Owners and occupiers of the farms as well as those adjacent to the site;
- The municipal councillor and local taxpayer's association;
- The municipality which has jurisdiction (Victor Khanye Local Municipality);
- Any organ of the state having jurisdiction;
- Placing an advert in a local newspaper;
- Placing a notice on the site;
- Meetings with landowners and key I&APs, as required;
- Documenting stakeholder correspondence within the Draft Environmental Management Plan that will be made available for public review;
- Public review of the Draft Environmental Management Plan Report; and
- Notifying stakeholders when the Environmental Management Plan Report approved.

Prospecting Methodology

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. 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 and later, a detailed drilling, sampling, assaying and mineralogical study. Diamond core drilling methods will be utilised to prospect in situ ore deposits. To ensure or minimise impacts on the receiving environment, All the activities will be guided by the project's EMP.

Develop Impacts Assessment Methods

Impact assessment methods were developed to:

- Identify the potential impacts of a proposed development on the social and natural environment;
- Predict the probability of these impacts; and
- Evaluate the significance of the potential impacts.

The following are associated with the prospecting activities to be undertaken:

- **Access roads**

The applicant will require access to the site for both personnel and machinery associated with prospecting activities. Existing routes will be used such as the R50 which intersects through the project area and new access routes will be created with the agreement of the landowner, only when necessary. Potential impacts associated with the creation and use of access roads include soil compaction, generation of dust on gravel roads, machinery and vehicles and noise levels while drilling. However, with the appropriate mitigation strategies in place, including applying buffers to sensitive landscapes, notifying settlements around of the drilling times and using existing roads and access tracks wherever possible, the significance of these potential impacts can be reduced to low.

- **Faunal Disturbance**

Animals within the prospecting area will be moved to other locations because of the temporary disturbances.

- **Air pollution**

Prospecting is not as invasive as mining thus air pollution will be due to movement of mobile machinery on the site. Dust will be generated during the drilling or clearing vegetation. Mitigation Measure:

- ✓ Air quality will be minimised by means of the following:
 - Dust suppressions by means of water spraying will be implemented when there is a need.
 - Avoidance of unnecessary removal of vegetation.
 - Vehicles will be properly serviced in order for them to minimise emission of CO₂.
- ✓ Re-vegetation of rehabilitated areas not occupied by plant infrastructure to take place as soon as possible.

- **Noise pollution**

Noise will be generated by the drilling equipment and may disturb inhabitants. Mitigation measures:

- ✓ The company will comply with the Occupational Noise Regulations of the Occupational Health and Safety Act, Act 85 of 1993. The company will comply with the measures for good practice with regards to management of noise related impacts during construction and operation.
- ✓ Workers will be inducted with regard to the measure to reduce noise pollution on site.

- **Soil pollution**

Contamination of soil may occur from accidental spillages from the machineries brought to the site. Mitigation measures:

- ✓ If any soil is contaminated during the prospecting activities, it will be immediately scooped and stored for collection in the enclosed containers or plastic and transported to a recognized facility or company for further treatment.
- ✓ Small spills will be treated on site using bio-sorb or oil cap.

- **Surface disturbance**

Only a small segment of the surface will be disturbed as a result of drilling due to prospecting activities.

- **Vegetation Loss**

Some of the vegetation will be disturbed on areas that drilling will be done. In all areas where site is going to be established vegetation will be disturbed. Mitigation measures:

- ✓ Vegetation will be protected by avoiding unnecessary clearance and by using existing roads at all times.
- ✓ All vehicles will be monitored so that they move on the existing tracks at all times. All prospected areas will be rehabilitated.

- ✓ Fire extinguisher will always be available on site through the prospecting period. If invader species are encountered, they will be uprooted or cut off and destroyed completely.

- **Water Use**

Water required for the operation and potable water for domestic use will be sourced and the details thereof will be finalised at a later stage.

- **Socio-Economic Factors**

There is minimal potential for employment due to the nature of prospecting activities. Minimal opportunities are to be expected for the affected/surrounding communities.

***NB: All the possible impacts will be discussed in detail during the public meeting.**

Decision making by competent authority (CA)

The Department of Mineral Resources (DMR) are the competent authorities in respect of both the NEMA and the MPRDA processes. Based on the information provided in the Environmental management Plan Report, the CA will decide regarding the continuation with phase 2 of the application. I&APs will be notified and given direction and information about the approval/rejection of the application, given an opportunity to appeal and a way forward.

Timeframes and Important Dates

The Draft Environmental Management Plan Report will be made available only via email upon request due to the closure of libraries due to Covid-19 Lockdown Regulations.

During the review period, I&AP's are invited to review the report and kindly submit any comments to **Ms Nokuthula Nkosi** no later than the **03rd of July 2020** using the contact details provided below on the comment form.

Kindly note the following dates:

- Announcement of the application: **10 March 2020**
- Stakeholder engagement and consultation: **03 June 2020– 03 July 2020**
- Review of Draft EMPR: **04 July 2020 – 02 August 2020**
- Submission of the Final EMPR Report: **11 August 2020**

Please add any person you think may be an I&AP.			
Full name	:	Company	:
Address	:		
E-mail	:	Cell No.	:

REGISTRATION & COMMENT SHEET

Attention: **Nokuthula Nkosi**

Email: nokuthula@singoconsulting.co.za

Annexure C: Email Correspondence

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Friday, 03 July 2020 15:47

To: 'odenkrugs5@penta-net.com' <odenkrugs5@penta-net.com>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust this email finds you well

May you kindly read the thread below regarding a prospecting mining right application. It has been brought to our attention by your client, Mr. Claassen, that portion 3 and 4 of the farm Middelburg Alias Mat Jesgodkuil 266 IR is in the process of being sold.

It was explained for consultation purposes we should contact you and request the contact details of the new landowner so that we may inform them of the intentions of Aartoon Mining (Pty) Ltd.

May you kindly assist us so that we may further consult the new landowners.

We trust the above is in order.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 15:24

To: 'johan@vanggatfontein.co.za' <johan@vanggatfontein.co.za>

Cc: 'Singo' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR


Good Day

We trust you are well.

As per our telecommunication earlier, may you kindly review the matter below and revert with any comments or concerns regarding the proposed prospecting project.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 11:57

To: 'jhclaas@telkomsa.net' <jhclaas@telkomsa.net>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

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nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Monday, 20 April 2020 15:39

To: 'jhclaas@telkomsa.net' <jhclaas@telkomsa.net>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

Kindly find attached Landowner Letter, Regulation Map and Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

Kind regards,

Nokuthula Nkosi
Junior Consultant



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nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni


Singo Consulting (Pty) Ltd

From: Brent Parrot <brent@witklip.co.za>

Sent: Wednesday, 01 July 2020 09:54

To: Nokuthula <nokuthula@singoconsulting.co.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Hi Nokuthula,

Herewith the map of how to get to our offices in Delmas, for our meeting on Monday 6th July at 09:00.

Regards,



Brent Parrott

Hoofbestuurder • General Manager

Cell +27 (0)71 678 3730

Tel +27 (0)13 665 7721

Fax +27 (0)13 665 2357

brent@witklip.co.za

Schoeman Boerdery refuses to elicit, accept or pay any bribes, and will report those who do.

Schoeman Boerdery weier om omkoopgeld te ontluk, te aanvaar of te betaal en sal diegene wat skuldig is daaraan, rapporteer.

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: 28 June 2020 10:46 AM

To: Brent Parrot <brent@witklip.co.za>

Cc: 'Johann Minnaar' <jm.mineralrights@icloud.com>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust this email finds you well,

In the letter received from you dated 28 May 2020, it was mentioned that there is a petrol pipeline that transverses the proposed project area.

May you kindly state the precise position of this petrol pipeline so that we are able to further investigate and consult.

Your assistance will be highly appreciated.

Kind Regards,

Nokuthula Nkosi
Junior Consultant

Singo Consulting (Pty) Ltd

+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 11:41

To: 'Brent Parrott' <brent@witklip.co.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day Brent

We trust that you are well.

May you kindly note that your comments have been captured.

Due to the Covid 19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention. Should you wish to raise more concerns, kindly feel free to do so.

Thank you in advance.

Kind Regards,

Nokuthula Nkosi
Junior Consultant

+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Brent Parrott <brent@witklip.co.za>

Sent: Wednesday, 29 April 2020 13:05

To: 'Nokuthula' <nokuthula@singoconsulting.co.za>

Cc: kenneth@singoconsulting.co.za

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Afternoon Nokuthula

Herewith our acknowledgement of receipt for the Prospecting right application on portion 14 of the Farm Middelburg alias Madjesgoedkuil 266 IR.



Brent Parrott

Hoofbestuurder • General Manager

Cell +27 (0)71 678 3730

Tel +27 (0)13 665 7721

Fax +27 (0)13 665 2357

brent@witklip.co.za

Schoeman Boerdery refuses to elicit, accept or pay any bribes, and will report those who do.

Schoeman Boerdery weier om omkoopgeld te ontlok, te aanvaar of te betaal en sal diegene wat skuldig is daaraan, rapporteer.

From: Nokuthula [<mailto:nokuthula@singoconsulting.co.za>]

Sent: 20 April 2020 03:14 PM

To: brent@witklip.co.za

Cc: kenneth@singoconsulting.co.za

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

Kindly find attached Landowner Letter, Regulation Map and Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

Kind regards,

Nokuthula Nkosi
Junior Consultant



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nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni


Singo Consulting (Pty) Ltd

-----Original Message-----

From: Nokuthula <nokuthula@singoconsulting.co.za>
Sent: Friday, 03 July 2020 13:39
To: 'Nkaki Matlala' <nkaki@ralethongoane.co.za>
Subject: RE: Coal prospecting Middleburg Alias MatJesgoedkuil

Good Day Nkaki

I trust this email finds you well.

This email serves as a reminder to revert back with a suitable time and date for the proposed meeting. Should you require further assistance, please do not hesitate to contact me

Kind Regards,

-----Original Message-----

From: Nokuthula <nokuthula@singoconsulting.co.za>
Sent: Wednesday, 01 July 2020 15:51
To: 'Nkaki Matlala' <nkaki@ralethongoane.co.za>
Subject: RE: Coal prospecting Middleburg Alias MatJesgoedkuil

Good Day Nkaki

Thank you for the prompt response.

Your request has been noted. May you kindly propose a date where we can schedule a Zoom Meeting preferably in the upcoming week. Also, kindly note that the draft Basic Assessment and Environmental Management Plan report will be available for review in the coming week as well.

In the meantime, may you kindly share any information regarding water resources and current land use of portion 18 of the applied for farm.

Kind Regards,

Nokuthula Nkosi

Cell: (+27) 76 607 4041

Tel: (+27) 13 692 0041

Fax: (+27) 86 514 4103

Email: nokuthula@singoconsulting.co.za

-----Original Message-----

From: Nkaki Matlala <nkaki@ralethongoane.co.za>

Sent: Wednesday, 01 July 2020 15:42

To: Nokuthula <nokuthula@singoconsulting.co.za>

Subject: Re: Coal prospecting Middleburg Alias MatJesgoedkuil

Dear Nokuthula,

You have been missing me because my email address is not the mediclinic one that you have used. Please use the nkaki@ralethongoane.co.za address.

Can we please start communicating on this email address.

I will not be at the farm on the date proposed. I am however resident in Pretoria, but we can communicate and maybe have a telecon.

Regards

Nkaki

> On 01 Jul 2020, at 3:17 PM, Nokuthula <nokuthula@singoconsulting.co.za> wrote:

>

> Good Day

>

> I hope this email finds you well.

>

> Kindly note that we are nearing the end of the consultation period and

> we have not heard from you.

> Attempts to reach you using the contact details found on the WinDeed

> search

> (083 252 6669 and NKAKI.MATLALA@MEDICLI

> NIC.CO.ZA) were both unsuccessful.

>

> May you kindly furnish us with contact details that we can use to

> further communicate with you.

> Kindly note that as the Landowner your contribution regarding the

> proposed prospecting application is of utmost importance. We would

> appreciate if we could have a meeting with you regarding the proposed

> project. We proposed Monday morning , 06/07/2020, as we will be within

> the project area. Kindly revert back as soon as possible such that we

> can make the necessary preparations.

>

> In the meantime. kindly find attached the Landowner Notification

> Letter, Background Information Document and Regulation Map to

> familiarise yourself with.

>

> Awaiting your response with great anticipation.

>

> Kind Regards

>

> Nokuthula Nkosi

> Cell: (+27) 76 607 4041

> Tel: (+27) 13 692 0041

> Fax: (+27) 86 514 4103

> Email: nokuthula@singoconsulting.co.za

> -----Original Message-----

> From: Nokuthula <nokuthula@singoconsulting.co.za>

> Sent: Friday, 26 June 2020 09:42

> To: 'Nkaki Matlala' <nkakimatlala@icloud.com>

> Subject: RE: Coal prospecting Middleburg Alias MatJesgoedkuil

>

> Good Day

>

> I trust this email finds you well.

> May you kindly note that the below email is without content.

> May you kindly resend.

> Kind Regards,

> Nokuthula Nkosi

> -----Original Message-----

> From: Nkaki Matlala <nkakimatlala@icloud.com>

> Sent: Thursday, 25 June 2020 19:47

> To: nokuthula@singoconsulting.co.za

Subject: Coal prospecting Middleburg Alias MatJesgoedkuil

Sent from my iPhone

Landowner Notification Letter.pdf<BID .pdf><REG 2,2.pdf>

.....

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 01 July 2020 14:52

To: 'thembekam@delcoal.co.za' <thembekam@delcoal.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE
NUMBER: MP 305/1/1/2/15628 PR

Good Day

I trust this email finds you well.

As per our telecommunication earlier, Aartoon Mining has applied for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on **portions 3, 4, 7, 14 & 18** of the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

The Kuyasa Mining (Pty) Ltd North Shaft is one of the mine operations surrounding the proposed prospecting area. Kindly find attached Regulation Map and Google earth image below, illustrating the prospecting right area and surrounding mining operations.



Your participation in this matter is of utmost importance. In addition, our sincerest apologies for not consulting you sooner.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



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+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni

Singo Consulting (Pty) Ltd

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Tuesday, 07 July 2020 13:57

To: 'secmayor@victorkhanyelm.gov.za' <secmayor@victorkhanyelm.gov.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR

REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Importance: High

Good Day

We trust this email finds you well.

We have been trying to reach you telephonically on the following number (013 656 6000) but have had no success. May you kindly contact us so that we may engage with you regarding the proposed prospecting application as your comments are of utmost importance.

We trust the above is in order.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 12:10

To: 'secmayor@victorkhanyelm.gov.za' <secmayor@victorkhanyelm.gov.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR

REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



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+27 86 514 4103

www.singoconsulting.co.za

nokuthula@singoconsulting.co.za

09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Thursday, 09 April 2020 13:18

To: 'secmayor@victorkhanyelm.gov.za' <secmayor@victorkhanyelm.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting

Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 12:15

To: 'Nevondo Seani (BHT)' <NevondoS@dws.gov.za>; 'Ackerman Pieter' <AckermanP@dws.gov.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Thursday, 09 April 2020 13:10

To: 'Nevondo Seani (BHT)' <NevondoS@dws.gov.za>; 'Ackerman Pieter' <AckermanP@dws.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

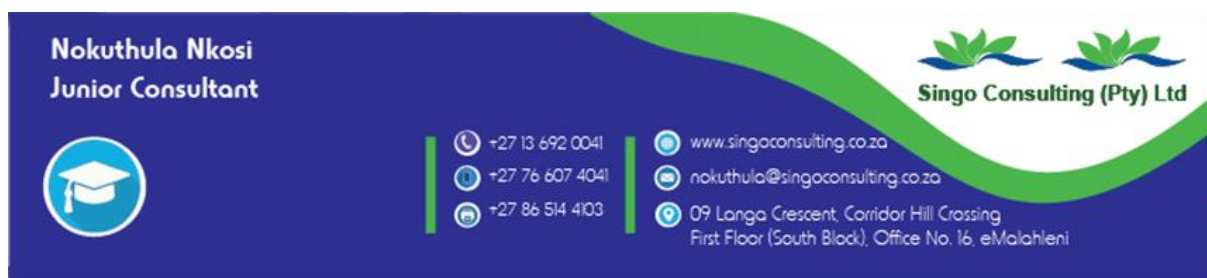
Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 12:14

To: 'Rhulani Chavalala' <RhulaniC@daff.gov.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR

REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Thursday, 09 April 2020 13:16

To: 'Rhulani Chavalala' <RhulaniC@daff.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,

Nokuthula Nkosi
Junior Consultant

+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Ria Barkhuizen (NR) <Barkhuizenr@nra.co.za>

Sent: Tuesday, 07 July 2020 15:03

To: 'Nokuthula' <nokuthula@singoconsulting.co.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR

REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Importance: High

Good day Nokuthula

Please note that due to limited working hours, data and printing opportunities, SANRAL is requesting you to send any new applications via courier to 38 Ida street, Menlo Park, Pretoria, 0081 or post to Private Bag X17, Lynnwood Ridge, 0040.

Applications via email will no longer be evaluated.

Your co-operation in this regards is appreciated.

Kind regards

Ria

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Tuesday, 07 July 2020 14:37

To: 'nrstat@nra.co.za' <nrstat@nra.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

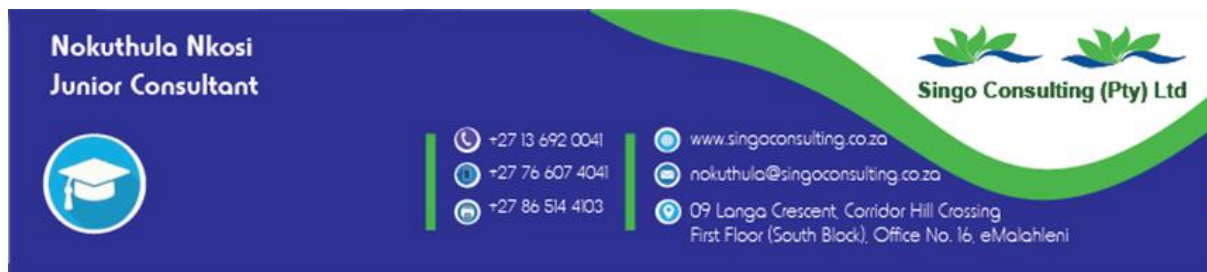
- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Regulation 2.2 Map as well as the Coordinates for the proposed project.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 01 July 2020 16:04

To: 'Way Leaves NW OU' <WayleavesNWOU@eskom.co.za>

Cc: 'Singo' <kenneth@singoconsulting.co.za>; 'Owen Netshavha' <owen@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust this email finds you well.

The consultation period is reaching a close and we have not received any feedback from your department.

May you kindly revert back with any recommendations, comments or issues that you would like to raise so that we can draft a meaningful BA and EMPr.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

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nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Friday, 19 June 2020 11:53

To: 'Way Leaves NW OU' <WayleavesNWOU@eskom.co.za>

Cc: 'Singo' <kenneth@singoconsulting.co.za>; 'Owen Netshavha' <owen@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We hope this email finds you well.

Upon our site assessment we found that there is a Brakfontein substation in close proximity to our proposed project boundaries, near coordinate B on the Regulation 2.2 Map to be specific . May you kindly find attached BID along with Regulation 2.2 Map to review and revert with comments and recommendations.

Kind Regards,

Nokuthula Nkosi
Junior Consultant



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First Floor (South Block), Office No. 16, eMalaheni

Singo Consulting (Pty) Ltd

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 12:12

To: 'Way Leaves NW OU' <WayleavesNWOU@eskom.co.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

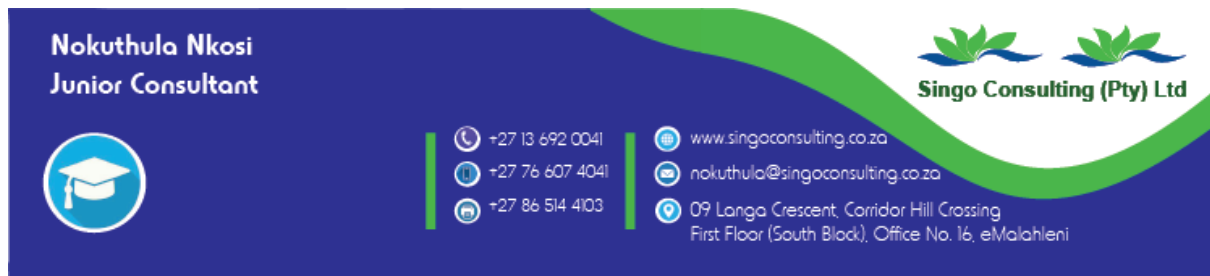
We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Thursday, 09 April 2020 13:16

To: 'Way Leaves NW OU' <WayleavesNWOU@eskom.co.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;
- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,



Nokuthula Nkosi
Junior Consultant



+27 13 692 0041
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+27 86 514 4103


Singo Consulting (Pty) Ltd

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Friday, 03 July 2020 13:33

To: 'Joseph Nkosi' <nkosi.jsp@gmail.com>

Cc: 'Kekanamolfs@gmail.com' <Kekanamolfs@gmail.com>; 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'Owen Netshiavha' <owen@singoconsulting.co.za>

Subject: RE: Registration as an (I&APs).

Good Day Joseph Nkosi

We hope this email finds you well and in good health.

Thank you for raising your concerns. Note that they will be recorded and you are registered as an I&AP.

May you kindly find attached Response Letter addressing the concerns you have raised. To open the document kindly key in: SC2012

Kind Regards,

Nokuthula Nkosi
Junior Consultant



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+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalahleni


Singo Consulting (Pty) Ltd

Attention: Mr. J Nkosi

RESPONSE LETTER TO COMMENTS RECEIVED REGARDING THE PROSPECTING RIGHT APPLICATION SUBMITTED BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

This letter serves to respond to the email received on Thursday, 02nd of July 2020. Kindly note that the prospecting right has not been granted thus there are no activities currently taking place or have taken place. This will remain the case until a granting letter stating acceptance of the application is received from the Department of Mineral and Resources (DMRE). Kindly find below our response to the concerns raised.

Air and Noise Pollution

It is unfortunate to hear of the non-compliance issues your community experienced. When applying for any mining or prospecting activities it is a regulation from the DMRE that an Environmental Management Plan report (EMPr) be submitted to the above-mentioned department, the project manager and all personnel that is associated with the proposed activities. Aartoon Mining (Pty) Ltd, aims to adhere to all regulations and mitigation measures that will be stipulated within that document.

Upon approval of the application, a DMRE Case Official will be allocated and their contact information will be shared. Should the applicant not comply as per the EMPr, you may report to the case officer assigned. Kindly note that we are still in the application phases thus there are no activities that are or have taken place.

Socio-Economic Factors

Due to the fact that the prospecting activities will be handled by a contractor and that it requires a miniscule workforce, we do not foresee employment within the community as yet though we will engage with the applicant regarding your request.

Time of Drilling Prospecting

The prospecting activities will be conducted strictly during the daytime. The proposed times will be 07h00 in the morning until 17h00 in the afternoon.



Invasive Prospecting

The prospecting procedures are structured in a manner where one phase cannot proceed the previous phase without acceptance from the competent authority (DMRE). Mitigation methods state that there should be a 100m distance between a planned borehole and infrastructure. Thus boreholes for prospecting will not be placed near the community. For further information please do not hesitate to contact us on the details below.

Kind Regards,



Office 16, First Floor, South Block, Corridor Hill Crossing,
09 Langa Crescent, Corridor Hill, eMalahleni

Ms. Nokuthula Nkosi

Tel: 013 692 0041

Cell: 076 607 4041

Email: nokuthula@singoconsulting.co.za

AARTOON MINING (PTY) LTD

P.O Box 71534, Mamelodi, Pretoria, 0041

Mr. Molefe Kekana

Cell: 079 024 2252 / 073 226 4578

Email: kekana@moflfs@gmail.com



From: Joseph Nkosi <nkosi.jsp@gmail.com>

Sent: Thursday, 02 July 2020 13:54

To: Nokuthula@singoconsulting.co.za

Cc: Kekanamolfs@gmail.com

Subject: Registration as an (I&APs).

Good day Nokuthula,

I trust this email finds you well,

My Name is Joseph Nkosi and I reside in hawerklip informal settlement in Delmas which is the area of interest for prospecting by AARTOON MINING.

The following are our comments and questions, hopefully all will be received in good faith and in order;

AIR AND NOISE POLLUTION

Thank you for the information provided, it is appreciated. We did read the document and all the intervention strategies to reduce the impact of the pollution, particularly that of noise and dust. However we are concerned with compliance from the companies side as we have experienced a lot of non compliance before from similar projects being undertaken where we live.

We therefore ask if it happens that those mitigation measures mentioned in the document are not adhered to or are partly adhered to, what steps must we take, who is the responsible person to contact who will ensure compliance?

SOCIO ECONOMIC FACTORS

We understand that the nature of activities to be undertaken in prospecting will provide or yield minimum employment opportunities as prospecting is more capital intensive as opposed to being labour intensive. Our question, which also serves as a request is, in those minimum employment opportunities, will the residents of the informal settlement be given first preference?. Can we be considered first to fill those posts that may arise when prospecting has began?

TIME OF DRILLING /PROSPECTING

Will the work only happen during the day or it is expected to carry on even at night?

We have seen markers (marked area) within the community, adjacent to water tanks to be precise. Do those markings indicate a spot for drilling? and if so, how will that affect the residents close by?. And won't there be any health risks in the form of drinking water in those tanks being contaminated or being polluted?.

INVASIVE PROSPECTING

It is my understanding that at some point, there's a possibility of invasive method of prospecting being applied. If that time comes, where earth moving will be required, what will happen to the community of hawerklip informal settlements?.. How will such method affect us and what mitigation processes/steps will be taken to ensure minimal to no impact to the community?

I trust all will be well received.

Please register Nicholas Malemone (071 223 1089), who is one of the community representatives as an (I&AP?)

Warm Regards,

Joseph Nkosi

079 920 5973 /067 201 6377

From: Thandeka Yvonne Dhlamini <Thandeka.Dhlamini@drdlr.gov.za>

Sent: Friday, 26 June 2020 11:21

To: nokuthula@singoconsulting.co.za

Cc: Lazarus Masuku <Lazarus.Masuku@drdlr.gov.za>; Themba Mkhonto <Themba.Mkhonto@drdlr.gov.za>

Subject: FW: LAND CLAIM ENQUIRY ON PORTIONS 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT JESGODKUIL 266 IR

Good Day

Resend



From: Thandeka Yvonne Dhlamini

Sent: 24 June 2020 12:38 PM

To: Nokuthula <nokuthula@singoconsulting.co.za>

Cc: Themba Mkhonto <Themba.Mkhonto@drdlr.gov.za>; Lazarus Masuku

(Lazarus.Masuku@drdlr.gov.za) <Lazarus.Masuku@drdlr.gov.za>

Subject: RE: LAND CLAIM ENQUIRY ON PORTIONS 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT JESGODKUIL 266 IR

Good Day

Herein attached status update of the enquiry in order.

Regards,



Mrs Thandeka Dhlamini

Snr Data Capturer: IMU

Office of the Regional Land Claims Commissioner: Mpumalanga Province

| Tel: **013 752 4054** | Cell: **079 045 8369**
Email: thandeka.dhlamini@drdlr.gov.za

Address: 18 Bell Street, Bell Towers Building, Nelspruit 1200

www.drdlr.gov.za

From: Petruscha Elaine Lindoor

Sent: 24 June 2020 08:49 AM

To: Nokuthula <nokuthula@singoconsulting.co.za>

Cc: Vusi Kleinboy Khoza <Vusi.Khoza@drdlr.gov.za>; Thandeka Yvonne Dhlamini <Thandeka.Dhlamini@drdlr.gov.za>; Themba Mkhonto <Themba.Mkhonto@drdlr.gov.za>

Subject: FW: LAND CLAIM ENQUIRY ON PORTIONS 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT JESGODKUIL 266 IR

Importance: High

Good day Nokuthula

Please note that your enquiry has been forwarded to Themba Mkhonto who will assist you.

Please note that all enquiries within the Nkangala area, will be assisted by Themba Mkhonto.

Regards

Petruscha



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: 23 June 2020 03:50 PM

To: Petruscha Elaine Lindoor <Petruscha.Lindoor@drrdlr.gov.za>; Vusi Kleinboy Khoza <Vusi.Khoza@drrdlr.gov.za>

Cc: 'Singo' <kenneth@singoconsulting.co.za>

Subject: FW: LAND CLAIM ENQUIRY ON PORTIONS 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT JESGODKUIL 266 IR

Importance: High

Good Day

We trust this email finds you well.

May you kindly assist with the matter below, or may you kindly redirect us to the relevant person so that we consult all possible claimants.

Kind Regards,





OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: MPUMALANGA
18 Bell Street, Bell Tower building, Restitution House, Nelspruit | Private Bag X11330, Nelspruit, 1200
Tel: (013) 752 4054 | Fax: (013) 752 5410

Enquiries: T DHLAMINI

SINGO CONSULTING

ATTENTION: NOKUTHULA

**LAND CLAIM IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1994
AND AS AMENDED IN TERMS OF THE RESTITUTION OF THE LAND RIGHTS
AMENDMENT ACT 2014 (ACT NO 15 OF 2014).**

PROPERTY DESCRIPTION:

**PORTIONS: 3, 4, 7, 14 & 18 OF THE FARM MIDDELBURG ALIAS MAT
JESGODKUIL 266 IR**

REFERENCE NUMBER:

**R/6/143/288/35027
R/6/143/288/39823
R/6/143/288/46798
R/6/143/284/56941**

We refer to the above-mentioned matter and your enquiry received on the 24 June 2020.

Note that the lodgement of land claim is based on the Restitution of Land Rights Act, Act no 22 of 1994 and the Restitution of Land Rights Amendment Act, (Act no 15 of 2014).

Please note that, there are registered land claims lodged before 1998 period, however there is a new claim as mentioned above lodged in 2014. The Commission is empowered to investigate all land claims and where applicable issue a Government Gazette to interested and affected parties if such land claims have been approved as valid claims.

The above claim was lodged in terms of the Restitution of Land Rights Amendment Act, 2014 (Act No 15 of 2014) ("the Amendment Act") which, amongst others, reopened the lodgement of claims for a period of five years.

The validity of the Amendment Act was challenged in the Constitutional Court. The Constitutional Court found the Amendment Act to be invalid because of the failure of Parliament to facilitate public involvement as required by the Constitution. The Amendment Act ceased to be law on 28 July 2016 and the Commission is no longer allowed to accept lodgement of new claims from that date.

The Constitutional Court ordered that the claims that were lodged between 1 July 2014 and 27 July 2016 are validly lodged, but it interdicted the Commission from processing those claims until the Commission has finalised the claims lodged by 31 December 1998 or until Parliament passes a new law providing for the re-opening of lodgement of land claims. Parliament was given until 27 July 2018 to pass such a law.

The Commission will therefore not be processing these new claims until it finishes claims lodged by 31 December 1998 or until Parliament passes a new law providing for re-opening of lodgement of claims.

We apologise for the inconvenience caused.

Please quote the claim reference number in all correspondence with the Commission.

Yours sincerely,



Mr. E.S. NKOSI
CHIEF DIRECTOR
MP: OFFICE OF REGIONAL LAND CLAIMS COMMISSION
DATE: 24/06/2020

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 12:13

To: 'TRamavhona@environment.gov.za' <TRamavhona@environment.gov.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: FW: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust that you are well.

Due to the Covid-19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the Basic Assessment Report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention.

Thank you in advance.

Kind Regards,

Nokuthula Nkosi
Junior Consultant

Singo Consulting (Pty) Ltd

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+27 76 607 4041
+27 86 514 4103

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nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Thursday, 09 April 2020 13:16

To: 'TRamavhona@environment.gov.za' <TRamavhona@environment.gov.za>

Cc: 'Kenneth, Singo' <kenneth@singoconsulting.co.za>; 'livhuwani@singoconsulting.co.za' <livhuwani@singoconsulting.co.za>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

This Notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that stakeholders must be notified of **Aartoon Mining (Pty) Ltd's** intention to obtain Prospecting Right for the above mentioned minerals.

This invitation is being extended to you because the department that you represent might be somehow enforcing any of the Republic of South Africa's laws of which ensures; prevention of pollution & environmental degradation, promotes sustainable development & socio-economic development, or instead might be affected by mining activities. Hence you are being offered an opportunity to:

- Register as an I&AP and to respond to the environmental compliance process;
- Raise issues of concern and provide suggestions for enhanced benefits;
- Contribute to local knowledge;

- Comment on the Draft Basic Assessment Report (DBAR) & Environmental Management Program (EMP)

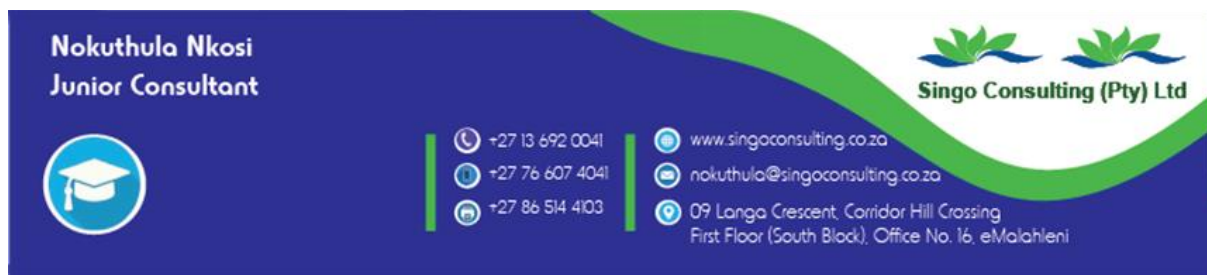
Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the environmental authorization process, by conducting Environmental Impact Assessment, Public Participation for the proposed project and compile an Environmental Management Plan. A Basic Assessment process has commenced, for your participation kindly fill the comment form in the page below and register your comments, issues, questions that you have about the proposed project. Should you need any clarity on the attached documents or have any queries with regards to the project, please do not hesitate to contact me on the details below.

Please find the attached Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

If you know anyone who might be interested in this project, kindly forward this email to that person.

Kind regards,



From: Mokgadi Mudau <m.mudau@universalcoal.com>

Sent: Friday, 03 July 2020 17:00

To: Nokuthula <nokuthula@singoconsulting.co.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR

REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Thank you.

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Friday, 03 July 2020 15:53

To: 'm.mudau@universalcoal.com' <m.mudau@universalcoal.com>

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Da

I trust this email finds you well.

As per our telecommunication earlier, Aartoon Mining has applied for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on **portions 3, 4, 7, 14 & 18** of the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.


The Universal Coal (Pty) Ltd, Kangala Offices, is one of the mine operations surrounding the proposed prospecting area. Kindly find attached Regulation Map and BID and Google earth image below, illustrating the prospecting right area and surrounding mining operations.








Your participation in this matter is of utmost importance. In addition, our sincerest apologies for not consulting you sooner.


Kind Regards,

Nokuthula Nkosi
Junior Consultant



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 +27 76 607 4041
 +27 86 514 4103

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Singo Consulting (Pty) Ltd

AfriForum-takke help gemeenskappe tydens pandemie

AfriForum is takke in die Groter Prinses-district het verlede maand meer as 70 ton verskeie aan sowaar 1 270 hilselofte gegee uitgedel.

Die aksie is in samewerking met die Covid-19-takke – geing deur die burgerverenigingsende AfriForum, die landeliese-organisatie Saa en Solidariteit Helpende Hand – en verskeie ander organisasie aangepak om gemeenskappe tydens die landeys insperking te ondersteun.

“Die nood onder gemeenskappe is groot. Die insperking het tot gevolg gehad dat alle maatskappye werk of diens verskaf het,” aldus Sampie Smitberg, AfriForum se distrikkoördinerende vir die Groter Prinses.

Die vyfdeende takke het altesaam meer as R250 000 se koste, handvateriger en maatskappye geïnteressasie versprei.

Apariviv, Was-Moet, Die-Moet, Moet-Sentraal, Bronkhorstspuit, Pienari, Roodplaat, Rayton-Cullinan en Prinses-Wis.

“Die projek is om hilselofte van skenkings, wat tans in die maatskappye taksbesluitgevoerde – wat onder die insperking op die been gebring is – gefinansier,” aldus Smitberg.

“Die takke sal nie net die gemeenskappe tydens die insperking ondersteun nie, maar sal ook hilselofte van die gemeenskappe se werke tot mak.”

AfriForum het ’n noodfonds vir elke takke gevestig om dit altesaam te betaalbaar voortgevoer kan word. Persone wat tog skenkings wil maak, kan hilselofte tot kontak. Alle inligting is op die takke-omstandighede op AfriForum se webblad beskikbaar.



Die takke het onder meer aasprekke aan side van die gemeenskap gegee.

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

ISIZULU	ENGLISH
<p>Isizulu sinqelo yokuqala ngayo-Isizulu ngokuthetha/inkumbano kanye Ncwaneba (SIPROD) (amandla 28 ka 2002) ngokuthetha/inkumbano kanye ngayo-Isizulu (Act 28 of 2002) for the prospecting of Coal On portion 3, 4, 7, 14 & 18 of the Farm Middelburg Alias Mat Jeequidul 266 II, emmandleni/Magisterial District of Delmas, Mpumalanga Province.</p>	<p>Notice of the Prospecting Right Application Process as per the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) for the prospecting of Coal On portion 3, 4, 7, 14 & 18 of the Farm Middelburg Alias Mat Jeequidul 266 II situated in the Magisterial District of Delmas, Mpumalanga Province.</p>
IRINDO SOKUYINAYULA NOKUYEZA IRINDO MUYELANA NALL APPLICATION	INVITATION TO COMMENT
<p>Ngaloo isihlahla kankonwe izizulu ngokuthetha/inkumbano phantsi kanye ngokuthetha/inkumbano kanye ngayo-Isizulu (SIPROD) (amandla 28 ka 2002) ngokuthetha/inkumbano kanye ngayo-Isizulu (Act 28 of 2002) for the prospecting of Coal On portion 3, 4, 7, 14 & 18 of the Farm Middelburg Alias Mat Jeequidul 266 II, emmandleni/Magisterial District of Delmas, Mpumalanga Province.</p>	<p>Notice is hereby given in terms of the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and GI-Regulations 2014, published under Government Notice No. 982 in Gazette No. 3822 of 4 December 2014, amended on 7 April 2017 that Karoon Mining (Pty) Ltd has applied for a Prospecting Right for the above-mentioned mineral with DMR Ref: MP 205/1/1/2/15628 PR.</p>
<p>Ngomnye omyeni ngayo-Isizulu, isihlahla isizulu ngokuthetha/inkumbano phantsi kanye ngokuthetha/inkumbano kanye ngayo-Isizulu (SIPROD) (amandla 28 ka 2002) ngokuthetha/inkumbano kanye ngayo-Isizulu (Act 28 of 2002) for the prospecting of Coal On portion 3, 4, 7, 14 & 18 of the Farm Middelburg Alias Mat Jeequidul 266 II, emmandleni/Magisterial District of Delmas, Mpumalanga Province.</p>	<p>As part of the GI process, more especially the public participation process for this proposed project, interested and Affected Parties (IAPs) are invited to register and kindly submit any comments or concerns to reach Miss Nokuthela Nkoo by no later than the 03 of July 2020, using the contact details provided below. The public is also invited to review and comment on the Draft Basic Assessment Report and EMPr which will be available for review for a 30 days calendar period from 04 July 2020 – 02 August 2020. This report will be available at Delmas Library (Car Sarel Cilien & Van Niebeck St, Delmas, 2710) / 36-110900, 26-663707) & Leandra Public Library (Prinses St, Gert Sibande, 2740) / 26-382201, 26-663400). For more information, to register as interested or Affected Party, please contact:</p>
<p>Umpheleli ngayo-Isizulu ngokuthetha/inkumbano phantsi kanye ngokuthetha/inkumbano kanye ngayo-Isizulu (SIPROD) (amandla 28 ka 2002) ngokuthetha/inkumbano kanye ngayo-Isizulu (Act 28 of 2002) for the prospecting of Coal On portion 3, 4, 7, 14 & 18 of the Farm Middelburg Alias Mat Jeequidul 266 II, emmandleni/Magisterial District of Delmas, Mpumalanga Province.</p>	<p>The Department of Health has launched a whatsapp service where news and info regarding the Coronavirus is available.</p> <p>060-012-3456 Simply add to whatsapp app and type "H".</p>

Singo Consulting (Pty) Ltd
Office No. 14, First Floor (South Block)
Gardens Midway on Longwood Avenue,
Gardens 7941, Johannesburg (Gauteng), 2001
Tel: 011 456 1001
Cell: 078 457 1001
Fax: 011 456 1001
Email: info@singoconsulting.co.za

CORONA

WHAT YOU NEED TO KNOW!

If you are mildly sick, keep yourself hydrated and stay at home and rest. If you are concerned about your symptoms:

- Wash your hands often with soap and water
- Avoid touching your eyes, nose or mouth with unwashed hands.
- Avoid close contact with people who are sick.

The Department of Health has launched a whatsapp service where news and info regarding the Coronavirus is available.

060-012-3456
Simply add to whatsapp app and type "H".

CORONAVIRUS

BEWARE!

Keep yourself hydrated and stay at home and rest. If you are concerned about your symptoms:

- Wash your hands often with soap and water
- Avoid touching your eyes, nose or mouth with unwashed hands.
- Avoid close contact with people who are sick.

The Department of Health has launched a whatsapp service where news and info regarding the Coronavirus is available.

060-012-3456
Simply add to whatsapp app and type "H".

NOTICE OF PUBLIC PARTICIPATION FOR PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION

Prospecting Right Application Process notice in compliance with the Mineral and Petroleum Resources Development Act (Act 28 of 2002) for the proposed prospecting of **Coal, Pseudo Coal, Clay & Shale in all portions (including portion 07) of the Farm Middelburg 221 II**, situated under the Magisterial District of Delmas, Mpumalanga Province.

Notice is given as per the Mineral and Petroleum Resources Development Act (MPRDA) (Act 28 of 2002) and GI-Regulations 2017 (as amended), that **DMR Holdings (Pty) Ltd** applied for a Prospecting Right to prospect for the above mentioned mineral (**DMR Ref: MP 205/1/1/2/16287 PR**).

INVITATION TO COMMENT

The IAPs are invited as part of the GI process, in particular, the public participation process for this proposed project to register and kindly send any feedback or concerns to reach **Ms Tsholani Rakasamba** by latest Sunday, the **12 July 2020** by making use of the contact details that are provided below. The public is also invited to review and comment on DMAR and EMPr. The draft EMPr report will be available for review for 30 calendar days from **12 July 2020 to 12 August 2020**. This report will be available at Delmas Public Library (Car Sarel Cilien & Van Niebeck Street, Delmas, 2710) and a soft copy upon request from **Singo Consulting (Pty) Ltd**, using the details of the respective IAP below.

For more information, to register as interested or affected party, please contact:

ENVIRONMENTAL AUTHORIZATION APPLICATION DETAILS

IAP'S CONTACT DETAILS	APPLICANT DETAILS
<p>Singo Consulting (Pty) Ltd Office No. 14, First Floor (South Block) Gardens Midway on Longwood Avenue, Gardens 7941, Johannesburg, 2001 Contact person: Ms DR Nkoo Cell: 078 457 1001 Tel: 011 456 1001 Fax: +27 11 456 1001 Email: info@singoconsulting.co.za</p>	<p>DMAR 41 Mazon Street, Sophiatown Johannesburg 2001 Cell: +27 11 496 8887 Tel: +27 11 496 8887 Email: dmara@dmara.org.za</p>

<h3 style="background-color: #2e8b57; color: white; padding: 5px;">STREEK</h3> <p>Contact us: Business Manager Nokuthela Nkoo - nkoo@streek.co.za Sales / Office Manager - 012 832 3221 Circle K Manager - nkoo@streek.co.za Advertising Manager Nokuthela Nkoo - nkoo@streek.co.za Sales - 012 832 3221 Justine Taylor - justine@streek.co.za Jwanali - 071 435 8828 Delina Pienari - nkoo@streek.co.za</p>	<h3 style="background-color: #2e8b57; color: white; padding: 5px;">Code of Conduct</h3> <p>This newspaper has established itself as a news outlet that is fair, impartial and accurate and to publish comments that are fair, impartial and accurate with the highest standards of journalistic integrity. Complaints that this code has been breached may be lodged with the office of the Press Ombudsman. Written complaints, with a copy of the original newspaper, may be sent to the press ombudsman at: Box 014 484 3812 or e-mail: pressombudsman@jubus.co.za</p>	<h3 style="background-color: #2e8b57; color: white; padding: 5px;">Publisher</h3> <p>Published and Printed by CTP Middleburg 41 Meyer Street, Middleburg. All rights reserved. Reproduction of all reports, photographs, drawings and all materials published in this newspaper are hereby reserved in terms of Section 12 (7) of the Copyright Act No. 94 of 1978 and any amendments thereto.</p> <p style="text-align: right;">CTP MIDDLEBURG</p>	<h3 style="background-color: #2e8b57; color: white; padding: 5px;">Audit</h3> <p>The distribution of the ABC Newspaper is independently audited by the profession of standards administered by the Audit Bureau of Circulations of South Africa.</p> <p style="text-align: right;">abc</p>
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Figure 47: Newspaper Publication in the Streeksnuus (Bronkhorstspuit)

AARTOON MINING (PTY) LTD MEETING WITH PTN 7 & 14 LANDOWNER

Date: 06th July 2020

Time: 10:00 am

Location: Schoeman Broedery

Attendees:

Landowner: Brent Parrott | Tommie Olckers

Singo Consulting (Pty) Ltd: | Owen Netshavha | Nokuthula Nkosi

Meeting Objective: Inform and engage with landowner regarding the prospecting right application submitted on portions of the Middelburg Alias Mat Jesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Landowner Remarks:

- Problem with small mines is that they prospect then sell the rights to a bigger company, so their intentions are not to mine.
- They do not rehabilitate the affected area
- There is an abandoned Gupta mine close by. It is a hazard and has affected all our water. So, we need to keep in mind the drinking water and water we supply to make a living will be gone if there is mining in the area.
- There is a wetland so sometimes of the year the non-perineal river is flowing and sometimes it's not (seasonal)
- There are three legal dams to capture the water. So, if it rains it will overflow. We did some groundwork to divert the water out faster
- The road goes through the project area
- There is a pipeline going through portion 3 and 4
- There are 4 ESKOM powerlines and an additional 2 will be added. The servitude is ready and has been paid for

- Delmas colliery is an underground mine that is already mining under portion 7. The house is standing on a pillar. The farm hose started to crack at some point but Delmas colliery stabilized the column.
- Another concern is that if you start mining on that side you will close the access routes to the farms.
- One doesn't know how the area will be mined. It will probably be underground as coal is deep here.
- I think what's best is to transpose the borehole locations onto a google map which will show all features.
- We have created water courses to drain water out of the fields, so they are manmade
- I have water rights on portion 7 and brail logistics operate on the Hawerklip rail siding. They export coal for universal and Eskom. They have the water license and they use that water for dust suppression. If anything happens to these boreholes, I will lose an income of R140k monthly.
- This is a sensitive area. There is an informal settlement on the boarder
- If Delmas colliery are mining this area, how is it a part of your application?
- We have had numerous instances of overlapping
- With regards to portion 14 Borehole if you can place it away from the fields as site establishments and traffic will compact the land. But you may drill anywhere in the waterway
-

The Consultant Remarks:

- Two maps, Regulation map illustrating the features in the area and the geology map illustrating the coal formation. There are 15 proposed boreholes.
- Regulation map shows a non-perineal river flowing but we didn't see it during site assessment.
- There are 5 proposed boreholes on portion 7 and 1 on portion 14. These are not final and can be moved should there be a need.
- During consultation with Delmas colliery, it was mentioned that they have rights somewhere on our prospecting application so they will confirm the portions.
- Currently we are in the process of prospecting so we haven't reached the stage of the mine layout logistics. The Applicant wants to prospect/check if there is a viable coal resource

- The proposed boreholes are preliminary plans we use to engage with stakeholders and landowners. Based on your comments regarding the groundwork or sensitivity we might have to shift boreholes. Once we have a clear and detailed site assessment we will finalize the position of the boreholes. This map is planned according to the geological map. We will have to include 500m buffer from wetland/waterbodies and 100m from infrastructure
- We will have to investigate how we got acceptance for the Delmas colliery portion after the representative has shared documents. We will also investigate when they were accepted and when their rights expire as the SAMRAD system shouldn't accept our application if there are already rights in the area
- Our acceptance letter refers to consultation and site assessment and not as rights to drill
- So we must check validity of Delmas colliery rights
- The supporting documents will be sent via email and final submission is in August

Way Forward:

- Before going forward, you need to investigate portion 7 rights
- Draft will be sent via email
- Decision will be communicated by DMR then only can we engage in terms of compensation

Attendance Register

SINGO CONSULTING (Pty) Ltd
 Meeting venue: Schuurman Bredaey
 Date: 06-07-2020
 Time: 10:00 am



ATTENDANCE REGISTER						
No.	Name & Surname	Designation	Company/LandOwner/ Other(Specify)	Contact Details	Email Address	Signature
1	Nokuthula Nkosi	Consultant	Singo Consulting	07600101	nokuthula@singoconsulting.co.za	
2	BRENT PATRICK	PP OWNER	SCHURMAN	0716788730	BRENT@WETKUSP.CO.ZA	
3	Tommie Olakhe	PP owner	Cygnus Farming	0823881012	Tommie@cygnusfarming.co.za	
4						
5	Owen Ntshinga	consultant	Singo Consulting	0767756359	Owen@singoconsulting.co.za	
6						
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Minutes prepared by:



AARTOON MINING (PTY) LTD MEETING WITH PTN 18 LANDOWNER

Date: 09th July 2020

Time: 09:15 am

Location: Zoom Online Meeting

Attendees:

Landowner: Nkaki Matlala

Singo Consulting (Pty) Ltd: | Owen Netshiavha | Nkosi Nokuthula

Meeting Objective: Inform and engage with landowner of ptn 18 regarding the prospecting right application submitted on portions of the Middelburg Alias Matjesgodkuil 266 IR located in the Magisterial District of Delmas, Mpumalanga.

The Consultant Remarks:

- Aartoon Mining (Pty) Ltd is a new establishment lead by Mr. Harry Kekana
- Singo Consulting (Pty) Ltd was appointed as the EAP to foresee the PPP and BA & EMPr
- Total area of proposed project is 468.95 ha
- Application was lodged in March but due to Covid-19 Lockdown Regulations we could not carry out assessments required thus there has been an extension to the timelines.
- 15 planned boreholes and 2 are within portion 18
- 0.9 ha disturbance per borehole.
- The proposed borehole map will be sent via email. This is preliminary so it is not the final borehole map meaning you have a say in the positioning of the boreholes should the proposed areas affect your development/infrastructure.
- Entire process is transparent so all information will be shared with you including results of the coal.
- DMR correspondence will be shared

The Landowner Questions and Answers:

- Date for drilling?
 - It can take 4-6 before we have a set date and that is if the right is granted.
- According to that answer drilling will commence during planting and plowing season
 - No. Drilling will be done at a convenient time where your operations are not disturbed. A Prospecting Right is a right that lasts for 5 years so it is not compressed in short amount of time.
- What does it mean for me when you find the desired resource?
 - A way forward will be dependent on the client. They may either apply for a mining permit or mining right. Engagement between the landowner and the applicant will commence to reach an agreement.

Way Forward:

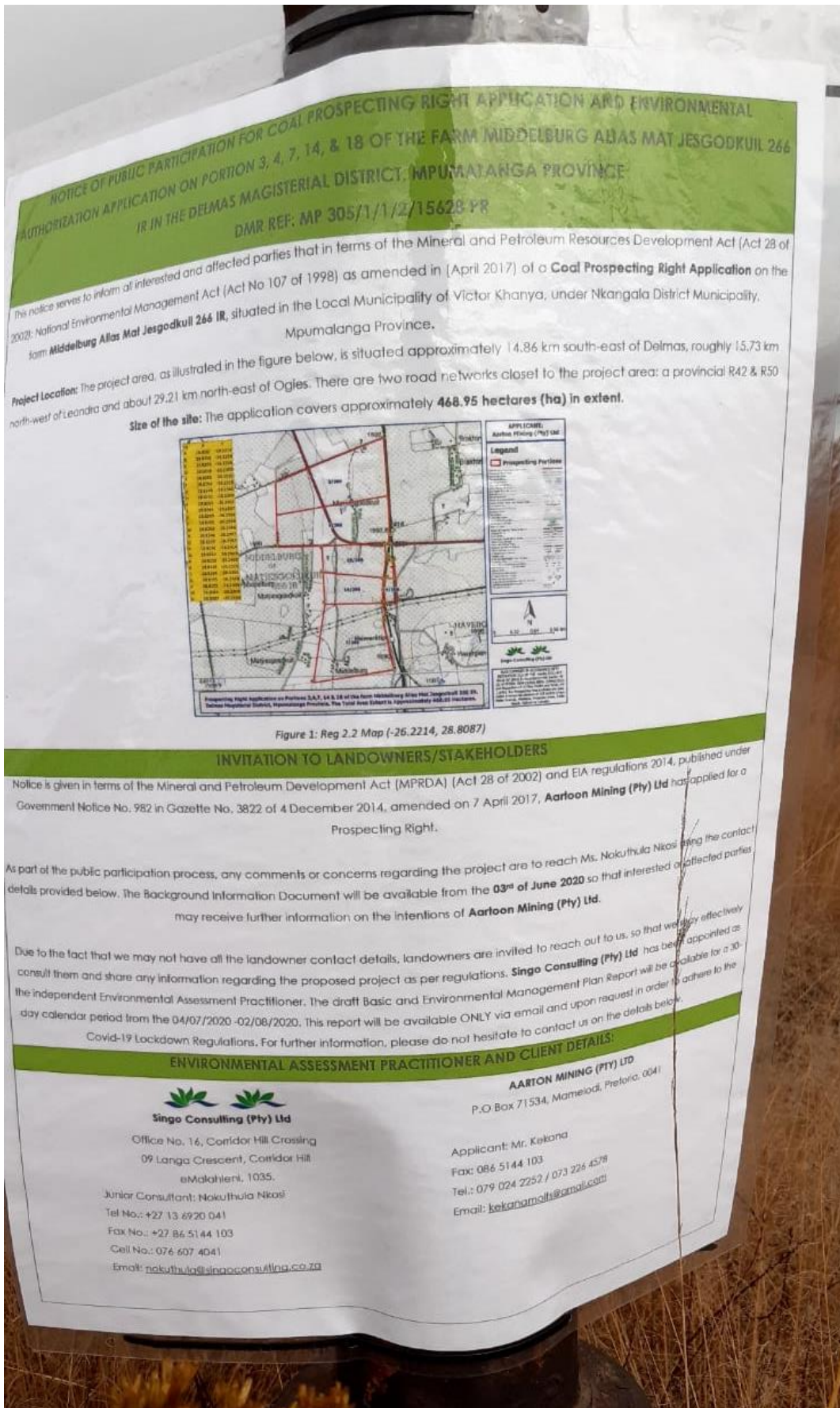
- Draft EMPR will be sent for review

3. Proof of Attendance

Minutes prepared by:



Annexure F: Proof of Site Notice Placement







Annexure G: Site Assessment



1. Infrastructure/mine housing observed on adjacent property



2. Farm housing on project area



3. Powerline crossing project area



4. Informal Settlement adjacent project area not far from the mine housing



5. Fenced property on proposed prospecting area



6. Transet railway transporting coal



7.Eskom Substation



8.Soil remediation on project area



9.Vegetation on site



10.Crop on site



11.Soil observation



12.Avifauna observation



13.Graves on project area



14.Entrance to project area(ptn3/4)



15.Entrance to project area (Ptn 18)

Annexure H: Landowner and Stakeholder Notification

From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Sunday, 28 June 2020 10:46

To: 'Brent Parrott' <brent@witklip.co.za>

Cc: 'Johann Minnaar' <jm.mineralrights@icloud.com>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day

We trust this email finds you well,

In the letter received from you dated 28 May 2020, it was mentioned that there is a petrol pipeline that transverses the proposed project area.

May you kindly state the precise position of this petrol pipeline so that we are able to further investigate and consult.

Your assistance will be highly appreciated.

Kind Regards,



From: Nokuthula <nokuthula@singoconsulting.co.za>

Sent: Wednesday, 03 June 2020 11:41

To: 'Brent Parrott' <brent@witklip.co.za>

Cc: 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day Brent

We trust that you are well.

May you kindly note that your comments have been captured.

Due to the Covid 19 pandemic, Lockdown restrictions and temporal closure of our office, we were unable to carry out certain activities which are requirements within the report. With the introduction of level 3 of lockdown, our offices have re-opened thus we have amended the

timelines to allow for adequate and proper consultation and completion of all required aspects of the Basic Assessment Report.

Kindly find attached the BID with amended timelines for your attention. Should you wish to raise more concerns, kindly feel free to do so.

Thank you in advance.

Kind Regards,



Nokuthula Nkosi
Junior Consultant



+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
09 Langa Crescent, Corridor Hill Crossing
First Floor (South Block), Office No. 16, eMalaheni


Singo Consulting (Pty) Ltd

From: Brent Parrott <brent@witklip.co.za>

Sent: Wednesday, 29 April 2020 13:05

To: 'Nokuthula' <nokuthula@singoconsulting.co.za>

Cc: kenneth@singoconsulting.co.za

Subject: RE: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR
REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Afternoon Nokuthula

Herewith our acknowledgement of receipt for the Prospecting right application on portion 14 of the Farm Middelburg alias Madjesgoedkuil 266 IR.



Brent Parrott

Hoofbestuurder • General Manager

Cell +27 (0)71 678 3730

Tel +27 (0)13 665 7721

Fax +27 (0)13 665 2357
brent@witklip.co.za

Schoeman Boerdery refuses to elicit, accept or pay any bribes, and will report those who do.

Schoeman Boerdery weier om omkoopgeld te ontfok, te aanvaar of te betaal en sal diegene wat skuldig is daaraan, rapporteer.

rom: Nokuthula [<mailto:nokuthula@singoconsulting.co.za>]

Sent: 20 April 2020 03:14 PM

To: brent@witklip.co.za

Cc: kenneth@singoconsulting.co.za

Subject: PROSPECTING RIGHT APPLICATION BY AARTOON MINING (PTY) LTD DMR REFERENCE NUMBER: MP 305/1/1/2/15628 PR

Good Day,

I hope this email finds you well.

Singo Consulting (Pty) Ltd on behalf of **Aartoon Mining (Pty) Ltd** hereby wish to inform you that it has submitted an application for a Prospecting Right together with an Environmental Authorization to the Mpumalanga Department of Mineral Resources (DMR) for the proposed project of prospecting for **Coal**, on the Farm **Middelburg Alias Mat Jesgodkuil 266 IR**, situated under the Magisterial District of Delmas, Mpumalanga Province.

Kindly find attached Landowner Letter, Regulation Map and Background Information Document (BID) for detailed description of the proposed project and timelines.

Kindly note that due to the Covid-19 crisis, dates are subject to change and hard copies might not be able to be delivered thus electronic copies are the only option at this moment.

Kind regards,



Nokuthula Nkosi
Junior Consultant

+27 13 692 0041
+27 76 607 4041
+27 86 514 4103

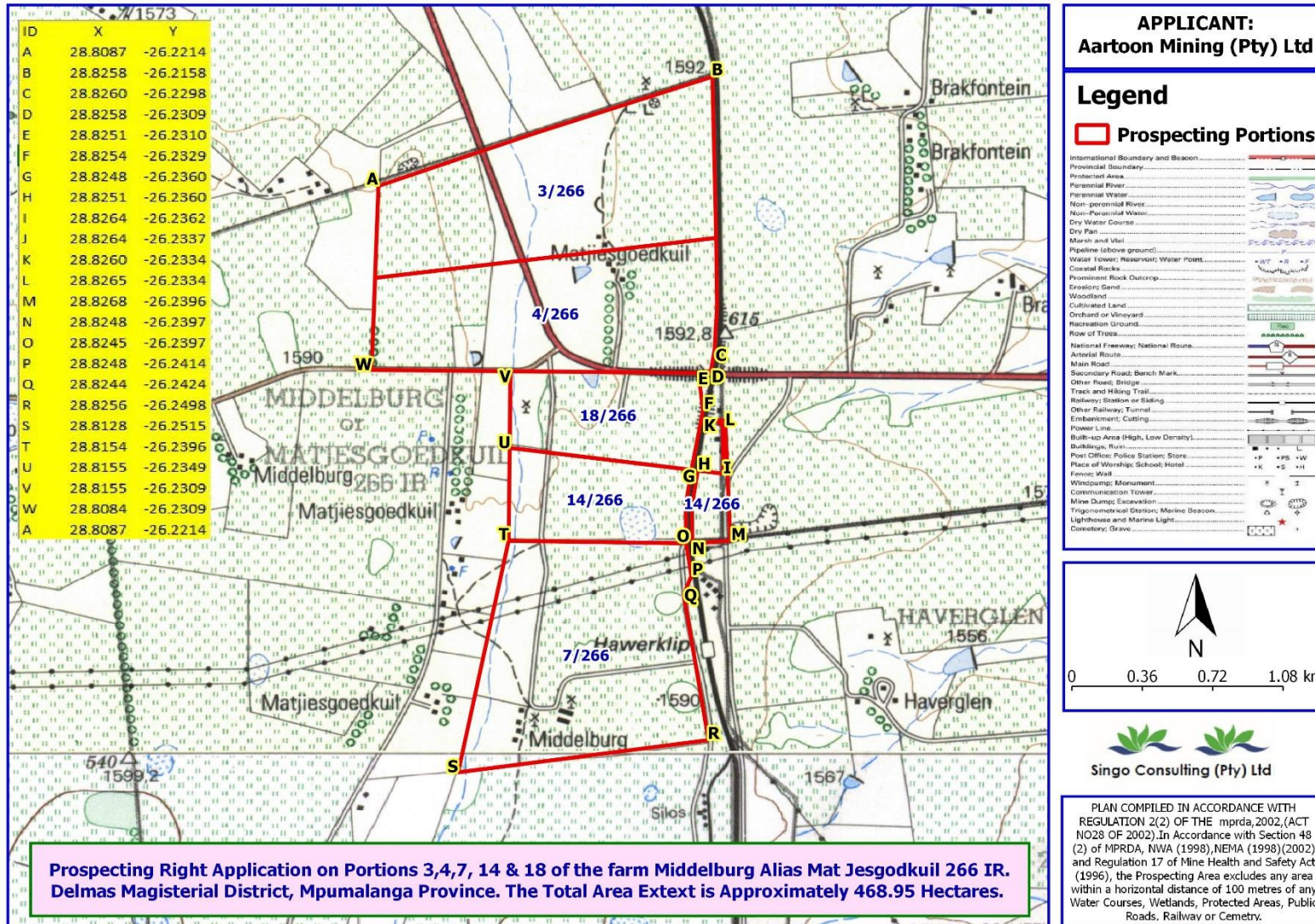
www.singoconsulting.co.za
nokuthula@singoconsulting.co.za
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First Floor (South Block), Office No. 16, eMalahleni

Singo Consulting (Pty) Ltd

Annexure H: Responses received from Stakeholders.

Annexure I: I & AP's comment forms received and Proof of public engagement. Public day registry for people who were informed of the project.

Annexure I: Regulation 2.2 Map



NDINANNYI KENNETH SINGO



Singo Consulting (Pty) Ltd

Private Bag X 7214, Postnet Suite 125, Witbank 1035
Office No. 16, First Floor (South Block), Corridor Hill Crossing,
09 Langa Crescent, Corridor Hill, eMalahleni, Witbank, 1040.
Tel No.: 072-081-6682/078-2727-839
Fax No.: 086-51 4-4103

E-mail address: kenneth@singoconsulting.co.za

TERTIARY EDUCATION

Qualification	:	Ph.D. (Geology, Applied Environmental Mineralogy & Geochemistry)
Institution	:	University of Johannesburg
Year Obtained	:	Results issued, graduation date to be confirmed.
PhD Project Title	:	In Search of the Possible Economic Potential, through Conceptual Study, on Reclamation of Defunct Mine Residue areas for Development Purposes: Case study of Musina Copper Mine, Giyani Louis Moore Gold Mine and Zwigodini Nyala Magnesite Mine, South Africa
Qualification	:	M.Sc. (Environmental Management)
Institution	:	University of South Africa
Year Obtained	:	2013
Masters Project Title	:	An Assessment of Heavy Metal Pollution in the Vicinity of the Defunct Copper Mine Dumps in Musina, South Africa
Qualification	:	B.Sc. (Hons) Mining & Environmental Geology
Institution	:	University of Venda
Year Obtained	:	2008
Honours Project Title	:	Structural Control on Kimberlite Pipes: A Case Study of Venetia Kimberlite Pipe-K19, Venetia Open Cast Diamond Mine, South Africa

WORK EXPERIENCE

Company	:	Singo Consulting
Position	:	Director/Principal Consultant
Duration	:	9 August 2012—TODATE
Key Focus Area	:	Environmental Projects

Technical work:

- Environmental Impact Assessment
- Environmental Management Plans
- Social and Community Development Plans
- Geological (Exploration, Resource Estimation and Competency Report)
- Hydrological and Hydrology (Surface and Groundwater Studies)
- Soil Science (Soil profiling, Modelling and Soil Chemistry)
- Environmental Control Office
- Geotechnical (Soil and Rock)
- Mining Feasibility Studies

TRAINING COURSES

- > 17- 19 April 2012: GSSA Drilling Methods & Techniques in Resource Exploration

- > 13-14 September 2012: GSSA Exploration Drill Site Safety
- > 3 May 2013: SHE Representative Training
- > 6-10 May 2013: Witwatersrand University, A3 SHE Risk Assessment Management
- > 22 July 2013: AATCGS Geophysics 101: Basics of Geophysics and Its Application in Coal
- > 31 July 2013: Mentorship Training
- > 14 April 2014: A2 Safety for Managers
- > 13 May - 26 June: Lump Ore Beneficiation (Basic Coal Preparation): Metallurgy G101-105, Colliery Training College, Witbank
- > 14-17 July 2014: Safety Leadership Programme
- > 6-8 Oct 2014: Understanding Coal Quality, ALS Witbank Training
- > 3-7 Nov 2014: Foundation for Leadership Programme
- > 3 Feb 2015: 4X4 Defensive Driving Training
- > 1 May 2015: Assertiveness Awareness and Training
- > 21-22 July 2016: Time Management Training

SYMPOSIUMS

- > 29 July 2013: **Presenter:** 4th Prof Humphrey Memorial Post-Graduate Symposium, University of South Africa
- > 11 November 2015: **Presenter:** Wits GSSA REI Colloquium: Economic Potential and Viability of reclaiming mine dumps in the Limpopo Province.

CONFERENCES

LIST OF CONFERENCE PROCEEDINGS AND SYMPOSIUMS:

- > 26-28 November 2012: Aminergy Acid Mine Drainage South Africa Conference
- > 10-12 March 2014: **Presenter:** SAICE 5th International Mining and Industrial Waste Management Conference
- > 29 Sept-3 Oct 2014: 9th International Mine Closure Conference, Sandton
- > 16-17 March 2015: Workshop: South Africa Mining-Related Landscape* Rehabilitation Status Quo: Identifying Work Required to Close Current Knowledge gaps, WRC, Pretoria.
- > 8-11 Sept 2015: Land Rehabilitation Society of Southern Africa (LaRSSA): Mine rehab and biodiversity.
- > N.K. Singo*, 2015. Wits GSSA REI Colloquium: Economic Potential and Viability of reclaiming mine dumps in the Limpopo Province. 11th November 2015, Witwatersrand University, Johannesburg, South Africa.
- > N.K. Singo* and J.D. Kramers, 2016. Uranium as a potential health hazard as well as (even) an economic asset in the Louis Moore tailings dump, near Giyani, Limpopo Province. In symposium Proceedings; 6th Mintek Analytical Symposium "The Environment", Mintek G4, Randburg, Johannesburg, South Africa, Friday 21st October 2016.
- > N.K. Singo* and J.D. Kramers, 2017. Chrysotile (white asbestos) occurrence in the Nyala Magnesite Mine dumps and the soils around them, and its health implications to the community of Zwigodini Village, Limpopo Province. 5th Annual Conference. 1-4 August 2017, Resilient Landscapes in a Changing Climate.
- > N.K. Singo* and J.D. Kramers, 2017. Unlocking the potential economic benefit of a tailings dump through resource modelling and estimation: SHE (safety, health, and environmental) issues and solutions. MineSafe 2017 Conference, Striving for zero harm (driving excellence through compliance), Emperors Palace, Hotel Casino Convention Resort, Johannesburg, 30-31 August 2017, The Southern African Institute of Mining and Metallurgy (SAIMM).

List of publications:

- > N.K. Singo, and J.D., Kramers, 2017. Geochemical and Mineralogical Characterization of two low grade stockpiles (mine residue deposits): acid mine drainage vs neutral-alkaline mine drainage perspectives. A case study of the Musina (Copper) and Nyala (Magnesium) mines, South Africa.
- > N.K. Singo, and J.D., Kramers, 2017. Preferred tailings retreatment approach to unlock value and create environmental sustainability of the Louis Moore tailings dump, near Giyani, South Africa.
- > N.K. Singo, and J.D., Kramers, 2017. Copper tailings retreatment to deliver economic value with concurrent rehabilitation at the Musina mine, South Africa.

List of Projects:

List of Projects conducted and successfully completed by your company in mining Permits and Right.

Client Name	Contract Start date (dd/mm/yyyy)	Contract End date (dd/mm/yyyy)	*Contact Person	Contact Person's phone number(s) and Email Address
Mashavane Quarry	03-02-2015	12-06-2018	Mr P Ngwenya	Pat.ngwenya@gmail.com 072 914 3508
CoalX-Carolina	02-04-2018	Ongoing	Rian Telma	H Mduza bramduza@icloud.com Riaan CoalX riaan@coalx.co.za
CoalX-Balmoral	28-02-2018	Ongoing	Rian Telma	H Mduza bramduza@icloud.com Riaan CoalX <riaan@coalx.co.za>
Malaheni Mining	6-6-2018	Ongoing	Roelf Depreez	roelf_dupreez@yahoo.com 081 273 7785
New Venture Mining	23-4-2017	Ongoing	Mr. GB Simelane	076 246 3677 simelanegb@gmail.com, simelane@jaments.co.za
Veralli Mineral	1-8-2017	Ongoing	Mr. Rambauli TJ	jrambauli@yahoo.com 073 501 2819
Benicon Mining	1-10-2018	Ongoing	Mr Gavin Kotzen	gt@karoup.co.za 083 626 4555 017 647 1047



IAIAsa Secretariat
Tel +27(0)11 655 7183
Fax 086 662 9849
Address:
43 Birchwood Court, Montrose
Street, Vorna Valley, Midrand, 1618
Postal address:
PO Box 11666, Vorna Valley, 1686
Email: operations@iaiasa.co.za
Website: www.iaiasa.co.za

IAIAsa Confirmation of Membership: 2018/2020
Kenneth Singo Membership Number: 6091

27 November 2018

TO WHOM IT MAY CONCERN

Mr Kenneth Singo, Singo Consulting (Pty) Ltd (IAIAsa membership Number 6091) is a paid-up full member in good standing of the South African Affiliate of the International Association for Impact Assessment and has been a member of IAIAsa since 1 March 2018.

This membership is valid from 1 March 2018 to 28 February 2020.

IAIAsa is a voluntary organisation and is not a statutory body regulating the profession. Its members are however expected to abide by the organisation's code of ethics which is available on our website.

Any enquiries regarding this membership may be directed to the Secretariat at the above contact details.

Yours Sincerely

Robyn Luyt
IAIAsa President 2018/2019

President: R Luyt, Past President: J Tooley, President Elect & Treasurer: S Nkosi, Secretary: T Breetzke. Members: A Adams, N. Baloyi, N Lushozi, S O'Beirne, J Richardson, Branch Chairs: M de Villiers, L Kruger, Y Martin, N Nkoe, P Radford, D Sanderson.



This Certifies that

Kenneth Singo

attended the

SAICE Geotechnical Division:

**6th International Mining and Industrial Waste Management
Conference**

on 29, 30 & 31 October 2018

Legend Golf and Safari Resort, Limpopo

ECSA - SAICEgeo18/02443/18 (3 credits)



**herewith certifies that
Ndinanyi Kenneth Singo**

Registration Number: 400069/16

**is registered as a
Professional Natural Scientist**

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)

in the following field(s) of practice (Schedule 1 of the Act)

Earth Science

Effective 9 March 2016

Expires 31 March 2020



A handwritten signature in black ink, appearing to read 'Botha', positioned above a horizontal line.

Chairperson

A handwritten signature in black ink, positioned above a horizontal line.

Chief Executive Officer

Scan this code to view online version of this certificate





We certify that

NDINANNYI KENNETH SINGO

*having complied with the requirements of the Higher Education Act
and the Institutional Statute, was admitted to the degree of*

MASTER OF SCIENCE
in Environmental Management

at a congregation of the University
on 14 October 2013

If the holder of this document has been issued by the University Registrar, the document may not have been issued to the holder of this document by an unauthorised person or the original.


BRANCH MANAGER
RIVER CRESCENT 1042
06/03/19
POST OFFICE

M. Hlabanga

Vice-Chancellor


University Registrar



M. Ligt

Executive Dean



University of Venda



This is to Certify that the Degree of
**Bachelor of Earth Sciences in
Mining and Environmental Geology**

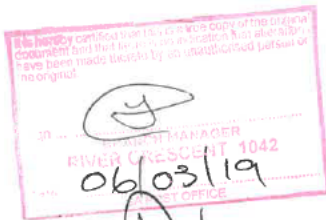
was Awarded to

SINGO NDINANNYI KENNETH

at a Ceremony held on the

07-MAY-2009

in Accordance with the Provisions of the
Act and Statute




Vice Chancellor




University Registrar


Dean

28 March 2011

Mr N Singo
P O Box 1034
Makhado
0920

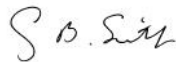
Dear Mr Singo

APPLICATION FOR MEMBERSHIP - MEMBER NO 967334

I have pleasure in advising you that your application for membership of the Geological Society of South Africa was ratified by the Council of the Society.

Trusting that your association with the Society will be pleasant and stimulating.

Kind regards



CRAIG SMITH
EXECUTIVE MANAGER





LAND REHABILITATION SOCIETY OF SOUTHERN AFRICA

hereby certifies that

Mr Ndinannyi Kenneth Singo

is a fully paid-up member of the Society having all the
rights and privileges of a

Associate Member

Membership ID:

On behalf of the Executive Council

President of the Society
Date Joined: 10 June 2015

Vice President of the Society
Expiry date: 26 February 2020