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mineral resources

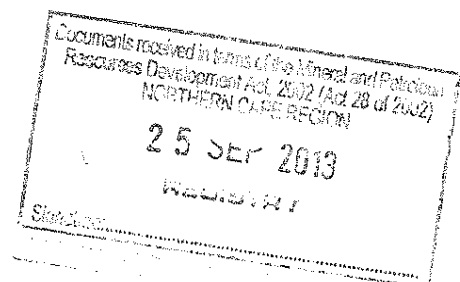
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

NAME OF APPLICANT: DAVID FRANCOIS MALAN

REFERENCE NUMBER: NC30/5/1/3/10198MP

ENVIRONMENTAL MANAGEMENT PLAN

SUBMITTED
IN TERMS OF SECTION 39 AND OF REGULATION 52 OF
THE MINERAL AND PETROLEUM RESOURCES
DEVELOPMENT ACT, 2002,
(ACT NO. 28 OF 2002) (the Act)



STANDARD DIRECTIVE

Applicants for prospecting rights or mining permits, are herewith, in terms of the provisions of Section 29 (a) and in terms of section 39 (5) of the Mineral and Petroleum Resources Development Act, directed to submit an Environmental Management Plan strictly in accordance with the subject headings herein, and to compile the content according to all the sub items to the said subject headings referred to in the guideline published on the Departments website, within 60 days of notification by the Regional Manager of the acceptance of such application. This document comprises the standard format provided by the Department in terms of Regulation 52 (2), and the standard environmental management plan which was in use prior to the year 2011, will no longer be accepted.

IDENTIFICATION OF THE APPLICATION IN RESPECT OF WHICH THE ENVIRONMENTAL MANAGEMENT PLAN IS SUBMITTED.

ITEM	COMPANY CONTACT DETAILS
Name	DAVID FRANCOIS MALAN
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ITEM	CONSULTANT CONTACT DETAILS (If applicable)
Name	DAVID FRANCOIS MALAN
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1 REGULATION 52 (2): Description of the environment likely to be affected by the proposed prospecting or mining operation

1.1 The environment on site relative to the environment in the surrounding area.

The area falls in the Kalahari Mountain Bushveld. Environment on the mining consist of a rocy reef, but the surrounding area consist of Camphor tree (*Tarchonanthus Camphoratus*) in the South the Camphor tree become very sparse and Kunibush (*Rhus Undalata*) and Broom Karee (*Rhusdregeana*) become the principal shrubs. The tree layer is poorly developed and individuals of Wild Olive (*Olea Europaea*) subsp. *Africana* and Black Thorn (*Acacia Mellifera*) subsp. *Detinens* are widely scattered.

1.2 The specific environmental features on the site applied for which may require protection, remediation, management or avoidance.

NO ENVIRONMENT FEATURES ON SITE NEED SPECIAL AVOIDANCE.

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1.3 Map showing the spatial locality of all environmental, cultural/heritage and current land use features identified on site



The mining area must be clearly demarcated by means of beacons at the corners along its boundaries if there is no visibility between the corners and along its boundaries. Permanent beacons as indicated on the layout plan or as prescribed, must be firmly erected and maintained in their correct position throughout the life of the operation.

1.4 Confirmation that the description of the environment has been compiled with the participation of the community, the landowner and interested and affected parties,

The environmental description has been compiled after a site visit during the surveying of the area. Refer to consultation and letter regarding the above participation of the community.

2 REGULATION 52 (2) (b): Assessment of the potential impacts of the proposed prospecting or mining operation on the environment, socio- economic conditions and cultural heritage.

2.1 Description of the proposed prospecting or mining operation.

2.1.1 The main prospecting activities (e.g. access roads, topsoil storage sites and any other basic prospecting design features)

There is no topsoil to remove. The quartz outcrops will be removed with an excavator (and if needed blasting) and moved to the crushing site with tipper trucks to form stockpile. The front end loader then takes the material from the stockpile and load it onto the crusher bin. The crushed material will then be stockpiled. The access road is the fire path.

2.1.2 Plan of the main activities with dimensions

The 1.5 hectare will be excavated with an excavator/or blasting as follow (20x20x3m max.at a specific time) to ensure rehabilitation process as natural as possible. Blasting if needed will not be more than 5000 cubes at a specific time.

Once the area is thoroughly and satisfactory mined rehabilitation will be done.

2.1.3 Description of construction, operational, and decommissioning phases.

Construction vehicles will consist of 1x Excavator, 1 x Frontend loader, 1 x Dump Truck, 3 x Mobile Units

The employees will be as follows for this operation.

1 x Quarry Manager, 1 x Foreman, 2 x Plant Operators and 3 x Machine Operators, 2 x General workers.

The office building and workshop will not be on this specific site but will be on the site of Langeberg Stene.

Decommissioning will have a minimum impact seeing that mobile units are used and that there is no building on site.

Environmental damage will occur during the operational phase. Mitigation measures within the approved Environmental Management Plan will be strictly adhered to minimize the effect on the environment.

2.1.4 Listed activities (in terms of the NEMA EIA regulations)

(A)Excavation

(B) Blasting

2.2 Identification of potential impacts

(Refer to the guideline)

No potential impacts.

2.2.1 Potential impacts per activity and listed activities.

Demarcating of the mining area.

- i. Localized and period loss of some vegetation.
- ii. Loss of air quality through dust.

Excavation

- i. Loss of air quality through dust
- ii. Noise
- iii. Loss of immediate topography

Stockpile

Impact on loss of vegetation

2.2.2 Potential cumulative impacts.

The removal of volume material.

Some vegetation could be lost during the rainy season and strong wind occurrences.

2.2.3 Potential impact on heritage resources

No heritage sites were identified during the field visit that can be impacted, but the archaeological survey is scheduled.

The report will be submitted as soon as received from the contracting specialist.

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

- **Dust control**

Only residents on the neighbouring farms may be influenced by the dust released into the air. The effect on these individuals is minimal, due to dust suppressive measures that will be implemented during the mining activities. The community is 8 km from the site.

- **Noise control**

Noise will be of no effect on the individuals or competing land uses. The noise generated is very localized and minimal. Also will mining operations occur during day time within standard operating/business hours. 8 km from nearest town.

(If no such impacts are identified this must be specifically stated together with a clear explanation why this is not the case.)

2.2.5 Confirmation that the list of potential impacts has been compiled with the participation of the landowner and interested and affected parties,

The potential impacts listed have been compiled by Mr. DF Malan. Participation of interested and affected parties was complete during the compilation of this document. All impacts listed in the Public Participation Report will be taken into account during the mining operations.

2.2.6 Confirmation of specialist report appended.

(Refer to guideline)

All environmental descriptions and impacts were identified by trained in-house personnel. The archaeological study is scheduled and the report still pending.

3 REGULATION 52 (2) (c): Summary of the assessment of the significance of the potential impacts and the proposed mitigation measures to minimise adverse impacts.

3.1 Assessment of the significance of the potential impacts

3.1.1 Criteria of assigning significance to potential impacts

The environmental evaluation is done with the assumption that all mitigatory measures and rehabilitation plans have been adhered to (Hacking, 1999)

The preceding list of identified impacts is evaluated hereunder in terms of the following criteria.

Significance:

Low overall significance

Medium overall significance

High overall significance

ACTIVITY Mark with X which activities are applicable	POTENTIAL IMPACT	SIGNIFICANCE RATING		
		LOW	MEDIUM	HIGH
Excavations	X			X
		Dust	X	
		Noise	X	
		Drainage	X	
Blasting	X	Fly Rock		X
Stockpiles	X	Surface disturbance		X
		Dust	X	
		Drainage	X	
Discard dumps or dams		Surface disturbance	NA	
		Dust	NA	
		Drainage	NA	
Loading, hauling and transport	X	Noise	X	
		Dust	X	
Water supply dams and boreholes		Surface disturbance	NA	
Accommodation, offices, ablution,		Surface disturbance	NA	
		Drainage	NA	
		Noise	NA	
Processing Plant	X	Dust	X	
		Drainage	NA	
		Surface disturbance		X

3.1.2 Potential impact of each main activity in each phase, and corresponding significance assessment

LEGEND FOR TABLE

- Se = Severity
- D = Duration
- SP = Spatial scale
- C = Consequence
- P = Probability
- L = Low negative impact
- M = Medium negative impact
- H = High negative impact
- Pos = Positive impact
- Si = Silica impact

ACTIVITY	DESCRIPTION	Se	D	SP	C	P	Si
1. CONSTRUCTION PHASE IMPACTS							
Road construction	Lost of vegetation + habit	L	L	L	L	L	L
Escorm line	Lost of vegetation + habit	L	L	L	L	L	L
Plant construction	Lost of vegetation + habit	Not Applicable					
Pipeline installation	Lost of vegetation + habit	Not Applicable					
Offices	Lost of vegetation + habit	Not Applicable					
2. OPERATIONAL PHASE IMPACT							
Mining	Geological degradation	L	M	L	H	H	M
Disposal	Topographic change - dump	L	L	L	M	H	M
Mining	Topographic change - pit	L	L	L	M	H	M
Mining	Soil pollution -accidental spills and leakages	L	L	L	L	L	L
Operation	Soil pollution (workshop, store, parking)	L	L	L	L	L	L
Operation	Loss of grazing	Not Applicable					
Operation	Loss of/ distrubance to plant	L	L	L	L	M	L
Extraction of groundwater	Depressed water table	Not Applicable					
Operation	Problem plant invasion	L	L	L	L	L	L
Operation	Effect on animals	L	L	L	L	L	L
Waste water disposal	Water regime (regional)	L	L	L	L	L	L
Mining	Noise(earth moving equipment and crushers)	L	M	L	L	M	L
Operation	Air quality: Dust - Transport	L	M	L	L	L	L
Operation	Air quality: Dust - Crusher	L	M	L	L	L	L
Mining	Noise - blasting nuisance - regional	L	L	L	L	L	L
Mining	Noise - blasting nuisance - personnel	L	L	L	L	L	M
Mining, operation	Loss of archaeological items	L	L	L	L	L	L
Operation	Sensitive landscapes	L	L	L	L	L	L
Mining	Visual impact	L	L	L	L	M	L
3. DECOMMISSIONING PHASE IMPACTS							
Demolition	Waste disposal	Pos					
Rehabilitation	Re-vegetation	Pos					
4. RESIDUAL IMPACTS AFTER CLOSURE							
Vacated site	Rehabilitation of exposed areas	Pos					
Vacated site	Safety risks	Pos					

	POTENTIAL IMPACT	SIGNIFICANCE ASSESSMENT
Excavations	Rehabilitation	REHABILITATION WILL BE MADE SAFE BY MAKING BENCHES OF NOT MORE THAN 2 M NO EXCAVATION WASTE -DUMPS ON SITE
	Dust	
	Noise	
	Drainage	
Blasting	Fly Rock	THE MINING AREA WILL BE FENCED OFF TO PREVENT INJURIES TO HUMAN AND ANIMALS AN CONTROL POINT WILL BE ESTABLISHED
Stockpiles	Surface disturbance	AREA TO BE FENCED OFF TO RESTRICT STOCKPILING/MINING TO THE FOOTPRINT. EROSION CONTROL MEASURES TO BE IN PLACE
	Dust	
	Drainage	
Discard dumps or dams	Surface disturbance	
	Dust	
	Drainage	
Loading, hauling and transport	Noise	ALL LOADING,HAULING AND TRANSPORT TO BE AT SAFE SPEED
	Dust	
Water supply dams and boreholes	Surface disturbance	
Accommodation, offices, ablution,	Surface disturbance	
	Drainage	
	Noise	
Processing Plant	Dust Drainage Surface disturbance	ALL STRUCTURES AND MATERIALS TO BE REMOVED FROM THE MINING AREA AT FINAL CLOSURE
Waste Management	Domestic	Provide waste collection drums DEMARCADE AN AREA FOR THE WASTE
	INDUSTRIAL	DEMARCADE AN AREA FOR THE WASTE ON LANGEBERG STENE PROPERTY.OILCOL TO REMOVE OIL STORE AT LANGEBERG STENE SITE. FILTERS TO BE IN BIN AND REMOVE BY OILCOL

Dust control must be monitor to determine if high, if require dust suppression must be used. Blasting is rated high and the company procedure must be adhere.

3.1.3 Assessment of potential cumulative impacts.

Since most of the environmental impacts on the main activities are classified as low, potential cumulative impacts are at a minimum. If any cumulative impacts occur due to negligence, the severity and significance thereof are rated as low.

3.2 Proposed mitigation measures to minimise adverse impacts.

During the mining process the gradient of the specific hill will be considered during the excavation or blasting process.

3.2.1 List of actions, activities, or processes that have sufficiently significant impacts to require mitigation.

Some aspects within the mining operations will require mitigation measures-

- Excavation process
- Mine site
- Scrap yard (although not on the specific site)
- Usage of access roads
- Rehabilitation

3.2.2 Concomitant list of appropriate technical or management options

(Chosen to modify, remedy, control or stop any action, activity, or process which will cause significant impacts on the environment, socio-economic conditions and historical and cultural aspects as identified. Attach detail of each technical or management option as appendices)

During the process of mining the rehabilitation process is ongoing and because of the geography of the mining area there will not be any impact.

- Loss of vegetation
All vehicle operations will be advised to keep clear of undisturbed and partially/complete rehabilitated areas, in other words to keep strictly on the mine roads.

Once rehabilitation is finalized, the area will be monitored and managed to promote the establishment of original vegetation. If re-establishment is struggling, indigenous plant seeds will be sown.

- Topographic change
No mitigation measures can be implemented
Proper rehabilitation is essential.
The diesel cart or tank will be placed within a bay. The bay constructed will have the same capacity plus 5% of the cart or tank.

All standing machinery will be utilized with a drip pan, preventing any spillage from the vehicles.

All machinery will be regularly serviced, keeping them to standard and preventing any diesel/oil spillage.

All spills on ground will be immediately dealt with by the removing of the contaminated soil. The disturbed area will then be rehabilitated by the spreading of topsoil.

- Problem plant invasion
All newly rehabilitated areas will be monitored and checked on a two weekly basis.
- Effect on animals
No mitigation measures can be implemented
Animals are mainly free roaming and tend to move away from the area of disturbance
Once successful rehabilitation is completed, the animals will return to their original habitat
- Noise
The only mitigation measure that can be implemented is to keep the operation within standard business hours.
- Air quality (dust)
The only management measure to be implemented is the watering of the mine roads in order to keep the dust suppressed.

3.2.3 Review the significance of the identified impacts

(After bringing the proposed mitigation measures into consideration).

After bringing all mitigation measures into consideration, re-evaluation of identified impacts, if any occur, are regarded as low.

4 REGULATION 52 (2) (d): Financial provision. The applicant is required to-

4.1 Plans for quantum calculation purposes.

(Show the location and aerial extent of the aforesaid main mining actions, activities, or processes, for each of the construction operational and closure phases of the operation).



The main activities that require rehabilitation are the mine quarry. Some of these features are captured on the plan within section 2.1.2 of this document.

4.2 Alignment of rehabilitation with the closure objectives

(Describe and ensure that the rehabilitation plan is compatible with the closure objectives determined in accordance with the baseline study as prescribed).

The environment affected by the mining operations shall be rehabilitated as far as practicable to its natural state including the historic disturbances within the boundaries of the mining area. Land use will be the same as before mining with the same production with regards to grazing. The affected environment shall be maintained in a stable condition that will not pollute the environment or lead to the degradation thereof. The goal of rehabilitation with respect to the area where mining has taken place is to leave the area in an environmental friendly condition.

4.3 Quantum calculations.

(Provide a calculation of the quantum of the financial provision required to manage and rehabilitate the environment, in accordance with the guideline prescribed in terms of regulation 54 (1) in respect of each of the phases referred to).

ACTIVITY	POTENTIAL IMPACT	MITIGATION MEASURE	STATE ESTIMATED REHABILITATION COST RELATED TO THE ACTIVITY
EXCAVATOR	SURFACE DISTURBANCE	REHABILITATION	R10 000.00
LOADER			R14 860.00
DUMPER			R9 860.00
LABOUR COST			R5 600.00
STOCKPILES	SURFACE DISTURBANCE	REHABILITATION	R1720.00
	DUST	DUST CONTROL MEASURES	
COST OF REVEGITATION			R2000.00
LOADING, HAULING AND TRANSPORT			
DECOMMISSIONING PROCESSING PLANT	LABOUR COST		R5 600.00
	SURFACE DISTURBANCE	REHABILITATION	R360.00
		TOTAL	R50 000.00

4.4 Undertaking to provide financial provision

(Indicate that the required amount will be provided should the right be granted).

I, DAVID FRANCOIS MALAN, undertake to provide a Bank Guaranteed Financial Provision for the amount as decided by the Department of Mineral Resources should the permit be granted.

5 REGULATION 52 (2) (e): Planned monitoring and performance assessment of the environmental management plan.

5.1 List of identified impacts requiring monitoring programmes.

Layout Plan

- A Copy of the layout plan as provided for in regulation 2.2 must be available at the prospecting/mining site for scrutiny when required.
- The plan must be updated on a regular basis with regard to the actual progress of the establishment of surface infrastructure, mining operations and rehabilitation.
- A final layout plan must be submitted at closure of the mine or when operations have ceased.

NOTE: REGULATION 2.2 OF THE REGULATIONS PROMULGATED IN TERMS OF THE ACT REQUIRES:

AN APPLICATION CONTEMPLATED IN SUB-REGULATION (1) MUST BE ACCOMPANIED BY A PLAN THAT MUST CONTAIN-

- (a) The co-coordinates of the land or area applied for.
- (b) The North Point
- (c) The scale to which the plan has been drawn
- (d) The name, number and location of the land or area covered by the application.
- (e) In relation to farm boundaries and surveyed points.-
 - The size and shape of the proposed points
 - The boundaries of the land or area comprising the subject of the application concerned.
 - The layout of the proposed reconnaissance, prospecting, exploration, mining or production operations.
 - Surface structures and servitudes
 - The topography of the land or area

5.2 Functional requirements for monitoring programmes.

The only functional requirement for the monitoring of the operation is a six monthly field visit with recommendations from an independent consultant.

5.3 Roles and responsibilities for the execution of monitoring programmes.

- Independent consultant – to objectively look at all aspects of the mining activities and give recommendations on problem areas.
- Ecologist - monitor the re-growth of plant species and identifying any problem plants that have not been removed.

5.4 Committed time frames for monitoring and reporting.

- The ideal time frame for such a monitoring assessment and reporting thereof is on a six monthly basis, where the Department of Mineral Resources will receive a full report on an annually basis.
Thus will a full extensive assessment be conducted on an annually basis and a report submitted to the Department.

6 REGULATION 52 (2) (f): Closure and environmental objectives.

6.1 Rehabilitation plan

(Show the areas and aerial extent of the main prospecting activities, including the anticipated prospected area at the time of closure).

The main activities that require rehabilitation are the mine quarry road and the plant site. Some of these features are captured on the plan within section 2.1.2 of this document.

6.2 Closure objectives and their extent of alignment to the pre-mining environment.

The closure objective and the extent of alignment is to ensure that the post mining environment are rehabilitated to such an extent that the area will pose no danger to the biophysical environment and the area must be blended with the surrounding environment. To ensure the success thereof, will an independent consultant contracted to assist in the process. After satisfactory rehabilitation will a closure certificate be submitted with the Department of Mineral Resources.

6.3 Confirmation of consultation

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

The environmental objectives in relation to closure are in discussion with the landowner. No outcome has been received to date.

7 REGULATION 52 (2) (g): Record of the public participation and the results thereof.

7.1 Identification of interested and affected parties.

(Provide the information referred to in the guideline)

MR. Coetzee

MR. Wiese

MR. Malan

MR. Diergaardt

MR. Spangeberg

MR. Smit

7.2 The details of the engagement process.

7.2.1 Description of the information provided to the community, landowners, and interested and affected parties.

Letter was given to all parties to inform them that the process of mining was excepted by the DMR. A second letter explained the process of mining and the impact on the environment. The letters was approved and signed by all the affected parties.

7.2.2 List of which parties indentified in 7.1 above that were in fact consulted, and which were not consulted.

All affected parties was consulted.

7.2.3 List of views raised by consulted parties regarding the existing cultural, socio-economic or biophysical environment.

NONE

7.2.4 List of views raised by consulted parties on how their existing cultural, socio-economic or biophysical environment potentially will be impacted on by the proposed prospecting or mining operation.

NONE

7.2.5 Other concerns raised by the aforesaid parties.

Mr. Coetzee object to the fact that we want to mine on property and want to sell the property for an amount of R20 000 (Twenty Thousand Rand) per hectare Mr. Malan offered R6000 (Six Thousand Rand) per hectare.

7.2.6 Confirmation that minutes and records of the consultations are appended.

Signed letters of confirmation was send to DMR office.

7.2.7 Information regarding objections received.

NONE

7.3 The manner in which the issues raised were addressed.

NOT APPLICABLE

8 SECTION 39 (3) (c) of the Act: Environmental awareness plan.

8.1 Employee communication process

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

Employees will be trained and informed about Environmental Awareness in the following manner-

- Initial meeting - An environmental officer (SHE Company) will inform the employees about the environmental risk that can result from their work with remediation.
- Monthly meeting – monthly meetings will be held updating employees on their awareness performance. Further will a rewards program be established with the aid of the employees to motivate them.

8.2 Description of solutions to risks

(Describe the manner in which the risk must be dealt with in order to avoid pollution or degradation of the environment)

All environmental impact and risk will be dealt with according to the Company's Policy and procedures.

8.3 Environmental awareness training.

(Describe the general environmental awareness training and training on dealing with emergency situations and remediation measures for such emergencies).

Environmental awareness training will be initially done during the initial awareness meeting and annually during the duration of the operation of the operation. Further will specialist be invited to these meetings for educative purposes. Training will proceed on a weekly basis including training register.

9 SECTION 39 (4) (a) (iii) of the Act: Capacity to rehabilitate and manage negative impacts on the environment.

9.1 The annual amount required to manage and rehabilitate the environment.

(Provide a detailed explanation as to how the amount was derived)

The amount required to manage and rehabilitate the environment is calculated to a total of R50 000.00 . If the mitigation measures in section 3.2 of this document are strictly adhered to, no environmental management cost is necessary.

9.2 Confirmation that the stated amount correctly reflected in the Prospecting Work Programme as required.

The above stated amount does not reflect in the Financial Report submitted with the initial application.

10 REGULATION 52 (2) (h): Undertaking to execute the environmental management plan.

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	DAVID FRANCOIS MALAN
Identity Number	7202155137081

END-

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 REG # CK85/04827/23

LANGEBERG STENE BK
 Posbus 137
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Tax Invoice	
Date	23/09/13
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Down to Earth Civils
 POSBUS 131353
 NORTHMEAD
 1511

Deliver to
 KATHU

Account	Your Reference	Tax Exempt	Tax Reference	Sales Code	
542	P106/13/36	N	4920228121	003	Exclusive

Code	Description	Quantity	Unit	Unit Price	Disc%	Tax	Nett Price
032	FILLING-G5 MATERIAL A/N 3398	25.00	01	140.0000		R490.00	R3 500.00

ENB - Olifantshoek
 Tak no: 230 702
 Rek no: 62245622411

Received in good order

Signed _____ Date _____

Sub Total	R3 500.00
Discount @ 0.00%	R0.00
Amount Excl Tax	R3 500.00
Tax	R490.00
Total	R3 990.00