

Appendix A – Environmental Management Programme

UMZUMBE MINING COMPANY (PTY) LTD

MINING PERMIT

Portion 1 of Farm the Corner 11328 ET

UMZUMBE KWAZULU-NATAL

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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Report Sign-Off			
Name	Designation	Signature	Date
Divan van der Merwe	Director	Electronically Signed	15/07/2020
Vivienne Vorster	EAP Senior Environmental Scientist	Electronically Signed	15/07/2020

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME

1 ENVIRONMENTAL MANAGEMENT PROGRAMME

1.1 Details of the EAP

Please refer to PART A, Section 4.1.

1.2 Description of the Aspects of the Activity

The requirement to describe the aspects of the activity that are covered by the Environmental Management Programme is included in PART A, **Section 5.1**.

1.3 Composite map

A map which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities showing how areas are to be avoided is provided as **Figure 1-1** below.

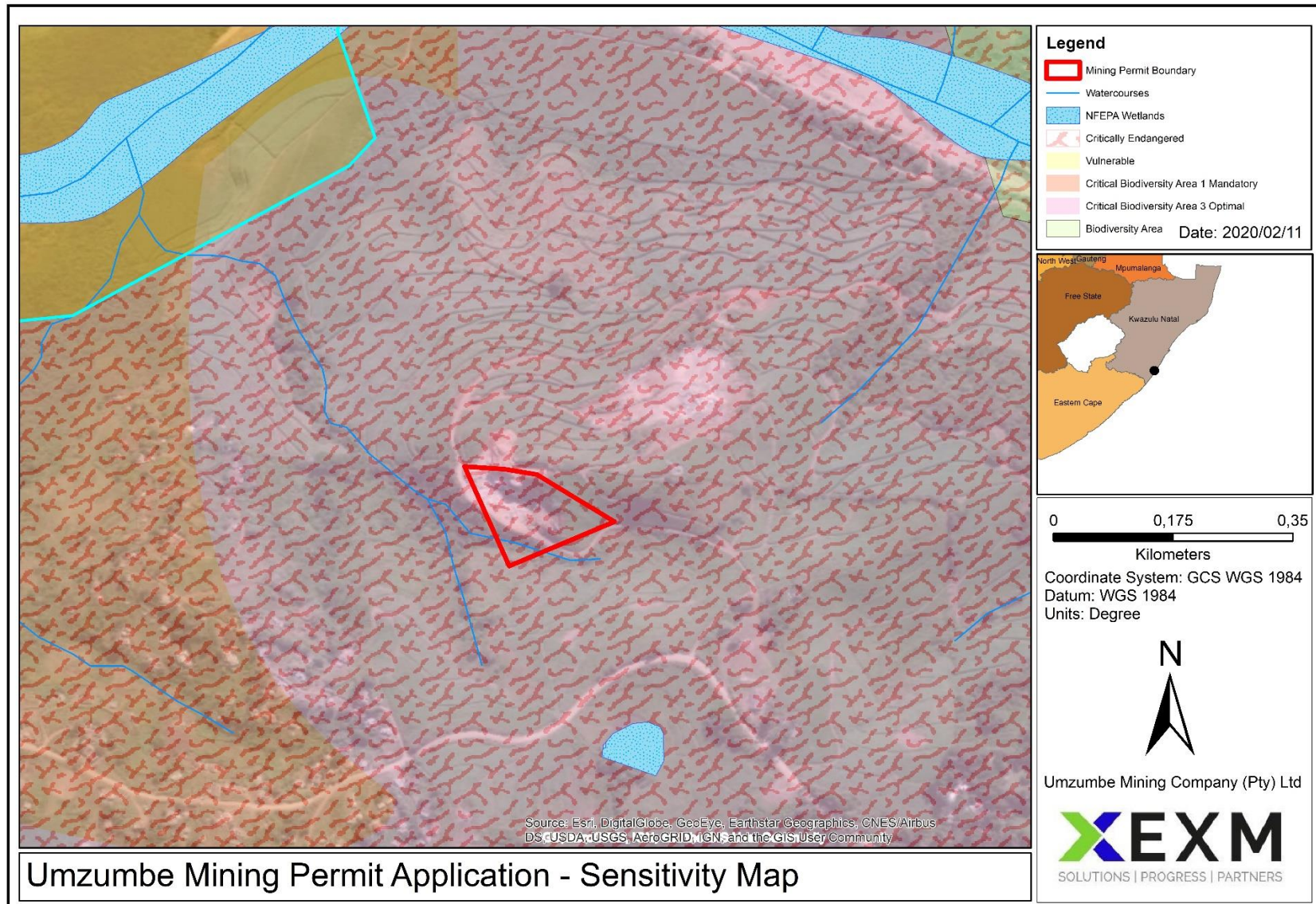


FIGURE 1-1: UMZUMBE LAYOUT AND ENVIRONMENTAL SENSITIVITY PLAN

2 DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

2.1 Determination of Closure Objectives

The study area has been transformed in terms of the soil profile, vegetation, and geomorphology, primarily as a result of the previous mining activities which have been undertaken, and less so, the surrounding sugarcane fields.

Measures need to be implemented to prevent, avoid impacts that may be detrimental to the environment, as well as to rehabilitate the site after closure. Closure objectives include:

- Rehabilitate the site in accordance with a detailed closure plan, and implement an alien invasive management plan to ensure the establishment of indigenous vegetation;
- Return the disturbed areas to an acceptable post mining state;
- Ensure all areas are stable and there is no risk for erosion; and
- Ensure that all areas are free draining and non-polluting.

2.2 Volumes and Rate of Water Use Required for Mining

Water for dust suppression is obtained from the farmer's borehole and stored in moveable jojo tanks. Water use is approximately 5 000 litres/month.

Potable water is obtained from municipal supply and approximately 1 800 litres are required on a monthly basis.

2.3 Application for a Water Use Licence

A Water Use Licence has not currently been applied for, although the applicant must hold a meeting with the DWS to establish whether a Water Use Authorisation is required.

3 IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES AND IMPACT MANAGEMENT OUTCOMES

TABLE 3-1: IMPACT MITIGATION AND IMPACT MANAGEMENT OUTCOMES

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
Excavations	Loss of vegetation Erosion and sedimentation Pollution of surrounding natural environment	Vegetation Soils Surface water	O	~1.4 ha	<ul style="list-style-type: none"> Operational planning must ensure that disturbance is restricted within the approved mining permit area only. No protected indigenous trees may be removed or destroyed without the required permits from the DAFF. Alien Invasive plants must be removed and disposed of in accordance with existing 	Mineral and Petroleum Resources Development Act (Act No. 28 of 2002). Conservation of Agricultural Resources Act (No. 43 of 1983)	Ongoing throughout Life of Mine (LOM)

¹ O = Operational; PO = Post Operations; C = Closure

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
	Loss of faunal species in surrounding environment.				<p>legislation on a regular basis.</p> <ul style="list-style-type: none"> The footprint and daily operation of all mining surface infrastructure areas must be monitored to ensure that edge effects from the operations do not affect the surrounding forest habitat. Wherever possible, stabilize areas with vegetation where mining is no longer undertaken and dampen with water to limit dust and potential erosion. Dangerous conditions for faunal species (e.g. steep slopes, loose and unstable material) must be managed. Where there is an erosion risk due to steep slopes, appropriate erosion controls (such as cross berms) are to be put in place. 	<p>Minimise through Mine Design and Management.</p> <p>Monitor and manage through Dust Management Plan.</p> <p>Noise reduction measures in compliance with Noise standards and Regulations.</p> <p>Control through</p>	

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
					<ul style="list-style-type: none"> • Provision of silt traps or silt fences, where required, to prevent total suspended solids (TSS) from disturbed areas entering surrounding environment and/or watercourses. • Areas impacted by earth-moving activities must be re-shaped, where required, to ensure stormwater management (i.e. clean and dirty water separation). • No trapping, hunting or injuring of any faunal species within the surrounding area is allowed. 	management and mitigation measures.	
Excavations and mining operations	Noise disturbances Negative	Social and legal requirements	O	~1.4 ha	<ul style="list-style-type: none"> • All mining activities must be undertaken according to daylight working hours or as agreed with the landowner and 	Mineral and Petroleum Resources Development Act (Act No. 28)	Ongoing throughout Life of Mine (LOM)

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
	<p>relations with surrounding communities</p> <p>Accidents or injury to mine personnel</p>	<p>Noise</p> <p>Health and Safety</p>			<p>community.</p> <ul style="list-style-type: none"> Staff working in area where the 8-hour ambient noise levels exceed 75dBA must have the appropriate Personal Protective Equipment (PPE). Surrounding communities and adjacent landowners must be notified upfront of any noisy construction activities. A Complaints Register must be kept at the Site Office at all times. Stakeholder Engagement should continue throughout the life of the mine to ensure local communities are kept informed and allowed to raise issues. A Safety Officer must be appointed to continuously monitor the safety conditions 	<p>of 2002).</p> <p>Health and Safety Plan</p> <p>SANS 10103: 2008 and Noise Control Regulations</p>	

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
					<p>during mining.</p> <ul style="list-style-type: none"> • Safety measures such as a berm or fence should be located at the highwall to prevent human and/or animal injury. • All staff must have the appropriate PPE. 		
Excavations and mining operations	Disturbance or destruction of heritage artefacts Discovery of heritage artefacts or fossils	Cultural Heritage and Palaeontology	O	~1.4 ha	<ul style="list-style-type: none"> • If any artefact and/or grave is uncovered on site, work in the immediate vicinity must be stopped. • A registered heritage specialist / archaeologist must be called to determine the way forward. 	National Heritage Resources Act (No. 25 of 1999) Avoid impact	Ongoing throughout Life of Mine (LOM)
Soil stockpiles	Nuisance dust	Air quality	O	Local	<ul style="list-style-type: none"> • Existing stockpiles to be managed and measures to reduce dust and/or erosion 	NEMAQA	Ongoing throughout Life of Mine (LOM) and

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
	Erosion	Soils and land capability			<p>implemented.</p> <ul style="list-style-type: none"> To prevent the erosion of topsoil, management measures must be included. Such measures may include berms, soil traps, hessian curtains and stormwater diversion away from areas susceptible to erosion. Topsoil stockpiles can be re-vegetated to minimize erosion and dust related impacts. 	<p>National Dust Control Regulations.</p> <p>Minimise through operational Design and Management, in accordance with the rehabilitation plan and standards.</p>	during rehabilitation
<p>Loading, hauling and transport</p> <p>Hydrocarbon</p>	<p>Nuisance dust</p> <p>Soil contamination and pollution of</p>	<p>Air quality</p> <p>Soils and surrounding natural</p>	O	Local – within mining site or access	<ul style="list-style-type: none"> Adhere to existing access roads. Speed limits of 20-30km/hr to be enforced on haul roads to limit dust generation. Traffic signs to be located on 	<p>Mineral and Petroleum Resources Development Act (Act No. 28)</p>	<p>Ongoing throughout Life of Mine (LOM) and during rehabilitation</p>

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
spills	surrounding environment Sedimentation	environment		roads	<p>access roads.</p> <ul style="list-style-type: none"> • Access / haul roads to be maintained in a suitable condition for trucks and non-mine vehicles in order to minimise dust, erosion or undue surface damage. • Dust suppression to be undertaken on access roads, where required. • Implement effective Stormwater Management measures. • Storm water designs should limit any uncontrolled runoff through the disturbed areas on site • Create and implement a hazardous substances management procedure. • Spill kit to be available on site in the event of a spill. 	<p>of 2002).</p> <p>National Environmental Management: Waste Act (No. 59 of 2008)</p> <p>Manage through Stormwater Management Plan</p> <p>Control through management and mitigation measures.</p>	

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
Waste management	Pollution and litter Contamination of surrounding environment	Soils Surrounding natural environment	O	Mining site and surrounding access roads	<ul style="list-style-type: none"> Suitably covered receptacles must be available at all times and conveniently placed for the disposal of waste. Waste is to be removed to a licensed landfill site. No waste must be burned on site. No waste is to be buried on site. Safe disposal certificates for hazardous waste should be made available on request. Hazardous waste must not to be mixed or combined with general waste. Hazardous waste bins must be clearly marked, stored in a contained area or have a drip tray and covered. 	National Environmental Management: Waste Act (No. 59 of 2008) Manage in accordance with Best Practice Guidelines, NWA, NEMWA.	Ongoing throughout Life of Mine (LOM)

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
					<ul style="list-style-type: none"> Hazardous waste must be disposed of at a licensed hazardous waste landfill site. All personnel are to make use of the ablution facilities on site. 		
Blasting	Noise Dust Vibration	Air Quality Noise Health and Safety	O	Mining area and surrounds	<ul style="list-style-type: none"> Electronic initiation systems to facilitate single hole firing should be used. Do design for smaller diameter blast holes that will use fewer explosives per blasthole. Notification of blasting must be conveyed to the surrounding community. The following notification method should be employed: 1 week notice of blasting be sent to the community and other stakeholders, a reminder 24 hours before, another on the 	NEMAQA SANS 10103:2008	Ongoing throughout Life of Mine (LOM)

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
					<p>morning of the blast, a siren 10 minutes prior to the blast and again 5 minutes after blast.</p> <ul style="list-style-type: none"> The preferred communication strategy must be discussed and agreed with the community prior to blasting being initiated. The mine shall establish a detailed complaints mechanism for communities to lodge concerns, suggestions and grievances which can be dealt with in a timely manner. 		
Rehabilitation and restoration	<p>Erosion if rehabilitation is not correctly undertaken</p> <p>Alien invasive plant</p>	<p>Topography</p> <p>Soils</p> <p>Surrounding natural</p>	PO	~1.4 ha	<ul style="list-style-type: none"> The rock face will be stabilized and terraced in accordance with recommendations by a qualified rock engineer. The rock face must be suitably stable to ensure that no collapse or rock falls occur after rehabilitation. 	Rehabilitation plan	Rehabilitation and Closure

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
	<p>colonization</p> <p>Limited vegetation regrowth</p>	environment			<ul style="list-style-type: none"> Disturbed areas within the site must be rehabilitated according to the closure plan. Limit activity footprint and avoid disturbance of rehabilitated areas. Footprint should be thoroughly remediated and ripped to alleviate compaction. Stored topsoil should be replaced (if any) and the footprint graded to reflect surrounding topography. The landscape should be reprofiled to mimic the natural topography. Areas must be rehabilitated to a point where natural processes will allow the pre-development ecological functioning of the 		

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
					<p>area to be reinstated.</p> <ul style="list-style-type: none"> • Area to be revegetated with indigenous species from the area. • Erosion control measures such as contour berms, silt fences or geofabrics to be used on slopes steeper than 1:3 • Area must be free draining following rehabilitation and runoff water must not cause erosion. • Implement an effective Alien Invasive Plant Management Plan, 		
Site Closure	Soil contamination Visual impacts	Soils Groundwater	C	~1.4 ha	<ul style="list-style-type: none"> • Temporary structures, if any, must be removed. • The soil to be checked for any spillages from vehicles. All spills must be remediated to the point 	Mineral and Petroleum Resources Development Act (Act No. 28)	Closure and Post Closure

Activities	Potential Impact	Aspects Affected	Phase ¹	Size and Scale	Mitigation Measures	Mitigation Type (modify, remedy, control or stop) and Compliance with Standards	Time Period for Implementation
	<p>Alien invasive plant and weed proliferation</p> <p>Re-vegetation following rehabilitation</p>	<p>Vegetation</p> <p>Visual receptors</p>			<p>of infiltration.</p> <ul style="list-style-type: none"> Contaminated soil must be disposed of at a licenced hazardous waste disposal site. All alien invasive plants and weeds that have colonised within the permit area must be eradicated. An agreement with the end land use recipient needs to be negotiated and agreed upon at least 12 months prior to closure. 	<p>of 2002).</p> <p>Remedy during rehabilitation and closure</p> <p>Control via the correct protocols and legal agreements.</p>	

4 IMPACT MANAGEMENT ACTIONS

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

Activity	Potential Impact	Mitigation Type	Time Period for Implementation	Compliance with Standards
Excavations and mining operations	Change in landform and topography	Control through management and monitoring and through progressive rehabilitation where possible.	Operations	Mineral and Petroleum Resources Development Act (Act No. 28 of 2002). Rehabilitation objectives
	Soil erosion and sedimentation due to mining activities Soil compaction due to mining activities Soil contamination due to mining activities Loss of soils and agricultural land capability	Control through stormwater management measures. Manage soil stockpiles. Control by the installation of erosion control measures.	Operations	National Environmental Management Act (No. 107 of 1998) National Environmental Management Waste Act (No. 59 of 2008) Adherence to measures in EMP Conservation of Agricultural Resources (No. 43 of 1983)

Activity	Potential Impact	Mitigation Type	Time Period for Implementation	Compliance with Standards
Excavations and mining operations	Dust	Control through frequent dust suppression. Enforce speed limit for trucks. Remedy by addressing dust complaints.	Operations	National Environmental Management: Air Quality Act (No. 39 of 2004)
	Noise pollution	Control through maintaining equipment and vehicles in good working order. Remedy by addressing noise complaints.	Operations	SANS 10103:2008 Noise Control Regulations
	Edge effects due to mining activities. Pollution of surrounding natural environment.	Manage through demarcation of permit boundaries. Control through stormwater management measures and erosion control measures.	Operations	NEMA NEMWA CARA
	Ground and surface water, soil and land pollution	Control through the provision of waste (general and hazardous) receptacles and proper disposal. Manage through emergency response procedures. Monitor disposal of waste through Safety disposal certificates (SDCs).	Operations	NEMA NEMWA EMPr
	Disturbance and/or discovery of Heritage artefacts or fossils	Stop work in the immediate vicinity immediately and a registered	Operations	National Heritage Resources Act (No. 25 of 1999)

Activity	Potential Impact	Mitigation Type	Time Period for Implementation	Compliance with Standards
		archaeologist/heritage practitioner must be contacted. Avoid impact.		
	Health and Safety of personnel	Control through construction staff wearing appropriate PPE. Notifying surrounding communities prior to blasting being undertaken. Remedy through training of personnel in the correct handling and reporting of spillage/pollution.	Operations	Health and Safety Plan
Rehabilitation and restoration	Erosion, if rehabilitation is not correctly undertaken Alien invasive plant colonization Limited vegetation regrowth	Remedy through rehabilitation. Modify area to mimic the surrounding area as far as practicably possible.	Rehabilitation, once mining has ceased.	Rehabilitation and Closure MPRDA
Site Closure	Soil contamination Visual impacts Alien invasive plant and weed proliferation	Control through implementation of alien invasive plant management plan Manage and monitor through the implementation of the closure plan	Closure and Post Closure	Rehabilitation and Closure MPRDA

Activity	Potential Impact	Mitigation Type	Time Period for Implementation	Compliance with Standards
	Re-vegetation following closure	Control via applicable discussions and legal agreements with end land user.		

5 FINANCIAL PROVISION

5.1 Closure Objectives and the Extent to which they have been aligned with the baseline environment

The closure objectives are aimed at achieving similar land use after mining whilst ensuring the site remains non-polluting. The following closure objectives must be met:

- Return the disturbed areas to an acceptable post mining state
- Ensure all areas are stable and there is no risk to erosion
- Prevent alien plant invasion on the site until the site is in a stable state, and
- Ensure that all areas are free draining and non-polluting

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

This Report highlights the rehabilitation and management objectives with regards to mitigating negative environmental impacts associated with the proposed mining operation. These environmental objectives related to the closure of the mining operation contained in this report will be subjected to a 30-day review period by Interested and Affected Parties, where comments and concerns can be made.

5.3 Rehabilitation Layout Plan

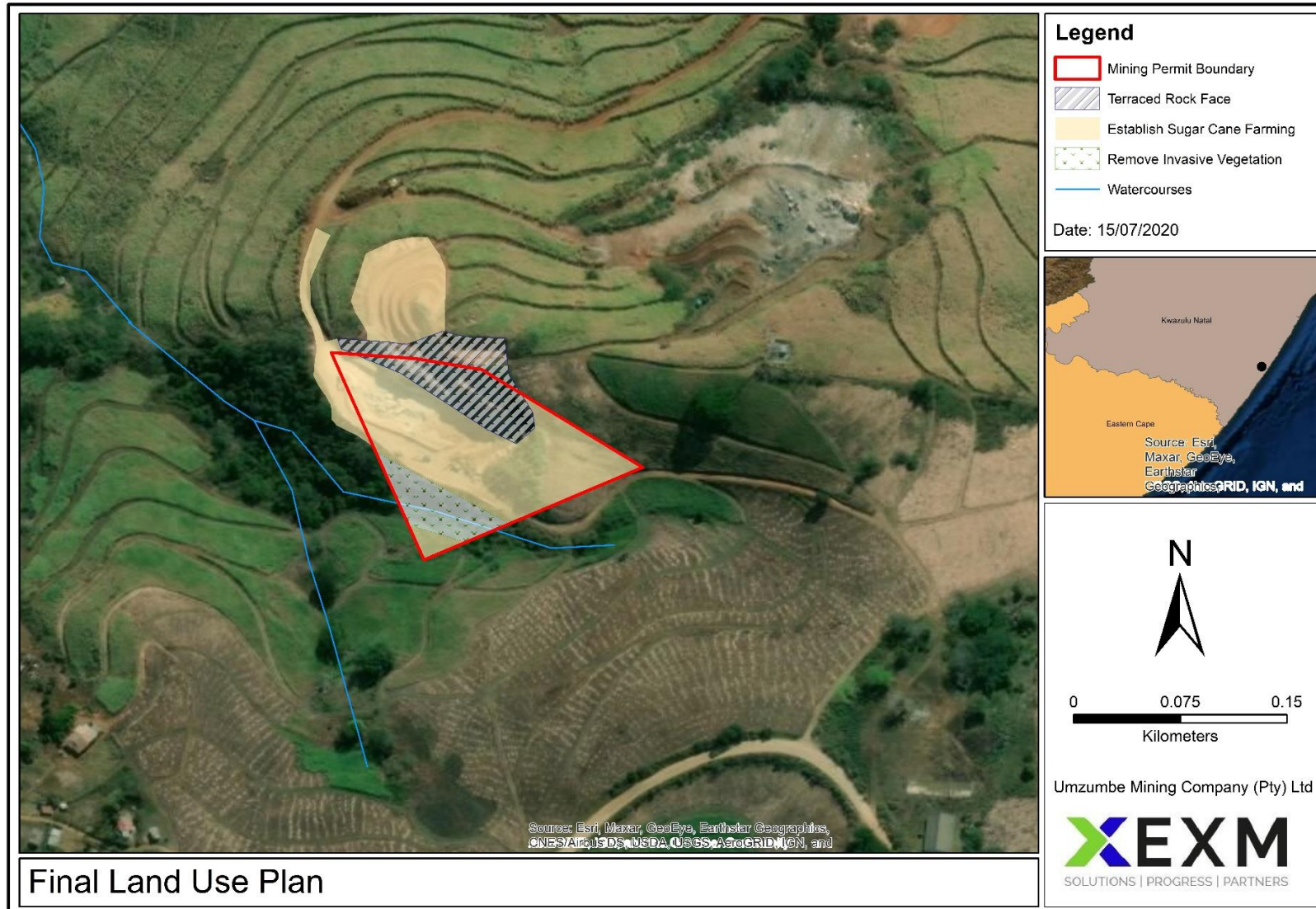


FIGURE 5-1: REHABILITATION PLAN WITH FINAL LAND USE (EXTENT IN HECTARES)

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

The rehabilitation plan will assist the proposed mining operation to achieve the following objectives:

- Comply with relevant legislation and policy requirements with regard to rehabilitation;
- Avoid or mitigate impacts associated with the project which may be detrimental to the environment;
- Land rehabilitation to a predetermined and agreed upon state that allows sustainable land use and capability of the site, that is to return the site to the condition that existed prior to mining or an agreed upon state;
- Cost effective and efficient closure of mining operations;
- Management and monitoring of the area post-closure.

The rehabilitation plan is therefore aligned to the closure objectives and in order for the mining site to achieve these objectives.

5.5 Quantum of Financial Provision Required to Manage and Rehabilitate the Environment

The total quantum amounts to R297 280, 44 incl VAT at closure and at R261 768, 26 premature closure. Premature closure is based on the current extent of disturbance.

Umzumbe Mining (PTY) LTD		Rehab & Closure Provision 2020	
Umzumbe mining Permit Financial Provision Quantum			
Ref.	Description	Premature Closure	Final Closure Cost
	Umzumbe Mining Permit		
	Footprint Rehabilitation		
1.1	Drill blast and bench rock face	R 57 770,00	R 69 713,88
1.2	Reshape steep slopes - 50m	R 2 800,25	R 3 153,95
1.3	Rip on reshaped slopes	R 4 656,00	R 5 291,03
1.4	Spread soils from nearby stockpiles	R 28 686,00	R 35 607,60
1.5	Cover prepared areas with growth medium	R 11 439,20	R 13 275,90
1.6	Establish vegetation / sugarcane (level areas - mechanical); incl supply of material, spreading & cultivation	R 27 155,80	R 31 948,72
1.7	Establish indigenous grass and trees (sloped areas - hand); incl supply of material, spreading & cultivation	R 15 750,00	R 15 750,00
1.8	Erect security fencing	R 31 812,48	R 31 812,48
1.9	Rip compacted road	R 4 603,97	R 4 603,97
1.10	Aftercare and Maintenance	R 10 544,63	R 10 544,63
	Rehabilitation Cost	R 195 218,33	R 221 702,17
	Total Cost	R 195 218,33	R 221 702,17
	Preliminary and General @ 6%	R 11 713,10	R 13 302,13
	Contingency @ 10%	R 20 693,14	R 23 500,43
	Total Excl. VAT @ 15%	R 227 624,57	R 258 504,73
	VAT @ 15%	R 34 143,69	R 38 775,71
	Total; incl VAT @ 15%	R 261 768,26	R 297 280,44

5.6 Confirm the Financial Provision will be Provided

Umzumbe Mining Company will provide a guarantee for the financial provision.

6 MECHANISMS FOR MONITORING COMPLIANCE WITH AND PERFORMANCE ASSESSMENT AGAINST THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND REPORTING THEREON, INCLUDING

A monitoring programme assists in determining whether mitigation and management measures are being implemented and/or if they are effective. The monitoring data collected will also provide input into the planning for closure at the end of life of the mining operations.

Umzumbe will appoint an internal Environmental Control Officer (ECO) who will be responsible for undertaking daily inspections and compiling monthly reports of management measures and any incidents or contraventions thereof.

It is recommended that an annual external audit by an independent consultant is undertaken to assess and measure compliance against the conditions in the EMPr and Environmental Authorisation (EA).

Table 6-1 provides details of monitoring requirements.

TABLE 6-1: MONITORING REQUIREMENTS

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
Mining operations	Mining activities, excavations, erosion and sedimentation	Daily inspections of mining area. Implement and monitor erosion controls and stormwater management structures.	Environmental Manager/ Environmental Control Officer (ECO) External ECO	Daily inspections Annual external ECO audit
	Noise – increased noise levels	Monitoring of noise levels at closest receptors	Environmental Manager / ECO and Noise specialist	Quarterly and reporting
	Dust – increased levels of dust	Monitoring of dust levels at mining permit boundary and closest receptors	Environmental Manager / ECO and specialist	Quarterly and reporting
	Surface water	Two monitoring points on the Umzumbe River, one upstream and one downstream of the mining operations.	Environmental Manager / ECO and Independent consultant	Quarterly and reporting

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
	Blasting – ground vibrations and air blast	Monitoring of ground vibration and air blast in line with standards at closest sensitive receptors.	Environmental Manager / ECO and Vibrations specialist	Quarterly and reporting
	Waste management	Ensure that appropriate waste receptacles are provided for different waster types i.e. hazardous (liquid and solid) and general waste	Environmental Manager / ECO	Daily inspections
	Rehabilitation	Monitor basal cover	Environmental Manager / ECO	Quarterly

7 INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE ASSESSMENT/ ENVIRONMENTAL AUDIT REPORT.

Performance Assessments/Compliance Audits will be compiled in accordance with legislative requirements (as applicable at the time) including:

- Regulation 34 of the EIA Regulations (GN. 982 of 4 December 2014, as amended);
- Environmental Authorisation; and
- Regulation 55 of the Minerals and Petroleum Resource Development Act.

The Performance Assessments/Compliance audits will be conducted by an external independent consultant and submitted as per legal requirements or in accordance with the Environmental Authorisation. Internal audits must be conducted on a bi-monthly basis and the reports must be made available to the external auditor.

It is recommended that an annual external audit be conducted at the Umzumbe mining operations.

8 ENVIRONMENTAL AWARENESS PLAN

8.1 Environmental Induction Training

The purpose of the induction training is to promote a general awareness of the sensitivity of the environment, the legal commitments and the aspirations of Umzumbe in terms of environmental management and the environmental consequences of individual actions. Induction is applicable to all employees, contractors and service providers that will be working within the mining area.

Environmental Induction for Employees and Service Providers

The induction training for employees, contractors and service providers is to take the form of a presentation including:

- A description of environmental sensitivities in the environment;
- A description of environmental legal requirements and Umzumbe's commitment to comply with these requirements;
- A description of broad-based objectives of environmental management at the site;
- A discussion of how individual actions can impact on the environment;
- A discussion of how individual actions can assist in the successful implementation of the environmental management programme (EMPr);

- The Code of Conduct.

All employees are to sign that they have understood and will comply with the Code of Conduct. employees are to be re-inducted on an annual basis (after returning from their annual leave).

Requirements

- Environmental induction material (posters, power point presentations etc.);
- Code of Conduct;
- Register of inducted Employees, service providers and contractors.

8.2 General Environmental Awareness Programme

The purpose of the general environmental awareness programme is to promote ongoing environmental awareness amongst the workforce. It will focus on addressing environmental issues which have been identified as problematic, complaints received, or environmental monitoring undertaken. This awareness campaign can form part of daily/ weekly toolbox talks.

8.3 Job Specific Environmental Awareness Training

The purpose of the job specific environmental awareness training is to ensure that Employees within the specific management units are equipped to implement the actions committed to in the EMP. All members of the workforce are to be subject to job specific environmental training. Supervisors will be trained to assist with the implementation and training of the work force.

Environmental Risk Identification

Any potential environmental risks are to be documented and actions to reduce these risks should be developed. The actions are to ensure overall compliance with the commitments of the EMP.

Training

All members of the workforce are to be subject to job specific training. This may include but not be limited to:

- Preventing pollution;
- Spill prevention and clean-up procedures;
- The location and purpose of material safety data sheets (MSDSs);
- Managing waste;
- No-go areas;
- Incident reporting.

The aspects to be covered however are dependent on the findings of the individual risk assessments.

8.4 Community Communication and Awareness

Umzumbe mining operations are located in a rural area with surrounding communities. Due to this proximity, it is likely that there will be impacts such as noise, dust, vibrations and air blast (from blasting). A critical part of the project will be managing public complaints, investigating complaints and addressing these complaints. A successful complaints and communication campaign will limit the need for the public to find alternative ways in addressing their concerns. The following methods of interaction are required:

1. A complaints' register;
2. A community forum; and
3. Blast communication system

8.4.1 COMMUNITY ENVIRONMENTAL FORUM

The aim of this forum is to communicate the current operational status of the project/ mine and results of environmental monitoring to the community. This forum can also be used to raise complaints and report back on the results of complaints investigated and resolved.

8.4.2 COMPLAINTS REGISTER

A complaints/grievance register is to be kept at the office of the ECO or environmental manager. This register must provide the means for any environmental related complaint to be registered. A registered complaint needs to be investigated and resolved through a formal system where the complainant can enquire on the status of the complaint. Complaints should be investigated within one month of being lodged or communication on reasons for extension be submitted to the complainant. Should complaints not be resolved to the satisfaction of the complainant it need to be escalated to the Department of Mineral Resources for mediation.

9 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

All information has been provided to the authority.

10 UNDERTAKING

I, Vivienne Vorster and Divan van der Merwe acting as independent environmental assessment practitioner hereby confirm:

- The correctness of the information provided in the reports;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from specialist reports, where relevant; and
- The acceptability of the project in relation to the finding of the assessment and the level of mitigation proposed.

