



**forestry, fisheries  
& the environment**

Department:  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA

**RISK ASSESSMENT IN TERMS OF REGULATION 8 OF THE WASTE  
EXCLUSION REGULATIONS**

	(For official use only)
File Reference Number:	12/9/11
NEAS Reference Number:	
Date Received:	

Risk Assessment for an application for exclusion of waste stream or portion of waste stream in terms of the National Environmental Management: Waste Act, 2008(Act No.59 of 2008), as amended.

**Kindly note that:**

1. This form is current as of 01 April 2021. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Incomplete forms (including information as required in the application form may be returned to the applicant for revision and the inclusion of additional information.
4. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

<b>APPLICANT</b>	<b>UMSIMBITHI MINING (PTY) LTD</b>
<b>CONTACT PERSON</b>	<b>Thato Gama</b>
<b>NAME</b>	Wonderfontein Mine
<b>ADDRESS</b>	Portion 2 Farm Wonderfontein 428 JS, Carolina
<b>E-MAIL ADDRESS</b>	Thato.Gama@glencore.co.za
<b>TELEPHONE</b>	013 244 8200
<b>CELL PHONE</b>	064 759 3551

<b>WASTE GENERATING FACILITY OR FACILITIES</b>						
<b>PHYSICAL ADDRESS OF FACILITY OR FACILITIES</b>	Portion 2 Farm Wonderfontein 428 JS, Carolina					
<b>GPS CO-ORDINATES AT CORNERS OF WASTE GENERATING FACILITY OR FACILITIES</b>	<b>LATITUDE</b>			<b>LONGITUDE</b>		
	25°	49'	42.83"	29°	52'	56.82"
	25°	49'	41.17"	29°	52'	47.95"
	25°	49'	33.47"	29°	52'	55.42"
	25°	49'	47.67"	29°	52'	56.35"
	25°	49'	44.19"	29°	53'	2.30"
	25°	50'	14.51"	29°	53'	16.63"
	25°	50'	3.80"	29°	53'	20.06"
	25°	50'	15.10"	29°	53'	19.27"
	25°	50'	19.60"	29°	53'	15.52"
	25°	50'	11.54"	29°	53'	14.95"
	25°	51'	26.54"	29°	53'	31.27
	25°	51'	26.47"	29°	53'	28.91"
	25°	51'	25.84"	29°	53'	33.54"
	25°	51'	33.17"	29°	53'	29.21"
25°	51'	34.78"	29°	53'	38.89"	
<b>WASTE STREAM OR PORTION OF A WASTE STREAM TO BE EXCLUDED FROM THE DEFINITION OF WASTE</b>	Mine waste rock/overburden					
<b>BENEFICIAL USE/S</b>	Unbeneficiated virgin rock material overlying coal deposits removed during mining activities, temporarily stored on surface to be used for rehabilitation ('backfilling').					

<b>WASTE GENERATING PROCESS</b>		
<b>DETAILED DESCRIPTION OF WASTE GENERATING PROCESS<sup>1</sup></b>	Unbeneficiated virgin rock material overlying coal deposits removed during mining activities, temporarily stored on surface to be used for rehabilitation ('backfilling').	
<b>PRODUCTION PROCESS FLOW CHART ATTACHED</b>	✓ YES	NO
<b>WASTE CLASSIFICATION</b>	✓ HAZARDOUS	GENERAL

<sup>1</sup> A process flow chart must be attached with this form for the process description

**IF HAZARDOUS LIST THE HAZARDS  
OF THE WASTE**

Total aluminium and iron exceed 1% cut-off values as per SANS10234.

## RISK ASSESSMENT WITHOUT MITIGATION

Activity	Risk description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
Loading	Loading of material onto trucks	Air	Windblown particles - Localised dust generation and air pollution	3	3	2	1	18
Storage	Accidental spillage onto the environment	Soil	Soil contamination	2	6	3	1	20
		Surface water	Contamination of surface water	2	6	3	1	20
		Groundwater	Contamination of groundwater	2	6	3	1	20
		Aquatic ecosystem	Reduced aquatic ecosystem productivity	2	6	3	1	20
	Leachate from stockpiled material during rainfall	Soil	Soil contamination	4	6	3	1	40
		Surface water	Material carried by run-off deposited in storm water channels and water body in the vicinity of the storage area	2	6	3	1	20
		Groundwater	Seepage into groundwater and contamination	4	6	3	1	40

Activity	Risk description	Environmental Receptors	Assessment of Risk					Significance
			Impact	Probability	Magnitude	Duration	Scale	
		Aquatic ecosystem	Reduced aquatic ecosystem productivity	2	6	3	1	20
Backfilling	Development of poor leachate quality during the operational phases of mining	Soil	Soil contamination	1	2	2	1	10
		Surface water	Contamination of surface water	1	2	2	1	10
		Groundwater	Contamination of groundwater	1	2	2	1	10
		Aquatic ecosystem	Reduced aquatic ecosystem productivity	1	2	2	1	10
Backfilling	Development of poor leachate quality during the closure phases	Soil	Soil contamination	4	6	2	1	36
		Surface water	Contamination of surface water	4	6	3	1	40
		Groundwater	Contamination of groundwater	4	6	3	1	40
		Aquatic ecosystem	Reduced aquatic ecosystem productivity	4	6	3	1	40

The following factors and criteria must be used to assess the impacts of the activities:

<b>CRITERIA</b>	
<b>Magnitude (Severity)</b>	<b>Duration</b>
10 – Very high	5 – Permanent (longer than 10 years)
8 – High	4 – Long term (5 – 10 years)
6 – Moderate	3 – Medium term (12 months to 5 years)
4 - Low	2 – Short term (< 12 months)
2 - Minor	1 – Immediate
<b>Scale</b>	<b>Probability (Likelihood)</b>
5 – International	5 – Definite
4 – National	4 – Highly probable
3 – Regional	3 – Medium probability
2 – Local	2 – Low probability
1 – Site only	1 – Improbably
0 – None	0 - None

### **Magnitude**

Measures the size of the impact

### **Duration**

Duration refers to the lifetime of the impact i.e. how long it will last

### **Scale**

The scale refers to the extent of the impact

### **Probability**

The probability refers to the chance of the impact to occur. The potential impact could be most likely to occur, unlikely, etc.

### **Assessment of Significance of Impact**

Significance rating of the potential impact illustrates the importance of the impact itself. The size of the area affected by pollution may be extremely high but the significance of this effect is dependent on the concentration or level of pollution in that area. In order to determine the significance of an impact, the following method should be used:

Significance (S) = (Magnitude + Duration + Scale) x Probability

The values of S must then be categorised as follows:

<b>RATING</b>		<b>DESCRIPTION</b>
SP > 60	High significance	An impact which could influence the decision about whether or to proceed with the activities regardless of any possible mitigation
SP 30 - 60	Moderate significance	An impact or benefit which is sufficiently important to require management and which could have an influence on the decision unless it is mitigated
SP < 30	Low significance	Impacts with little real effect and which will not have an influence on or require modification of the activities
+	Positive impact	An impact that is likely to result in a positive consequence/effect

x


I, Thato Gance hereby declare that I have read the completed the Risk Assessment form and hereby confirm that the information is to the best of my knowledge true and correct.

Furthermore, I declare that I am fully aware of my responsibilities in terms of the Waste Exclusion Regulations, and that failure to comply with these Regulations may constitute an offence in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008).

Applicant (Full names) Thato Gance

Designation Assistant General Manager

x

Signature 

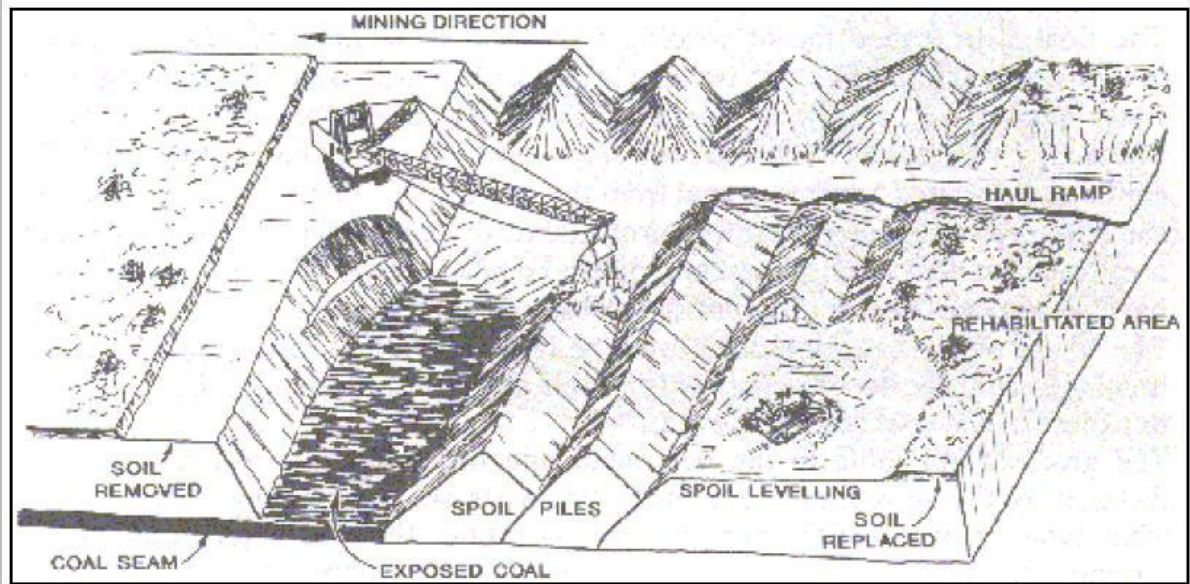
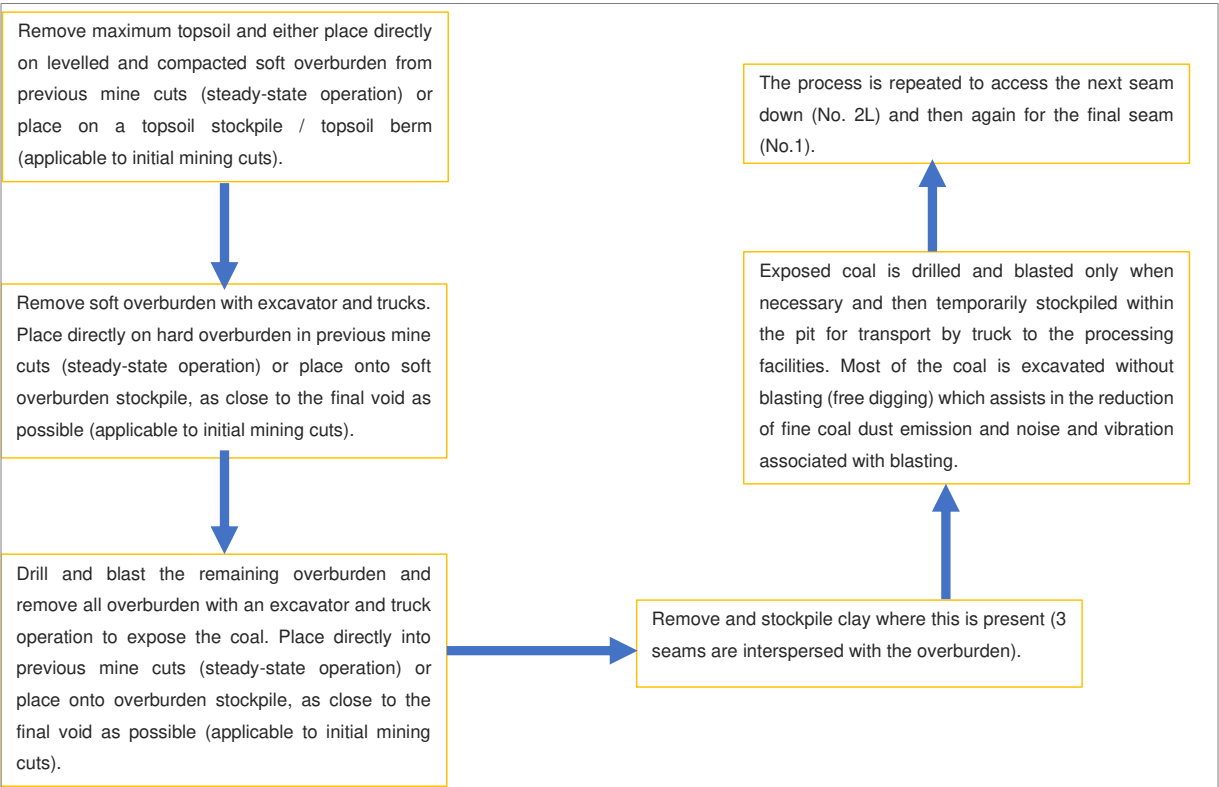
Date 12/01/2021 Place Middleburg



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Date Received			
Decision Taken	Authorised		Not Authorised (provide reasons)
Reference Number			





Process Flow illustration of the overburden generation and storage

