



DIGBY WELLS

ENVIRONMENTAL

NOTIFICATION OF INTENT TO DEVELOP

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED HENDRINA UNDERGROUND COAL MINE, MPUMALANAGA

1 Introduction

In terms of the requirements of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) as amended, a Mining Right Application (MRA) must be submitted to the Department of Mineral Resources (DMR) for the Project. In support of the MRA, an Environmental Impact Assessment (EIA) process must be undertaken in accordance with the new EIA Regulations, 2014 (GN R 982) promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), as amended. The EIA process will also serve to support the following applications:

- Environmental Authorisation (EA) for listed activities as contained in Listing Notices (GN R 983, 984 and 985); and
- Waste Management Licence (WML) in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA).

Furthermore, an Integrated Water Use Licence Application (IWULA) in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA) will also be made for water uses associated with the Project.

Digby Wells Environmental (hereafter Digby Wells) has been requested by Umcebo Mining (Pty) Ltd (Umcebo) to assist with the regulatory process.

1.1 Project Location

Prospecting Right	Farm	Portions	Extent		Distance and Direction from Hendrina
MP 1265 PR – Mooivley East & West	Mooivley 219 IS	2, 4, 5 and RE	1 018 ha	3 923 ha	12 km South East
	Tweefontein 203 IS	2, 15, 16 and 17	1 023 ha		8 km South East
	Uitkyk 220 IS	2 and 3	1 246 ha		10 km South
	Orange Vallei 201 IS	1 and RE	639 ha		8 km South East
MP 1266 PR	Elim 247 IS	RE	516 ha	2 787	19 km South East



Hendrina South	Geluksdraai 240 IS	1 and 2	258 ha	ha	22 km South East
	Bosmanskrans 217 IS	1, 3, 4, 6, 8, 9 and RE	1 941 ha		22 km South East
	Orpenskraal 238 IS	RE	65 ha		22 km South East

1.2 Registered Owner/s of Property/ies

Farm Name	Farm Number	Farm Portion	Prospecting Right	Title Deed	Contact Person	Telephone number
Orange Vallei	201	RE	PR1265	T147648/1999	Jannie Davel	083 628 8213
Orange Vallei	201	1	PR1265	T129567/2000	Mr J.F Davel Mrs A.J Davel	(083) 734 3188
Orange Vallei	201	3	PR1265		Unknown	Unknown
Tweefontein	203	2	PR1265	T129567/2000	Mr J.F Davel Mrs A.J Davel	(083) 734 3188
Tweefontein	203	15	PR1265	T9613/2015	Alpheus Pretorius	076 664 6023
Tweefontein	203	16	PR1265	T14296/2013	Andries Maree	084 964 8827 / 073 575 8025
Tweefontein	203	17	PR1265	T1201/2013	Mr G.R.J Davel	(083) 734 3188
Tweefontein	203	28	PR1265	Unknown	Unknown	Unknown
Tweefontein	203	29	PR1265	Unknown	Unknown	Unknown
Mooivley	219	RE	PR1265	T85265/2006	Vincent Schulze	(076) 559 2626
Mooivley	219	2	PR1265	T104905/1999	Vincent Schulze	(076) 559 2626
Mooivley	219	4	PR1265	T85265/2006	Vincent Schulze	(076) 559 2626
Mooivley	219	5	PR1265	T9051/1986	Mr J.J Oosthuysen	(082) 323 4402
Uitkyk	220	2	PR1265	T85265/2006	Vincent	(076) 559



Farm Name	Farm Number	Farm Portion	Prospecting Right	Title Deed	Contact Person	Telephone number
					Schulze	2625
Uitkyk	220	3	PR1265	T104905/1999	Vincent Schulze	(076) 559 2626
Bosmanskrans	217	RE	PR1266	T16601/2008	Mr A.H Roux Mrs A.C Roux	072 314 7564
Bosmanskrans	217	1	PR1266	T19695/2008	Mr A.H Roux Mrs A.C Roux	73 314 7564
Bosmanskrans	217	3	PR1266	T28179/2004	Mr P.C Oosthuysen	(082) 323 4402
Bosmanskrans	217	4	PR1266	T19696/2008	Mr C. Coetzee Mrs A.W Coetzee	082 378 5471
Bosmanskrans	217	6	PR1266	T9686/1996	Riaan Kuiper	(082) 806 4825
Bosmanskrans	217	8	PR1266	T28179/2004	Mr P.C Oosthuysen	(082) 323 4402
Bosmanskrans	217	9	PR1266	T19696/2008	Mr C. Coetzee Mrs A.W Coetzee	082 378 5471
Gelukdraai	240	1	PR1266	T15875/2015	Mr P.C Oosthuysen	(082) 323 4402
Gelukdraai	240	2	PR1266	T15875/2015	Mr P.C Oosthuysen	(082) 323 4402
Elim	247	RE	PR1266	T136838/2007	Mr Dan Nyoni	(071) 856 0524
Orpenskraal	238	RE	PR1266	T136838/2007	Mr Dan Nyoni	(071) 856 0524

2 Project / Development Details

Umcebo is proposing the development and operation of a new underground coal mine with associated infrastructure at a site situated approximately 10 - 22 kilometres (km) southeast of Hendrina in Mpumalanga Province, South Africa. Project area comprises three underground reserve blocks, i.e. Mooivley East, Mooivley West and Hendrina South. Operational activities, i.e. mining, are proposed to be undertaken through an underground bord and pillar mining method. The Mooivley Reserves (Mooivley West and East) will require

the development of two incline shafts to gain access to the two underground areas. The Hendrina South Reserve will require the development of one incline shaft to gain access to the underground area. Mooivley West and Hendrina South will be mined concurrently, with mining operations only commencing at Mooivley East after decommissioning of Hendrina South.

Currently, the Project is scheduled to commence with development in 2017, reaching full production by 2019. The estimated Life of Mine (LoM) is calculated at 36 years for all mining areas. The operation is envisaged to produce an approximate 78 million tonnes (Mt) of which 57 Mt will be saleable product. The current suggestion is that the Run-of-Mine (RoM) be transported via conveyor to the Crushing and Screening Plant for beneficiation. The grade of coal from the Hendrina Reserve has been identified as of poor quality, and not suitable for export, therefore the processed coal will be transported via road to an inland Eskom power station.

2.1 NHRA Section 38 Triggers

The following aspects of Section 38 of the NHRA may be triggered by the proposed project.

		NHRA Section 38 (1) Activities / Triggers	Summary description (e.g. 500 m conveyor belt, open cast pit, etc.)
<input checked="" type="checkbox"/>	a	Any linear development or barrier >300 m	Development of haul / access roads and pipelines
<input type="checkbox"/>	b	Any bridge or similar structure >50 m	
<input checked="" type="checkbox"/>	c	Any development or activity that will change the character of a site:	
	<input checked="" type="checkbox"/> i	≥5 000m ² in extent	Site clearance, establishment of box-cut and infrastructure
	<input type="checkbox"/> ii	Involving ≥3 existing erven/ subdivisions	
	<input type="checkbox"/> iii	Involving ≥3 or more erven/ divisions consolidated within past 5 years.	
<input type="checkbox"/>	d	Rezoning of a site ≥10 000m ² in extent.	
<input checked="" type="checkbox"/>	e	Other triggers, e.g.: in terms of other legislation, (i.e.: National Environment Management Act, etc.)	MPRDA, NEMA, NWA

2.2 Activities

The following activities will take place during the lifespan of the proposed project.



Name of Activity	Aerial extent of the activity	Listed Activity	Applicable Listing Notice
Coal Mining (Bord and Pillar)	6 710 ha	X – Activity 17	GNR 984
Site Clearance (boxcut, roads and infrastructure placement)	14 ha	X – Activity 27 X – Activity 12	GNR 983 GNR 985
Development of haul/access roads	To be confirmed	X – Activity 24	GNR 983
Establishment of boxcut and incline shafts	Adit 1 = 2.5 ha Adit 2 = 2.5 ha Adit 3 = 2.5 ha	X - Activity 17 X – Activity 12	GNR 984 GNR 985
Establishment of offices, workshop, change house, silo bins, security fencing	Offices, Change house and Workshops = 0.11 ha Shaft Site Office (x2) = 0.02 ha each Silo Bin (x 2) = 0.45 ha each	N/A	Not Listed
Crushing and Screening Plant	5 ha	X – Activity 21	GNR 984
Waste Rock Dump	To be confirmed	N/A	Not Listed
Sewage Treatment Plant	To be confirmed	X – Activity 25	GNR 983
Development of ROM stockpile and stockpile loading area	To be confirmed	X – Activity 6 X - Activity 17	GNR 984 GNR 984
Pollution Control Dam (PCD)	0.41 ha	X – Activity 6	GNR 984
Water pipelines	To be confirmed	X – Activity 9	GNR 983
Storage of fuel, lubricant and explosives	To be confirmed	X – Activity 4	GNR 984
Generation and temporary storage of waste (hazardous and general)	To be confirmed	N/A	Not Listed
Coal transport via conveyor	Conveyor = 2592.2 metres (length)	X – Activity 17 X – Activity 7 X – Activity 8	GNR 984 GNR 984 GNR 985
Rehabilitation of Project area	14 ha	N/A	Not Listed

2.3 Additional Impact Assessment Process

The following impact assessment process/es are currently being undertaken for the proposed project.

Legislation, i.e. NEMA, MPRDA, etc.	MPRDA, NEMA, NWA
Consenting Authority that has/will receive information	DMR
Present phase of process at Authority, e.g. Draft Scoping Report	Draft Scoping

3 Identified / Known Heritage Resources and Potential Impacts

The following categories of heritage resources as defined in Section 3 of the NHRA are known to occur within the proposed project area.

<input checked="" type="checkbox"/>	3(2)(a)	Places, buildings, structures and equipment of cultural significance
		Description of resource: Historical built environment remains associated with farmsteads
		Potential impact: Destruction or alteration of NHRA Section 34 resources
<input type="checkbox"/>	3(2)(b)	Places to which oral traditions are attached or which are associated with living heritage
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(c)	Historical settlements and townscapes
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(d)	Landscapes and natural features of cultural significance
		Description of resource: None identified
		Potential impact: None envisaged
<input checked="" type="checkbox"/>	3(2)(e)	Geological resources of scientific or cultural importance
		Description of resource: Vryheid Formation
		Potential impact: None envisaged
<input checked="" type="checkbox"/>	3(2)(f)	Archaeology and/or palaeontology (Including archaeological sites and material, fossils, rock art, battlefields & wrecks)

		Description of resource: Palaeontological resources – fossil remains Rock art sites
		Potential impact: Potential damage or alteration of NHRA Section 35 resources
<input checked="" type="checkbox"/>	3(2)(g)	Graves and burial grounds (eg: ancestral graves, graves of victims of conflict, historical graves & cemeteries)
		Description of resource: Burial grounds and graves
		Potential impact: Subsidence from underground mining may alter <i>status quo</i> of burial grounds and graves
<input type="checkbox"/>	3(2)(a)	Other human remains
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(h)	Sites of significance relating to the history of slavery in South Africa
		Description of resource: None identified
		Potential impact: None envisaged
<input type="checkbox"/>	3(2)(i)	Movable objects
		Description of resource: None identified
		Potential impact: None envisaged

3.1 Illustrative Material

Please refer to plans in the Heritage Scoping Report.

4 Recommendation

Is a Heritage Impact Assessment required?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If NO, provide motivation:			
If YES, provide suggested components that may be required or undertaken during HIA.			
<input checked="" type="checkbox"/>	Archaeology	<input type="checkbox"/>	Architecture

<input checked="" type="checkbox"/>	Built Environment	<input checked="" type="checkbox"/>	Burial Grounds and Graves
<input type="checkbox"/>	Palaeontology	<input type="checkbox"/>	Public Participation
<input type="checkbox"/>	Townscapes	<input type="checkbox"/>	Visual Impact
<input type="checkbox"/>	Other:		

Based on our understanding of the cultural landscape, potential impacts to heritage resources were presented in the Heritage Scoping Report. Briefly, these can be summarised as damage to and/or destruction of heritage resources generally protected under sections 34 – 37 of the NHRA during construction, operational and decommissioning phases.

The EA process is scheduled to continue with an impact assessment phase, during which a full EIA will be undertaken and submitted for adjudication. An HIA will be completed during the EIA phase inclusive of the following:

- An Archaeological Impact Assessment (AIA) that considers project related activities, CS of identified heritage resources, potential impacts and provides recommendations for mitigation or management.

It is further recommended that exemption from further palaeontological assessment at this stage be granted. The motivation for this request for exemption is based on conditions that a fossil monitoring programme is developed and included in the EMP as a condition of authorisation as operational activities will be completed through underground mining methods and possible surface fossil remains are not envisaged to be impacted upon.

Recommendation made by:

Name: Justin du Piesanie

Capacity: Heritage Management Consultant: Archaeologist