

Prepared by:

## Mineral Resource and Mineral Reserve Statement

Eugene Pretorius and Associates (Proprietary)  
Limited.31<sup>st</sup> December 2013

15 de Villier St, Middelburg, 1050

**DISCLAIMER**

This report has been prepared for the exclusive use of Mapochs Mine (Proprietary) Limited (~~%Client%~~), a former operating division of Evraz Highveld Steel and Vanadium Limited (~~%Evraz Highveld%~~) on the basis of instructions, information and data supplied by them. Although reasonable efforts were taken by Eugene Pretorius and Associate (Proprietary) Limited, to verify information in this report, no warranty or guarantee, whether express or implied, is made by Eugene Pretorius and Associates (Proprietary) Limited with respect to the completeness or accuracy of any the information contained herein. The report is a summary of the detailed Competent Persons Report prepared for the Client.

**KEY FEATURES**

<b>Review Person:</b>	Mr Allan Bullock B. Sc. (Geol), N.H. Dip (Mining), MBL, Pr. Sci. Nat.
<b>Competent Persons:</b>	Mr Allan Bullock B. Sc. (Geol), N.H. Dip (Mining), MBL, Pr. Sci. Nat. Mr Konstant Petzer M. Sc. (Geol). Pr. Sci. Nat.
<b>Effective Date:</b>	31 <sup>st</sup> December 2012
<b>Prepared For:</b>	Mapochs Mine (Proprietary) Limited
<b>Purpose:</b>	SAMREC Code Compliant Mineral Resource and Reserve Statement
<b>Reliance on Experts:</b>	The report is based on information provided by various technical experts from Eugene Pretorius and Associates (Proprietary) Limited, Mapochs Mine and Venmyn Rand (Proprietary) Limited
<b>Property Description and Location</b>	Approximately 75km South of Steelpoort in Limpopo Province, South Africa
<b>License Status</b>	New Order Mining Right (LP139MRC) issued on 17 <sup>th</sup> November 2011
<b>Climate</b>	Characterised by hot summers and mild winters. Summer rainfall
<b>Infrastructure and Accessibility</b>	The mine is accessed by tar road and a rail siding is on the mine property
<b>Geological Setting and Deposit Type</b>	Eastern Lobe of the Bushveld Igneous Complex (BIC). The main magnetite layer of the Upper Zone of the BIC is mined at Mapochs

**SCOPE OF WORK**

Eugene Pretorius and Associates (Proprietary) Limited ("EPA") has been appointed by Mapochs Mine (Proprietary) Limited to provide a geological and mine planning service to Mapochs Mine, including the annual update and review of the resources and updates to the Competent Person's Report ("CPR") of its Mapochs Mine.

This resource and reserve statement has been prepared by EPA in accordance with the SAMREC Code and the 2008 SAMVAL Committee Code published under the Joint Auspices of the Southern African Institute of Mining and Metallurgy and the Geological Society of South Africa. In accordance with the contents of the SAMREC and SAMVAL Codes, this CPR has been prepared under the direction of the Competent Persons (the "CPs") who assumes overall professional responsibility for the document.

**PROPERTY LOCATION**

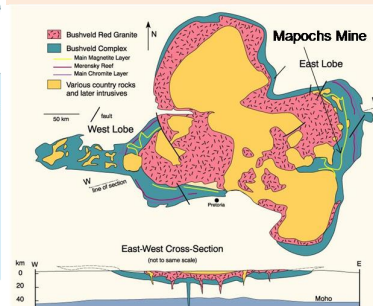
The Mapochs Mine is located approximately 90km northeast of Middelburg, 75km south of Steelpoort in Limpopo Province, South Africa (**Figure 1**).



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**Locality of Mapochs Mine****Figure 1. Mapochs Mine Locality****Locality of Mapochs Mine within the BIC****Figure 2. Bushveld Igneous Complex****REGIONAL GEOLOGY**

Geologically, the Mapochs Mine is located on the Eastern Lobe of the Bushveld Igneous Complex (**Figure 2**). The Bushveld complex is, by far, the largest layered mafic intrusion in the world. From bottom to top, the Complex features rocks evolving from peridotites and pyroxenites, to gabbros and finally to diorites and rare granites.

The Mapochs Mine is located on the lower sequences of the Upper Zone of the Southern part of the Eastern Bushveld complex. The Upper Zone in this area is approximately 2,000m thick and essentially comprised of olivine diorite and gabbro, which hosts up to 22 inter-layered magnetite layers of variable thickness, extent, and economic viability. Mapochs Mine division is currently exploiting the Main Magnetite Seam, which is the thickest of these layers within the vicinity.

## MAPOCHS MINE HISTORICAL BACKGROUND

The Mapochs Mine is a former operating division of Evraz Highveld and ceased to be an operating division in 2012, following the successful granting, notorial execution and registration of Evraz Highveld's new order mining rights in terms of the Minerals and Petroleum Resources Act (MPRDA) in 2011 and the cession of these rights to Mapochs Mine.

The Mapochs Mine produces titaniferous magnetite ore for the steelworks of Evraz Highveld near eMalahleni for the production of steel product and vanadium slag.

## MINING RIGHTS

EPA has been provided with documentation of the New Order Mining Right for the Mapochs Mine (Ref. No. LP139MRC). This Mining Right grants the owner exclusivity to the Magnetite and Vanadium resources on the mining area.

The client has concluded a Black Economic Empowerment transaction in terms of which it has applied to the Department of Mineral Resources ("DMR") to cede its New Order Mining Right to a new company called Mapochs Mine (Proprietary) Limited ("MMPL"), which is owned by 26% Black Parties. The completion of the formal legal requirements is imminent. Approval of the transfer was granted by the DMR in August 2011 and registration of the cession of the New Order Mining Right in the name of MMPL was concluded on the 28<sup>th</sup> February 2012. The Mining Right covers numerous farms, presented in **Figure**

## LOCAL GEOLOGY

Mapochs Mine is located on the lower sequences of the Upper Zone of the southern part of the eastern BIC.

There are three fundamental magnetite reef environments. From the surface downward, these are eluvial ore (rubble), weathered exposed in-situ reef (pavement), and fresh in-situ reef (seam) **Figure 4**. The latter two can be further subdivided into so-called 'disseminated' and 'massive', according to magnetite content. Where magnetite content is 50% or less the reef may be referred to as disseminated, and where it is greater than 50%, massive.

Seam ore is overlain by gabbro norites and is less weathered. The ore dips westward at angles of 8° and 45°. The seam increases in thickness from south to north.

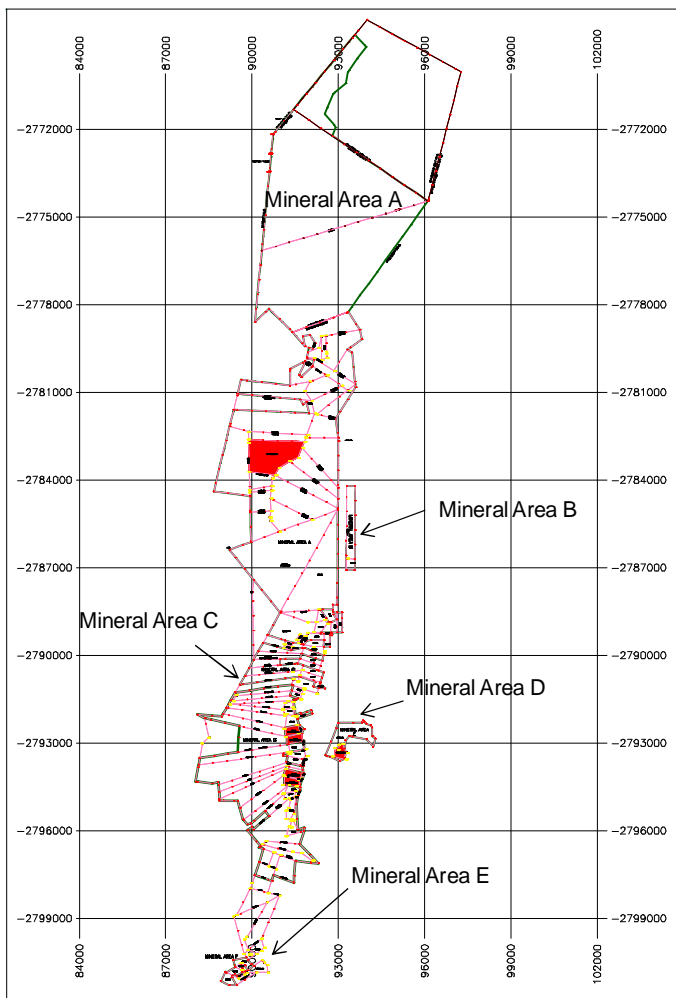


Figure 3. Mapochs Mining Right

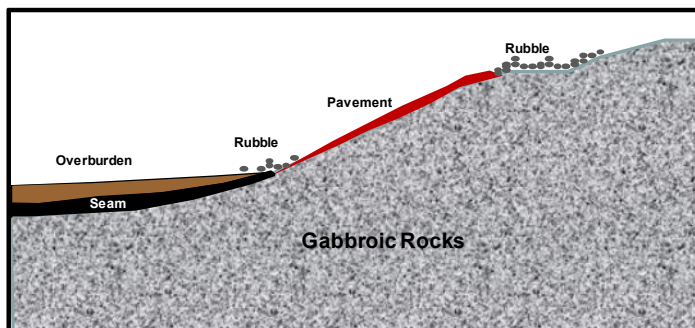


Figure 4. Typical Cross Section Depicting Magnetite Occurrences

Pavement ore describes the seam that has been exposed by weathering. Large parts of the ore has collapsed due to weathering of the anorthosite below the seam. The ore is typically found on the Western slopes.

Rubble ore forms as a 'pavement' that has been further weathered and washed down the slope of the hill. This ore is spherical in nature and is generally sized between 250mm and 10mm.

## EXPLORATION HISTORY

For the most part, exploration undertaken by Anglo American Prospecting Services in the 1960's and in the 1990's, and additional prospecting to date, has served as the basis for mineral resources and mine planning estimation. An extensive drilling programme was commissioned by Evraz Highveld in 2010 to expand the borehole database.

Prior to the commencement of the current drilling programme, all available information on the project areas was collected and collated in order to establish a general geological model. These data included historical information provided in an excel spreadsheet from Venmyn Rand (Proprietary) Limited 'Venmyn', government magnetics and geological maps and various other open file data in the public domain.

The Venmyn data included borehole identification numbers, co-ordinates (longitude/latitude and the South African Survey Grid), elevation (metres above sea level), depth to the magnetite seams and respective thicknesses (in metres), property name and number. Limited analytical data was included.

All boreholes were drilled during 2010 and 2011 (under the direct supervision of EPA). The drilling undertaken by EPA was a combination of percussion drilling and diamond core drilling using conventional equipment and TNW core size. Core recoveries were good and the quality of the drilling was acceptable. All boreholes were drilled vertically and, as the regional dip of the Main Seam strata is greater than 10°, the apparent thickness (width) of the intersected magnetite seams is more than the true thickness.

Based on all the available historical data, boreholes were planned in the Mincom software programme, and then their collars sighted in the field using a hand-held Global Positioning System ("GPS") receiver.

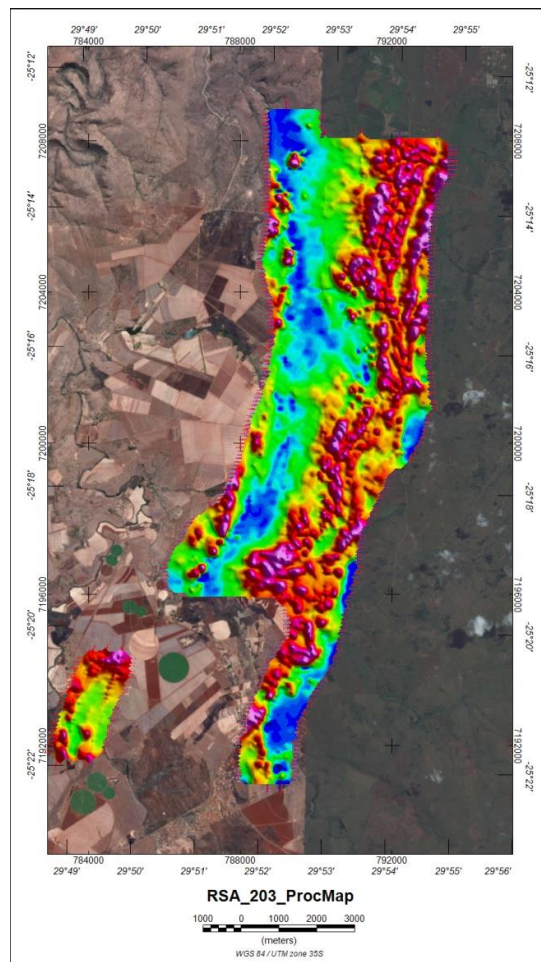


Figure 5. Electromagnetic Survey Image – Skytem 2012

Borehole grids were planned at 300-500m, to define the resource. This spacing relates to guidelines for classification of magnetite resource categories in terms of the SAMREC Code.

An aerial electromagnetic survey was conducted, on the southern portion of the Mapochs Mining Rights, during May 2012 (**Figure 5**). The survey was conducted by Skytem and enabled the delineation of the various magnetite seam outcrops and at various depth contours. The reserve and resources have been updated using the data acquired data from the survey.

Extensive field mapping was undertaken in the northern parts of the Mapochs Resources during the period January 2013 to June 2013. This data has been incorporated into the geological model.

## SAMREC CODE

This report has been compiled in compliance with the recommendations and guidelines set out in the SAMREC Code (2011) and all participants of this report qualify as CPs in terms of the Code.

The resource estimation, as reported in this document, has been compiled in full compliance with the guidelines of the SAMREC Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves. Figure 6 depicts the relationship between the level of geological knowledge and Resource categories.

The SAMREC Code defines a **'Mineral Resource'** as a concentration or occurrence of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model. Mineral Resources are subdivided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated or Measured categories.

An **'Inferred Mineral Resource'** is that part of a Mineral Resource for which volume or tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and sampling and assumed but not verified geologically or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.

An **'Indicated Mineral Resource'** is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed.

A **'Measured Mineral Resource'** is that part of a Mineral Resource for which tonnage, densities, shape, physical

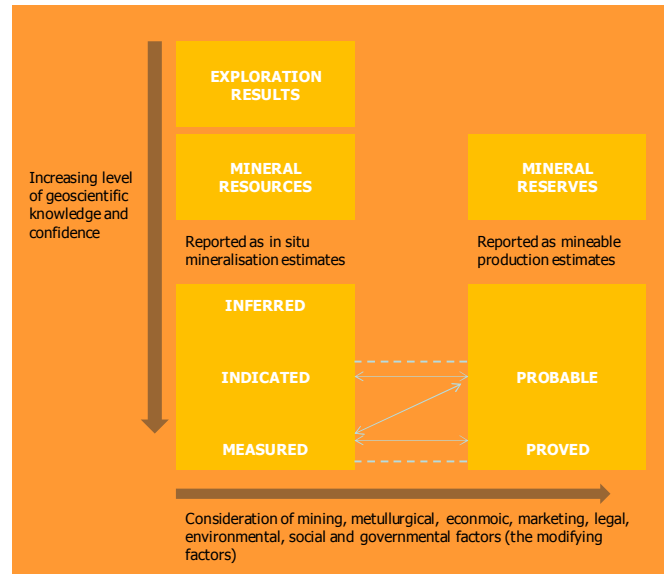


Figure 6. SAMREC Code relationship between Resources and Reserves.

characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

## GEOLOGICAL MODEL AND INTERPRETATION

Mincom software was used to model the resources, using a gridding algorithm that forecasts into grid values from boreholes and analytical values. Grid manipulation after magnetite cut-off parameters, structural parameters and other limiting factors (farm boundaries etc.) have been applied and is used to generate area, volumes tonnages and qualities for any parameter specified by the user.

The methodology used with respect to resource estimation is presented below. A database was created of all the available data (including survey, geological, geophysical and analytical data) and this information was cross-referenced to all the data for the major lithological units. A suite of validation algorithms were performed on the data set in order to check for internal consistency. A Mincom borehole database was then created from the cleaned data. This is a fully relational database that allows for the correct compositing of data over geological intervals.

All relevant horizons were interpolated into each borehole



to allow for faulting, underdrilling and erosion. Correlation of the Magnetite seams and/or horizons in the project area was undertaken by stratigraphic interpretation and by the use of various cross-sections. From this database, all the relevant map/geometry data (such as surface DTM's, depth of softs, depth of weathering, potential fault planes) were created.

To assist with modelling of the magnetite seam, dummy boreholes were inserted using survey information from the mined out areas. A collar (X,Y,Z) was created for each survey point, and a seam roof and floor inserted base on the surveyed floor of the magnetite seam and the measured thickness. This provided additional data points which enabled more accurate modelling of the seam on the western side of the reserve.

Posting plans were then created and the structural information was validated as to stratigraphic integrity. All the relevant information was then gridded, with the grids terminated at the relevant truncating horizons. All the analytical information was then imported and validated. All seam information was composited. Magnetite seam quality grids were created and all the potential economic magnetite extents were determined, with potential mineable areas defined. From this a resource statement was generated in compliance with the guidelines laid out in the SAMREC Code. Various modifying factors were taken into account for geological and mining losses and were applied to determine a mineable in-situ tonnage ("MTIS") for each resource block. Metric units are used throughout and all data is presented on a 100% basis.

## MAGNETITE QUALITY

Quality data from the cored boreholes and historical plant data were used to determine the resource quality. Historical plant quality data from 2003 was incorporated into the model for the purposes of estimating the  $V_2O_5$  and  $Fe$  percentages. *The qualities for a particular period were apportioned to the respective mining area. This was used to extrapolate to the down dip areas to estimate qualities of the opencastable resources. The assay grades are not additive quantities and have been weighted by width and SG 'accumulated'.*

The qualities are generally consistent across the resource area. This consistency is demonstrated in Figure 7.

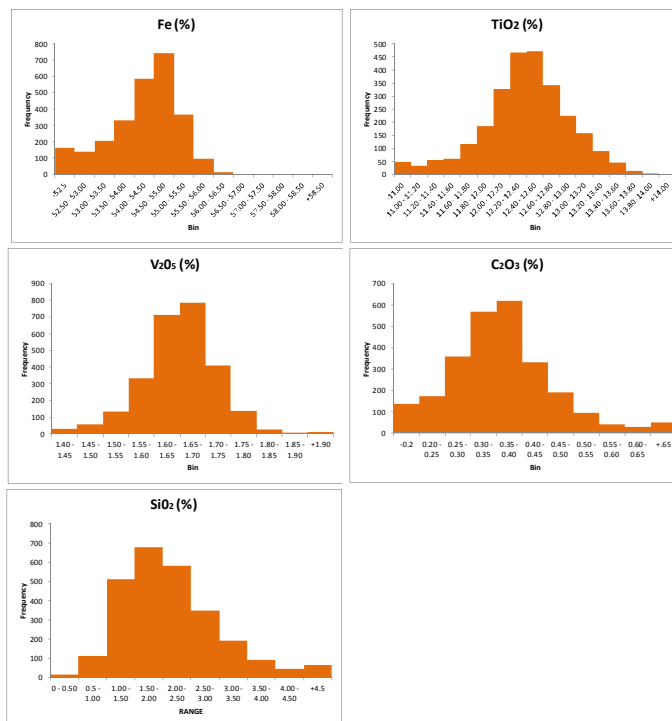


Figure 7. Quality Histograms for Mapochs Mine Resource.

Dr Lemmer of Venmyn, a geostatistician, conducted a review of the quality variability based on the historical plant feed. The outcome of her study confirms that there is very little variability in the various qualities within the Main Magnetite Seam.

This is further supported by a review of the literature on the BIC.

## GEOLOGICAL MODEL AND INTERPRETATION

In terms of the SAMREC Code, portions of a deposit that do not have a reasonable prospect for eventual economic extraction must not be included as magnetite resources. For the purpose of this report, all resources greater than a depth of 30m have been excluded from the resource estimate. In regard to estimating magnetite volumes for the estimation of Gross Tonnes In-Situ ("GTIS") magnetite resources, a number of factors were considered as cut-off criteria.

In the Mapochs Mining Right Area these parameters are:

- Minimum height 0.20 metres.
- Opencast Limit 30m

The modifying factors used to define the resources and reserves are presented in Table 1. The geological and mining losses applied to the Mapochs Mine resource are dependent on the resource classification and are presented below. These estimated losses are based on industry standards for geological losses depending on the level of confidence in the estimated GIST.

Based on modelling of the  $V_2O_5$  and Fe qualities, a mean of 1.61%  $V_2O_5$  and 54.24% Fe have been applied for reserve estimations.

Due to the questionability of mining the underground resources, these resources have been excluded from the resource base.

## RESOURCES AND RESERVES

The guidelines outlined in the SAMREC Code to allow for reasonable estimates of the magnetite deposit resources have been used for the planning of the current exploration drilling programme. The drilling programme conducted during 2010 and 2011 has reduced the geological risk and increased the confidence of the resource base as reported in this document.

Legislation requires that Mapochs Mine report in the ore mined and accounted for on each individual Farm mined. The Mapochs Mine resources have been divided into the following areas:

- STEELPOORTPARK 336KT
- ZWARTKOPS 142 JS
- MAPOCHSGRONDE 500JS
- VLAKLAAGTE 146 JS
- MAPOCHSGRONDE 675JS
- MAPOCHSGRONDE 504JS
- MAPOCHSGRONDE 870JS
- MAPOCHSGRONDE 888JS
- MAPOCHSGRONDE 889JS
- MAPOCHSGRONDE 891JS
- MAPOCHSGRONDE 892JS
- MAPOCHSGRONDE 931JS

Due to the north south strike of the magnetite, the mine has been divided into 3 areas, namely North, Central and South blocks. The resource areas per block are presented in Figure 8, Figure 9 and Figure 10. The resources and reserves are presented by resource area, **Table 2**. The consolidated resource and reserve statement is presented in **Table 3**.

MODIFYING FACTORS DECEMBER 2012		
	PROBABLE	PROVED
Seam Bulk Density	4.82	4.82
Mining and Waste Losses	7%	7%
Plant Losses	13%	13%

Table 1. Modifying Factors

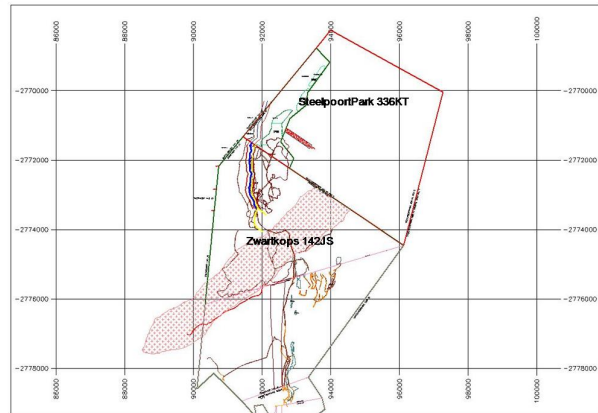


Figure 8. Resource Areas (Northern Area)

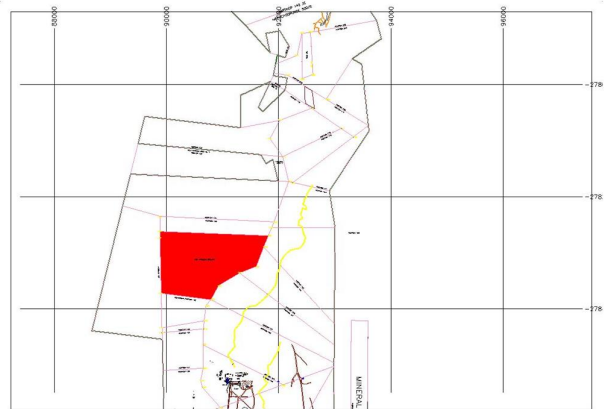


Figure 9. Resource Areas (Central Area)

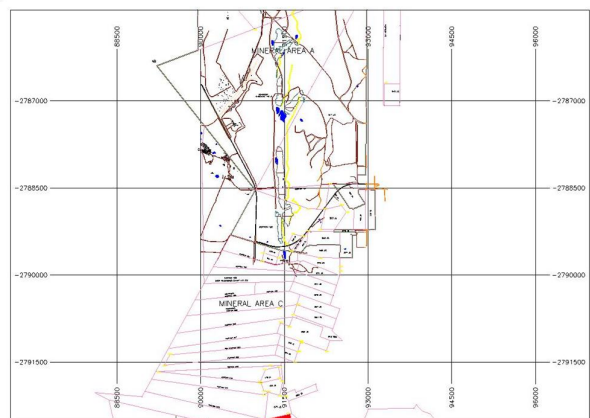


Figure 10. Resource Areas (Central Area)

RESOURCE BLOCK	PORTION	BLOCK	GROSS INSITU TONNES			TOTAL RESOURCE	CLASSIFICATION	PROVED / PROBABLE RESERVE
			RUBBLE	PAVEMENT	OPENCAST <sup>a</sup>			
STEELPOORT PARK 366KT	THE FARM	S001	-	59 864	-	59 864	INDICATED	55 075
		S002	-	213 786	-	213 786	INDICATED	196 683
		S003	344 871	-	-	344 871	INDICATED	317 281
		S004	196 960	-	-	196 960	INDICATED	181 203
		S005	-	74 903	-	74 903	INDICATED	68 911
		S006	-	626 349	-	626 349	INDICATED	576 241
		S007	-	246 774	-	246 774	INDICATED	227 032
		S008	-	344 987	-	344 987	INDICATED	317 388
		S009	-	284 110	-	284 110	INDICATED	261 381
		S010	-	345 305	-	345 305	INDICATED	317 680
		S011	-	1 015 772	-	1 015 772	INDICATED	934 510
		S012	-	-	1 628 573	1 628 573	INDICATED	1 498 288
		S013	-	-	317 488	317 488	INDICATED	292 089
		TOTAL	541 831	3 211 850	1 946 062	5 699 743	INDICATED	5 243 763
ZWARTKOPS 142IS	PORTION 1 & RE	2001	-	-	671 508	671 508	INDICATED	617 787
		2002	-	-	729 814	729 814	INDICATED	671 428
		2003	-	-	4 089 996	4 089 996	INDICATED	3 762 796
		TOTAL	-	-	5 491 317	5 491 317	INDICATED	5 052 012
MAPOCHSGRONDE 500IS	PORTION 252	MOC0001	-	285 521	285 521	INDICATED	262 680	
		MOC0002	-	362 265	362 265	INDICATED	333 284	
MAPOCHSGRONDE 500IS	PORTION 253	TOTAL	-	647 786	647 786	INDICATED	595 963	
		MOC0003	-	1 835 073	1 835 073	INDICATED	1 688 267	
MAPOCHSGRONDE 504IS	THE FARM	TOTAL	-	1 835 073	1 835 073	INDICATED	1 688 267	
		MOC0004	-	543 804	543 804	INDICATED	500 300	
MAPOCHSGRONDE 504IS	THE FARM	MOC0005	-	168 066	168 066	INDICATED	154 620	
		TOTAL	-	711 870	711 870	INDICATED	654 921	
MAPOCHSGRONDE 500IS	PORTION 114	MOC0006	-	1 675 628	1 675 628	INDICATED	1 541 578	
		TOTAL	-	1 675 628	1 675 628	INDICATED	1 541 578	
MAPOCHSGRONDE 500IS	PORTION 115	MOC0007	-	295 365	295 365	INDICATED	271 736	
		TOTAL	-	295 365	295 365	INDICATED	271 736	
MAPOCHSGRONDE 500IS	PORTION 113	MOC0008	-	360 305	360 305	INDICATED	331 481	
		TOTAL	-	360 305	360 305	INDICATED	331 481	
MAPOCHSGRONDE 500IS	PORTION 124	MOC0009	-	378 370	378 370	INDICATED	348 100	
		TOTAL	-	378 370	378 370	INDICATED	348 100	
MAPOCHSGRONDE 500IS	PORTION 125	MOC0010	-	600 721	600 721	INDICATED	552 663	
		TOTAL	-	600 721	600 721	INDICATED	552 663	
MAPOCHSGRONDE 500IS	PORTION 126	MOC0011	-	678 458	678 458	INDICATED	624 181	
		TOTAL	-	678 458	678 458	INDICATED	624 181	
MAPOCHSGRONDE 500IS	PORTION 127	MOC0012	-	431 108	431 108	INDICATED	396 619	
		TOTAL	-	431 108	431 108	INDICATED	396 619	
MAPOCHSGRONDE 500IS	PORTION 128	MOC0013	-	634 696	634 696	INDICATED	583 920	
		TOTAL	-	634 696	634 696	INDICATED	583 920	
MAPOCHSGRONDE 500IS	PORTION 129	MOC0014	-	216 830	216 830	INDICATED	199 483	
		TOTAL	-	216 830	216 830	INDICATED	199 483	
VLAAKLAAGTE 146IS	THE FARM	VOC0001	-	41 710	41 710	INDICATED	38 373	
		VOC0002	-	632 569	632 569	INDICATED	581 964	
		VOC0003	-	206 659	206 659	INDICATED	190 126	
		TOTAL	-	880 938	880 938	INDICATED	810 463	
MAPOCHSGRONDE 500IS	PORTION 181	MOC0015	-	54 857	54 857	INDICATED	50 469	
		TOTAL	-	54 857	54 857	INDICATED	50 469	
MAPOCHSGRONDE 500IS	PORTION 182	MOC0016	-	581 396	581 396	INDICATED	534 884	
		TOTAL	-	581 396	581 396	INDICATED	534 884	
MAPOCHSGRONDE 500IS	PORTION 184 PORTION 185 RE 365 PORTION 366 PORTION 368 PORTION 369 PORTION 353 PORTION 370 PORTION 371 PORTION 372 PORTION 373 PORTION 374 PORTION 375 PORTION 376	MOC0017	-	57 440	57 440	INDICATED	52 845	
		MOC0018	-	169 356	169 356	INDICATED	155 807	
		MOC0019	-	144 137	144 137	INDICATED	132 606	
		MOC0020	-	133 560	133 560	INDICATED	122 875	
		MOC0021	-	180 367	180 367	INDICATED	165 937	
		MOC0022	-	17 011	170 208	187 218	INDICATED	172 241
		MOC0023	-	10 840	58 667	69 507	INDICATED	63 947
		MOC0024	-	8 064	233 471	241 536	INDICATED	222 213
		MOC0025	-	-	74 027	74 027	INDICATED	68 104
		MOC0026	-	-	414 643	414 643	INDICATED	381 471
		MOC0027	-	-	224 974	224 974	INDICATED	206 977
		MOC0028	-	28 012	472 525	500 537	INDICATED	460 494
		MOC0029	-	-	174 388	174 388	INDICATED	160 437
		TOTAL	-	-	2 507 762	2 571 689	INDICATED	2 365 954
MAPOCHSGRONDE 930IS	FARM	MOC0030	-	83 745	83 745	INDICATED	77 045	
		TOTAL	-	83 745	83 745	INDICATED	77 045	
MAPOCHSGRONDE 931IS	FARM	MOC0031	-	64 477	64 477	INDICATED	59 319	
		TOTAL	-	64 477	64 477	INDICATED	59 319	
MAPOCHSGRONDE 500IS	PORTION 380 PORTION 381 PORTION 382 RE 384	MOC0032	16 322	59 901	154 770	230 993	INDICATED	212 514
		MOC0033	41 559	92 018	307 562	441 139	INDICATED	405 848
		MOC0034	7 207	901	147 964	156 072	INDICATED	143 586
		MOC0035	34 945	70 493	220 033	325 471	INDICATED	299 433
		TOTAL	206 010	520 806	1 519 181	2 245 998	INDICATED	2 066 318
MAPOCHSGRONDE 870IS	RE	MOC0036	-	-	115 138	115 138	INDICATED	105 927
		MOC0037	-	-	157 036	157 944	INDICATED	145 308
MAPOCHSGRONDE 870IS	PORTION 1	MOC0038	908	-	157 036	157 944	INDICATED	145 308
		TOTAL	908	-	272 173	273 081	INDICATED	251 235
MAPOCHSGRONDE 500IS	PORTION 100/101 PORTION 99	MOC0039	12 701	77 111	345 967	435 779	INDICATED	400 917
		MOC0040	-	6 350	218 298	224 648	INDICATED	206 676
TOTAL	12 701	83 461	564 265	660 427	INDICATED	607 593		
MAPOCHSGRONDE 888IS	RE	MOC0041	-	9 901	90 693	100 594	INDICATED	92 547
		TOTAL	-	9 901	90 693	100 594	INDICATED	92 547
MAPOCHSGRONDE 889IS	RE	MOC0042	-	-	84 458	84 458	INDICATED	77 701
		TOTAL	-	-	84 458	84 458	INDICATED	77 701
MAPOCHSGRONDE 891IS	RE	MOC0043	3 708	23 425	98 020	125 153	INDICATED	115 141
		TOTAL	3 708	23 425	98 020	125 153	INDICATED	115 141
MAPOCHSGRONDE 892IS	RE	MOC0044	1 383	68 143	82 241	151 767	INDICATED	139 626
		TOTAL	1 383	68 143	82 241	151 767	INDICATED	139 626
MAPOCHSGRONDE 675IS	FARM	MOC0045	-	-	152 970	152 970	INDICATED	140 732
		TOTAL	-	-	152 970	152 970	INDICATED	140 732
TOTAL			766 541	3 917 586	22 940 766	27 688 821	INDICATED	25 473 715

Table 2. Resources and Reserves by Areas.

ORE	GROSS INSITU	RESOURCE CLASSIFICATION	GEOLOGICAL LOSS	MINING LOSS	MINEABLE INSITU	RESERVE CLASSIFICATION	GRADE INSITU (%)		CONTAINED (TONNES)	
	TONS		(%)	(%)	(TONS)		V2O5	FE	V2O5	FE
PAVEMENT	INFERRED									
	INDICATED	3 917 586	10	10	3 134 069	PROBABLE	1.61	54.24	50 459	1 699 919
	MEASURED									
RUBBLE	INFERRED									
	INDICATED	766 541	10	10	613 233	PROBABLE	1.64	54.67	10 057	335 255
	MEASURED									
OPENCAST	INFERRED									
	INDICATED	22 940 766	10	10	18 352 613	PROBABLE	1.74	54.95	319 335	10 084 761
	MEASURED									
<b>TOTAL</b>		<b>27 624 894</b>			<b>22 099 915</b>				<b>379 851</b>	<b>12 119 934</b>

**Table 3.** Consolidated Resources and Reserves

There is potential to mine the magnetite seams by opencast means to a depth exceeding 30m. This will however be an economic decision and the viability of mining to depths greater than 30m would have to be assessed in detail.

If the cut-off is increased to 40m depth, the resource base of Mapochs Mine would increase by approximately 6,200,000 Gross in-situ tons. The increase is not significant due to the dip of the seam and topography of the area. There are also mining right boundary restrictions in the north of the Mapochs Mine, which limits mining to a maximum depth of 30m.

By increasing the depth cut-off to 50m the resource would increase by an additional 7,300,000 Gross in-situ tons.

The Total Gross In-Situ Tonnage for the Mapochs Mines would therefore be approximately 41,000,000 tons at a depth cut-off of 50m.

The qualities of the resource would not change dramatically if Mapochs were to mine to a depth of 50m. There is a slight quality variation between weathered ore and ore which occurs below the weathered zone; however there will be no impact if the cut-off is changed from 30m to 50m. Generally the qualities in terms of Fe and Vanadium content are consistent for the Main Magnetite Seam and there is limited variance.

#### COMPETENT PERSON SIGN OFF

This report has been compiled in compliance with the recommendations and guidelines set out in the SAMREC Code (2011) and all participants of this report qualify as Competent Persons in terms of the Code and are identified in the summary table of this document.

The reported Mineral Resources and Reserves were prepared as independent SAMREC Code compliant statements, which may be published in its current format and context for the 2012 Evraz Highveld Annual Report.



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