



AFRICAN HERITAGE CONSULTANTS CC

2001/077745/23

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A. PHASE I CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT

(a) PHASE I CULTURAL HERITAGE RESOURCES IMPACT ASSESSMENT FOR SECTION 102 PORTION 61 AND 62 OF THE FARM CYFERFONTEIN 457 KR, MODIMOLLE LOCAL MUNICIPALITY, LIMPOPO PROVINCE

(b) REPORT COMPILED BY

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(c) DEVELOPER AND CONSULTANT INFORMATION

Project Applicant:

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Date of report: 10 October 2019

B. EXECUTIVE SUMMARY

The site was visited and inspected. The proposed development site is mixed Bushveld with deep clay soils. Seasonal changes will not affect the study area. A large section of the site was cleaned in the past and ploughed. On the north-western side large areas were excavated for clay used for brick making. The rest of the area is very densely covered with trees, scrubs and grass which made visibility bad. The site was recorded by GPS and photographically.

No important Cultural Heritage Resources or graves were found on the inspected development area therefore no acceptable levels of change are necessary and no alternatives needed. Early people avoided deep clay soils for settlement and preferred higher grounds .

There is no objection to the proposed development from a Cultural Heritage Resource point of view.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

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D. BACKGROUND INFORMATION ON PROJECT

(a) Whether the report is part of a scoping report EIA/HIA or not

The report is part of an full EIA including a section 102 under MPRDA.

(b) Type of Development (e.g. low cost housing project, mining etc.)

Mining- open pit

(c) Whether re-zoning and/or subdivision of land is involved

No re-zoning of subdivision.

(d) Developer and consultants and owner contact details

Prepared for:

Developer and Land owner

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(e) Terms and Reference

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of paleontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

(f) Legislative requirements of Act 25 of 1999.

Protected sites in terms of the National Heritage Resources Act, Act No. 25 of 1999

The following are the most important sites and objects protected by the National Heritage Act:

- Structures or parts of structures older than 60 years.
 - Archaeological sites and objects.
 - Paleontological sites.
 - Meteorites.
 - Ship wrecks.
 - Burial grounds.
 - Graves of victims of conflict.
 - Public monuments and memorials.
 - Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette.
 - Any other places or objects, which are considered to be of interest or of historical or cultural significance.
 - Geological sites of scientific or cultural importance.
 - Sites of significance relating to the history of slavery in South Africa.
 - Objects to which oral traditions are attached.
 - Sites of cultural significance or other value to a community or pattern of South African history
-
- Mining rights reference: DMR ref: LP30/5/1/2/2/10093MR TYGERKLOOF
EIA Reference 12/1/9/2-W83 Section 102 Reference LP30/5/1/2/3/2/1/71 E
Water use reference: none allocated
 - Mining right: Minerals and Petroleum Resources Development Act no 28 of 2002 Section 102 reference LP30/5/1/2/3/2/1/71E
 - National Water Act no 36 of 1998
 - EIA: National Environmental Management Act no 107 of 1998

E. BACKGROUND TO THE ARCHAEOLOGICAL AND HISTORY OF THE WATERBERG

The greater region has several important Stone Age localities with deep occupation deposits and importantly, a widespread occurrence of open-air sites. The shelter site of Olieboomspoort near Lephalale show a succession from the Earlier, Middle and Later Stone Ages (ESA, MSA and LSA) and up to historic times (van der Ryst 2006). Early Iron Age (EIA) localities such as Diamant are particular important. At this locality in the western Waterberg the EIA facies of Diamant was first identified at the eponymous locality (Huffman 1990). This site has also delivered the earliest evidence for glass trade beads and domesticated dogs in the Limpopo Province (van der Ryst 2006). The movement of African farmers into this region is documented by their

ceramics and settlements (Huffman 2007b). The later occupations of agropastoralists groups are complex (Schapera 1942, 1965; Breutz 1953, 1989; Bergh 1998). The accounts of early travellers provide important data on the fauna, flora and inhabitants of the Waterberg. The observations of travellers, missionaries and hunters who traversed the region throughout the 18th and the 19th centuries constitute a source of implicit ethnography on the late presence of hunting and gathering groups, the African farmers and inmoving colonists (Baines 1872, 1877; Smith 1836; Schlömann 1896; Wallis [Baines] 1946; Burke [Mauch's journals] 1969). The region is also rich in rock art (Eastwood and Eastwood 2006).

Heritage resources

Huffman (2004, 2006a, 2007a, 2009a) in surveys for Rhino Minerals Andalusite Mine on the Farm Buffelsfontein 353 KQ recorded an EIA village on red colluvial/alluvial deposits and several grainbins. The LIA homesteads contained several burnt houses. He ascribed the burning to a severe drought (Huffman 2009b). He also noted MSA lithics but not of any significance. In a subsequent AIA no settlements were recorded but isolated fragments of pottery and slag suggest a buried occupation (Huffman 2009a).

Van Schalkwyk (2007) in an assessment for cultural heritage resources on sections of the farms Amandelbult 383KQ and Elandsfontein 386KQ in the Thabazimbi District recorded surface MSA and LSA lithics. He also noted two possible EIA sites whereas most of the others that were identified are from the Late Iron Age/early Historical period, the latter features assigned Medium significance. A buffer zone is already in place following on previous recommendations on Iron Age remains within this general area (Van Schalkwyk 1994, 2001, 2003, 2004; Van Schalkwyk et al. 2004).

Coetzee (2008) in a report for the PPC expansion project recorded only a small Stone Age lithic scatter from the prehistoric period. However, 10 historical houses from the 1930s to 1940s have been documented as well as several graves. He provides a synthesis of the Stone Age and Iron Age (IA) sequences. In the latter the different settlement phases of the Early Iron Age (EIA) are defined, namely Happy Rest, Diamant and Eiland. The Late Iron Age (LIA) sequence is much more complex, with numerous groups moving into the region. The mainly stone-walled settlements are also more visible. Based on ethnographic accounts (Schapera 1942, 1965; Breutz 1953, 1989; Bergh 1998) he provides an overview of the ethnographic sequence of groups who occupied the region, such as the Bakgatla бага Kgafela, and the Batlokwa бага Kgosi and provides detail on the trust farms occupied. In the greater region Dreyer (2011) in an assessment for proposed chrome mining developments found no heritage remains at Hartbeestkopje 367KQ, Schilpadnest 385KQ and Moddergat 389KQ, in the Northam District but recorded historical material at Zwartkop 369KQ.

At Boikarabelo excavations of an extensive grainbin-site and surface collections of around 12 IA settlements demonstrated Tswana settlement sequences that include a probable early Moloko (probably Icon) facies and at least one site had been identified to the Letsibogo facies. The relative age of the sites were therefore inferred to range from the late 17th to late 18th centuries (Digby Wells Environmental 2011).

An HIA for the proposed development of the Kambaku Private School on the farm Vlakplaats 137 KQ yielded no evidence for heritage resources (Hutten 2012). Hutten (2013a, 2013b, 2013c) in several assessments for solar developments noted that there was an absence of heritage resources on the farms Liverpool and Aapiesdaai near Koedoeskop, whereas a historic structure, outside the developments, was recorded at Grootkuil. Coetzee (2014) in an assessment for the Marakele Park on the northern edge of the Waterberg Plateau similarly found no heritage resources. The area is some

distance from Thabazimbi. However the Waterberg region abounds in heritage and archaeological resources and forms part of the broader study region.

Van Vollenhoven in an HIA for the proposed development of a limestone mine on Portion 1 of the farm Nooitgedacht 136 JQ, Portion 1 of the farm Buffelskraal 545 KQ and Portions 3, 4, 5, 6 and the Remainder of Krokodilkraal 545 KQ in the Thabazimbi District reported that no heritage resources have been identified and that the surveyed properties have been used for cattle farming and extensive agriculture. In a draft scoping report for the proposed township on Portion 20 and 22 of the farm Theunispan 293 LQ, Portion 1-4 and a portion of the remainder of the Farm Grootdoorn 292 LQ, portion 3 of the Farm Steenbokpan 295 seven heritage sites of significance or value were identified within the area proposed for the development of the Steenbokpan Extension 3 Township. These comprise five informal cemeteries, all on portions of Grootdoorn and two historic structures of the Harmse family homestead (Ila 2014; PGS 2014).

In an extension of a mining licence for clay extraction on the farm Nooitgedacht 436 JR Portion 25 an informal cemetery with 15 graves was identified (African Heritage Consultants 2013). African Heritage Consultants (2011, 2014) in a Phase 1 AIA identified numerous stone-walled enclosures, a pre-colonial mine, graves, and historic structures that include a weir and bridge at the Sondagsriver. A Phase 2 mitigation was recommended.

The scoping report on heritage for Project Infinity Sishen Iron Ore Thabazimbi Mine (Shangoni Management Services 2013) noted that MSA lithics were present in an area with sheet erosion. The Mine has in the past encouraged research on the IA stone-walled enclosures on their property, and further research is supported. Mitigation of historical buildings, including the Du Randt Homestead, was also addressed. The proposed mining on Wachsteenbietjesdraai 350 KQ and Kwaggashoek 345 KQ is in close proximity from the Mostert Tunnel Cave south of Thabazimbi that has significant geological formations. Appropriate mitigation measures will be recommended (PGS 2012).

Gatkop Cave on the farm Randstephane 455 KQ ESE of Thabazimbi was also investigated. The locality lies within an area with rich iron ore deposits that are currently being explored by Aquila Resources in view of future extraction. It is an important heritage resource of high cultural significance that is still being used for ritual ceremonies and constitutes a contentious issue in view of the developments. This locality also has potentially high palaeontological heritage significance (Almond 2013). Madimatle Mountain at Donkerpoort 448 KQ and Gatkop Cave on Randstephane 455 KQ hold significant spiritual, ancestral and cultural heritage importance to the local community, local traditional healers, local traditional leaders, persons that practice and belong to certain African Christian denominations (van Vuuren 2014; SAHRA Statement of Significance, accessed SAHRIS 11 February 2015). Acting on the recommendations SAHRA has appointed an anthropologist who compiled a report on the significance of this locality (van Vuuren 2014). Madematle/Mletse Mountain and the Gatkop caves described as the Remainder of the Farm Randstephane 455 KQ and the Remainder of the Farm Donkerpoort 448 KQ have now been nominated as a Provincial Heritage Site (SAHRA 2014; SAHRIS database accessed February 2015).

Modimole (Kranskop) stands out as a beacon in the Waterberg Mountain range. It differs from all other mountains and can be seen from far away. As such it has become a beacon for black people as well as white travellers.

Modimolle the mountain of God

The word Modimolle according to Du Plessis (1973:126) is a combination of the words “Modimo” (meaning God or Ancestors) and “gojile” (to have eaten). Modimolle is not only used for one mountain. A number of other high mountains are also known as modimolle, like Modimolle in the Tšate Valley and one near Groblersdal (De Beer F.L. 1996: 2)

A number of African ethnic groups claim their association with the mountain. These include the following:

- Bakgatla claim that they were the first to name the Mountain Modimolle. It is not clear which Bakgatla group this was. De Beer is of the opinion that it was the Bakgatla ba Mmakau.
- The Bantwane a Pedi group who now live south of Groblersdal also claim to have lived at Modimolle. They were displaced by Mzilikazi`s regiments in 1825. Many of them were thrown down from the cliff on the northern side of the mountain during the war. These people who had not been buried properly turned into ghosts (setshosa) and haunt the mountain in the form of a bright light at night (De Beer 1996: 2).
- After the Matabele raids the Ndebele of Langa under their chiefs Mapela and Mankopane together with other Koni groups settled in the area especially at the Berlin Mission Station near Modimolle (Van der Merwe 1975: 32). When the first white farmers moved into the area in the 1840`s there were a large number of black people living at the foot of the mountain.

Mythological animals on Modimolle

Local informers believe that a very large snake mamogaša lives on the mountain. This snake if it is upset creates strong winds and even tornados. Other people believe that there is a monster (mphete) on the Mountain. This monster takes children from women carrying them on their backs as food – Other also believes that there is another snake called Lejapela which let children disappears. If a child disappears on the mountain it is believed that modimo has eaten.

Sacrifices to the ancestors (badimo)

People of the Bakgatla, Bantswane and Langa believe that their ancestors (badimo) live on the mountain. Especially the Langa had an annual festival to sacrifice and to ask for rain. Individuals still sacrifice on the mountain.

Taboos

In the past no one was allowed to climb the mountains unless they had sacrificed to the ancestors. If this is not done the person climbing the mountain will not return. There are also people who believe that one is not allowed to burn the grass and trees on the mountain. This explains the dense vegetation at the foot of the mountain.

Utilization of plants

People collect medicinal plants on the mountain after first asking permission from the ancestors through sacrifice. During our visit to the mountain we were told that a group of traditional healers now live on top of the mountain and that sheep are sacrificed there.

Archaeological Sites

- **Stone Age**

Archaeologists MPJ Moore did a survey of Modimolle rock shelters in 1987. He found that the mountain has a number of rock shelters where there are some indications of Late Stone Age people (Bushman or San) had occupied these shelters from time to time. Only a full investigation of the shelters will eventually reveal how long and when these shelters were occupied.

- **Iron Age**

This period is associated with the settlement of Black people. The survey was to a large extent restricted because of the very dense vegetation at the foot of the mountain. This phenomena is the result of believes that the vegetation of the mountain may not be burned. The vegetation is so thick that one can hardly walk or crawl through it.

On the eastern side of the mountain three sites with low stone walling were recorded. All three sites consist of low stone wall circular structures up to 100 metre + in diameter.

No cultural remains like pottery could be found. From the observation it is clear that the sites were still in construction when they were abandoned.

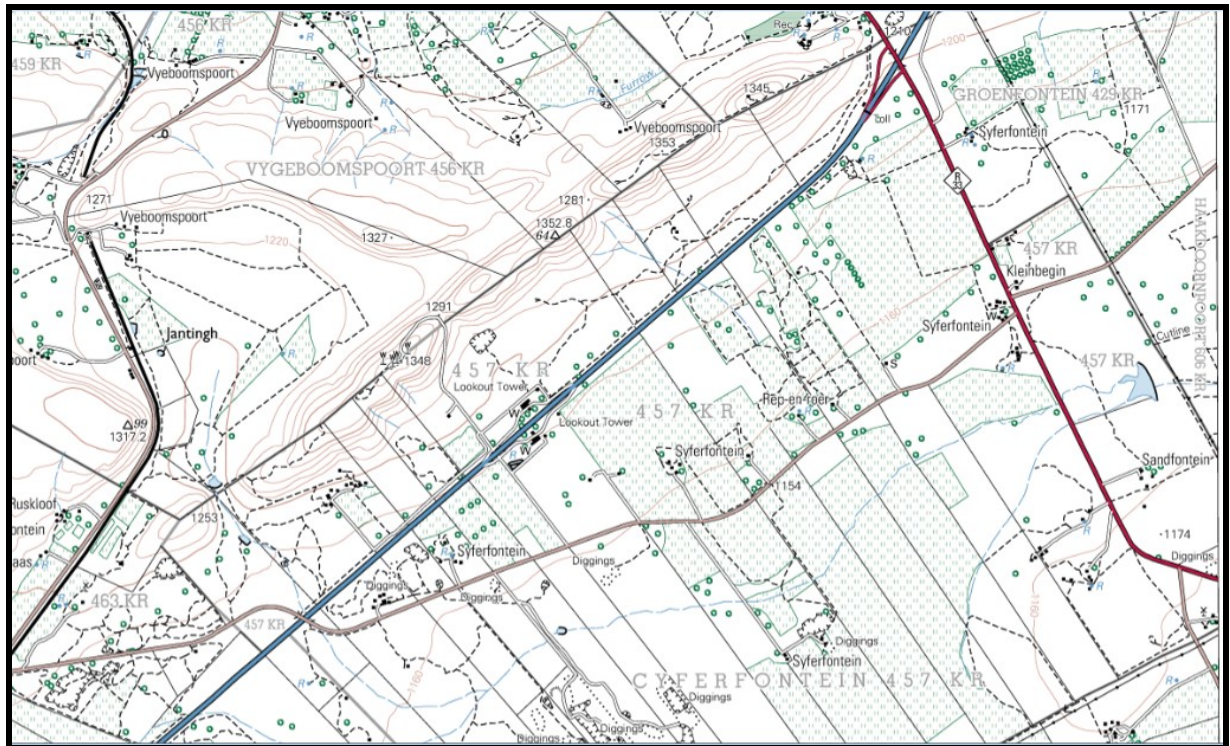
F. DESCRIPTION OF THE PROPERTY OF AFFECTED ENVIRONMENT

(a) Detail of area surveyed:

- Full location Data for Province, Magisterial District/Local Authority and property (e.g. Farm erf) name and number etc.;

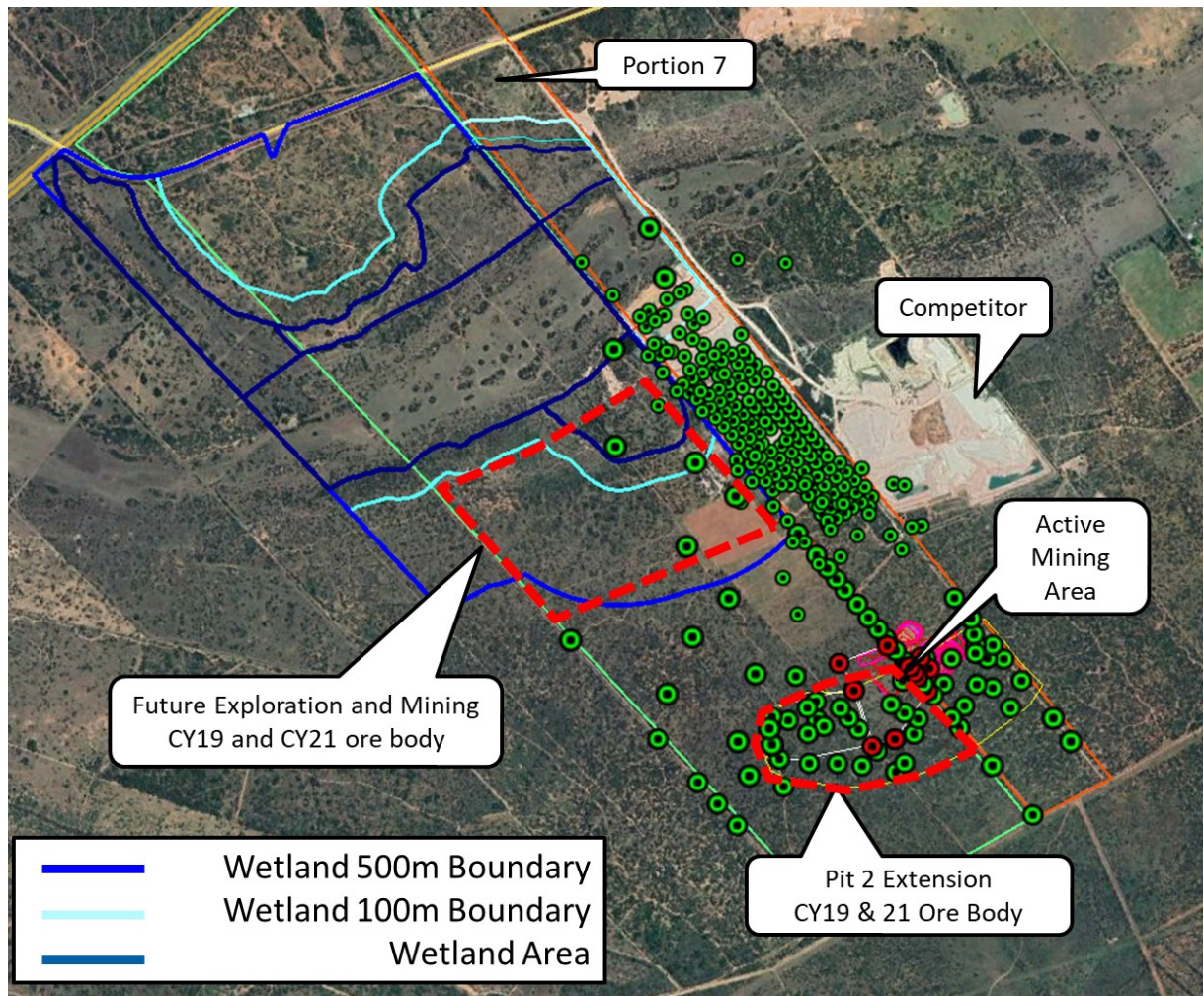
Environmental Impact Assessment for Portions 61 & 62 of the farm Cyferfontein 457 KR, Waterberg District Municipality Modimolle Local Municipality, Limpopo Province.

- Location map(s)/orthophotos of the general area. These must include the map name and number (e.g. 3313 DC Bellville). Maps must include at least a 1:50 000 and (if) available also a 1:10 000 (i.e. most detail possible). Large scale colour satellite photos make a useful addition. Maps should be preferable at least A4 size.



1/50 000 Map: Bela-Bela 2428CD

- Either the Location Map or the Site Map must have the polygon of the area surveyed marked on it and full geographical co-ordinates for all relevant points and where applicable, indication of the area to be developed (footprint).



Co-ordinates:
S24° 49' 49.13" & E28 °26' 32.34"

(b) Description of the Methodology

The site was visited together with the owner of the land. A section of the site was cleared and ploughed. The rest of the area is very dense mixed bushveld which made visibility unpleasant and seasonal changes will not affect the study. The site was recorded by GPS and photographically.

G. DESCRIPTION OF SITES MAPPED

The proposed development site is dense clay soil – see photograph.



A large section of the proposed development area was cleaned in the past for planting of crops at S24° 45' 53.04" & E28° 26' 54.77"- see photograph.



In the north-western section of the development is a large area where clay was mined in the past. Large heaps of soil occur at the site at S24° 49' 46.15" & E28° 26' 52.66" – see photograph



There is also a large deep excavation now partially filled with water to form a pool at S24° 49' 45.37" & E28° 26' 54.33" – see photograph.



Another two areas where some construction has taken place in the past were also recorded. The first one is near the north-western border at S24° 49' 37.61" & E28° 26' 41.56" – see photograph.



The second area lies in the south-western section at S24° 49' 49.03" & E28° 26' 24.56" – see photograph.



The rest of the proposed development area is dense Bushveld vegetation where cattle and sheep farming takes place – see photographs.



No important cultural Heritage Resources or graves were found on the proposed development area therefore no alternatives are necessary. A public participation process has been undertaken in compliance to NEMA where public is free to comment on all aspects of the mine and is included in the EIA

H. DESCRIPTION OF THE ARTEFACTS, FAUNA, BOTANICAL OR OTHER FINDS AND FEATURES

None

I. CLEAR DESCRIPTION OF BURIAL GROUNDS AND GRAVES

None

J. EVALUATION AND RATING (FIELD RATING)

Not applicable

K. STATEMENT OF SIGNIFICANCE (heritage value)

Not applicable

L. RECOMMENDATIONS AND CONCLUSION

No important Cultural Heritage Resources or graves were found on the inspected development area therefore no accepted levels of change are necessary and no alternatives needed. Early people avoided deep clay soils for settlement and preferred higher grounds

There is no objection to the proposed development from a Cultural Heritage Resource point of view.

If during construction any cultural heritage resources or graves are unearthed all work has to be stopped until the site has been inspected and mitigated by a cultural heritage practitioner.

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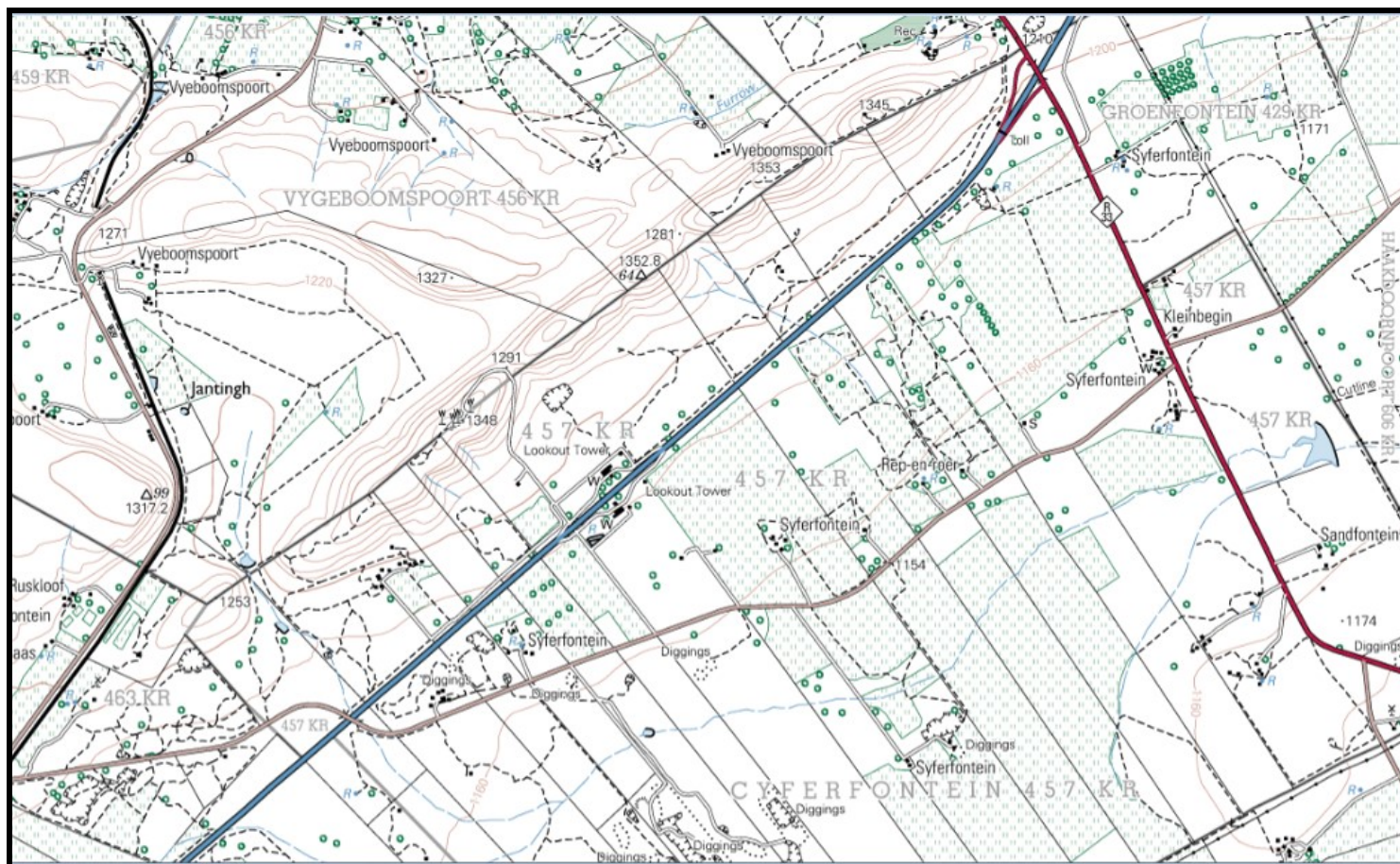
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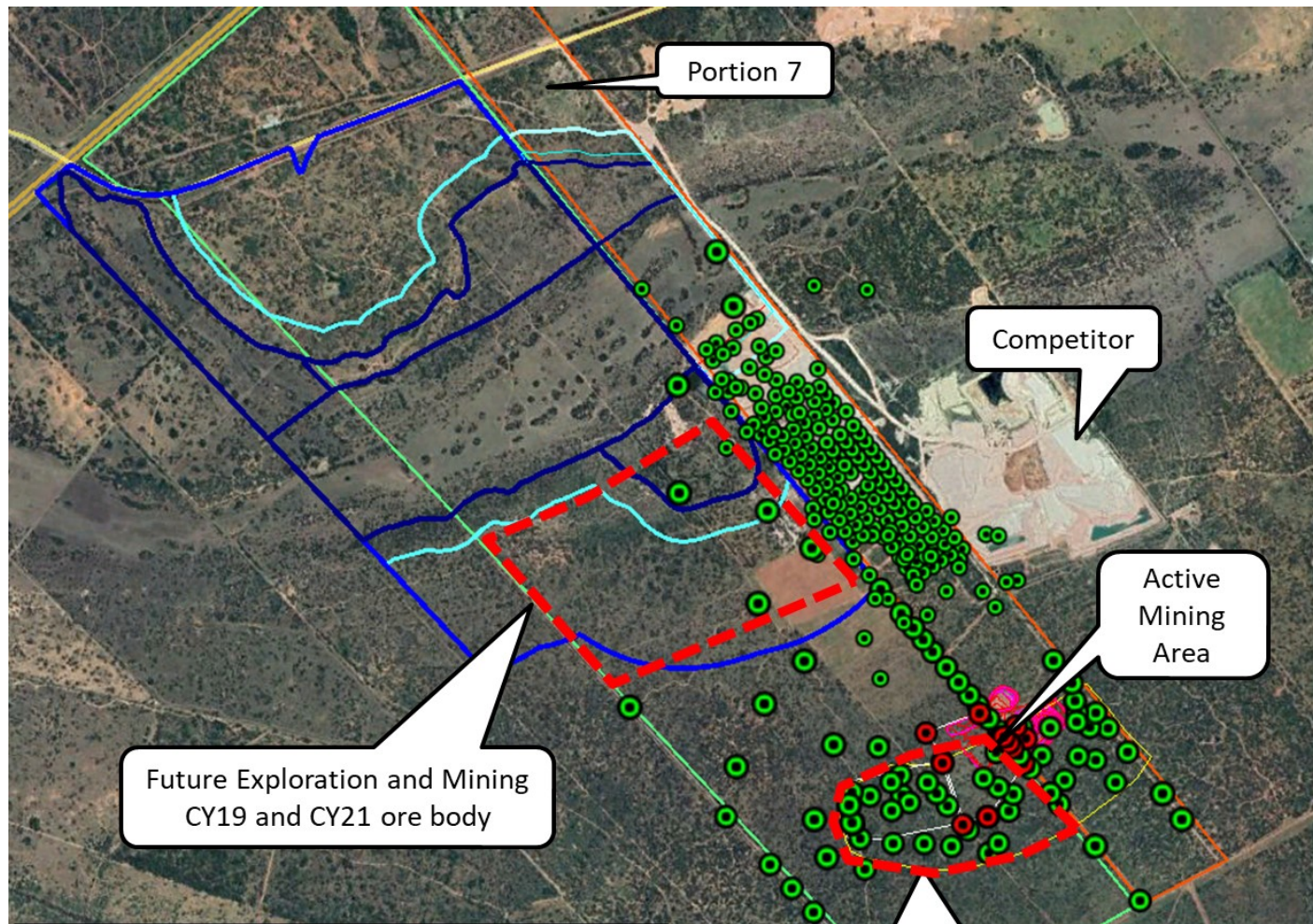
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N. APPENDIX

- Maps: page 21 - 22
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1/50 000 Map: Bela-Bela 2428CD



Future Exploration and Mining site CY19 and CY 21 ore body_site indicated on map in Red
Google map: Co-ordinates:
S24°50'13.00" & E28°27'18.88"

Addendum A

Environmental component: Heritage or cultural resources

Activity: All activities associated with the mining extension.

Nature and consequence: Unearthing of any heritage materials which may lead to damage or destruction of these resources.

Impact phase: Impact can take place throughout construction to decommissioning phase and will be throughout life of activity.

Additional comments: In term of the South African Heritage Resources Act, 1999 (Act 25 of 1999) the following applies:

Structures

34. (1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

Archaeology, palaeontology and meteorites

35.(4) No person may, without a permit issued by the responsible heritage resources authority—

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;

(b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;

(c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or

(d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

Burial grounds and graves

36.(3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

Description		Rating before management	Rating with management
Quantity or size of disturbance			
Moderate	The size of the disturbance will be	2	1

Description		Rating before management	Rating with management
	directly related to the area which will be cleared for mining but will be reduced if managed.		
Severity or destruction effect			
High	Heritage Resources are protected as indicated above	3	3
Extent			
Site specific	The impact will only apply to the direct site of disturbance.	1	1
Duration (impact phase and estimated timeframes)			
Throughout life of activity	This impact could take place as long as mining takes place.	2	2
Probability			
Not probably	No heritage resources were found in the area. Archaeological deposits can, however, occur below ground level.	1	1
Reversibility			
Irreversible	Once the resources are negatively impacted it is irreversible, however, with correct management measures, the destruction or damage of sources could be prevented.	3	1
Irreplaceability of resources			
Resource is irreplaceable	Heritage resources cannot be replaced.	3	3
Degree to which can be avoided, managed or mitigated			
Avoidable with management measures	Impact avoidable with management measures	1	1
Significance			
Medium to low	Medium significance prior to management, and low significance with management	16	13
<u>Environmental objective:</u> To prevent the destruction or damage of any heritage or cultural resources on site.			
<u>Monitoring requirements:</u> Inspection of areas for any heritage resources, during stripping of the topsoil, prior to commencement of mining.			
<u>Management or mitigation:</u> <ul style="list-style-type: none"> Heritage awareness must be included in normal site induction for all employees, contractors and visitors to the subject properties. This will ensure that the general level of heritage awareness is raised and that there is compliance with the act. The sections of the NHRA as stated above in 'Additional comments' must be highlighted to each visitor, contractor and employee or any other person acting on the sites or immediate surrounds. All actions on the property will be subject to the provisions of the NHRA and any transgressions of the act will make the transgressor liable in terms of the act. 			

Description	Rating before management	Rating with management
<ul style="list-style-type: none"> • The works / mining area must be demarcated to limit the footprint of the mining activities and limit creep of activities outside the impact area. • Should any archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted to allow for an investigation by a suitably qualified professional, and a university or museum must be notified for an investigation and evaluation of the find(s) to take place (cf. Section 36(6) of NHRA). • Prior to the commencement of any work or action that will impact or effect a heritage resource, the relevant authorisation must be obtained from the SAHRA. • Where there is uncertainty with regard to the status of a heritage resource, object, place or artefact, or any legislative or other policy issue the SAHRA can be contacted for clarity. 		
<u>Roles and responsibility:</u> Mine manager		
<u>Management timeframe:</u> Throughout LoM		
<u>Environmental budget:</u> No budget allocated.		
<u>Residual risk:</u> No residual risks.		

Addendum B

DECLARATION OF INDEPENDENCE

I, Udo S. Küsel (African Heritage Consultants CC) declare that:

- *I act as the independent specialist in this application to BECS Environmental;*
- *I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;*
- *I declare that there are no circumstances that may compromise my objectivity in performing such work;*
- *I have no vested financial, personal or any other interest in the application;*
- *I have no, and will not engage in, conflicting interests in the undertaking of the activity;*
- *I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority; and*
- *All the particulars furnished by me in this form are true and correct.*



Udo S. Küsel
10 October 2019

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Accredited Professional Archaeologist for the SADC Region Member No. 068
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Principal Investigator Colonial Period
Principal Investigator Industrial Archaeology
Field Director Stone Age
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MA Archaeology, University of Pretoria 1975
D. Phil, University of Pretoria 1988
Post-Graduate Diploma in Museum and Heritage Studies

The author

Dr Udo Küsel has more than fifty years of experience in heritage planning, development and management. From a strategic planning perspective, he was involved in the planning and the declaration of the Robben Island Museum as a National Cultural Institution. He also served as President of the South African Museums Association as well as the South African Cultural History Association.

In 2001, he established African Heritage Consultants CC and has undertaken more than 1500 Heritage Impact Assessments and compiled numerous heritage management plans. As consultant he has been involved in the development of the Dzata Museum in Venda, the Tšate Site Museum in Sekhukhune and Thomo Cultural Village near Giyani to name a few.

He also served as a part-time lecturer in Museum and Heritage Studies at Pretoria University for 30 years. Recently he trained 30 unemployed people in Sekhukhune to undertake the recording of the heritage of the area. He supervised the project for three years and recorded 200 heritage sites in the area with the aim to develop the heritage resources of the region.