

Final Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: WSP Environmental Pty Ltd - Johannesburg

Bryanston Place
199 Bryanston Drive
Bryanston
2191

Proposed development of the Yzermyn Underground Coal Mine, close to the town of Wakkerstroom, Mpumalanga Province

Thank you for updating the case and uploading this most recent Heritage Impact Assessment Report on to the case including the requested Palaeontological Desktop Study for SAHRA comments.

It is noted that there are three other formal SAHRA comments response letters to this cases from the earliest dated 14/03/2013; the second dated 19/11/2013 with the last one dated 09/05/2014. It is understood and that the additional AIA and PIA submitted to this case are in response to the interim comment dated 09/05/2014 requesting this additional information once the layout of the mine is decided.

In terms of the National Heritage Resources Act, no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years and structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. Before such sites are disturbed by development or mining, it is incumbent on the developer to ensure that a Heritage Impact Assessment is done in terms of Section 38(8) of the NHRA. This report must assess the impact of the proposed development on heritage resources and must provide possible mitigation measures, which may involve recording, sampling and dating sites that are to be destroyed.

A.J. Pelsler. July 2014. *A final report on a Phase I HIA for the proposed Yzermyn Underground Coal Mine near Dirkiesdorp, Pixle ka Seme Local Municipality Mpumalanga Province.*

The field assessment that was undertaken by Mr Pelsler for the requested phase I HIA was to determine which heritage sites are to be negatively impacted by the proposed surface infrastructure of the Yzermyn mine. According to the heritage report referenced above, there are 3 sites that will be negatively impacted on by the surface infrastructure including the mine dump and that will require a Phase II, and 5 sites that need to be conserved on the property of the mine. These sites will be discussed below.

The report submitted to SAHRA does not contain the track paths of the survey undertaken by Mr Pelsler. SAHRA has previously requested for track paths to be included in all reports. The lack of them may cause in future the report to be rejected by the heritage authority.

Sites impacted on by the Mine Dump

- Site 19 and 20, are a farm homestead with a graveyard associated with it, the homestead is identified by



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circular livestock stone walling, hut foundations and circular stone granary platforms. There are also two stone packed graves with circular stone walling around them. These two sites were identified initially in the January 2014 heritage report assessing the mine dump. They are rated of medium and high significance respectively and recommended to be conserved *in situ* in the above heritage report.

Sites impacted by the Surface Infrastructure Development

- Site 27, this site is Later Iron Age stone walled site with around 3 homesteads comprising the entire site, indicated by various circular stone walling that may be cattle enclosures and hut foundations. This site will need a permit for phase II mitigation and mapping of all the stone walls before the construction of the mining infrastructure.
- Site 30 and 31, These sites consists of circular stone granary stands associated with Later Iron Age peoples who had settled in the area. These sites are of low significance, however they need a permit for destruction.

Historical Mine Sites

- Site 18, This is a significantly larger mine shaft, it is also relatively dated to the late 19th century by some artefacts found by the entrance. This site lies outside the Yzermyn prospecting rights area. However, due to its close proximity the mining activities and what is listed as the target area, this site should be included in the list of sites in the HMP, so as to be cognizant that no disturbances should occur to the site during construction and operation of the mine, by the mine or any of the employees or contractors working for the mine at any given period.

Under section 34 of the National Heritage Resources Act (25 of 1999), it is stated that no built structure older than 60 years old may be disturbed and/or damaged by developments without a permit issued by the provincial heritage resources authority. Therefore none of the sites below may be disturbed or damaged by developments as they are protected by s. 34 of the NHRA (25 of 1999).

- Site 14, this site consists of 3 historical buildings of unknown age, they mention in the heritage report referenced above that they may be associated with the historical mine of the area. These buildings are of medium significance, they are thought to be the mine offices and/or the hostels of the historical mine. They need to be fully recorded and added to the HMP for conservation as it is understood that the mine will not disturb these buildings.
- Site 15, this site consists of various mine shafts linked to the historical mine of the area, these shafts are cut into the rock face and are horizontal leading into the mine. No further mitigation for this site is required.

Graves on Prospecting Right Area

Under section 36 of National Heritage Resources Act NHRA (25 of 1999), graves that are older than 60 years are protected from damage or destruction by any development or mining activities. Where there are no known relatives or head stones to identify graves and their age, they are still protected by the NHRA. Where graves



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are younger than 60 years of age, they are protected from damage and destruction under the Human Tissues Act (65 of 1983) and other Exhumation Ordinances.

- Site 9, Graveyard consisting of at least 6 stone packed graves, these graves should be fenced off and added into the HMP (Heritage Management Plan), as this site will not be directly impacted by the mine in the construction phase. No clear picture of the site is provided in the report.

- Site 16, Graveyard also consisting of at least 6 stone packed graves, associated with a recently abandoned farmstead, thus possibly younger than 60 years. This graveyard should be fenced off and put into the HMP, as it will not be disturbed by the mine during the construction phase. No clear images of the site are provided in the report.

Other sites that should be in the HMP

Sites 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 17, 21, 22, 23, 24, 25, 26, 28, 29, 30 and 31 should be included in the HMP. These sites, range from medium significance to low significance. They are mostly stone walled sites of what used to be cattle enclosures and granary stands made of smaller circular stone walling. These sites lie outside the proposed construction areas and will not be negatively impacted on by the development.

Bamford, M and Du Piesanie, J. July 2014. *Palaeontological Assessment of the Proposed Yzermyn Underground Coal Mine, Wakkerstroom, Mpumalanga Province Palaeontological Impact Assessment.*

A desktop assessment was conducted by Prof M. Bamford and Mr J. Du Piesanie in July 2014, they found that the project location lies in the Vryheid formation which is known to have a very high likelihood to contain fossilised plant material. It was determined that it would not be feasible to do a field assessment as the coal seams are far underground and the fossil bearing shale and mudstones will be under the coal seams, as mentioned in the palaeontological report referenced above.

Final Comment

As according to section 35(4) of the NHRA (25 of 1999) any archaeological and palaeontological resources may not be damaged by development without a permit, the expansion of the mine cannot proceed without the application of a permit for phase 2 archaeological mitigation for the following sites:

- Site 19, this site lies in the discard dump footprint, if the dump can be shifted to allow for the conservation of this site, along with site 20 the graveyard, then there needs to be an addition of 50m buffer zone around the two sites. However if this site will not be conserved then a permit needs to be applied for its destruction.

- Sites 27; 30; and 31, all these sites lie in the location of the surface infrastructure for the mine. None of these sites may be destroyed without a permit, that should be applied to the SAHRA APM Unit.

Also according to section 36(3)a of the NHRA (25 of 1999) no graves that are older than 60 years can be



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destroyed, damaged, altered, or exhumed without a permit from SAHRA Burial Grounds and Graves unit. Furthermore, if the graves are less than 60 years old they fall under the Human Tissues Act (65 of 1983), in order to exhume any graves they need to be exhumed according to the Ordinance on Exhumations Act (12 of 1980).

In terms of graves and cemeteries that will be impacted by the development, there are two options:

- Option 1: The conservation of graves *in situ*, which means they need a buffer zone of at least 100m around graves or cemeteries that should also be fenced. The proposed development footprint should be reconsidered so there is no negative impacts. This option is ideal if the danger to the graves is a mine dump, as it is easier to shift the location of the mine dump to be outside the buffer zone. Also it is because the possibility of vibrations from trucks to disturb the existing graves is low.
- Option 2: The relocation of the graves to another location by a professional archaeologist where the graves are unknown or known to be older than 60 years, with an undertaker to transport the human remains, to be reburied in the same position they were buried in, in the new location. However the relocation of graves known to be younger than 60 years old should be done according to the Human Tissues Act (65 of 1983) and the Exhumation Ordinance (No. 12 of 1980). This option is highly practical if the footprint of the development cannot be moved, or the proposed development near the graves is the actual open cast mine pit, and the blasting vibrations will likely affect the graves, or the safety of the families who would like to visit the grave site.
- Site 9 and 16, they both described above, and should be conserved *in situ*, by erecting a fence around the graves. If there are any living relatives who still come to the cemetery then there should be a protocol in place which allows for the existing family members to register and be allowed to visit the graves.
- Site 20, it is described above as the two stone packed graves surrounded by circular stone walling, next to a stone walled site. These graves lie in the location of the discard dump. If the footprint of the discard dump cannot be shifted, then a permit application needs to be applied for, and subsequent public participation as part of the process for grave relocation.

A permit application for removal of the graves is required by NHRA for graves older than 60 years and for unknown graves. The permit needs to be applied to the SAHRA BGG Unit (Burial Grounds and Graves Unit). For further information about the permit application to SAHRA BGG Unit please contact Itumeleng Masiteng at 012 320 8490.

The detailed Heritage Conservation Management Plan must be written by a professional heritage specialist, preferably with detailed archaeological knowledge. This report must also be submitted to this case once it is completed, and this should also fall part of the EMP. The following sites must be mentioned in the HMP for monitoring:

- Site 14; 15 and 18, even though 18 falls outside the Prospecting Rights Area.
- Sites 19 and 20 if they will be conserved *in situ*.
- Sites 9 and 16
- Site 17, the rock art site, it should be conserved as far as natural conditions allow.



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THE PROPOSED YZERMYN UNDERGROUND COAL MINE

Our Ref: 9/2/222/0002

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Date: Monday October 06, 2014

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- All the other sites should be included in the regular monitoring of the archaeology found on the mine property.

Also included in the HMP should be the recommendations written in the PIA report which are:

- The mine geologist should inspect the shale and mudstones extracted during the coal mining operations for any fossils. If fossils are found a palaeontologist and SAHRA should be informed immediately. A permit also needs to be applied for the removal of the fossils.
- The Construction Manager and the Mine Manager should acquaint themselves with the recognition of fossil material, thus also teaching employees that if they find any that they should notify the mine geologist, who will in turn notify a professional palaeontologist.
- A site inspection should be arranged and made possible by the mine for a suitably qualified professional palaeontologist as a field inspection was not done.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Jenna Lavin
Heritage Officer
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/138211>
(DMR, Ref: MP 30/5/1/2/2/10069 MR) (DEA, Ref: 14/12/16/3/3/3/85)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.



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