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FOR ATTENTION: **PHRA: Northern Cape**

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REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEOLOGICAL IMPACT ASSESSMENTS

BY ARCHAEOLOGY / PALAEOLOGY UNIT OF THE HERITAGE RESOURCES AGENCY

South Africa has a unique and non-renewable archaeological and palaeontological heritage. Archaeological and palaeontological sites are protected in terms of the National Heritage Resources Act (Act No 25 of 1999) and may not be disturbed without a permit. Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs) identify and assess the significance of the sites, assess the potential impact of developments upon such sites, and make recommendations concerning mitigation and management of these sites. On the basis of satisfactory specialist reports SAHRA or the relevant heritage resources agency can assess whether or not it has objection to a development and indicate the conditions upon which such development might proceed and assess whether or not to issue permission to destroy such sites.

AIAs and PIAs often form part of the heritage component of an Environmental Impact Assessment or Environmental Management Plan. They may also form part of a Heritage Impact Assessment called for in terms of section 38 of the National Heritage Resources Act, Act No. 25, 1999. They may have other origins. In any event they should comply with basic minimum standards of reporting as indicated in SAHRA Regulations and Guidelines.

This form provides review comment from the Archaeologist of the relevant heritage resources authority for use by Heritage Managers, for example, when informing authorities that have applied to SAHRA for comment and for inclusion in documentation sent to environmental authorities. It may be used in conjunction with Form B, which provides relevant peer review comment.

- A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: **Northern Cape**
- B. AUTHOR(S) OF REPORT: **Mr Jaco van der Walt, Ms Karen van Ryneveld, Dr Marion Bamford**
- C. ARCHAEOLOGY CONTRACT GROUP: **Wits Commercial Enterprise (Pty) Ltd**
- D. CONTACT DETAILS: **Private Bag 3, 2050 Wits, email: jaco.heritage@gmail.com**
- E. DATE OF REPORT: **2 December 2010**
- F. TITLE OF REPORT: **Archaeological And Palaeontological Impact Assessment For The Updated EMP Of The Trans Hex Mining Operations In The Richtersveld, Northern Cape**
- G. Please circle as relevant: Archaeological and Palaeontological components of EIA / **EMP** / HIA / CMP/ Other (Specify)
- H. REPORT COMMISSIONED BY (CONSULTANT OR DEVELOPER): **Myezo Environmental Management Services**
- I. CONTACT DETAILS: **Ms Abigail Makgato, P.O. 13972, Vorna Valley, 1686, email: abigail@myezo.co.za, Tel: 011 339 4445**
- J. COMMENTS:

Please see comment on next page

REVIEW COMMENT ON HERITAGE IMPACT ASSESSMENT

Mr Jaco van der Walt, Ms Karen van Ryneveld, Dr Marion Bamford

Dated: 2 December 2010, Received: 18 January 2011

Archaeological and Palaeontological Impact Assessment for the Updated EMP of The Trans Hex Mining Operations In The Richtersveld, Northern Cape.

INTRODUCTION

Trans Hex applied to the Department of Mineral Resources for a conversion of mining right for diamonds in the area between Baken and Reuning, on the Orange River at the border between Namibia and South Africa.

SAHRA required in May 2010 a new Heritage Impact Assessment which would assess in full the heritage resources on the proposed five mining sites, one of which, Reuning, is included within the buffer zone of the Richtersveld World Heritage Site.

Previous research has shown that the Richtersveld is very sensitive both from an archaeological and a palaeontological perspective, with many sites located along the course of the Orange River and many others providing information on adaptability to arid situations. During archaeological research and surveys many sites have been identified in the Trans Hex mining lease area, such as for instance Jakkalsberg (Mehl in the current report) A, B K, L, M, N, O and P, not completely studied as yet and dated to the Later Stone Age.

This survey specifically was limited to five active mining areas as, for confidentiality reasons, no information was provided to the heritage practitioners about new mining areas. This therefore implies that this report only refers to already mined sections, **if mining is expanded beyond the already surveyed area, a new heritage Impact Assessment will be required.** The five areas are Baken, Bloeddrift, Nxodap, Mehl and Reuning. A total of 109 archaeological sites, including graves and burial grounds, were located by the specialists.

Palaeontological resources were identified during previous research both at Auchas and Arrisdraft in the Arrisdraft Formation, considered the richest fossil assemblage recorded so far in the Miocene in Southern Africa. No new resources were identified during this survey, but the specialist stated that the time available for her site visit was short. It is still highly likely that fossil resources will be uncovered during mining.

DISCUSSION

A team of two archaeologists surveyed the area both identifying new sites and re-assessing sites identified in previous reports and in particular in Halkett 1999, *A Phase One Archaeological Assessment of Heritage Resources in the Transhex Diamond Concession, Richtersveld.*

The type of sites recorded varies from the Early Stone Age, mostly located along the gravel of palaeo-rivers to pastoralism/colonial period. Many engraving sites and burial ground and grave sites were also recorded and for some of them is not clear whether they will be impacted by the planned mining activities or not.

Here below is a list of the heritage resources identified in the five areas and described in the report:

General area outside the mining sections

- Portion of a colonial old wagon road
- Stone outcrops showing cultural layers (late MSA-LSA deposit, pastoralist deposit and a more contemporary remains of a shelter)
- Herder settlement with three stock enclosures, two residential structures and midden with a low density Middle or Later Stone Age site close to it.
- Dolomite outcrop with engravings

- LSA shelter
- MSA site in palaeo-river gravel terrace
- Three graves, two of which not clearly indicated
- Possible grave or stone cairn
- Single grave which might actually be the last remaining of a burial ground
- A three-grave burial ground

Baken – Koeskop

- Stone Age site in palaeo-river gravel terrace (few Earlier and more Middle and Later Stone Age tools) confined on the top 50 cm of the gravel.
- Stone structure with possible graves
- Remains of a mud brick rectangular structure possibly older than 60 years
- Recent date donkey cart with modern debris close to a possible grave (uncertain date)
- Residential remains, mostly typical herder huts with two middens
- LSA artefacts exposed by previous old exploration pits
- Cemetery of seven graves
- Cemetery of 37 graves
- Midden from the colonial period
- An Earlier Stone Age site in palaeo-river gravel terrace confined to the top 50 cm of the gravel.
- A Stone Age site in palaeo-river gravel terrace (few Earlier and more Middle and Later Stone Age tools, mostly out of context).
- Possible remains of a herder hut
- Circular stone packed grave
- Modern structures
- Remains of a herder settlement with grave
- Baken formal cemetery with 14 graves
- Memorial (from 2005)
- A Middle and Later Stone Age site in palaeo-river gravel terrace.
- Remains of possibly 15 herder huts
- A Stone Age site in palaeo-river gravel terrace
- Pre colonial herder site eroding from the silty deposit with remains of possibly three herder huts or residential structures.
- Herder remains and three large middens with high quantities of artefacts from pastoralist to colonial period.
- Burial ground with about 30 graves, about 100 years old. The integrity of few burials is threatened by an erosion gully cut.

Two sites, identified as pastoralist encampments, were described in the report by Halkett from 1999. During the recent surveys, however, it proved impossible to locate these two sites, possibly because of a flood which supposedly washed out the sites in 2002.

Bloedrift

A series of five sites previously identified by Halkett were disturbed and in many cases impacted beyond possible mitigation by an agricultural community project supported by Trans Hex. Remnants of these sites are currently visible in the area.

A series of new sites was also recorded:

- Vandalised engravings on dolerite outcrop

- Engravings on a dolomite hill
- Engravings along a dolomite ridge. They have already been impacted upon by the access road and power lines.
- A Stone Age site in palaeo-river gravel terrace
- A cemetery with two adult graves
- Engravings along a dolomite ridge with low density scatter of quartzite lithic artefacts.
- Grave
- Two graves

These sites are to be added to other 30 sites which were recorded on this section of the Trans Hex mining lease area by Mr Halkett and described in his report of 1999. These sites are represented by either engravings or lithic artefact scatters and one grave.

Nxodap

- Cemetery comprising five graves
- A Stone Age site in palaeo-river gravel terrace (few Earlier and more Middle and Later Stone Age tools, mostly out of context). The estimated depth for this deposit is 50-70 cm.

Mehl – Jakkalsberg

- Stone Age site in open-air gravel terrace site. The estimated depth for this deposit is 50-70 cm in the Red Hutton Sand context.
- Stone Age sites in palaeo-river gravel terrace.

Reuning

- Engravings on dolomite exposures, some of which of recent production
- Low rising dolomite outcrop with two temporal periods sites
- White quartzite outcrop
- Nama Camp, assessed previously by Halkett in 1999, but not for this report due to technical issues
- Stone Age scatter on high gravel terraces

SAHRA is quite concerned about the fact that, due to confidentiality issues, only active mining areas were surveyed. SAHRA clearly stated that infrastructures such as road developments, power lines and borrow pits had not been included in the assessment related to the new EMP. It is necessary for the specialists to survey the area where mining will be extended to allow reaching an informed decision on heritage issues.

Even though Trans Hex stated in the EMP that it is their aim to educate and inform employees to respect and preserve cultural sites, during the new assessment, undertaken ten years after the previous one, sites at Bloeddrift which were clearly identified and demarcated in the Halkett assessment were nevertheless destroyed in the recent past by a community agricultural development initiated by Trans Hex mining itself. Therefore, considering that damages to heritage have already been caused in the Trans Hex mining area, it becomes even more impelling to have a clear perspective of where infrastructures and new mining operations are going to be located.

No assessment of the Cultural Landscape or of the Intangible heritage is mentioned in the report.

SAHRA RECOMMENDATIONS

The amount of heritage sites identified in this area alone would require that they are all preserved. However, mining has already widely been undertaken in the area and it has impacted severely on some of the heritage.

Therefore SAHRA APM and Burial Grounds and Graves Unit require that:

- A Conservation Management Plan for all heritage resources identified on site is drawn and submitted to SAHRA for comments and approval
- No expansion of activities could be undertaken without prior approval of SAHRA. This Impact Assessment only surveyed existing mining areas, therefore no recommendations and decisions can be done for any area outside the existing mining activities.
- All graves should be restored where these are dilapidated, and must be protected and conserved. For this purpose, a proper fence must be built around them including entry gates to allow visits from relatives and family friends. The fence must be placed 2 meters away from the perimeter of the graves. No development is allowed within 20 meters from the fence line surrounding the graves. Alternatively, if the area where the burials are located fall within the development footprint, then provisions stipulated in section 36 of the National Heritage Resources Act (Act No. 25 of 1999) are applicable, and relocation of these might proceed provided that a Grave Relocation Permit is required from SAHRA, a public consultation process is followed and an archaeological specialist in grave relocation is appointed (see Appendix 1 and SAHRA Regulations).
- Conservation is always the preferred option for SAHRA. Impact on sites should be avoided as much as possible. However, if conservation is not possible, mitigation in the form of systematic excavation and sampling (Phase 2 AIA) must be undertaken before trenching and any other earth-moving activity resulting from this proposed project occurs on sites:
 - o B2,
 - o B10,
 - o B18,
 - o KK2,
 - o BLD42,
 - o Mh13,
 - o AA2

A photographic record must be established immediately before, during and after mitigation. The archaeologist will require a mitigation permit from SAHRA in terms of s. 35 of the National Heritage Resources Act (Act 25 of 1999). On receipt of a satisfactory mitigation (Phase 2) permit report from the archaeologist, SAHRA will make further recommendations in terms of the sites such as their final destruction or additional sampling.

- Once mitigation is complete and SAHRA has given advise on the way forward, a destruction permit must be applied for by the developer or by an archaeologist on behalf of the developer.
- A new assessment is necessary for site AA1.
- The identification of new heritage sites, including palaeontological sites, is highly possible, therefore if any evidence of archaeological sites or remains (e.g., engravings, remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during mining activities, SAHRA APM Unit (Mariagrazia Galimberti/Nonofho Ndobochani 021 462 4502) must be alerted immediately, and an accredited professional archaeologist must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of high archaeological or palaeontological significance a Phase 2 rescue operation might be necessary.

CONCLUSION

SAHRA required a management plan for the sites, and this must include detailed mitigation plan for sites. A separate assessment is required for AA1. Decisions on Built Environment (e.g. structures over 60 years) and Cultural Landscapes and associated

Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape (Mr. Joas Sinthumule jsinthumule@ncpg.gov.za) to whom this Archaeological and Palaeontological Review Comment will be copied.

SIGNATURE OF ARCHAEOLOGIST PROCESSING REPORT: *Mgalimberti*

EMAIL: mgalimberti@sahra.org.za

SIGNATURE OF SAHRA HEAD ARCHAEOLOGIST: *[Signature]*

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NAME OF HERITAGE RESOURCES AGENCY: SAHRA

PLEASE NOTE THAT THE COMMENT (ABOVE OR APPENDED) CONSTITUTES THE COMMENT OF THE HERITAGE RESOURCES AGENCY ARCHAEOLOGIST AND THAT ANY DEVELOPMENT THAT INVOLVES DESTRUCTION OF ANY ARCHAEOLOGICAL/PALAEONTOLOGICAL SITE IS STILL SUBJECT TO A PERMIT/PERMISSION FOR DESTRUCTION OF SUCH SITE GIVEN TO THE DEVELOPER BY THE RELEVANT HERITAGE RESOURCES AGENCY ARCHAEOLOGICAL AND PALAEONTOLOGICAL PERMIT COMMITTEE (THIS WILL BE SUBJECT TO APPROVAL OF THE PHASE 2 OR ARCHAEOLOGICAL/ PALAEONTOLOGICAL MITIGATION AS NECESSARY). THIS REPORT MAY BE TAKEN ONLY AS APPROVAL IN TERMS OF SECTION 35 OF THE NATIONAL HERITAGE RESOURCES ACT. THE PROVINCIAL MANAGER OF THE HERITAGE RESOURCES AUTHORITY MUST ADVISE AS TO APPROVAL IN TERMS OF HERITAGE ISSUES ENCOMPASSED BY OTHER ASPECTS OF THE LEGISLATION, SUCH AS ISSUES OF THE BUILT ENVIRONMENT (STRUCTURES (E.G. FARM HOUSES), OVER 60 YEARS), INDIGENOUS KNOWLEDGE SYSTEMS OR OF CULTURAL LANDSCAPES AS THIS IS NOT WITHIN THE SCOPE OF THE ARCHAEOLOGIST.

PLEASE NOTE THAT SAHRA IS NOW RESPONSIBLE FOR GRADE I HERITAGE RESOURCES (AND EXPORT) AND THE PROVINCIAL HERITAGE RESOURCES ARE RESPONSIBLE FOR GRADE II AND GRADE III HERITAGE RESOURCES, EXCEPT WHERE THERE IS AN AGENCY ARRANGEMENT WITH THE PROVINCIAL HERITAGE RESOURCES AUTHORITY.

APPENDIX 1

Protection of Graves

In terms of the National Heritage Resources Act (No. 25 of 1999) graves older than 60 years (not in a municipal graveyard) are protected. Human remains younger than 60 years should be handled only by a registered undertaker or an institution declared under the Human Tissues Act.

Anyone who wishes to develop an area where there are graves older than 60 years is required to follow the process described in the legislation (section 36 and associated regulations). The specialist will require a permit from the heritage resources authority:

1. Determine/ confirm the presence of the graves on the property. Normally the quickest way to proceed is to obtain the service of a professional archaeologist accredited to undertake burial relocations. The archaeologist will provide an estimate of the age of the graves. There may be a need for archival research and possibly test excavations (permit required).
2. The preferred decision is to move the development so that the graves may remain undisturbed. If this is done, the developer must satisfy SAHRA that adequate arrangements have been made to protect the graves on site from the impact of the development. This usually involves fencing the grave(yard) and setting up a small site management plan indicating who will be responsible for maintaining the graves and how this is legally tied into the development. It is recommended that a distance of at least 2 m is left undisturbed between the grave and the fence around the graves and another 20 m between the fence of the grave and the development.
3. If the developer wishes to relocate or disturb the graves:
 - a. A 60-day public participation (social consultation) process as required by section 36 (and regulations), must be undertaken to identify any direct descendants of those buried on the property. This allows for a period of consultation with any family members or community to ascertain what their wishes are for the burials. It involves notices to the public on site and through representative media. This may be done by the archaeologist, who can explain the process, but for large or sensitive sites a social consultant should be employed. Archaeologists often work with undertakers, who rebury the human remains.
 - b. If as a result of the public participation, the family (where descendants are identified) or the community agree to the relocation process then the graves may be relocated.
 - c. The archaeologist must submit a permit application to SAHRA for the disinterment of the burials. This must include written approval of the descendants or, if there has not been success in identifying direct descendants, written documentation of the social consultation process, which must indicate to SAHRA's satisfaction, the efforts that have been made to locate them. It must also include details of the exhumation process and the place to which the burials are to be relocated. (There are regulations regarding creating new cemeteries and so this usually means that relocation must be to an established communal rural or formal municipal cemetery.)

- d. Permission must be obtained before exhumation takes place from the landowner where the graves are located, and from the owners/managers of the graveyard to which the remains will be relocated.

Other relevant legislation must be complied with, including the Human Tissues Act (National Department of Health) and any ordinances of the Provincial Department of Health). The archaeologist can usually advise about this.

Copy: Department of Sport, Arts and Culture, Northern Cape: Mr Joas Sinthumule
Department of Mineral Resources: Mr Bradeley Nethononda

