

9-2-240-0008-20020325-AINP

9/21/240/8

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Heritage Impact Assessment for the expansion of a borrow pit

*Evaluation of the heritage component of
the Environmental Impact Assessment for
the expansion of a borrow pit at the
Messina Platinum Mine – Lebogomo,
Northern Province*

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Messina Platinum Mine Borrow Pit Extension

Evaluation of the Heritage Potential of the Project

Executive Summary

Site name and location: Messina Platinum Mine, borrow pit extension, Limpopo Province

Magisterial district: Lebogomo

Developer: Southern Era

Consultant: ANP, PO Box 7296, Thohoyandou, 0950, South Africa

Date development was mooted: March, 2002

Date of Report: 25 March 2002

Proposed date of commencement of development: End of March 2002

Findings: Provided the recommendations outlined in the report are followed the upgrading of the road can continue

Introduction

Archeo-Info Northern Province (AINP) was contracted by Tekplan Environmental to conduct a Heritage Impact Assessment (HIA) on the proposed expansion of an existing borrow pit at the Messina Platinum Mine in Lebowagomo in the Limpopo province.

This HIA forms part of the Environmental Impact Assessment (EIA) as required by the Environmental Conservation Act (ECA) 73 of 1989, the Minerals Act, 50 of 1991 and the Development Facilitation Act (DFA), 67 of 1995. The HIA is performed in accordance with section 38 of the National Heritage Resources Act (NHRA), 25 of 1999 and is intended for submission to the South African Heritage Resources Agency (SAHRA).

Location

The existing borrow pit is situated to the south of the office complex at the Messina Platinum Mine in Lebowagomo approximately 35 km southeast of Polokwane in the Limpopo Province. The expansion of the borrow pit will be to the west of the existing borrow pit.

The exact placement of the borrow pit can be found on fig 1. (orientation map).

Fieldwork

Members of AINP met with Mr. Theo Koize on Friday 22 March 2002 on site. Following this a professional archaeologist assisted by a fieldworker performed the survey.

The extent of the site was determined as well as the extent of the areas to be affected by secondary activities during the excavation of the borrow pit. Sites were plotted with GPS readings and photographed using colour prints in 100 ASA format. All areas were surveyed on foot.

Methodology

The area was surveyed using standard archaeological surveying methods. The area was surveyed using directional parameters supplied by the GPS and surveyed by foot because of the inaccessibility of the area due to the undulating terrain. This technique has proven to result in the maximum coverage of an area.

Standard archaeological documentation formats were employed in the description of sites. Using standard site documentation forms as comparable medium, it enabled the surveyors to evaluate the relative importance of sites found. Furthermore GPS (Global Positioning System) readings of all finds and sites were taken. This information was then plotted using a *Magellan 2000 XL GPS* (*Cape datum*).

Indicators such as surface finds, plant growth anomalies, local information and topography were used in identifying sites of possible archaeological importance. Test probes were done at intervals to determine sub-surface occurrence of archaeological material. The importance of sites was assessed by comparisons with published information as well as comparative collections. All sites or possible sites found were classified using a hierarchical system

wherein sites are assessed using a scale of zero to four according to their importance. These categories are as follows:

Degree of significance	Justification	Score
Exceptional significance	Rare or outstanding, high degree of intactness. Can be interpreted easily.	4
High significance	High degree of original fabric. Demonstrates a key element of item's significance. Alterations do not detract from significance.	3
Moderate significance	Altered or modified elements. Element with little heritage value, but which contribute to the overall significance.	2
Little significance	Alterations detract from significance. One of many. Alterations detract from significance.	1
Intrusive	Damaging to the item's heritage significance.	0

Cultural Importance and Oral History

The investigation of site for heritage components should not only look at the material remains that are found on sites, but there should also be looked at the intangible aspects of cultural importance for the local communities. Furthermore there should also be looked at the possibility of culturally important areas being found in the study area. These could include graves, places of power or imitation schools and any other area that is seen as culturally sensitive to the local communities.

During the social consultation phase of the project members of the local authority will be given the opportunity to raise any objection to the development based on the effect of the development on culturally important areas.

A preliminary desk study of the area did not indicate any previously documented culturally significant sites.

The Sites

All sites of cultural or historical importance in the study area were identified and classified as per the section on methodology. Sites will be listed using an abbreviation of the project name (*Messina Platinum Mine*) MPM and a numerical indicator.

The following sites were identified in the study area.

MPM 001
Score 1

G.P.S. 22° 21' 45.5" S
29° 26' 19.7 " E

People previously inhabited this area. Several foundation remains (photo 1) were found in the indicated area. The remains are relatively young and probably do not date from further than 50 years ago when the inhabitants were moved to formal townships further to the north. These sites correlate in building and settlement patterns with those found in earlier studies in the area. In every previous case the relatives of the inhabitants could be traced back to one of the local villages surrounding the mine. The sites could be easily identified by the stretches of sisal growth found on the site (photo 2). The remains of an ash midden was also identified within the occupational area (photo 3).

MPM 002
Score 2

G.P.S. 24° 21' 46.1" S
29° 26' 13 " E

Two graves of the *Matabane* family was identified to the southeast of the existing borrow pit (photo 4). These graves date from 1986 and it is very possible that the relatives are still present in this area. A stone cairn to the east of the graves could also indicate a further grave.

Recommendations

The following recommendations are given for the sites identified within the study areas.

MPM 001

The occupational site identified in this area does not constitute a significant cultural or scientific resource. The area will however have intrinsic value for the people who previously inhabited this area. For this reason it falls under the protection of national legislation. The occurrence of occupational remains also heightens the possibility of graves being located in this area that are not well marked on the surface. It is suggested as a primary option to not extend the borrow area into this section. If it is however not feasible to extend in a alternative direction this site would have to be documented to the satisfaction of SAHRA (a general cost estimate for this work is included in addendum C).

MPM 002

Two options present themselves in this scenario;

- To move the location of the quarry area to go around the grave with at least 20 metres of undisturbed ground between it and the perimeter of the borrow area. The fencing of the area should also not inhibit the access to the grave.
- The grave is removed through a process of social consultation with the community and relocated (AINP can facilitate this) and the borrow area is placed in the original area.

It is further recommended that the quarry do not extend any further towards the graves, as eventual erosion will endanger them. If possible the relatives should be found an the graves fenced off to prevent future possible damage.

Conclusion

The expansion of the borrow pits to the west is seen as the option with the least impact on the heritage resources in this area. It is recommended that the borrow pit be extended in this direction, as indicated on the location map.

References

1. Hammond-Tooke, W.D. 1981. *Boundaries and Belief: The structure of a Sotho worldview*. Johannesburg: Witwatersrand University press.
2. Huffman, T.N. and Steel, R.H. 1996. *Salvage excavations at Planknek, Potgietersrus, Northern Province*. Southern African Field Archaeology, 5: 45-58.
3. Louber, J.H.N. 1994. *Ndebele archaeology of the Pietersburg area*. Navorsinge van die Nasionale Museum Bloemfontein. 10(2): 61-147.

LOCALITY MAP



TEKPLAN
Environmental