ARCHAEOLOGICAL MONITORING REPORT

THE DESTRUCTION OF SITE PLA1677/S.35-006, PLATREEF MINE, MOKOPANE, LIMPOPO PROVINCE

Type of development:

Mining Development

Client:

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2047

Report date:

26 August 2020

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APPROVAL PAGE

Project Name	The destruction of Site PLA1677/S.35-006, Platreef Mine, Mokopane, Limpopo Province
Report Title	Archaeological Monitoring Report for the destruction of Site PLA1677/S.35-006, Platreef Mine, Mokopane, Limpopo Province
Authority Reference Number	SAHRA Case Number CaseID: 12192
Report Status	Final Report
Applicant Name	Ivanplats (Pty) Ltd

	Name	Qualifications and Certifications	Date
Monitoring and Document Compilation	Jaco van der Walt	MA Archaeology	July 2020
Monitoring	Ruan van der Merwe	Hons Archaeology	July 2020



DOCUMENT PROGRESS

Distribution List

Date	Report Reference Number	Document Distribution	Number of Copies
28 August 2020	2047	Platreef	Electronic Copy

Amendments on Document

Date	Report Reference Number	Description of Amendment



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1. Executive Summary

HCAC was appointed by Ivanplats (Pty) Ltd to undertake Archaeological Monitoring as part of the destruction of site PLA1677/S.35-006 for the Platreef Mine, on the farm Rietfontein 2KS. The site is located to the north of Mokopane, at Tshamahansi village, Limpopo Province. This document outlines the Archaeological Monitoring for the initial construction activities associated with the Platreef Tailings Storage Facility (TSF).

Platreef commissioned the implementation of archaeological monitoring at a Late Iron Age site identified during the Heritage Impact Assessment (Higgitt *et al* 2013) for the mine after the successful Phase 2 mitigation of the site (van der Walt 2017) and the subsequently issued SAHRA Destruction Permit (CaseID: 12192; Permit ID: 3109). Archaeological Monitoring during destruction of the site was a requirement of the destruction permit issued by SAHRA dated 20 April 2020.

This document reports on the results of the archaeological monitoring conducted on the 30th June 2020, during which no additional significant features or human remains were uncovered. The monitoring was considered to be successful as additional features (midden and ephemeral walls) were identified that compliments the current layout.

We are of the opinion that there are no more significant archaeological features at the site that could contribute to the current interpretation and no further pre-construction archaeological mitigation is recommended.

However, it must be noted that there is always a possibility that subsurface archaeological or human remains may be uncovered during the construction process and under such circumstances, construction activities must be halted with immediate effect and a professional archaeologist must be contacted to assess the find.



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2. Introduction

HCAC was appointed by Ivanplats (Pty) Ltd to undertake Archaeological Monitoring as part of the destruction of site PLA1677/S.35-006 impacted on by the proposed Platreef TSF, on the farm Rietfontein 2KS, near Tshamahansi, Limpopo Province (Figure 2-1 to 2-3). Here we report on the findings during the on-site monitoring of the destruction of the site on the 30th June 2020 in fulfilment of the permit conditions as issued by SAHRA (CaseID: 12192; Permit ID: 3109)

2.1. Project Background

An HIA was conducted for the Platreef Mine Lease Area (Higgitt *et al* 2013) that amongst other features recorded a Late Iron Age (LIA) site PLA1677/S.35-006. According to the HIA the site consisted of terraced walling, middens with undiagnostic potsherds and faunal remains as well as iron slag.

In anticipation of mining activities that would impact directly on the site, the site was mitigated by HCAC under SAHRA permit ID 2554 and 2180 (Case ID 7229) in 2017. The site was mapped and excavated on the 23 February 2017 and again between 27 July and 22 November 2017. It is believed that the archaeological mitigation work conducted for this site was completed successfully and a destruction permit was issued for this site (SAHRA permit ID 3109).

2.2. Description of Study Area

Site PLA1677/S.35-006 is located to the east of the village of Tshamahansi. The site is characterised by terrace walls with scallops and circular enclosures. The site is situated along the northern foot of a long granite ridge and is slightly elevated offering vistas of the surrounding flat landscape. Following the natural topography, the site is elongated in its spatial layout and in its general appearance. The site is orientated east to west with the terraces and scallops mostly facing towards the north. The stone that was used to construct the settlement was collected from the ridge and therefore were locally available. The settlement pattern at Site PLA1677/S.35-006 is primarily determined by the local geomorphology and topography.

The site is located approximately 900m from the banks of the Klein Sandsloot with various tributaries draining the area and it is most likely that the sites inhabitants collected their drinking water from this source. Domestic animals such as cattle would have grazed in the immediate surroundings of the site which is flat and covered with grass veld.

The site is still in a pristine condition with little impact of any nature visible on the site although the surrounding area has been transformed by overgrazing and is covered in very dense *Dichrostachys cinerea* (Sickle bush). The fact that the site was constructed along a granite ridge clearly indicates the need for rock as building material. Loose stones were collected from the ridge and used in the coreand-rubble construction technique characteristic of Iron Age settlements (e.g. Walton 1958). The walls are generally low, and often incorporated natural boulders in the construction.

The site covered an area of approximately 500 meters and is located between co-ordinates - 24.078189°; 29.007034° in the east and -24.078546°; 29.001497° in the west (Figure 2-3). Other archaeological features were noted in the wider area but did not fall under ambit of the permit or the scope of work. These are in all likelihood contemporaneous Iron Age sites.



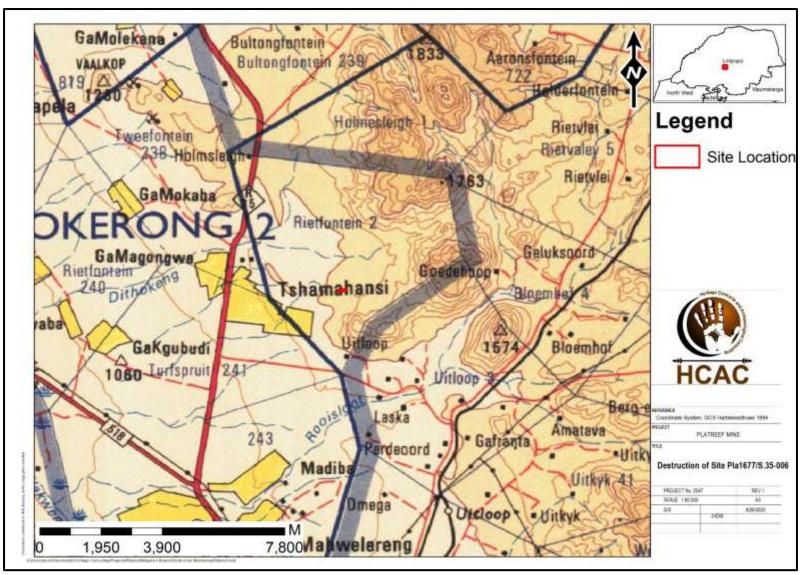


Figure 2-1. Regional setting of the project.



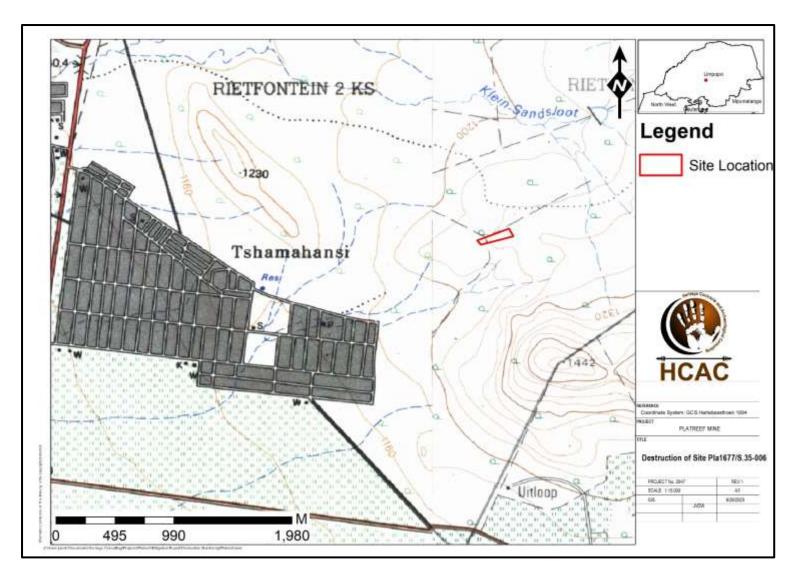


Figure 2-2. Local setting of the study area



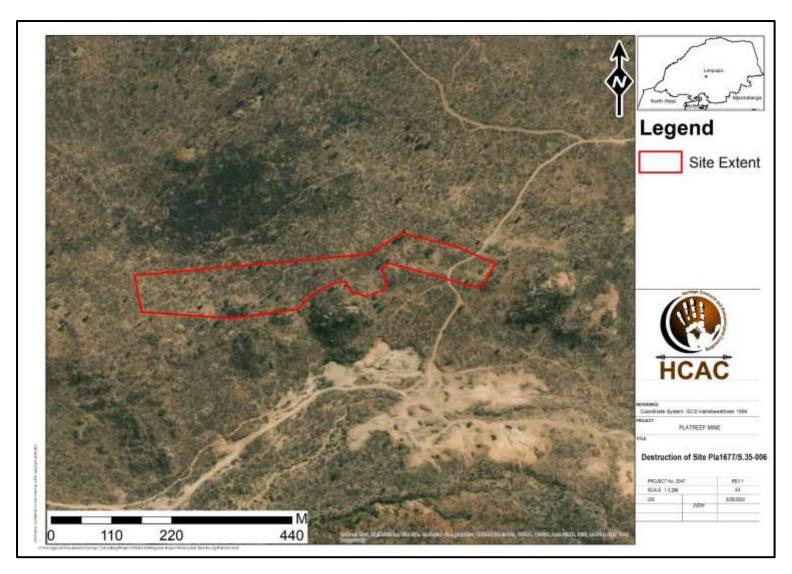


Figure 2-3. Aerial extent of the site.



2.3. Terms of Reference and scope of work

To complete the archaeological monitoring, and to comply with the SAHRA permit conditions, the following activities were completed as part of the Scope of Work:

- On-site monitoring;
- On-site debriefing; and
- Reporting for submission to SAHRA for noting.

Table 1. Permit conditions

Permit Conditions	Compliance to conditions
This permit allows only the destruction of the Site PLA1677/S. 35-006, as a result of mining activities for the Platreef Mine, Mokopane, Limpopo Province	Only Site PLA1677/S. 35-006 were destructed under permit: 3109
The destruction of the site must be monitored by an archaeologist along with all earth moving activities.	The destruction of the site was monitored on the 30th June 2020 by two qualified archaeologists
SAHRA requires that the professional archaeologist monitoring the destruction of the site be an Iron Age expert familiar with the site. The name and qualification of the archaeologist in question should be submitted to SAHRA for approval.	The monitoring was conducted by Jaco van der Walt (MA Archaeology) and Ruan van der Merwe (Hons Archaeology) (refer to Section 1.4 for details)
A report from the destruction activities must be submitted to SAHRA by the archaeologist monitoring the activities by no later than 31 May 2021. The permit report must be submitted via email to apmperrmitreports@sahra.org.za	This report is conducted in fulfilment of the requirements stipulated under the permit conditions and will be submitted to SAHRA upon approval from Platreef
This permit is valid from 01/05/2020 to 31/05/2021	The destruction of the site occurred on the 30th June 2020 within the approved dates.

2.4. Expertise of the specialist

Jaco van der Walt has been actively involved as a professional archaeologist within the heritage management field in Southern Africa for the past 20 years. He obtained an MA degree in Archaeology from the University of the Witwatersrand focussing on the Iron Age in 2012 and is a PhD candidate at the University of Johannesburg focussing on Stone Age Archaeology with specific interest in the Middle Stone Age (MSA) and Later Stone Age (LSA). Jaco is an accredited member of the Association of Southern African Professional Archaeologist (ASAPA Member #159) and acted as council member for SADC countries in the Cultural Resource Management (CRM) portfolio for two years (2011 – 2012). Jaco worked at various universities and in the private sector providing him with an excellent balance between academia and the challenges that development poses on our non-renewable heritage resources. Jaco has more than 17 years' experience conducting heritage assessments, grave relocation projects, heritage mitigation and management projects. Jaco has extensive experience working with projects complying with IFC Requirements. Jaco has worked in South Africa. Lesotho, Zambia, Zimbabwe, Mozambique, Botswana, the Democratic Republic of the Congo and in Tanzania. He is well respected in his field and published in peer reviewed journals and presented his findings on various national and international conferences.



Ruan van der Merwe is a qualified archaeologist with a BA Hons degree in Archaeology. Ruan has extensive Iron Age experience, both through his studies specialising in this area as well as through CRM work. Ruan is currently completing his final year of his MA Archaeology degree.

3. Assumptions and limitations

The report focusses on the controlled destruction of the archaeological site PLA1677/S. 35-006. Other archaeological features or graves in the TSF footprint is not covered under either this report or the Phase 2 archaeological mitigation report. The report does not exclude the development from conforming to any other requirements as stipulated in the approved HIA for the project. It must be noted that the possibility of subsurface heritage features including burial sites in the surrounding area cannot be excluded.

4. Legislative Framework

The archaeological monitoring was governed primarily by the NHRA. A brief summary of the relevant sections of the Act is presented in the table below:

Table 2: Applicable legal framework

Applicable NHRA Sections	Reference where applied
National Heritage Resources Act, 1999 (Act	
No. 25 of 1999) (NHRA)	
The NHRA is the overarching legislation that protects and regulates the management of heritage resources in South Africa, with specific	
reference to the following Sections: 5. General principles for HRM; 6. Principles for management of heritage resources; 7. Heritage assessment criteria and grading; and 38. Heritage resources management. The Act considers various heritage resources as forming part of the national estate as contemplated in Section 3. Furthermore, certain other categories are afforded general protection with reference to the following Sections: 34. Structures with demonstrable cultural significance or older than 60 years; 35. Archaeological and Palaeontological resources; 36. Burial grounds and graves; and 37. Public Monuments and Memorials.	The archaeological monitoring report considered the general principles outlined in the NHRA, as well as the heritage resource categories that are afforded general protection. These principles and protections informed and guided the on-site monitoring process.



5. Site PLA1677/S.35-006 baseline

The spatial organisation of Site PLA1677/S.35-006 is marked by terraces interpreted as walling for hut terraces and suggest that the site could belong to a greater Venda complex (which also includes Lovedu and Birwa), this complex could also include Shangaan (Huffman 2017 pers. comm.). Test trenches and shovel pit testing on these terraces did not reveal the remains of any huts. However, the absence of any burnt clay from the remains of the huts as well as the absence of any clear foundation stones and hut floors suggest that the dwellings may have been constructed with branches and grass. The dwellings therefore may perhaps have been bee-hived shape huts, similar to those which were used by Nguni communities.

Few diagnostic ceramics was recovered and following Huffman's 1980 formalized procedure the sample is too small to conduct a stylistic analysis. The ceramics do however have affinities with historic pottery, and could belong to the greater Venda complex, this is however an under-researched ceramic entity (Huffman 2017 pers. comm.) and is a tentative classification. Diachronic evidence such as colonial artefacts (metal and earthen wares and glass) indicates that this site dates to the more recent past and must post date 1830's as a minimum when the first Europeans moved into the area.

The economic subsistence of the occupants of the stone walled complex contained enclosures for keeping stock and together with lower and upper maize grinding stones indicate that some form of farming was practised. The permanent stone platforms found on site on which grain baskets were placed often manufactured from clay or grass further attest to a farming community. Although no faunal analysis was conducted due to the fragmentary nature of the bone material no assumptions about the collection of food, particularly meat and therefore hunting practises vs slaughtering could be made, it can be expected that the occupants of the complex did practice some kind of hunting, gathering and collecting. The small slag heap excavated was probably derived from smithing activities due to the lack of extensively vitrified *tuyeres* and furnace fragments.

Site PLA1677/S.35-006 together with other stone walled sites in the general area is located within the Ndebele sphere of influence and therefore may have been occupied by Ndebele groups from AD1600 onwards. It is however unlikely that the site was occupied as early as this date suggests. The historical material found in the excavations suggest that this site was occupied after AD1830. In addition, with the historical ceramics the site shows strong affinities in term of layout and material culture with sites at Mokopane (Huffman & Steel 1996). Where the similar layout appears to belong to Loubser's (1994) Group III pattern, this type of walling and the blue hexagonal beads from Feature 3 date the site from about AD 1855 to 1875 (Huffman & Steel 1996).

The site was surveyed in detail and ground plans were compiled for the site and its associated structures where seven areas were excavated (van der Walt 2017). The settlement is characterised by several components, namely:

- · Circular kraals and scallops;
- Large stone platforms and maize grind stones;
- Terraces:
- Shallow ash middens and
- Evidence of Iron working possibly smithing activities.



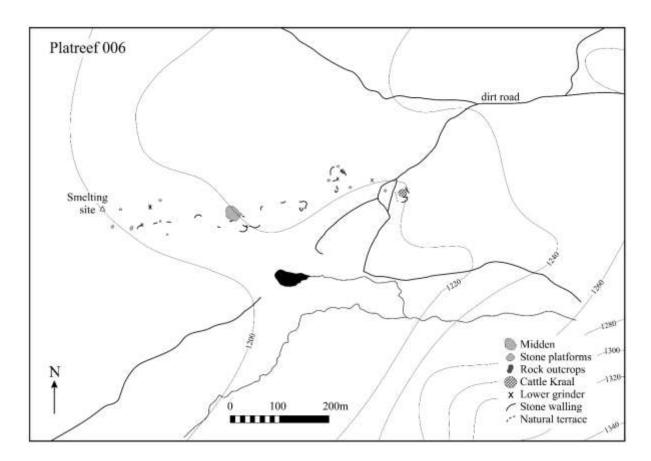


Figure 5-1. Original site lay out.

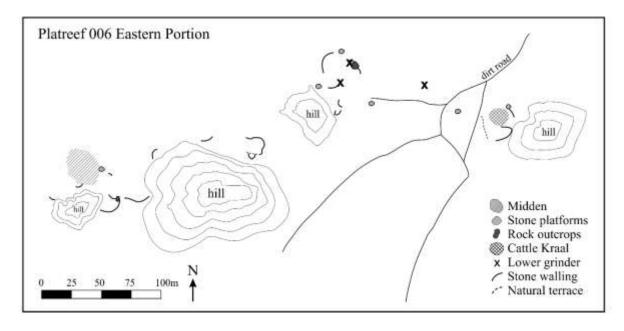


Figure 5-2. Zoomed in section of Eastern Portion of original lay out.



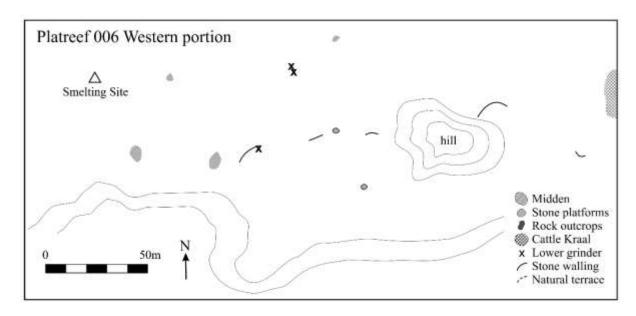


Figure 5-3. Zoomed in section of Western Section of original lay out.

6. Methodology

Archaeological monitoring was performed on the 30th of June 2020 by Jaco van der Walt and Ruan van der Merwe, both qualified archaeologists. The monitoring was aimed at having an archaeologist present during ground disturbing activities that may expose potential buried surfaces, anthropogenic sediments, and archaeological features such as cattle kraals, or artefact-bearing strata as well as any buried archaeological materials (e.g., ceramics).

Community representatives from the Magongoa and Tshamahansi communities as well as the Mokopane Traditional Council were informed of the proposed destruction of the heritage site and representatives from these communities were invited to be present during the destruction activities. Platreef Mine kindly facilitated this process providing meals, water and shelter (Figure 5-1) for the day.





Figure 6-1. Sheltered area for community representatives

Prior to initiating soil removal (30 June 2020) project personnel was made aware of the potential of discovering archaeological material within the area and their obligations in the case of an inadvertent discovery and protocol for handling accidental discoveries. Earth works consisted of initial "strip clearing" where transects of vegetation (Figure 5-2) was mechanically removed using a bulldozer. Subsequent to this, areas in-between where similarly cleared (Figure 5-3 and 5-4) to a depth of 150mm. The archaeologist walked in close proximity to removal equipment in order to view subsurface deposits as they are exposed, and was in close communication with the equipment operator to ensure adequate opportunity for observation and documentation of areas of possible interest.

The clearing of the site was conducted over a period of one day during which vegetation and top soil was removed. Several stone cairns occur in the area and although interpreted as being part of the archaeological site, sensitivities surrounding graves in the project area necessitated that these were left *in-situ* and were not bulldozed during the destruction of the site.





Figure 6-2:Strip clearing.

Figure 6-3: Archaeologist monitoring earthworks.





Figure 6-4: Archaeologist monitoring earthworks. Figure 6-5: Area after clearing.

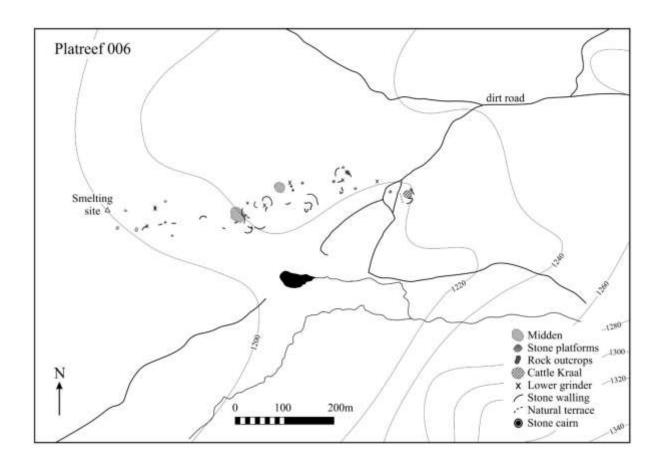


7. Results

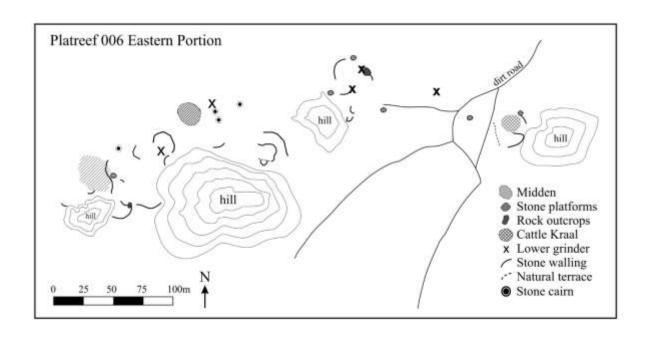
By the end of the monitoring period, no significant cultural or human remains relating to Later Iron Age had been uncovered. The monitoring was however successful in that an additional midden, a few ephemeral retaining stone walls, stone cairn/platforms and lower grinding stones were exposed that was previously hidden by the dense *Dichrostachys cinerea* (Sickle bush).

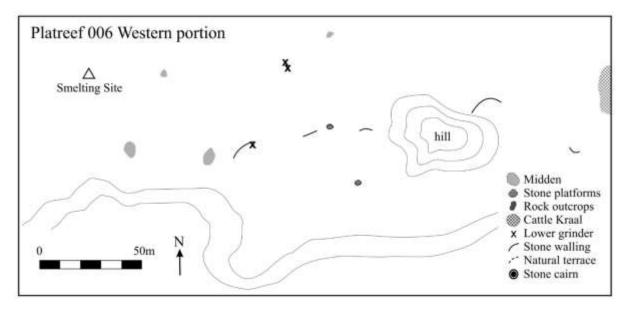
The additional midden measures approximately 2 x 3 metres and is similar to the other excavated middens with a depth of less than 500 millimetres. Material originating from this midden was screened and inspected for cultural material and human remains. A few ephemeral stone walls in the form of scallops and a retaining wall at the midden were also recorded that was previously not visible due to the dense Bush. In addition, several stone cairns/platforms were also noted, it is assumed that these form part of the archaeological site but due to sensitivities regarding graves in the project area these were left *in-situ*. These stone cairns/platforms are oval or elongated in shape measuring approximately 1 x 2 metres. All of these features were recorded and mapped on the updated site layout plans (Figure 6-1 to 6-3).

These finds were by no means significant enough to warrant the cessation of construction works or further mitigation but is valuable in that it expands on the current layout and activity areas recorded during the Phase 2 mitigation of the site. It seems that the Phase 2 mitigation project conducted in 2017 (van der Walt 2017) adequately recorded the site layout and a representative material culture sample and although additional information was obtained it did not change the current interpretation of the site.









8. Discussion and Recommendations

This document reports on the Archaeological Monitoring for the destruction of the LIA site PLA1677/S.35-006 in anticipation of the establishment of the Platreef Mine TSF. Destruction of the site was monitored on the 30th June 2020 during which no significant cultural or human remains were uncovered. The destruction was conducted under SAHRA permit ID 3109. This document reports on the results of the archaeological monitoring conducted on the 30th June 2020. The monitoring was aimed at having an archaeologist present during ground disturbing activities at the site that may expose potential buried surfaces, anthropogenic sediments, and archaeological features such as cattle kraals, or artefact-bearing strata as well as any buried archaeological materials (e.g., ceramics).

By the end of the monitoring period, no significant cultural or human remains relating to Later Iron Age had been uncovered. The monitoring was however successful in that an additional midden, a few ephemeral retaining stone walls, stone cairn/platforms and lower grinding stones were exposed that was previously hidden by the dense *Dichrostachys cinerea* (Sickle bush).



The stone cairns/platforms are assumed to form part of the archaeological site but due to sensitivities regarding graves in the project area these were left *in-situ*. All of the additional features were recorded and mapped on the updated site layout plans (Figure 6-1 to 6-3).

These finds were by no means significant enough to warrant the cessation of construction works or further mitigation but is valuable in that it expands on the current layout and activity areas recorded during the Phase 2 mitigation of the site. It seems that the Phase 2 mitigation project conducted in 2017 (van der Walt 2017) adequately recorded the site layout and a representative material culture sample and although additional information was obtained it did not change the current interpretation of the site.

We are of the opinion that there are no more significant archaeological features at the site that could contribute to the current interpretation and no further pre-construction archaeological mitigation is recommended. It must be noted that there is always a possibility that some archaeological or human remains may be uncovered during the construction process and under such circumstances, construction activities must be halted with immediate effect and a professional archaeologist must be contacted.

Other archaeological features were noted in the wider area but did not fall under ambit of the permit or the scope of work. These are in all likelihood contemporaneous Iron Age sites and it is recommended that these features must be investigated prior to establishment of the TSF and that the grave relocation programme implemented by the mine must be concluded in this area prior to development.



9. References

Higgit, N. Karodia, S, Nel J & Du Piesanie, J. 2013. Heritage Statement for The Platreef Platinum Project on The Farms Turfspruit 241 KR, Macalacaskop 243 Kr And Rietfontein 2 KS in Mokopane, Limpopo Province.

Huffman, T.N. 1980. Ceramics, Classification and Iron Age entities. African Studies 39(2): 123 174. Huffman, T.N. & Steele, R.H. 1996. Salvage excavations at Planknek, Potgietersrus, Northern Province. Southern African Field Archaeology 5:5-56.

Loubser, J.H.N. 1994. Ndebele Archaeology of the Pietersburg Area. Navorsinge van die Nasionale Museum Bloemfontein 10(2):61-147.

Van der Walt, J. 2017. Archaeological Mitigation Report for the Iron Age/Historical Site (PLA1677/S.35-027) and Iron Age Smelting Site (PLA1677/S. 35-006) near Mokopane, Limpopo Province.

Walton, J. 1958. Sotho cattle-kraals. The South African Archaeological Bulletin 13: 133-143.



DESTRUCTION PERMIT APPLICATION FOR SITE PLA1677/S, 35-006, MOKOPANE, LIMPOPO

Our Ref: 12182



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Enquiries: Philip Hine Tel: 021 482 4502 Email: phine@eahra.org.za

CaseID: 12192

Page No: 1

Date: Monday April 20, 2020

PermitiD: 3109

PERMIT: Destruction

In terms of Section 35(4) of the National Heritage Resources Act (Act 25 of 1999)

Permit Holder: Mr Jaco van der Walt

Heritage Contracts and Archaeological Consulting

PO Box 524 Auckland Park 2006

Site: Platreef Platinum s.35-006 (PLA1677/S.35-006)

This permit extension is issued to Mr Jaco van der Walt for monitoring the destruction of Site PLA1677/S.35-006 as a result of the Platreef Mining, Mokopane, Limpopo Province.

Conditions:

- This permit allows only the destruction of the Site PLA1677/S. 35-006, as a result of mining activities for the Platreef Mine, Mokopane, Limpopo Province.
- 2. The destruction of the site must be monitored by an archaeologist along with all earth moving activities.
- 3. SAHRA requires that the professional archaeologist monitoring the destruction of the site be an Iron Age expert familiar with the site. The name and qualification of the archaeologist in question should be submitted to SAHRA for approval.
- A report from the destruction activities must be submitted to SAHRA by the archaeologist monitoring the activities by no later than 31 May 2021. The cermit report must be submitted via email to apmpermitreports@sahra.org.za
- SAHRA shall not be liable for any losses, damages or injuries to persons or properties as a result of any activities in connection with this permit.
- 7. SAHRA reserves the right to cancel this permit by notice to the permit holder.

This permit is valid from 01/05/2020 to 31/05/2021



Appendix B - Attendance Register

