

PERMIT APPLICATION: SISHEN WESTERN WASTE DUMPS: SISHEN IRON ORE MINE, K GALAGADI DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE

*Please refer to: Kruger, N. January 2012. *Archaeological Impact Assessment (AIA) of Demarcated Surface Areas on the Farms Gamagara 541, Onverwacht 540 (Fritz 540 Portion 1) and Nooitgedacht 469 (Woon 469), Sishen Iron Ore Mine, Kgalagadi District Municipality, Northern Cape Province*

Nature and description of sites:

The Sishen Iron Ore Company is planning the establishment of additional waste rock dumps for their Sishen mine on surface portions of the farms Gamagara 541, Onverwacht 540 (Fritz 540 Portion 1) and Nooitgedacht 469 (Woon 469) in the Northern Cape Province. An Archaeological Impact Assessment (AIA) study* on these properties identified 4 areas of archaeological potential. A few Middle Stone Age (MSA) artefacts, generally made from fine grained specularite and jaspilite, were recorded at three locations around small water pans in the area. These lithics include only rough core and flake artefacts with smoothed surfaces, and no formal stone tools were observed.

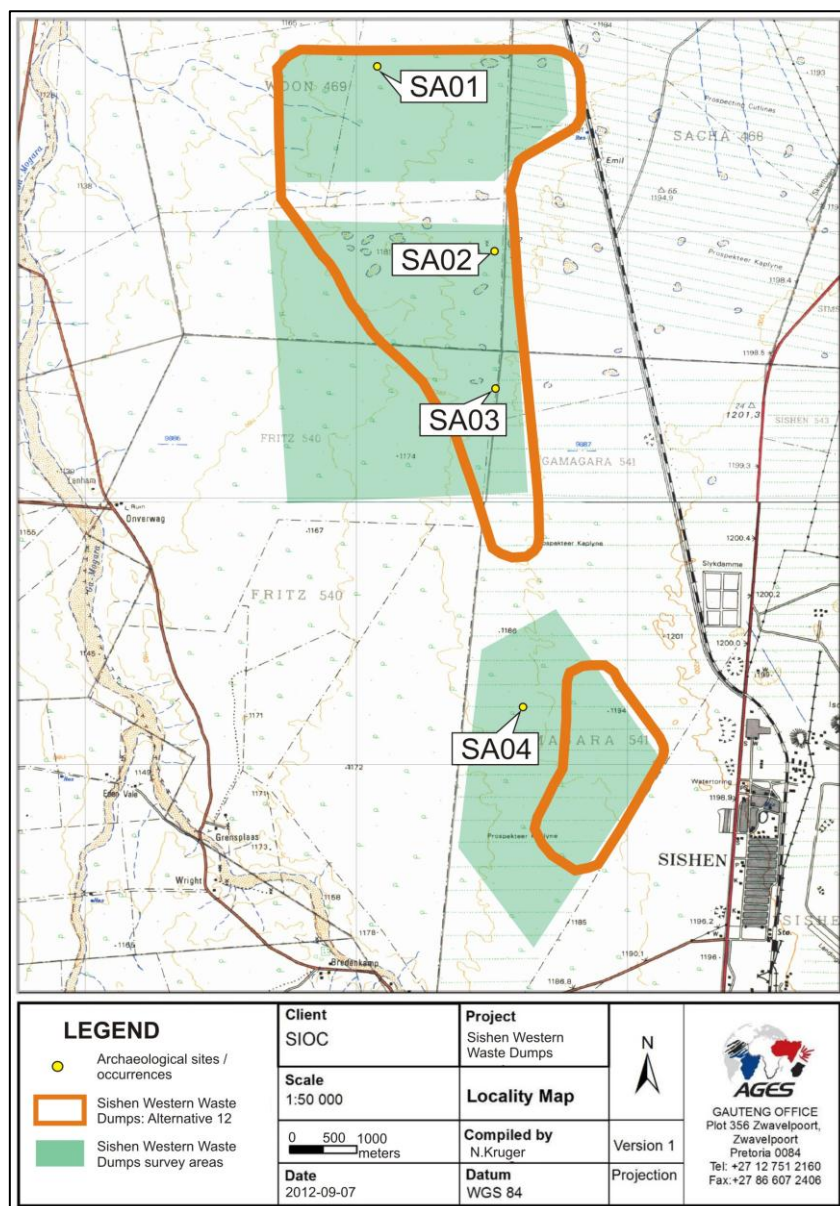


Figure 1: Map indicating the location of sites of interest discussed in the text.

However, larger amounts of Earlier and Middle Stone Age artefacts including handaxes, cores and flakes were noted in one area near a manmade dam and borehole (Site SA02). Previous research by the McGregor Museum in Kimberly, attributed related occurrences in the area to the Earlier Stone Age, specifically the Fauresmith – Acheulean timespan at about 600 000 years ago, and the Middle Stone Age. It was recommended that the Earlier and Middle Stone Age scatters documented at the manmade dam at Site SA02 be mitigated by means of a limited Phase 2 Specialist Study, comprising the systematic documentation of surface material by a qualified Stone Age specialist in view of the significance of these scatters. Dr Maria Van Der Ryst, a Stone Age archaeologist from the Department of Anthropology and Archaeology at UNISA was selected for this study.

Terms of reference for the Specialist Study, as set out by Dr Van Der Ryst include:

- The assessment will entail a Phase 2 archaeological investigation by an archaeology team consisting of Dr Maria van der Ryst as Principal Investigator (PI) and Siegwalt Kusel as Field Assistant.
- The Specialist will undertake a controlled statistical sampling of some of the major lithic Middle Stone Age (MSA) scatters on the farm Woon 469, Northern Cape that will be impacted by the proposed development.
- Arbitrary criteria based on informed approach will be used in the selection of the locations for sampling of lithics.
- The selected sample will be analysed according to standard archaeological procedures. The laboratory analyses entail the technological and typological analyses of all lithics, including debitage, recovered through the sampling.
- The data derived from the analyses will be applied to assess the collection and to construct a broad chronology of the local Woon 469 sequence based on descriptive and analytical criteria.
- A desktop study of relevant documentary sources on the Southern African MSA will be undertaken to establish possible chronological successions and to place the Woon 469 MSA occurrences within the regional and broader southern African MSA contexts.
- The sensitivity and conservation significance of the archaeological signatures at Woon 469 and the potential impacts affected by the proposed development will be assessed and mitigation measures, if deemed necessary, will be recommended.
- All data relevant to the Phase 2 assessment will be included in a full report, which will comply with heritage legislation, to the client.
- A copy of this report will be lodged with the South African Heritage Resources Agency (SAHRA).
- An application for a destruction permit will be directed to SAHRA.
- Recovered artefacts will be inventoried and curated according to conventional guidelines, which include storage at the University of South Africa in storage facilities provided by the Museum for Anthropology & Archaeology.