ARCHAEOLOGICAL SCOPING REPORT

FOR THE METALS INDUSTRIAL CLUSTER NEAR KURUMAN, NORTHERN CAPE PROVINCE

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EXECUTIVE SUMMARY

Site name and location: The project is referred to as the Metals Industrial Cluster. The cluster is planned on ERF 6253 (Portion of ERF 1), ~2km south east from the town of Kuruman. The proposed site falls within the Ga-Segonyana Local Municipality and the greater John Taolo Gaetsewe District Municipality.

1: 50 000 Topographic Map: 2723 AD.

EIA Consultant: Savannah Environmental (Pty) Ltd.

Developer: Northern Cape Department of Economic Development and Tourism.

Heritage Consultant: Heritage Contracts and Archaeological Consulting CC (HCAC).
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Date of Report: 8 January 2016.

Findings of the Assessment:

The brief background study indicates that the Northern Cape has a wealth of heritage sites (Beaumont & Morris 1990; Morris & Beaumont 2004). Archaeological sites include the world renowned Wonderwerk Cave 42 km south of Kuruman, the major Tswana town and the LIA stone-walled settlements at Dithakong 40 km north of Kuruman. However studies adjacent to the area under investigation (Tobias & George 2012) and another AIA for a quarry to the east of the study area by van der Walt (2012) recorded no archaeological sites, similarly very few archaeological sites area expected in the study area. However if any pans or drainage lines occur in the study area Stone Age artefact scatters might be expected. Every site is relevant to the Heritage Landscape, but it is anticipated that few sites in the study area could have conservation value.

The following conclusions are applicable to the following sites:

» Archaeological sites
All sites could be mitigated either in the form of conservation of the sites within the development or by a Phase 2 study where the sites will be recorded and sampled before the client can apply for a destruction permit for these sites prior to development.

» Historical finds and Cultural landscape
It is not anticipated that the built environment will be severely impacted upon as no structures occur within the study area older than 60 years (based on Google Earth). This assumption will have to be verified in the field.

» Burials and cemeteries
Formal and informal cemeteries as well as pre-colonial graves occur widely across Southern Africa. It is generally recommended that these sites are preserved with in a development. These sites can however be relocated if conservation is not possible, but this option must be seen as a last resort and is not advisable. The presence of any grave sites must be confirmed during the field survey and the public consultation process.

» General
It is recommended that as part of the public consultation process the presence of graves, archaeological and historical sites should be determined.

From an archaeological viewpoint the proposed project is considered to be viable and no fatal flaws are expected.

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ABBREVIATIONS

AIA: Archaeological Impact Assessment
ASAPA: Association of South African Professional Archaeologists
BIA: Basic Impact Assessment
CRM: Cultural Resource Management
ECO: Environmental Control Officer
EIA: Environmental Impact Assessment*
EIA: Early Iron Age*
EIA Practitioner: Environmental Impact Assessment Practitioner
EMP: Environmental Management Plan
ESA: Early Stone Age
GPS: Global Positioning System
HIA: Heritage Impact Assessment
LIA: Late Iron Age
LSA: Late Stone Age
MEC: Member of the Executive Council
MIA: Middle Iron Age
MPRDA: Mineral and Petroleum Resources Development Act
MSA: Middle Stone Age
NEMA: National Environmental Management Act
PRHA: Provincial Heritage Resource Agency
SADC: Southern African Development Community
SAHRA: South African Heritage Resources Agency

**Although EIA refers to both Environmental Impact Assessment and the Early Iron Age both are internationally accepted abbreviations and must be read and interpreted in the context it is used.*

GLOSSARY

Archaeological site (remains of human activity over 100 years old)

Early Stone Age (2 million to 300 000 years ago)

Middle Stone Age (300 000 to 30 000 years ago)

Late Stone Age (30 000 years ago until recent)

Historic (approximately AD 1840 to 1950)

Historic building (over 60 years old)

Lithics: Stone Age artefacts

1. INTRODUCTION

Heritage Contracts and Archaeological Consulting CC was contracted by Savannah Environmental (Pty) Ltd to conduct a Heritage Scoping Study for the proposed Metals Industrial Cluster. The cluster is planned on ERF 6253 (Portion of ERF 1), ~2km south east from the town of Kuruman (Figure 1). The proposed site falls within the Ga-Segonyana Local Municipality and the greater John Taolo Gaetsewe District Municipality. The heritage scoping report forms part of the EIA for the proposed project.

The aim of the scoping report is to conduct a desktop study to identify possible heritage resources within the project area and to assess their importance within a Local, Provincial and National context. The study furthermore aims to assess the impact of the proposed project on non - renewable heritage resources and to submit appropriate recommendations with regards to the responsible cultural resources management measures that might be required to assist the developer in managing the discovered heritage resources in a responsible manner, in order to protect, preserve and develop them within the framework provided by Heritage legislation.

This report outlines the approach and methodology utilised for the Scoping phase of the project. The report includes information collected from various sources. Possible impacts are identified and mitigation measures are proposed in the following report. It is important to note that no field work was conducted as part of the scoping phase but will be conducted as part of the Impact Assessment phase of the EIA process.

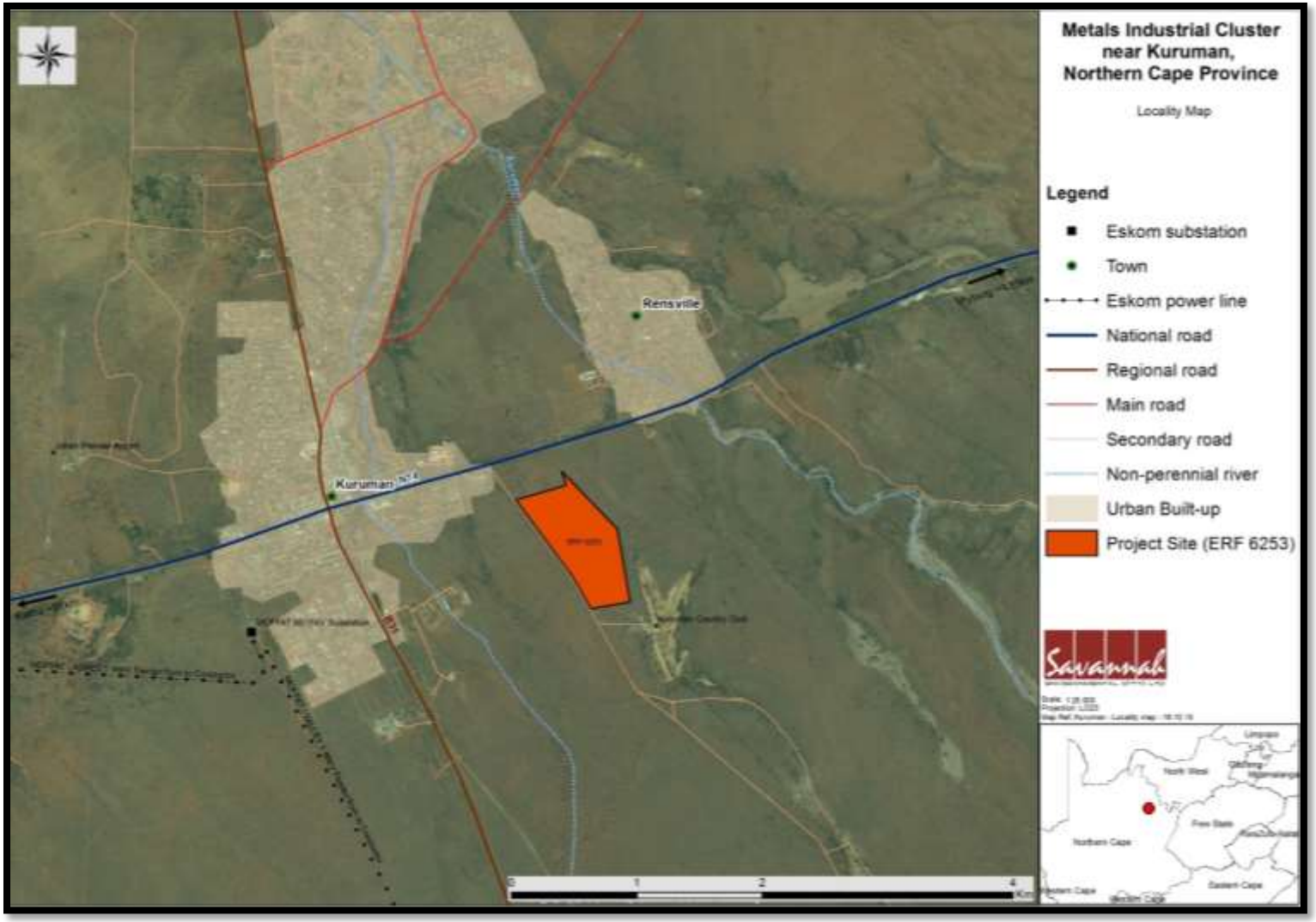

Figure 1. Locality map of the site proposed for the development of the Metals Industrial Cluster provided by Savannah Environmental.

1.1 Terms of Reference

The main aim of this scoping report is to determine if any known heritage resources occur within the study area and to predict the occurrence of any possible heritage significant sites that might present a fatal flaw to the proposed project. The objectives of the scoping report were to:

- Conduct a desktop study:
  - Review available literature, previous heritage studies and other relevant information sources to obtain a thorough understanding of the archaeological and cultural heritage conditions of the area;
  - Gather data and compile a background history of the area;
  - Identify known and recorded archaeological and cultural sites; and
  - Determine whether the area is renowned for any cultural and heritage resources, such as Stone Age sites, Iron Age sites, informal graveyards or historical homesteads.

- Compile a specialist Heritage Scoping Report in line with the requirements of the EIA Regulations, 2014 (Appendix 6).

The reporting of the scoping component is based on the results and findings of the desk-top study, wherein potential issues associated with the proposed project will be identified, and those issues requiring further investigation through the IA Phase highlighted. Reporting will aim to identify the anticipated impacts, as well as cumulative impacts, of the operational units of the proposed project activity on the identified heritage resources for all 3 development stages of the project, i.e. construction, operation and decommissioning. Reporting will also consider alternatives should any significant sites be impacted on by the proposed project. This is done to assist the developer in managing the discovered heritage resources in a responsible manner, in order to protect, preserve and develop them within the framework provided by Heritage Legislation.

1.2 Nature of the development

The development comprises the construction of a Metals Industrial Cluster. Steel manufacturing will be the main focus while it allows for other metals related industries to locate in the cluster. The proposed cluster will start as a developmental initiative, driven strongly by a Cluster Management Company (CMC). The proposed development will extend over 20 years and will transition into 4 phases.

1.3 The receiving environment

The proposed development is located on ERF 6253 (Portion of ERF 1), ~2km south east from the town of Kuruman. The site is directly accessible from a surfaced unnamed secondary road that forms the western boundary of the study area (Figure 1) and the N14 is located to the north of the site. The study area is flat and without any topographical features or ridges. The vegetation is predominantly Kuruman Thornveld in the Savannah biome (Mucina & Rutherford 2006). Historical imagery on Google earth indicates that the land has been fallow for a number of years. The site is located at 27° 27' 53.5329" S, 23° 27' 13.9415" E.

2. APPROACH AND METHODOLOGY

The assessment is to be undertaken in two phases, a desktop study as part of the Scoping phase and an Archaeological Impact Assessment as part of the Environmental Impact Assessment phase. This report concerns the scoping phase. The aim of the scoping phase is to cover available data regarding archaeological and cultural heritage to compile a background history of the study area in order to identify possible heritage issues or fatal flaws that could possibly be associated with the project and should be avoided during development.

This was accomplished by means of the following phases (the results are represented in section 8 of this report):

2.1 Literature review

A review was conducted utilising data for information gathering from published articles on the archaeology and history of the area. The aim of this is to extract data and information on the area in question, looking at archaeological sites, historical sites and graves of the area.

2.2 Information collection

The SAHRA report mapping project (Version 1.0) and SAHRIS was consulted to further collect data from CRM practitioners who undertook work in the area to provide the most comprehensive account of the history of the area where possible.

2.3 Public consultation

No public consultation was conducted during this phase.

2.4 Google Earth and mapping survey

Google Earth and 1:50 000 maps of the area were utilised to identify possible places where archaeological sites might be located.

2.5 Genealogical Society of South Africa

The database of the genealogical society was consulted to collect data on any known graves in the area.

2.6. Restrictions

This study did not assess the impact on intangible resources or the palaeontological component of the project.

3. LEGISLATION

For this project the National Heritage Resources Act, 1999 (Act No. 25 of 1999) is of importance and the following sites and features are protected:

a. Archaeological artefacts, structures and sites older than 100 years
b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
c. Objects of decorative and visual arts
d. Military objects, structures and sites older than 75 years
e. Historical objects, structures and sites older than 60 years
f. Proclaimed heritage sites
g. Grave yards and graves older than 60 years
h. Meteorites and fossils
i. Objects, structures and sites or scientific or technological value.

The national estate includes the following:

a. Places, buildings, structures and equipment of cultural significance
b. Places to which oral traditions are attached or which are associated with living heritage
c. Historical settlements and townscapes
d. Landscapes and features of cultural significance
e. Geological sites of scientific or cultural importance
f. Archaeological and palaeontological importance
g. Graves and burial grounds
h. Sites of significance relating to the history of slavery
i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

Section 34 (1) of the Act deals with structures which is older than 60 years. Section 35(4) of this Act deals with archaeology, palaeontology and meteorites. Section 36(3) of the Act, deals with human remains older than 60 years. Unidentified/unknown graves are also handled as older than 60 years until proven otherwise.

3.1 Heritage Site Significance and Mitigation Measures

The presence and distribution of heritage resources define a Heritage Landscape. In this landscape, every site is relevant. In addition, because heritage resources are non-renewable, heritage surveys need to investigate an entire project area. In all initial investigations, however, the specialists are responsible only for the identification of resources visible on the surface.

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. National and Provincial Monuments are recognised for conservation purposes. The following interrelated criteria were used to establish site significance:

- The unique nature of a site;
- The integrity of the archaeological/cultural heritage deposit;
- The wider historic, archaeological and geographic context of the site;
- The location of the site in relation to other similar sites or features;
- The depth of the archaeological deposit (when it can be determined or is known);
- The preservation condition of the site;
- Potential to answer present research questions.

The criteria above will be used to place identified sites with in SAHRA's (2006) system of grading of places and objects which form part of the national estate. This system is approved by ASAPA for the SADC region. The recommendations for each site should be read in conjunction with section 11 of this report.

FIELD RATING	***GRADE***	***SIGNIFICANCE***	***RECOMMENDED MITIGATION***
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)

Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

4. REGIONAL OVERVIEW

4.1 General Information

4.1.1. Literature search

Three previous heritage studies were conducted close to the study area by D Morris (2010) and A Pelser (2012 a ,b). Both authors conducted their studies to the south west of the study area in Kuruman. Both these studies recorded very sparse MSA artefacts scattered over the landscape. Approximately 12 km to the west of the study area a study by van der Walt (2012) recorded no sites of significance similar to a study (Tobias & George 2012) conducted adjacent to the current study area on Erf 5529 (located to the north).

4.1 2. Public consultation

No public consultation was conducted by the heritage consultant during the scoping phase.

4.1.3. Google Earth and mapping survey

Google Earth and 1:50 000 maps of the area was utilised to identify possible places where archaeological sites might be located.

4.1.4. Genealogical Society of South Africa

No grave sites are indicated within the study area.

5. ARCHAEOLOGICAL AND HISTORICAL INFORMATION AVAILABLE ON THE STUDY AREA

Southern African archaeology is broadly divided into the Early, Middle and Later Stone Ages; Early, Middle and Later Iron Ages; and Historical or Colonial Periods. Relevant to the study area is the Stone Age.

South Africa has a long and complex Stone Age sequence of more than 2 million years. The broad sequence includes the Later Stone Age, the Middle Stone Age and the Earlier Stone Age. Each of these phases contains sub-phases or industrial complexes, and within these we can expect regional variation regarding characteristics and time ranges. For Cultural Resources Management (CRM) purposes it is often only expected/possible to identify the presence of the three main phases.

Yet sometimes the recognition of cultural groups, affinities or trends in technology and/or subsistence practices, as represented by the sub-phases or industrial complexes, is achievable (Lombard 2011). The three main phases can be divided as follows;

- Later Stone Age; associated with Khoi and San societies and their immediate predecessors. Recently to ~30 thousand years ago.
- Middle Stone Age; associated with Homo sapiens and archaic modern humans. 30-300 thousand years ago.
- Earlier Stone Age; associated with early Homo groups such as Homo habilis and Homo erectus. 400 000-> 2 million years ago.

The Northern Cape has a wealth of heritage sites (Beaumont & Morris 1990; Morris & Beaumont 2004). Archaeological sites include the world renowned Wonderwerk Cave and the major Tswana town and the LIA stone-walled settlements at Dithakong 40 km north of Kuruman (De Jong 2010). Other important sites in the larger area include Tsantsabane, an ancient specularite working site on the eastern side of Postmasburg and Doornfontein, another specularite working site north of Beeshoek.

Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone Age (LSA) Khoisan groups, the so-called 'first people'. Most of them were eventually assimilated by LIA communities and only a few managed to survive, such as the Korana and Griqua. This period of contact is referred to as the Ceramic Late Stone Age (De Jong 2010) and is represented by the Blinkklipkop specularite mine near Postmasburg and a cluster of important finds at Kathu Pan. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylyfeld, Demaneng,

Mashwening, King, Rust & Vrede, Paling, Gloucester and Mount Huxley to the north. Rock engraving sites are known from Beeshoek and Bruce (Morris 2005: 3).

More locally, the two shelters on the northern and southern faces of GaMohaan (in the Kuruman Hills north west of the town) contain Later Stone Age remains and rock paintings.

Studies done by Kusel (2009) and by Pelser & Van Vollenhoven (2011) at Black Rock and Gloria Mines near Hotazel, also revealed a number of Early to Later Stone Age artefacts and sites in the area.

The difaqane coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first was PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were followed by Cowan, Donovan, Burchell and Campbell and resulted in the establishment of a London Mission Society station near Kuruman in 1817 by James Read. Robert Moffat and his wife Mary came to Kuruman in 1820 and the mission has been known as The Moffat Mission Station ever since.

The 'Eye' and the water course springing from it have been a focus of utilisation and settlement and it was in its immediate vicinity that Kuruman, as town, evolved from the late nineteenth century. Kuruman's name is thought to be derived from the name of an 18th century San leader Kudumane. A fair amount of information on the general history of Kuruman and the Moffat Mission Station is available.

6. PROBABILITY OF OCCURRENCE OF HERITAGE SITES

A Phase 1 AIA, Tobias & George (2012), was conducted adjacent to the current study area (north on Erf 5529) another AIA for a quarry to the east of the study area by van der Walt (2012). During these studies no heritage sites were recorded. Based on the above information, it is possible to determine the probability of finding archaeological and cultural heritage sites within the study area to a certain degree and an area of possible heritage sensitivity is mapped (Figure 2). For the purposes of this section of the report the following terms are used – low, medium and high probability.

Low indicates that no known occurrences of sites have been found previously in the general study area.

Medium probability indicates some known occurrences in the general study area are documented and can therefore be expected in the study area.

High probability indicates that occurrences have been documented close to or in the study area and that the environment of the study area has a high degree of probability to contain heritage sites.

» Archaeological And Cultural Heritage Landscape

NOTE: *Archaeology is the study of human material and remains (by definition) and is not restricted in any formal way as being below the ground surface*.

*Archaeologica*l remains dating to the following periods can be expected within the study area:

» Stone Age finds

ESA: *Low Probability*
MSA*: Low -Medium Probability*
LSA: Low Probability
LSA –Herder: Low Probability

» Iron Age finds

EIA: *Not applicable*
MIA*: Not applicable*
LIA: Low probability

» Historical finds

Historical period: *-Low Probability*
Historical dumps: *Low Probability*
Structural remains: *Low Probability*
Cultural Landscape*: Low probability*

» Living Heritage

For example rainmaking sites: *Low Probability*

» Burial/Cemeteries

Burials over 100 years: *Low Probability*
Burials younger than 60 years*: Low -Medium Probability*

Subsurface excavations including ground levelling, landscaping, and foundation preparation can expose any number of the above.

7. ASSUMPTIONS AND LIMITATIONS

The study area was not subjected to a field survey as this will be done in the EIA phase. It is assumed that information obtained for the wider area is applicable to the study area.

8. FINDINGS

In terms of the current area of investigation an area of interest was noted on Google Earth images of the study area (Figure 2). Structures occur at 27°28'3.97"S and 23°27'15.84"E. From areal images it is deducted that the structures were erected after 2006 and before 2010. Another area of interest that could possibly be a pan (but will have to be verified in the EIA phase) occurs at 27°27'49.74"S and 23°27'6.50"E. Areas like these might contain Stone Age material.

Based on the results of the heritage scoping study the following heritage sites, features and objects can be expected within the study area.

8.1. Archaeology

8.1.1 Archaeological finds

The brief background study indicates that the Northern Cape has a wealth of heritage sites (Beaumont & Morris 1990; Morris & Beaumont 2004). Archaeological sites include the world renowned Wonderwerk Cave 42 km south of Kuruman and the major Tswana town and the LIA stone-walled settlements at Dithakong 40 km north of Kuruman. Studies adjacent to the area under investigation (Tobias & George 2012) and another AIA for a quarry to the east of the study area by van der Walt (2012) recorded no archaeological sites, similarly very few archaeological sites area expected in the study area. However if any pans or drainage lines occur in the study area (to be confirmed in the EIA phase) Stone Age artefact scatters might be expected. Concentrations of stone tools point to activities that took place at various stages over the past 1.5 million years, representing the different groups of people who inhabited or moved across the landscape over time.

8.1.2 Nature of Impact

The construction phase of the project could directly impact on surface and subsurface archaeological sites.

8.1.3 Extent of impact

The project could have a low impact on a local scale.

8.2. Historical period

8.2.1 Historical finds

Historical finds include middens, structural remains and cultural landscapes. The study area has been fallow for a number of years with no agricultural activities occurring on the farm. It is assumed that the farm was utilised for grazing in the past and features dating to this period associated with grazing can occur but is doubtful to be older than 60 years.

8.2.2 Nature of Impact

The construction of the project can directly impact on both the visual context and sense of place of historical sites.

8.2.3 Extent of impact

The construction phase of the project could have a low impact on a local scale.

8.3. Burials and Cemeteries

8.3.1 Burials and Cemeteries

Graves and informal cemeteries can be expected anywhere on the landscape. Graves are often associated with structures like the structure indicated in figure 2 but this will have to be ground truthed during the EIA phase.

8.3.2 Nature of Impact

The construction and operation of the proposed project could directly impact on marked and unmarked graves.

8.3.3 Extent of impact

The project could have a low to medium impact on a local scale.

Impact on Heritage resources

The construction of the proposed project could directly impact on graves, archaeological sites and historical sites.

Issue	Nature of Impact	Extent of Impact	No-Go Areas
Disturbance and destruction of archaeological sites and graves.	Construction activities could cause irreversible damage or destroy heritage resources	Low to Medium on a local scale.	TBC after field work in the EIA phase.

Description of expected significance of the impact

Significance of sites, mitigation and significance of possible impacts can only be determined after the field work has been conducted in the EIA phase, but based on previous work in the area Middle Stone Age artefact scatters of low significance and grave sites are considered the most likely heritage features to be identified. It is possible to mitigate impacts to sites by micro adjustments to the site layouts in order to preserve any identified sites. Alternatively, grave sites can be relocated and stone age sites can be test excavated and mapped if warranted. All these mitigation measures will require adherence to the NHRA and the required permits from the SAHRA.

Gaps in knowledge & recommendations for further study

The study area has not been subjected to a cultural resource survey and it is assumed that information obtained for the wider region is applicable to the study area. To address these gaps it is recommended that a field study should be conducted within the EIA phase to confirm the presence of heritage resources after which mitigation will be recommended.

The following impacts can be expected to heritage resources in the area:

- Direct impacts to heritage resources including damage and destruction of sites;
- Indirect impacts including impacts on the cultural landscape and sense of place of the area;
- Cumulative impacts including the permanent destruction of heritage resources throughout the wider region due to various mining and associated developments in the area; and
- Residual risks for the proposed project include depletion of the archaeological record of the wider Kuruman region.

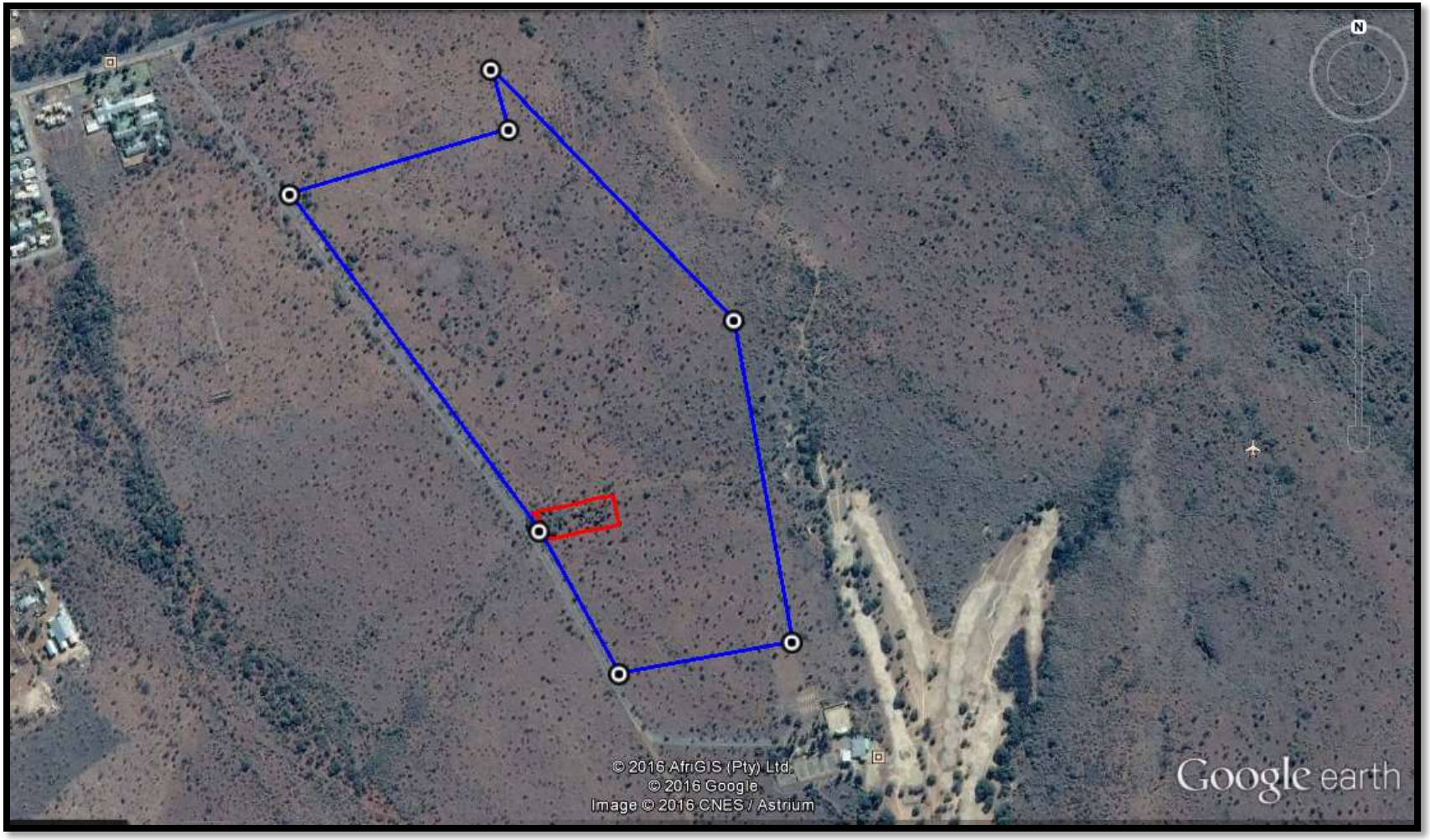

Figure 2. Area of possible heritage interest within the site proposed for the development of the Metals Industrial Cluster. The area marked in red indicates the presence of structures.

9. POTENTIAL SIGNIFICANCE OF HERITAGE RESOURCES

Based on the current information obtained for the area at a desktop level it is anticipated that any sites that occur within the proposed development area will have a Generally Protected B (GP.B) or lower field rating apart from graves and rock art that could have a Generally Protected A (GP.A) field rating and all sites should be mitigatable with no red flags or fatal flaws identified.

10. CONCLUSIONS AND RECOMMENDATIONS

The brief background study indicates that the Northern Cape has a wealth of heritage sites (Beaumont & Morris 1990; Morris & Beaumont 2004). Archaeological sites include the world renowned Wonderwerk Cave 42 km south of Kuruman and the major Tswana town and the LIA stone-walled settlements at Dithakong 40 km north of Kuruman. However studies adjacent to the area under investigation (Tobias & George 2012) and another AIA for a quarry to the east of the study area by van der Walt (2012) recorded no archaeological sites, similarly very few archaeological sites area expected in the study area. However if any pans or drainage lines occur in the study area Stone Age artefact scatters might be expected. The presence of pans and drainage lines (that could be focal points for communities in antiquity) within the study area will be confirmed and ground-truthed in the EIA phase. Every site is relevant to the Heritage Landscape, but it is anticipated that few sites in the study area could have conservation value.

The following conclusions are applicable to the following sites:

» Archaeological sites
All sites could be mitigated either in the form of conservation of the sites within the development or by a Phase 2 study where the sites will be recorded and sampled before the client can apply for a destruction permit for these sites prior to development.

» Historical finds and Cultural landscape
It is not anticipated that the built environment will be severely impacted upon as no structures occur within the study area older than 60 years (based on Google Earth). This assumption will have to be verified in the field.

» Burials and cemeteries
Formal and informal cemeteries as well as pre-colonial graves occur widely across Southern Africa. It is generally recommended that these sites are preserved within a

development. These sites can how ever be relocated if conservation is not possible, but this option must be seen as a last resort and is not advisable. The presence of any grave sites must be confirmed during the field survey and the public consultation process.

» General
It is recommended that as part of the public consultation process the presence of graves, archaeological and historical sites should be determined.

From an archaeological viewpoint the proposed project is considered to be viable.

11. PLAN OF STUDY

The development triggers the NHRA in the following areas and therefore a Phase 1 AIA is recommended:

Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300 m in length.	Yes	Internal access roads.
Construction of a bridge or similar structure exceeding 50 m in length.	No	
Development exceeding 5000 m²	Yes	Footprint of impact area exceeds 5000m².
Development involving more than 3 erven or sub divisions	No	
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	
Re-zoning of site exceeding 10 000 m²	Yes	Unknown
Any other development category, public open space, squares, parks or recreational grounds	No	

With cognisance of the recorded archaeological sites in the wider area and in order to comply with the National Heritage Resources Act (Act 25 of 1999) it is recommended that a Phase 1 Archaeological Impact Assessment must be undertaken. During this study sites of archaeological, historical or places of cultural interest must be located, identified, recorded, photographed and described. During this study the levels of significance of recorded heritage resources must be determined and mitigation proposed should any significant sites be impacted upon, ensuring that all the requirements of SAHRA are met.

11.1 Reasoned Opinion

If the above recommendations are adhered to and based on approval from SAHRA, HCAC is of the opinion that the development can continue as the impact of the development on heritage will not impact negatively on the archaeological record of the area. If during the pre-construction phase or during construction, any archaeological finds are made (e.g. graves, stone tools, and skeletal material), the operations must be stopped, and the archaeologist must be contacted for an assessment of the finds. Due to the subsurface nature of archaeological material and graves the possibility of the occurrence of unmarked or informal graves and subsurface finds cannot be excluded.

12. LIST OF PREPARERS

Jaco van der Walt (Archaeologist and project manager).

13. STATEMENT OF COMPETENCY

The author of the report is a member of the Association of Southern African Professional Archaeologists and is also accredited in the following fields of the Cultural Resource Management (CRM) Section, member number 159: Iron Age Archaeology, Colonial Period Archaeology, Stone Age Archaeology and Grave Relocation. Jaco is also an accredited CRM Archaeologist with SAHRA and AMAFA.

Jaco has been involved in research and contract work in South Africa, Botswana, Mozambique, Zimbabwe, Tanzania and the DRC and conducted well over 300 AIAs since he started his career in CRM in 2000. This involved several mining operations, Eskom transmission and distribution projects and infrastructure developments. The results of several of these projects were presented at international and local conferences.

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