

**DRAFT PHASE 1:  
HERITAGE &  
ARCHAEOLOGICAL  
IMPACT ASSESSMENT  
REPORT**

**NOTIFICATION OF APPLICATION FOR PROSPECTING RIGHT APPLICATION FOR  
DIAMONDS (ALLUVIAL AND GENERAL), ON WILDEBEEST KUIL 69, SITUATED WITHIN  
THE MAGISTERIAL DISTRICT OF KIMBERLEY, NORTHERN CAPE PROVINCE**

**(DMRE REFERENCE NUMBER: NC30/5/1/1/2/13279PR)**



**NOTIFICATION OF APPLICATION FOR PROSPECTING RIGHT APPLICATION FOR  
DIAMONDS (ALLUVIAL AND GENERAL), ON WILDEBEEST KUIL 69, SITUATED  
WITHIN THE MAGISTERIAL DISTRICT OF KIMBERLEY, NORTHERN CAPE  
PROVINCE**

**(DMRE REFERENCE NUMBER: NC30/5/1/1/2/13279PR)**

**PHASE I:  
ARCHAEOLOGICAL & HERITAGE IMPACT ASSESSMENT REPORT**

**DATE: 21 APRIL 2023**  
Document Version 01.24.01  
**FINAL DRAFT**

**COMPILED BY:  
REACH ARCHAEOLOGY CONSULTING**

REG: 2021/563702/07



**CONDUCTED ON BEHALF OF:  
WONDOKOZ TRADING (PTY)  
LTD**

REG NO: 2022/322942/07

---

Author: Ms M Moremoholo & L Rakao Reviewed by: AM Matabane

---



CONDUCTED ON BEHALF OF:  
WONDOKOZ TRADING (PTY) LTD  
REGISTRATION NUMBER: 2022/322942/07

COMPILED BY:  
REACH ARCHAEOLOGY CONSULTING (PTY) LTD  
REG: 2021/563702/07

REVIEWED BY:  
MS AM MATABANE

DATE: 21 APRIL 2023

DOCUMENT VERSION 01.24.01





## DISCLAIMER

Although *Reach Archaeology Consulting (Pty) Ltd* exercises due care and diligence in rendering services and preparing documents, *Reach Archaeology Consulting (Pty) Ltd* accepts no liability, and the client, by receiving this document, indemnifies Wondokoz Trading (Pty) Ltd and its directors, managers, agents and employees against all actions, claims, demands, losses, liabilities, costs, damages and expenses arising from or in connection with services rendered, directly or indirectly by *Reach Archaeology Consulting (Pty) Ltd* and by the use of the information contained in this document.

This document contains confidential and proprietary information equally shared between *Reach Archaeology Consulting (Pty) Ltd* and Wondokoz Trading (Pty) Ltd and is protected by copyright in favour of these companies and may not be reproduced, or used without the written consent of these companies, which has been obtained beforehand. This document is prepared exclusively for **Notification of Application For Prospecting Right Application For Diamonds (Alluvial And General), On Wildebeest Kuil 69, Situated Within The Magisterial District of Kimberley, Northern Cape Province, (DMRE Reference Number: Nc30/5/1/1/2/13279PR.** and is subject to all confidentiality, copyright and trade secrets, rules, intellectual property law and practices of South Africa.

*Reach Archaeology Consulting (Pty) Ltd* promotes the conservation of sensitive archaeological and heritage resources and therefore uncompromisingly adheres to relevant Heritage Legislation (National Heritage Resources Act no. 25 of 1999, Human Tissue Act 65 of 1983 as amended, Removal of Graves and Dead Bodies Ordinance no. 7 of 1925, Excavations Ordinance no. 12 of 1980).

To ensure best practices and ethics in the examination, conservation and mitigation of archaeological and heritage resources, *Reach Archaeology Consulting (Pty)* follows the Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment as set out by the South African Heritage Resources Agency (SAHRA) and the CRM section of the Association for South African Professional Archaeologists (ASAPA).



## COPYRIGHT

*Reach Archaeology Consulting (Pty) Ltd* exercises due diligence in rendering and preparing all our reports and documents. *Reach Archaeology Consulting (Pty) Ltd* accepts no liability; and the clients; by receiving this document; indemnify *Wondokoz Trading (Pty)Ltd* and its directors, managers, agents, and employees against all actions, claims, demands, losses, costs, damages to property and any expenses arising from or in connection with the consulting services rendered, directly or indirectly by *Reach Archaeology Consulting (Pty) Ltd* and by the use of the information contained herein.

No form, version, copy, or duplicate may be used without the written prior consent of their companies; in line with the Protection of Access to Information Act No 2 of 2000. This document contains private, confidential and propriety information equally shared between *Reach Archaeology Consulting (Pty) Ltd* and *Wondokoz Trading (Pty)Ltd* and is protected by copyright in favour of their companies and may not be disseminated, reproduced, or used in whole or in part without their prior written consent.

This report was compiled by *Reach Archaeology Consulting (Pty) Ltd* with due consideration of all process information and specific conditions as outlined by Wondokoz Trading (Pty) Ltd in their provided documents and site information, maps, and details. This Phase 1 Heritage impact investigation was undertaken for the express purpose of fulfilling the minimum requirements for compliance with the National Heritage Resources Act (NHRA) No 25 of 1999 as required by the national institution, the South African Heritage Resources Agency (SAHRA) Heritage Guidelines and, the NHRA Regulations in terms of section 38 of the Act.

Note that all location information, geographic co-ordinate information, site-specific geodata, and site-specific co-ordinate data and details presented in this report were obtained using a hand-held Garmin Global Positioning (Garmin Series Wearable) and/ an associated software, device. The manufacturer indicates the accuracy reading to be within +/-5m.

### *Disclaimer*

The document compiler and author are not responsible for any omissions and/or inconsistencies that may result from information not available at the time this report was prepared. All additional specialist reports are provided by independent contractors, *Reach Archaeology Consulting* is not liable for any misrepresentations or factual inaccuracies, or inconsistencies contents of other specialist studies within the compilation of this report.



## ETHICAL CONSIDERATIONS

*Reach Archaeology Consulting (Pty) Ltd*, promotes and advocates for the conservation, protection, and preservation of sensitive cultural heritage resources ethically and morally conscious. We support the adherence to all local legislation, ordinance, and policies as well as international best practice methodological approaches in the mitigation of cultural resources.

*Reach Archaeology Consulting (Pty) Ltd*, upholds the Minimum Standards regarding the compilation of Archaeological and Palaeontological components of Impact Assessments as set out by the South African Heritage Resources (SAHRA) and the Cultural Resources Management (CRM) division of the National Association for the South African Profession Archaeologists (ASAPA).

Expertise: Ms AM Matabane  
Specialist Expertise

Ms Annlin Mantshebi Matabane, MA. (Archaeology), BA Hons (Archaeology), BA (Archaeology and Physical Geography) (Univ. of Pretoria). ASAPA (Professional member) with more than eight years of experience in the compilation of archaeological and heritage impact assessments and cultural heritage resources management.

Ms Matabane is an accredited member of the Association for Southern African Professional Archaeologists (ASAPA Mem No 429) in good standing, with heritage compliance experience from Amafa a-KwaZulu Natali Provincial Heritage Resources Agency (AMAFA)/ Research Institute as well as the South African Heritage Resources Agency (SAHRA).

Ms Matabane has reviewed and conducted AIA/HIA's and fieldwork assessments, Sections 36, 35, and 38 permit specialist historical studies, heritage mitigation work archival and historical research, legislation policy reviews, and policy implementation.

Ms Matabane has completed projects varying from Phase 1 and Phase 2 cultural heritage impact assessments as well as heritage management government institutions, repatriation and memorialisation projects, and several private companies and grave relocations for several small- and large-scale farms and mines across South Africa.

Due to POPIA Act, separate specialist curriculum vitae (including qualifications and certificates) is only available upon written request\*



## SPECIALIST DECLARATION

---

The author of this report hereby formally declares:

- that I act in my capacity as an independent specialist
- all results and related data have been obtained through careful and precise execution of recognized methods of evaluation and are related to the scope of required investigations
- the opinions and interpretations are embraced through judgment, discernment, and comprehension to the best of my available knowledge and are outside the scope of any accreditation.
- it performed the work relating to this project objectively, notwithstanding the results, views, and findings.
- it has expertise in conducting the specialist report relevant to this project, including knowledge of the framework, protocol, legislation, regulations, and strategies,
- it has no, and will not engage in, conflicting interests in the undertaking of the activity,
- it undertakes to disclose to the client and authorities all material information it possesses that reasonably has or may have the potential of objectivity influencing any decision based on the results and findings of this project.
- all the particulars furnished by *Reach Archaeology Consulting (Pty) Ltd* in this report are 'true and correct, as far as possible, and any false declaration is a punishable offence.
- I have provided the competent authority with access to all information at my disposal whether such information is favourable to the applicant or not; and
- I am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543

Signed:

Date: 21 April 2023

Director: Reach Archaeology Consulting (Pty) Ltd

Director

Specialist Archaeologist: Principal Heritage Consultant

[ASAPA MEMBERSHIP No: 429]

Revision: 21 April 2023



Signed:

Date: 21 April 2023

Ms M Moremoholo

Archaeologist-Reach Archaeology Consulting (Pty) Ltd

Specialist Archaeologist: Heritage Consultant

[ASAPA MEMBERSHIP No: 588]



## NOTATIONS & TERMINOLOGY

- Archaeology- the study of past human cultures through human beings material culture remains.
- Archaeological record: includes all the material remains documented by archaeologists and includes the record of cultural history and everything written about the past by archaeologists
- Artefact- Entities whose characteristics result in or partially result from human activity. The shape and the other attributes of the artefact are not altered by the removal of the surroundings in which they are discovered. Examples of artefacts include potsherds, iron objects, lithics, beads, hut remains, shells etc.
- Assemblage- A group of artefacts recurring together at a particular time, space and place, and representing the sum of human activities.
- Absolute dating: method of aging that provides dates or date ranges expressed in years.
- Archaeological Material- artefacts resulting from human agents which are in a state of disuse and are in, or on land, which are older than 100 years, including artefacts, human and hominid remains, features, structures and sites.
- Ceramic facies: In terms of cultural representation of ceramics, a facies is denoted by a specific branch of a larger ceramic tradition. A number of ceramic facies thus constitute a ceramic tradition.
- Conservation- means all the processes of looking after a place so as to retain its cultural significance
- Cultural Heritage Resources- refers to physical, cultural properties such as archaeological and palaeontological sites, historic and prehistoric places, buildings, structures and materials, cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials, geological or natural features of cultural significance or scientific significance. Cultural Heritage Resources also include intangible resources such as religious practices, ritual ceremonies, oral histories, memories and indigenous knowledge, structures, places, natural feature aesthetics and scientific architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.
- Cultural Significance- means aesthetic, historical, scientific, social or spiritual value for past, present or future generations. Also encompasses the complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/ research and social values.
- Ceramic Traditions- the cultural representation of ceramics, a series of ceramic units constitutes a ceramic tradition.
- Culture- defined as the learned and shared commonalities that people have, do and think.
- Cultural landscape- refers to a distinctive geographic area with cultural significance.
- Cultural Resources Management- a system of measures for safeguarding the archaeological heritage of a given area, generally applied within the framework of legislation to safeguard the past.
- <sup>14</sup>C-/Radio Carbon Dating: method determined the absolute age of organic material by studying the





radioactivity of carbon. It is reliable for objects not older than 70 000 years by means of isotopic enrichment. The method becomes increasingly inaccurate for samples younger than +/-250 years.

- Cultural Heritage Resource: a generic term used to refer to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of palaeontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of culture practice, belief or social interaction.
- Excavation: The method of data acquisition in archaeology involving the systematic unearthing of remains through the removal of lithospheric deposits of soil, stone and rock materials covering and accompanying it.
- Feature: Non-portable artefacts/ unmovable artifacts, these cannot be moved from their surroundings without destroying or altering their original form. Hearths, roads, and storage pits are examples of archaeological features.
- Heritage- That which is inherited and forms part of the National Estate (Historical places, objects, fossils as defined by the NHRA Act 25 of 1999).
- Phase 1HIA Assessment- Is an in-depth investigation which identifies archaeological and heritage resources, sites, assets and objects, assessment of their significance and comments on the impact of a given development on the sites. Recommendations for the site mitigation of conservation are also made in this phase.
- Site: A distinct spatial clustering of artefacts, objects, features, structures and organic environmental remains indicating human agency and activity. These include surface sites, caves and rock shelters, more significant open-air sites, sealed sites (deposits) and over deposits.
- Stratigraphy- the principle examines and describes the observable layers of sediments and the arrangement of strata in deposits, usually detectable via transverse cross-section
- Stratified Sampling- a sampling strategy where a study area is subdivided into appropriate zones-often based on the probable location of the archaeological regions, after which each zone is sampled at random
- Systematic Sampling- a sampling strategy whereby a grid of sample blocks is set up over the survey area, and each of these blocks is equally spaced and searched
- Tradition- Artefact types, assemblages of tools, architectural styles, economic practices or art styles that last longer than a phase and even a horizon are described by the term tradition. A typical example of this is the early Iron Age tradition of Southern Africa.
- Impact- the positive or negative effects on human well-being and/ or the environment.
- In Situ-material culture and surrounding deposits in their original location and context, for example, an archaeological site that has not been disturbed by farming
- IA- Iron Age period is an archaeological term used to define a period associated with domesticated livestock and grains, metalworking and ceramic manufacture.
- I&AP-Interested and Affected Parties- Interested and affected parties Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are



concerned with a suggestion or movement and its consequences.

- Mitigation- Anticipating and preventing adverse impacts and risks, then to minimise them, rehabilitate or repair has implications to the extent feasible.
- Public participation process- means a process of involving the public in order to identify issues and concerns and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters
- Palaeontology- Any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.
- Provenience: is a three-dimensional (horizontal and vertical position in which artefacts are found. Fundamental to ascertaining the provenience of an artefact is association, the co-occurrence of an artefact with other archaeological remains; and superposition, the principle whereby artefacts are in lower levels of a matrix were deposited before the artefacts found in the layers above them, and are therefore older.
- GIS- Geographic Information systems are computer software that allows layering of various types of data to produce complex maps; useful for predicting site location and for representing the analysis of collected data within sites and across regions.
- Management- actions associated with the proposed development, that avoid, mitigate, restore, rehabilitate or compensate for the negative or adverse impacts and implications.
- Megalith: a large stone, often found in association with others and forming an alignment or monument, such as large stone statues.
- Monolith: a geological feature such as large rock, consisting of a single massive stone or rock, or a single piece of rock placed as, or within a monument or site.
- Oral Histories- The historical narratives, stories and traditions passed from generation to generation by word of mouth
- Trigger: a particular characteristic of either the receiving environment or the proposed project which indicates that there is likely to be an issue and/or potentially significant impact associated with that proposed development that may require specialist input. Legal requirements of existing and future legislation may also trigger the need for specialist involvement.
- Fossil- mineralised bone and / organic material of animals, shellfish plant and marine life.
- Heritage Input: A physical assessment, documentation and input on tangible and intangible heritage resources



## ABBREVIATIONS

AIA	Archaeological Impact Assessment
BP	Before Present
ASAPA	Association for South African Professional Archaeologists
GIS	Geographic Information Systems
MSA	Middle Stone Age
MIA	Middle Iron Age (aka Earlier Later Farmer Period)
BCE	Before Common Era
NHRA	National Heritage Resources Act No. 25 of 1999, Section 35
EFP	Early Farmer Period (also Early Iron Age)
SAHRA	South African Heritage Resources Association
YCE	Years before Common Era (Present)
LSA	Later Stone Age
LIA	Later Iron Age
EIA	Environmental Impact Assessment
ESA	Earlier Stone Age
ECO	Environmental Control Officer
EMPr	Environmental Management Programme
IA	Heritage Impact Assessment
Mya	Million Years Ago





**SOUTHERN AFRICAN GEOLOGICAL AND ARCHAEOLOGICAL TIMELINE AND MAJOR CULTURAL DEVELOPMENTS**<sup>adapted</sup>

GEOLOGICAL SCALE	TIME PERIOD (YEARS BP)	CULTURAL PERIOD	MAJOR EVENTS
The Holocene	500	Historical Period	-European colonization -Later farming societies, states, i.e. Mapungubwe, Great Zimbabwe, KaK2
	1000	Later Iron age	
	2500-2000	Early Iron Age (EIA)	Early farming communities- i.e. millet, regional pottery traditions, spread of metallurgy
	10000-12000	Terminal LSA	-spread of domestic animals particularly cattle, sheep and goats
		LSA	-Microlithic stone industries -continuation of rock art industries
		Terminal MSA (ca. 20000-300y.a.)	-rock art (early paintings) Apollo 11, Namibia) -modern humans
		Middle Stone Age (MSA)	-early modern humans -development and spread Archaeulian industries
Early Pliocene-	2000000-7500000	Early Stone Age (ESA)	-archaic humans -Oldowan industries Sterkfontein
Terminal Pliocene *		Early Stone Age (ESA)	
Plio-Pleistocene	4000000-2000000		early hominin/hominids [only known in Kenya]
Terminal Miocene- Pliocene	7500000-4000000		early hominin/ hominids [evidence from Chad, Kenya]

\*The last two million years ago (mya) is sometimes referred to as the Quaternary



# CONTENTS

TABLE OF FIGURES .....	11
TABLE OF TABLES .....	12
<b>2. INTRODUCTION AND BACKGROUND .....</b>	<b>15</b>
<b>3. PURPOSE .....</b>	<b>16</b>
<b>4. HIA/ AIA PROJECT SCOPE .....</b>	<b>16</b>
<b>3. TERMS OF REFERENCE .....</b>	<b>16</b>
<b>4. LEGISLATIVE REQUIREMENTS .....</b>	<b>17</b>
<b>5. REGIONAL CONTEXT .....</b>	<b>20</b>
<b>6. ASSUMPTIONS &amp; LIMITATIONS .....</b>	<b>21</b>
<b>7. METHODOLOGICAL APPROACH .....</b>	<b>22</b>
7.1 Literature review .....	23
7.2 Archaeological Background .....	23
<b>8. Public Participation &amp; Public Consultations .....</b>	<b>39</b>
8.1 Summary of Methodology .....	42
<b>9. STUDY AREA .....</b>	<b>43</b>
a. Description of the Area.....	43
9.2 Vegetation and Climate .....	44
<b>10. PALEONTOLOGICAL ASSESSMENT.....</b>	<b>47</b>
10.1 Paleontological Review .....	47
11.2 Palaeontological Findings .....	48
<b>11. ARCHAEOLOGICAL &amp; HERITAGE FINDINGS.....</b>	<b>51</b>
11.1 Archaeological Findings .....	58
11.3 Buildings and Structures .....	61
HERITAGE STRUCTURES & BUILDING ASSESSMENT: .....	40
LIKELIHOOD, PROBABILITY & IMPACT RATINGS .....	67
11.4 Summary of Findings .....	67
<b>11. CONCLUSION AND RECOMMENDATIONS .....</b>	<b>72</b>
a. Archaeological .....	72
b. Palaeontological .....	73
c. Buildings & Structures Findings & Recommendations .....	74
HIA CONCLUSIONS AND RECOMMENDATIONS .....	76
REFERENCE LIST .....	79
APPENDIX 1: DEFINITION OF TERMS/TERMINOLOGY .....	82



APPENDIX 2: STATEMENT OF HERITAGE SIGNIFICANCE ..... 84

APPENDIX 3: HERITAGE IMPACT ASSESSMENT PHASES ..... 85

APPENDIX 4:PROCEDURE FOR CHANCE PALAEOLOGICAL FINDS ..... 86

APPENDIX 5: NHRA LEGISLATION IN DETAIL ..... 87

APPENDIX 6: BURIAL GROUNDS, GRAVES MANAGEMENT AND DEVELOPMENT ..... 90

**TABLE OF FIGURES**

Figure 1: Prospecting Site Locality Map ..... 41

Figure 2: Prospecting Site Extent ..... 43

Figure 2: Biome of the Northern Cape Province ..... 45

Figure 3: Larger Areas Palaeontological sensitivity Map ..... 48

Figure 4: Map indicating the proposed site’s blue and orange/ yellow palaeontological sensitivity ..... 49

Figure 5: Map indicating the Provincial heritage sites within and around the project site ..... 60

Figure 6: Topographic Site Map indicating buildings and structures within the proposed project site (Map 1:10 000) ..... 61

Figure 7:1:50 000 Map of the project receiving area, note the declared Wildebeest Kuil Rock Art Centre ..... 62

Figure 8: Topographic Map indicating identified areas flagged as possible heritage/ paleontological and/or heritage sites within earmarked area ..... 69

Figure 10: Prospecting Site Layout Map, note the areas marked by colour points as project receiving area ..... 71



## TABLE OF TABLES

Table 1: The Southern African Stone Age periods sequence .....	24
Table 2: Project-affected persons .....	42
Table 3: Table of findings .....	71
Table 4: Summary Table of findings .....	71
Table 5: Table indicating palaeontological sensitivity description.....	73
Table 6: Table indicating likelihood and probability criteria and rating scales .....	75
Table 7: Table indicating Significance Rating for proposed project .....	54
Table 8: Table indicating grading assessment as per NHRA guidelines.....	56
Table 9: Table indicating significance rating scale as per international standards .....	57



## 1. EXECUTIVE SUMMARY

---

Notice is hereby given by Wandokoz Trading (Pty) Ltd to interested and affected parties to the lodged application for prospecting activities to establish mineral resources on Remaining Extent of Farm Wildbeest Kuil 69 approximately 6 623.6556 ha situated within the Magisterial District of Kimberley, Northern Cape Province. An application to conduct the prospecting programme has been lodged at the Northern Cape Department of Mineral Resources and Energy (DMR) in terms of Section 16 of the Minerals and Petroleum Resources Development Act (MPRDA, Act 28 of 2002). In terms of section 16 (4) of the MPRDA, the applicant must consult with interested and affected parties and submit the results of such consultation to DMR for decision making. *Thevha Sustainable Services (Pty) Ltd* has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the process required to apply for Environmental Authorisation from the Department of Mineral Resources.

A summary of the recommendations and findings of the AIA/ HIA are as follows:

- While topographic structures and built environment sites were recorded or observed from our findings.
- Few sub-surface heritage indicators and/or structures were earmarked as areas of interest
- A total of 19 Areas of Interest (AOI) were identified for possible archaeological, potential historical and paleontological material. These include evidence of archaeological material i.e. lithics, historical structures, possible hut floors, circular enclosures, diggings, as well as possible burial grounds.
- Diggings identified on the satellite images were noted and flagged as HIGH Probability ratings with possible archaeological and/ or paleontological features.
- Evidence of historical structures and buildings was noted and identified topographically these structures were also noted on historical images (dating to 1920s) and may have heritage significance, this will need to be facilitated by an on-site investigation
- The eastern extent of the proposed site has a **HIGH** Palaeontological rating. A complete Palaeontological Impact Assessment (PIA) is recommended to be undertaken by a qualified Palaeontologist with necessary procedures and mitigation recommendations developed and proposed.
- This desktop survey proves inadequate to report the presence, of graves and burial grounds however the **probability or likelihood** of graves and burial grounds in the proposed project receiving area has been rated as **MEDIUM- LOW**. With one area noted may present evidence of graves and burial grounds due to evidence of historical structures.
- This desktop survey proves inadequate archaeological impacts as those identified were not assessed physically. However, Likelihood and probability assessments were conducted, to supplement and motivate for a Phase II HIA/ AIA.
- The site's extent provides for a **HIGH** probability and likelihood to uncover topographic rock, art, engravings, stone age and iron age materials. With a **MEDIUM-HIGH** impact rating (without mitigation), with a **MEDIUM-HIGH** significance rating, as well as a **MEDIUM to LOW** impact rating (with mitigation proposed).
- A full-scale- Phase II HIA/AIA is recommended to appropriately record, document and analyse flagged, areas of interest and topographically noted possible heritage sites and features.
- Impacts of visual concern are rated as of **MEDIUM-HIGH** significance without mitigation and **MEDIUM to LOW** with mitigation. Visual mitigation is suggested, since this could result in





further landscape impacts as well as affect and influence the known declared Heritage and Tourism site identified within the proposed area.

A cultural heritage mitigation plan and/or heritage management plan should be developed and implemented by the relevant archaeologist or heritage specialist, to be included in the integrated environmental management plan by the project ECO before any development or changes occur on the proposed mining footprint. Due to the nature of the mining activities and cultural sensitivity; there is an inferred ethical and moral responsibility to ensure the management and preservation of these respected burial grounds and graves as well as their associated buildings and structures. With the aim of developing a heritage management plan that considers the culture of the people, in line with best practice methodological approaches in cultural heritage resources management.

This report aims to ensure an effective desktop Archaeological and Heritage survey and assessment of various agricultural holdings of the farms in the proposed area earmarked for mining activity; to determine if any cultural resources are located within the proposed development footprint. The identified heritage resources are appropriately identified, rated for significance, and graded as per the minimum standards of the NHRA in line with DMRE regulations for EIAs, to ensure environmental compliance for EA authorization.

Where culturally sensitive sites were identifiable grading and heritage ratings were appropriately allotted to each with significance ratings and appropriate mitigation recommendations ascribed. The HIA fieldwork assessment was not conducted but it is recommended, heritage risk areas indicated as areas of interest were identified and mapped for consideration. A Palaeontological field-based assessment was recommended for high-risk areas noted for possible fossils and palaeontological materials along the eastern extent of the proposed site.

This impact assessment is only subject to the AIA. And HIA components, while a PIA review is included, a qualified palaeontologist is additionally needed for the full-scale paleontological assessment of the proposed development footprint.

An Archaeologist for site minimal mapping and recording of the structures is further needed, site recording and sampling, social consultation and permitting (relevant heritage authorities) and authorization (affected and associated parties) should also be conducted by a qualified archaeologist, social anthropologist and/or heritage practitioner.

We do not oppose the implementation of prospecting activities or the development of mining activities as is provided by the DBAR. However, the recommended and suggested mitigation methods provided must be implemented with a Phase II HIA for the implementation of the proposed recommendations. The mitigatory recommendations are to be supported in accordance with relevant heritage legislation as well as the minimum standards by NHRA and best practice methodologies ascribed by ASAPA. The final decisions and authorisations however lie with the relevant heritage resource agency for the destruction, demolition, disturbance or alteration of any cultural resources within the proposed mines.



## 2. INTRODUCTION AND BACKGROUND

---

Notice is hereby given by Wondokoz Trading (Pty) Ltd to interested and affected parties to the lodged application for prospecting activities to establish mineral resources on Remaining Extent of Farm Wildbeest Kuil 69 situated within the Magisterial District of Kimberley, Northern Cape Province.

An application to conduct the prospecting programme has been lodged at the Northern Cape Department of Mineral Resources and Energy (DMR) in terms of Section 16 of the Minerals and Petroleum Resources Development Act (MPRDA, Act 28 of 2002). In terms of section 16 (4) of the MPRDA, the applicant must consult with interested and affected parties and submit the results of such consultation to DMR for decision making. The acceptance letter is attached to this letter.

Wondokoz Trading (Pty) Ltd has lodged an application for prospecting activities on the approximate privately owned 6 623.6556 Ha of Wildbeest Kuil situated within the Magisterial District of Kimberley, Northern Cape Province. The proposed development triggers listed activities in Listing Notice 1 (GN R. 327) of the EIA Regulations 2014 as amended in April 2017. Consequently, these activities require the undertaking of a Basic Assessment inclusive of technical studies and public participation.

Reach Archaeology Consulting (Pty) Ltd has been appointed by Wondokoz Trading (Pty) Ltd to undertake a Phase 1 AIA/HIA for the proposed prospecting activities to establish a mineral resource on the prospecting right for Diamond, on Portion 0 of Farm WILDEBEEST KUIL 69 situated within the Kimberly Magisterial District, Northern Cape Province. The proposed prospecting site is in Ward 1, 32 and 30 of the Sol Plaatje Local Municipality under the jurisdiction of the Frances Baard District Municipality.

An online and/ or web-based survey of the relevant literature was conducted to determine the area's heritage potential and is included in the HIA section of this document. According to the general minimum standards accepted by the archaeological profession, all the sites, objects and structures identified were documented. Neither the relevant community forum and/or affected families were consulted or interviewed, no oral traditions were denoted.

The project scope entails the identification of heritage resources, including but not limited to heritage sites, objects, historical structures, burial grounds, graves, initiation, and cultural sites of significance as defined by the NHRA. The methodological approach includes the field-based site documentation without the relevant community and affected next-of-kin/ family representatives. With the aim of understanding the cultural landscape as well as denoting the cultural resources on the mining footprint.

This HIA report aims to fulfil the requirements of the heritage authorities such that a comment can be issued by them for consideration by the National Department of Forestry, Fisheries and Environment (DFFE); Department of Mineral Resources and Energy (MDRE) as well as the South African Heritage Resources Agency (AHRA) who will review the Environmental Impact Assessment (EIA) and grant or refuse authorisation. The HIA report will outline any management and/or mitigation requirements that will need to be complied with from a heritage point of view and that should be included in the conditions of authorisation should this be granted.

Other previous and current businesses and/or land use activities including farming and mining have been documented on the site and/ or in the greater/ or larger areas. The process of identification and verification was undertaken to document areas, sites, objects, materials and features that may have been overlooked and/or were not identified in previous heritage studies and/or reports, in an effort to provide for their conservation and protection in line with the NHRA legislation. The development of an integrated cultural heritage management plan to guide and facilitate the process of heritage resources management through a public participation approach is recommended in the long term for areas noted as having cultural heritage significance.

The prospecting programme has been lodged at the Northern Cape Department of Mineral Resources and Energy (DMR) in terms of Section 16 of the Minerals and Petroleum Resources Development Act (MPRDA, Act 28 of 2002). It



has been noted that the land is privately owned.

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There is one well-known provincial heritage site, the Wildebeest Kuil Rock Art Centre within the specific land parcel. *Wondokoz Trading (Pty) Ltd* indicated the location and boundaries of the Project Area, and the assessment focused on this area (see Figure 1, locality map). T

his report presents the identified findings, discussions and process of documentation of archaeological, and cultural heritage resources undertaken by the heritage specialists and/ or archaeologists to the exclusion of relevant and affected community forum(s) and groups, as well as the affected next-of-kin.

The presence of sub-surface heritage resources has not been confirmed through the web-based archival, historical and geospatial assessment conducted. This evaluation provided the basis for the recommendation that the proposed mining project be halted until a field-based heritage impact assessment is conducted, to provide effective monitoring for unidentified heritage resources conducted as topographic identification of heritage resources provided for none.

The literature review, field research and subsequent impact assessment confirmed that the project area is situated within a historical and contemporary cultural landscape dotted with settlements that have long local , provincial and national history.

### 3. PURPOSE

---

The purpose of the compilation of this heritage fieldwork assessment and impact report is to satisfy the minimum requirements of Section 38(8), and therefore section 38(3) of the National Heritage Resources Act (Act No 25 of 1999) for the compilation of an integrated heritage management plan(s).

### 4. HIA/ AIA PROJECT SCOPE

---

In order to protect, preserve, and develop the heritage resources within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999) (NHRA), this heritage field assessment report falls within the regulations, guidelines and national (provided by SAHRA & ASAPA) and international best practice methodologies (prescribed by ICOMOS) and for cultural heritage management. This report subscribes to the basic principles of heritage resources management and is guided by similar ethical considerations.

The scope of the AIA and HIA studies was to identify all heritage resources such as archaeological, palaeontological and historical localities and features, graves and places of religious and cultural significance; to consider the likelihood, significance ratings and the impact of the proposed project on such heritage resources, and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites/features.

This heritage field assessment report aims to inform the development of an integrated cultural heritage management plan. This document will also inform the development of a comprehensive heritage impact assessment (HIA) to assist the mine or developer in managing the identified heritage resources in a responsible, ethical, and compliant manner.

### 3. TERMS OF REFERENCE

---

According to the minimum standards by SAHRA, an HIA/ AIA must present the following key aspects:

- the identification and mapping of all cultural heritage resources in the area affected;
- an assessment of the significance of such resources in terms of heritage assessment criteria set out in regulations;



- an assessment of the impact of the development on heritage resources.
- an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- plans for mitigation of any adverse effects during and after completion of the proposed development. In addition, the HIA/AIA should comply with the requirements of NEMA, including providing the assumptions and limitations associated with the study; the details, qualifications and expertise of the person who prepared the report; and a statement of competency.
- The terms of reference for the archaeological study were:
  - To identify and map any archaeological remains that occur within the borrow pits and proposed new quarries;
  - To assess the sensitivity and conservation significance of archaeological remains within the borrowpits and proposed new quarries;
  - To assess the status and significance of any impacts resulting from the proposed quarrying of roadmaterial, and
  - To identify measures to protect and maintain any valuable archaeological sites or remains that may exist within the borrow pits and proposed new quarries.

This document was prepared in line with this legislative requirements; as such the author was instructed to conduct an AIA/HIA study addressing the following issue (in no particular order):

- Archaeological and heritage potential of the proposed prospecting site including any known data on affected areas;
- Provide details on methods of study; potential and recommendations to guide the PHRA/ SAHRA to make an informed decision in respect of the authorisation of the proposed development.
- Identify all objects, sites, occurrences, and structures of an archaeological or historical nature (cultural heritage sites) located in and around the proposed prospecting site;
- Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
- Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
- Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
- Review applicable legislative requirements.

#### 4. LEGISLATIVE REQUIREMENTS

---

The identification, and handling assessment of cultural heritage resources in South Africa is



governed by the following legislative prescripts:

- National Heritage Resources Act, 1999 (Act No. 25 of 1999) The National Heritage Resources Act (NHRA) legislates the necessity for cultural and heritage impact assessment in areas earmarked for development, which exceed 0.5 ha (5000 sq. m) or linear development exceeding 300 metres in length. The Act makes provision for the potential destruction of existing sites, pending the archaeologist's recommendations through permitting procedures. Permits are administered by the South African Heritage Resources Agency (SAHRA). Sections 34, 35, 3,6 and 38 speak directly to, my person undertaking any development in the above categories, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. Section 38 (2) (a) of the NHRA also requires the submission of a heritage impact assessment report for authorization purposes to the responsible heritage resources agencies (SAHRA/PHRAs).
- The heritage component is provided for in the National Environmental Management Act, (Act 107 of 1998) and endorsed by section 38 of the National Heritage Resources Act (NHRA - Act 25 of 1999). In addition, the NHRA protects all structures and features older than 60 years (Section 34), archaeological sites and material (Section 35) and graves as well as burial sites (Section 36). The objective of this legislation is to enable and to facilitate developers to employ measures to limit the potentially negative effects that the development could have on heritage resources.
- According to the National Heritage Resources Act of 1999 a historical site is "any identifiable building or part thereof, marker, milestone, gravestone, landmark or tell older than 60 years." This clause is commonly known as the "60-years clause". Buildings are amongst the most enduring features of human occupation, and this definition therefore includes all buildings older than 60 years, modern architecture as well as ruins, fortifications and Iron Age settlements. "Tell" refers to the evidence of human existence which is no longer above ground level, such as building foundations and buried remains of settlements (including artefacts).
- The National Heritage Resources Act (Act No. 25 of 1999, section 38) provides guidelines for Cultural Resources Management and prospective developments:  
"38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as:  
(a) the construction of a road, wall, powerline, pipeline, canal or other similar forms of linear development or barrier exceeding 300m in length;  
(b) the construction of a bridge or similar structure exceeding 50m in length;  
(c) any development or other activity which will change the character of a site:  
(i) exceeding 5 000 m<sup>2</sup> in extent; or  
(ii) involving three or more existing erven or subdivisions thereof; or  
(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or  
(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;



(d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or  
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

- *No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit by the relevant provincial heritage resources authority.” (34. [1] 1999:58) and “No person may, without a permit issued by the responsible heritage resources authority-destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite; destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite; trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites. (35. [4] 1999:58).”*
- Heritage Objects: objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects, meteorites and rare geological specimens, visual art objects, military objects, numismatic objects, objects of cultural and historical significance objects to which oral traditions are attached and which are associated with living heritage, objects of scientific or technological interest, any other prescribed category.
- National Environmental Management Act (NEMA) Act 107 of 1998, Regulation 19 and 22, 23. The new regulations in terms of Chapter 5 of the NEMA provide for an assessment of development impacts on the cultural (heritage) and social environment and Specialist Studies in this regard. The applicant, environmental consultant, SAHRA or PHRA and, interested and affected parties must report to its existing heritage resources that may be affected by the proposed development, and record mitigatory measures aimed at reducing the risks of any adverse impacts on these heritage resources.
- Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002, Section 39(3)
- The Human Tissue Act 65 of 1983 and the Ordinance on the Removal of Graves and Dead Bodies of 1925.  
*“No person may, without a permit issued by SAHRA or a provincial heritage resources agency- destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;  
destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority;  
bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) and excavation equipment, or any equipment which assists in the detection or recovery of*



*metals (36. [3] 1999:60)."*

Graves 60 years or older are heritage resources and fall under the jurisdiction of both the National Heritage Resources Act and the Human Tissues Act of 1983. However, graves younger than 60 years are specifically protected by the Human Tissues Act (Act 65 of 1983) and the Ordinance on the Removal of Graves and Dead Bodies (Ordinance 7 of 1925) as well as any local and regional provisions, laws and by-laws. Such burial places also fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

- While landscapes with cultural significance do not have a dedicated Section in the NHRA, they are protected under the definition of the National Estate (Section 3). Section 3(2)(c) and (d) list "historical settlements and townscapes" and "landscapes and natural features of cultural significance" as part of the National Estate. Furthermore, some of the points in Section 3(3) speak directly to cultural landscapes.

## 5. REGIONAL CONTEXT

---

In order to ensure that all requirements and processes in terms of Heritage Legislation (NHRA - Act No. 25 of 1999) are adhered to, the following tasks will be carried out:

- Preliminary research, desktop study and aerial survey
  - Site survey: Transect Survey method suggested
  - Reporting and recommendation
  - Consultation with PHRA and/ or SAHRA
- Preliminary research, desktop study & aerial survey
    - For the desktop study the following sources can be used:
    - Archival and historical sources: These sources are books and, reports and articles written by academics. Historical accounts of surveys and ethnographic accounts and also archival documents about the region and archaeological cultures.
    - Historical maps: Most historical maps were done by travellers who recorded their journey's and experiences in regions or towns.
    - Missionary accounts: Missionaries kept documents about the local area and cultures within a diary format. They are often very useful when trying to construct day to day accounts of the locals or past cultures.
    - Drawings & photographs: Drawings were used before photographs were available. They documented the area's environment and cultural landscape. Photographs can mostly be located in archives and gives us the same yet more detailed information as drawings.
    - Legal documents: legal documents give us an indication of land ownership and sales of the land. It can also reveal relocation of families, groups and cultures, court cases and government interventions.
    - Ethnographies & Oral traditions: This data can be collected through informal interviews. It can reveal important connections between the landscape and material culture.
    - Grey Literature: This includes any reports about the area that was not published. It gives



- valuable information about past studies that were conducted and their findings.
- Aerial survey through analysis of satellite imagery and GIS spatial data.
  - o Site survey
- Offsite aerial survey and site investigation
  - o Collection and Compilation of Maps, Aerial Photographs and GIS
  - o Through the use of Municipal Maps, GIS software and Google Earth
  - o Reporting & recommendation
- Supply client with appropriate HIA & AIA reports summarising proposed steps for project completion
  - o Consultation with the South African Heritage Resources Agency (SAHRA)
- Supplementary Permit application from SAHRA (South African Heritage Resources Agency) in anticipation of cultural resources identification.

## 6. ASSUMPTIONS & LIMITATIONS

---

In the compilation of this HIA/AIA, the following assumptions and limitations existed:

- The details of the site received from the client are true, accurate and correct scope of the project.
- No topographic survey was conducted on-site therefore the HIA/AIA was limited to observable, identifiable features, objects, materials, document reports, and/or sites available.
- In line with the nature of archaeological resources, it is probable that mining and the development of associated infrastructure are likely to reveal subsurface sites, human remains or areas of high-density stone tool distributions.
- No sub-surface reconnaissance or excavations were NOT undertaken as a permit is required to alter heritage resources as per the NHRA 25 of 1999.
- Numerous areas of interest and possible sites for heritage objects, features and materials were identified during the desktop geospatial aerial images, none of these areas of interest was confirmed or observable through a field-based survey.

The accuracy and reliability of palaeontological specialist studies as components of heritage impact assessments are generally limited by the following constraints:

- Inadequate database for fossil heritage for much of the RSA, given the large size of the country and the small number of professional palaeontologists carrying out fieldwork here. Most development study areas have never been surveyed by a palaeontologist.
- Variable accuracy of geological maps which underpin these desktop studies. For large areas of terrain these maps are largely based on aerial photographs alone, without ground-truthing. The maps generally depict only significant (“mappable”) bedrock units as well as major areas of superficial “drift” deposits (alluvium, colluvium) but for most regions give little or no idea of the level of bedrock outcrop, depth of superficial cover (soil etc), degree of bedrock weathering or levels of small-scale tectonic deformation, such as cleavage. All of these factors may have a major influence on the impact significance of a given development on fossil heritage and can only be reliably assessed in the field.





- Inadequate sheet explanations for geological maps, with little or no attention paid to palaeontological issues in many cases, including poor locality information;
- The extensive relevant palaeontological “grey literature” - in the form of unpublished university theses, impact studies and other reports (e.g. of commercial mining companies) - that is not readily available for desktop studies;
- Absence of a comprehensive computerized database of fossil collections in major RSA institutions which can be consulted for impact studies. A Karoo fossil vertebrate database is now accessible for impact study work.

In the case of palaeontological desktop studies without supporting Phase 1 field assessments, these limitations may variously lead to either:

- underestimation of the palaeontological significance of a given study area due to ignorance of significant recorded or unrecorded fossils preserved there, or
- overestimation of the palaeontological sensitivity of a study area, for example when originally rich fossil assemblages inferred from geological maps have in fact been destroyed by tectonism or weathering or are buried beneath a thick mantle of unfossiliferous “drift” (soil, alluvium etc). Since most areas of the RSA have not been studied paleontologically, a palaeontological desktop study usually entails inferring the presence of buried fossil heritage within the study area from relevant fossil data collected from similar or the same rock units elsewhere, sometimes at localities far away.
- Where substantial exposures of bedrock or potentially fossiliferous superficial sediments are present in the study area, the reliability of a palaeontological impact assessment may be significantly enhanced through field assessment by a professional palaeontologist. In the case of palaeontological field studies in the Pofadder – Aggeney’s region, the main limitations are:
  - High levels of bedrock covered by thick alluvial and colluvial soils, windblown sands and other superficial deposits;
  - The lack of detailed palaeontological field studies within the region. Confidence levels in the conclusions presented here are nevertheless moderately high.

## 7. METHODOLOGICAL APPROACH

---

The methodological approach /or the methodology of completing and compiling the AIA/HIA is as follows:

- All sites, objects, features and structures identified are documented according to the general minimum standards accepted by the archaeological profession and as per the NHRA Regulations Gazetted in 2017.
- All geospatial-related coordinate details of individual localities are determined using an accurate Global Positioning System (GPS) linked to the software. The relevant information is added to the description to facilitate the identification of each site’s locality.
- All literature documents, data, articles and information were gathered and presented with supporting reference list.
- All sites, objects, features and structures identified are documented according to the general



minimum standards accepted by the archaeological profession and as per the NHRA Regulations Gazetted in 2017.

- All geospatial-related coordinate details of individual localities are determined using an accurate Global Positioning System (GPS) linked to the software. The relevant information is added to the description to facilitate the identification of each site's locality.
- Likelihood assessment, to provide for the probability of identifying any overlooked and/or subsurface anomalies of cultural material
- Significance ratings to ensure that low, medium and highly significant cultural heritage resources are graded in accordance with minimum standards
- Grading of identified and confirmed cultural heritage assets and resources in line with best practice methods to ensure legislative compliance and provide appropriate mitigation recommendations

### 7.1 Literature review

A historical and archival literature review was conducted in order to gain an understanding of the existing research and debates on the cultural heritage history of the proposed development area. The literature reviews sources such as journal articles, government articles, and heritage management reports were used to pave a way for understanding the proposed earmarked development footprint within a regional and site-specific context.

A systematic review of the appropriate literature provides for cultural and historical significance and the likelihood and/or probability of identifying and locating any cultural heritage resources within the proposed area.

In the literature, different hunter-gatherer, herder, agriculturist and colonial rock art traditions have been discerned (e.g. Maggs 1995; Ouzman 1999; Smith & Ouzman 2004; Hollmann & Hykkerud 2004; Hall & Mazel 2005; Eastwood & Eastwood 2006; Eastwood et al. 2010). Some variability may reflect a dynamic interplay of other factors including history and ritual understandings of landscape, not easily resolved in purely ethnic, culture and/or techno-economic terms (e.g. Manhire 1998; Morris 2002).

### 7.2 Archaeological Background

The proposed area earmarked for mining prospects also referred to as the 'affected' area is under the *Sol Plaatje* Municipality, in the Northern Cape Province of South Africa. Around 1994 post the apartheid era, the Kimberley City Council was renamed Sol Plaatje Municipality.



*Sol Plaatje* after whom the municipality is named was a native of Kimberley, a distinguished intellectual and founder member of the African National Congress (ANC) and its first Secretary General. His house in Kimberley has been turned into a museum. The landscape around the town of Kimberley is rich in archaeological material dating to the Earlier as well as the Middle Stone Ages (Engelbrecht and Fivaz, 2019).

In recent years pans have been found to be very important with several locally significant sites now known alongside ephemeral water sources. Perhaps the most important sites are large pans with exposed granite bedrock depressions that trap pools of rainwater and around which many artefacts occur. However, small patches of exposed bedrock just a few meters wide and located in the open plains can also trap water in small holes of about 0.5 to 1.0 m wide.

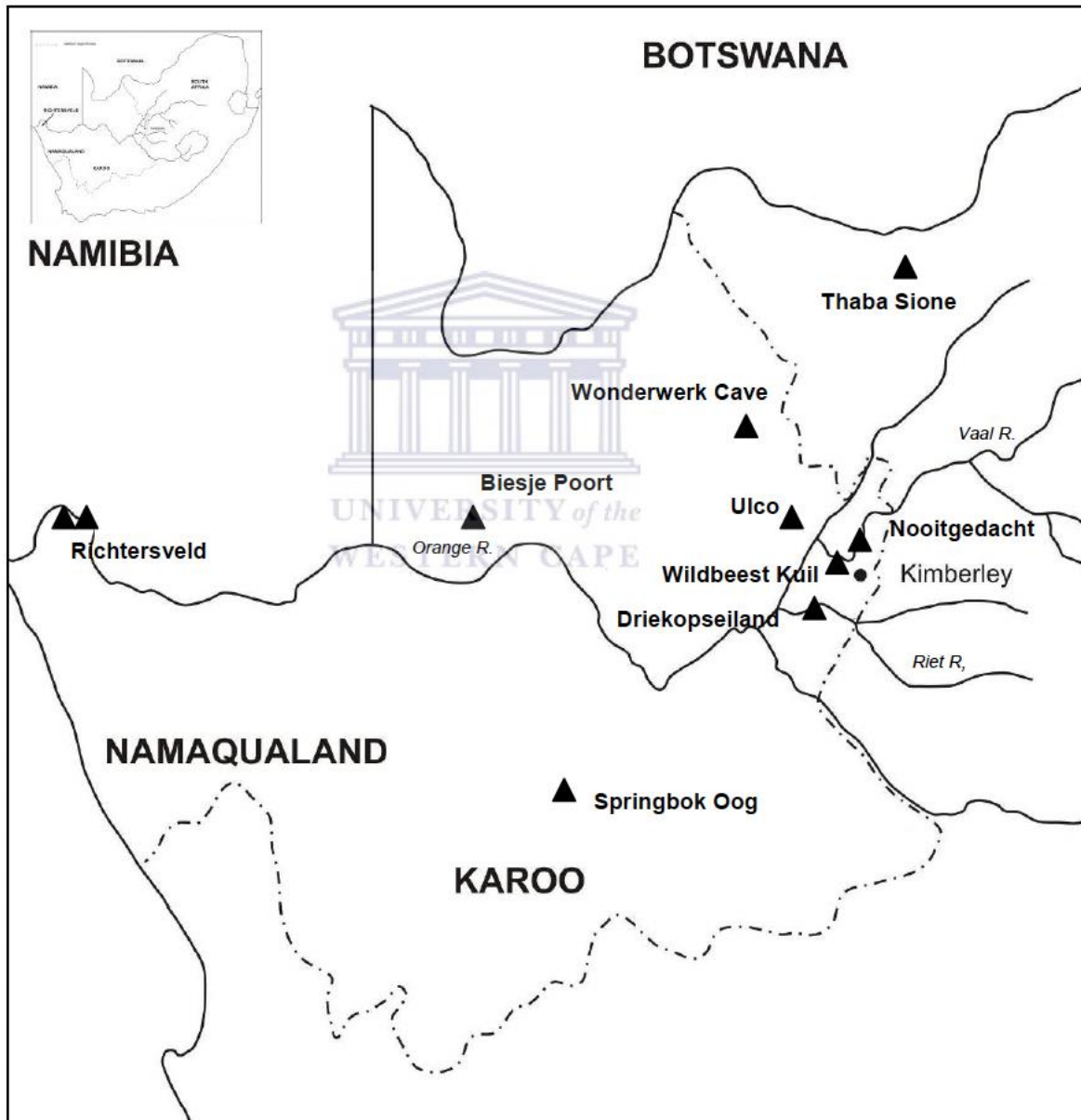
Several of the latter were recorded and sampled by Orton (2015, 2016). The granite outcrops often also have smoothed patches where grinding (presumably of seeds and other plant foods) took place. Similar grinding patches and/or shallow grooves have been found in a number of other areas in the region (Orton 2018, 2019; Orton & Webley 2012).

### 7.2.1 Stone Age

The Stone Age is the period in human history when *lithic* material was mainly used to produce various stone tools. The Stone Age can be further subdivided into three periods of activity. Lombard *et al.* (2012) divide the Stone Age periods as follows:

Table 1: The Southern African Stone Age periods sequence

PERIOD	APPROXIMATE DATES
Earlier Stone Age (ESA)	> 2mil. y.a- 250 000/200 000 y.a
Middle Stone Age (MAS)	200 000/250 000 y.a – 20 000 y.a to around the L Glacial Maximun (LGM)
Later Stone Age (LSA) [Includes rock art, hunter-gatherer and herders]	> 200 000- 200 y.a. and up to historic times



Map of archaeological sites within the larger region note the proximity of Wildebeestkuil 69 (Morris 2017)

The general history of the Northern Cape Province is reflected in a rich archaeological landscape, mostly dominated by Stone Age occurrences. Numerous sites, documenting Earlier, Middle, and Later Stone Age habitation occur across the province, mostly in open-air locales or in sediments alongside rivers or pans. In addition, a wealth of Later Stone Age rock art sites, most of which are in the form of rock engravings are to be found in the larger landscape. These sites occur on hilltops, slopes, rock outcrops, and occasionally in riverbeds. LSA use of the more immediate region is most prominently evidenced by the Wildebeest Kuil Rock Art (Engelbrecht and Fivaz, 2019).

The Province boasts a colourful history and a variety of cultural tourist attractions and is particularly well known for its incredible annual floral display that takes place in Namaqualand. An utterly beautiful coastline and a number of unique national parks offer the tourist a very different experience of South Africa



Hunter-gatherers are well-informed on the carrying capacity of a region in terms of water and food resources and through a subsistence strategy of transhumance take care not to overexploit resources. According to the source (<https://www.kimberley.co.za/places/kimberley/free/wildebeest-kuil-rock-art-centre/>) the Wildebeest Kuil 1 Rock Art site, a declared Provincial Heritage Site (2008).

The proposed area is characterized by a fairly prominent hill surrounded by a number of 'kuils' or non-perennial water holes and wetlands. The hill itself is host to more than 400 petroglyphs, including both naturalistic and abstract engravings, in fine-line and pecked technique. The earliest records of rock engravings at Wildebeest Kuil are the copies made by George William Stow who was on the Diamond Fields in the early 1870s.

### 7.2.2 Iron Age

The Iron Age is a prehistoric period in which iron was mainly used to produce weapons and tools. Southern Africa is associated with the arrival of a new Bantu-speaking population group around the third century AD. These newcomers introduced a new way of life into areas that were occupied by Later Stone Age hunter-gatherers and Khoikhoi herders. Distinctive features of the Iron Age are settled village life, food production (agriculture and animal husbandry), metallurgy (the mining, smelting, and working of iron, copper, and gold), and the manufacture of pottery.

Stone ruins indicate the occurrence of Iron Age settlements in the Northern Cape specifically at sites such as Dithakong where evidence exists that the Thlaping used to be settled in the Kuruman – Dithakong areas before 1800 (Penn, 2005). Here, the assessment of the contact between the Stone Age, Iron Age, and Colonial societies is significant in order to understand situations of contact and assimilation between societies. As an example, Trade occurred between local Thlaping Tswana people and the Khoikhoi communities. It means that the BaTswana traded as far south as the Orange River at least the same time as the Europeans (Penn, 2005). The Northern Cape Province experienced a number of war conflicts and skirmishes, particularly the Anglo-Boer War (or the South African War) left behind the remnants of battlefields.

According to Huffman (2007) there were two migration streams of Early Iron Age (EIA) communities converging in South Africa, one originating in eastern Africa which has been called the Urewe-Kwale Tradition (or the eastern stream) and another from the west, spreading through Zambia and Angola, which he termed the Kalundu Tradition (or western stream). An alternative perspective is to see the IA as a gradual spread or expansion of settlement of different groups indigenous to the continent which took place over a long period of time. There are few if any sites attributed to the EIA in the 7 Collins, S. 1973. Rock-engravings of the Danielskuil Townlands. South African Archaeological Bulletin 109-110: 49-57.; Eastwood, E.B. & Smith, B.W. 2005. Fingerprints of the Khoekhoen: geometric and handprinted rock art in the Central Limpopo Basin, southern Africa. South African Archaeological Society Goodwin Series 9: 63–76. 8 Wildebeest Kuil Rock Art Centre, at: <http://www.kimberley.co.za/city/wildebeest-kuil-rock-art-centre/> (Morris 2012, 2017).



Most IA settlements are concentrated in the eastern part of South Africa. The woodland zone was preferred for settlement, but there is strong possibility that transhumant pastoralism was practiced and seasonal hunting camps were established in the inhospitable western regions of the country. 4.3.2. The Later Iron Age The LIA is marked by the presence of extensive stonewalled settlements such as the Tlhaping capital at Dithakong near Kuruman (Morris 2012, Matenga 2017)..

### 7.2.3 Historical Period

Kimberley is the capital of the Northern Cape Province and one of the largest cities in South Africa. Kimberley is a historic city, Kimberley is a historic city, an important aspect of heritage which has been considered in this impact evaluation. It is an important aspect of heritage that has been considered in this impact evaluation. The Kimberley Mine Museum, a De Beers Consolidated Mines initiative with a lookout point over the famous Big Hole, captures various aspects of the lives of early miners and Kimberley's residents (Matenga, 2017). The Big Hole in Kimberley is considered one of the deepest cavities excavated by a man with a depth of 200 m2 (<https://thebighole.co.za/>).

The historical period within the region coincides with the incursion of white traders, hunters, explorers, and missionaries into the interior of South Africa. Buildings and structures associated with the early missionaries, travellers', and traders' arrival during the 19th century, and the settlement of the first white farmers and towns, are still evident in the Northern Cape.

The 18th century was defined as a period of conflict when the Griqua, Korana, and white settlers were competing for the availability of land. This period is also known for the occurrence of the Mfecane or the so-called Difaqane which resulted in a period of instability that started in the middle 1820s. The conflict period related to the Mfecane or Difaqane was the result of the influx of the then-displaced people. The continuous conflict resulted in various tribal groups migrating to hilltop areas in the need of finding safe environments.



Map of the siege of Kimberly dating to the early 1900s (National Archives of South Africa, 2023)



Closer views of siege of Kimberley map dating to early 1900s National Archives of South Africa, 2023)

The study area is historically home to the various groups of Tswana stock - Tlokwa, Fokeng, Hlakwa and Phuting, Tlhaping, and Tlaro, certainly descending from the Iron Age and probably some with Stone Age roots. The early 19th century was a political turning point characterised by an increasingly uncertain security situation and internal displacements. The first of these episodes was the Difaqane characterised by inter-tribal raids. During the late 18th and early 19th centuries groups of Griqua herders (people of Coloured stock from the southwest) settled in this area establishing a town called Klaarwater and subsequently renamed Griquatown. Meanwhile the initial wave of white hunters, traders and missionaries also entered the area. A little later the Afrikaners arrived bringing their stock as part of a mass exodus from the Cape called the Great Trek. The discovery of diamonds caused the so called “rush” (see Section 4.5). The area which became known as Griqualand West was subsequently incorporated into the Cape Colony in the 1880s. With the well documented Siege of Kimberley from 1899- 1900.

From early colonial times interest in the Northern Cape was firmly vested in its mineral wealth; early settlers speculated about mountains rich in copper towards the northwest. However, the landscape was permanently transformed after Erasmus Jacobs discovered a brilliant pebble (Kruger, 2014).





Magersfontein Battlefield is a battlefield during the second South African War, between the Boers and the British over Kimberley. British forces, to relieve Kimberley, advanced under cover of darkness and prepared to storm the Boer positions at daybreak.

The plan backfired as the Boers had dug trenches at the base of the hills and the flat trajectory of their Mauser rifles wiped out the advancing British troops. Soldiers who survived the rifle fire were pinned down on the battlefield in the heat of the day and over two hundred British were killed during the battle, many of them from sunstroke and sun exposure.

### Rock Art

The variability which is a feature of the rock art of the Northern Cape as a whole. Today, while some Khoe-San descendants who would claim a link with rockart might still speak Khoe-San languages, most people in the Northern Cape having Khoe-San ancestry would be Afrikaans-speaking 'Coloureds' (Morris 2012; 18). Public access has since been developed at archaeological sites such as Wildebeest Kuil, the listing of the site as a provincial heritage site adds to the tourism sector of the local economy.

“Most of the engravings in the Kimberley area are made with the 'pecked' technique: a hard stone was used to chip away the outer crust of the rock, exposing the lighter coloured rock beneath. Sites north west of Kimberley are often on andesite outcrops (as at Wildebeest Kuil and Driekopseiland) while to the south, in Karoo geological settings, the koppies providing boulders and panels suitable for rock art are mostly dolerite. With time, the exposed portions of the older engravings have become as dark as the outer crust through the build-up of patina.

The pecked engravings of the area are estimated to span a period from perhaps a few hundred to possibly several thousand years ago (Morris 1988; Beaumont & Vogel 1989). Direct cation ratio dating methods applied at Klipfontein, also known as Bushmans Fountain, giving estimates spanning the entire Holocene (Whitley & Annegarn 1994), hinge on a calibration curve of uncertain reliability (Morris 2002), and the samples were too small to run more than one assay each for verification (Whitley & Annegarn 1994). Hence the results of cation dating remain inconclusive.

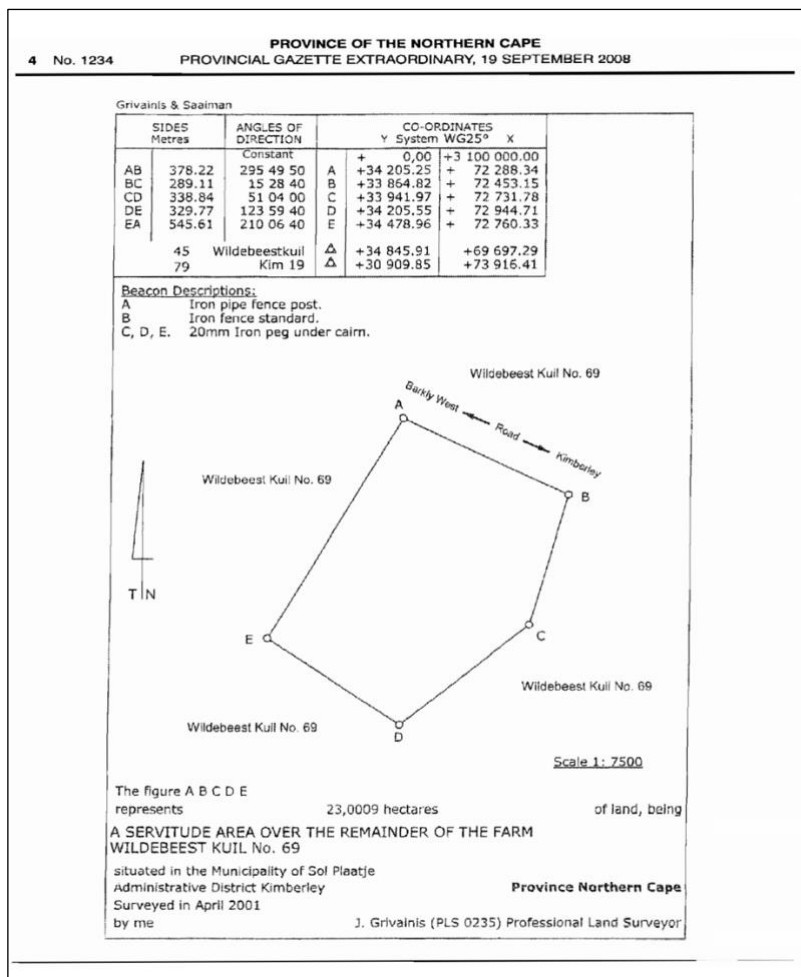
Hairline engravings, known from a few sites in this area and more commonly in the Karoo, are consistently beneath pecked engravings in superimposed sequences, and are thus older. Butzer used geomorphological evidence to infer bracketing ages for the engravings at Bushmans Fountain and Driekopseiland, with the resulting scenario being in broad accord with more recent work on palaeoenvironmental change at a regional scale, as well as with findings at other sites, and observations of associated archaeological material



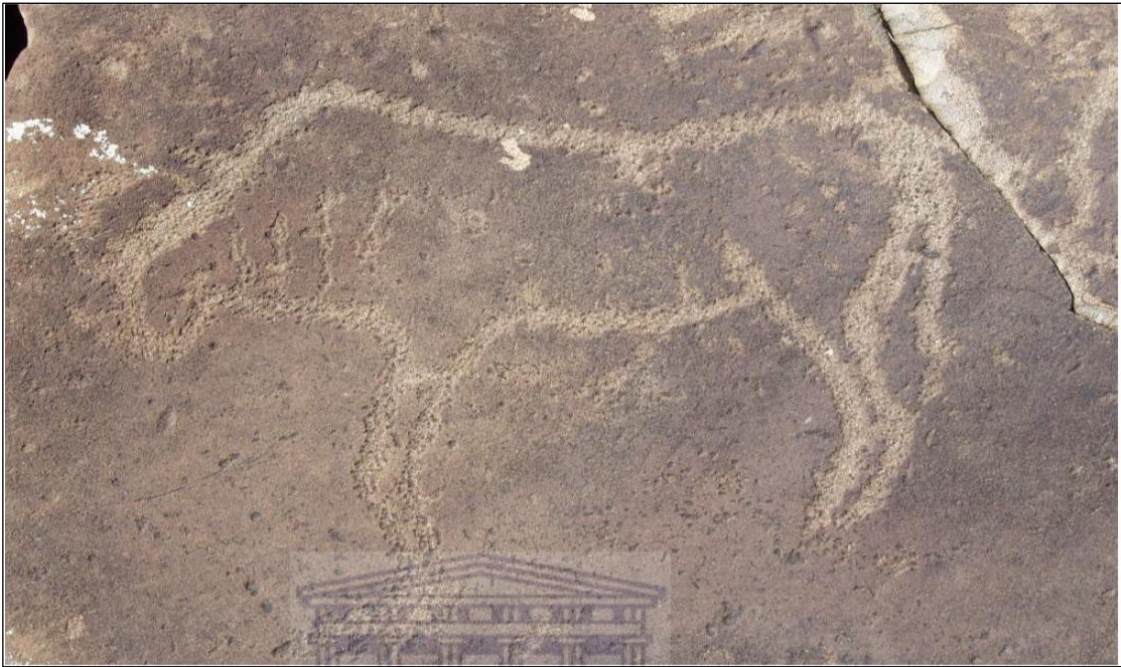
(as summarised in Morris 2002).” Morris 2017: 201-204)



(SAHRS; 2023)



(SAHRIS; 2023)



(Morris 2012, 2017)



(Morris 2012, 2017)



(Morris 2012, 2017)



(Morris 2012, 2017)



Wildebeest Kuil 69 known stone engravings of a rhino (Morris 2012, 2017)

Here are some interesting facts EXTRACTED from Morris 2012, 2016, 2017:

*They include eland, rhino, elephant – a range of species that would not be out of place on other sites in the area, such as Wildebeest Kuil. The individual engravings (both abstract images and animals) tend to be relatively small, some 10 to 40 cm*

*186 across, clustering usually in groups of vaguely similar forms and probably covering the extent of rock that was available in the bed of the river when they were made. There is a repetitive, almost ritual, feel to the engravings, although no two images are precisely similar, other than in the simplest of the forms which are circles with crosses.*

*Gerhard Fock and Karl Butzer, and colleagues (Butzer et al. 1979; Fock et al. 1980), sought to construct a broad chronology for rock art of the area that includes both Driekopseiland and Wildebeest Kuil. Their approach was based on palaeoenvironmental studies along the Riet and Vaal Rivers and in local pan deposits. The resultant framework has been reviewed (Morris 2002) relative to more recent research on climate and environment history (e.g. Beaumont et al. 1992; Tyson and Lindesay 1992; Lee-Thorp et al. 2001), in light of which it seems likely that all the engravings at Driekopseiland are of late Holocene age.*

#### *Wildebeest Kuil*

*The site of Wildebeest Kuil is in a sense much more typical of engraving*



sites that are most commonly on hills or ridges in this area – higher up in the landscape, rather than lower down as in the case of Driekopseiland and Nooitgedacht. It is situated on a low andesite hill or koppie that rises above the surrounding plain on the western side of the modern city of Kimberley.

The other obvious major difference between it and sites such as Driekopseiland is in terms of the rock art itself. The images are much smaller in number – some 230 engravings, with a further hundred or so human markings in the form of smoothed and pitted surfaces, some of which might be traces of utilitarian activities while others are hard to explain in such terms. The engravings are preponderantly of animals with some human figures and a small number of ‘geometric’ engravings including grids and sunbursts. In a sample of 91 sites in the Vaal-Riet-Orange River Basins, 20% of the sites have no ‘geometric’ engravings, more than half (including Wildebeest Kuil) have a mix of up to a third of the engravings being ‘geometric’, whilst a quarter have some 30-95% ‘geometric’ engravings (these sites of course including Driekopseiland at the extreme end of the spectrum).

terms of dating Wildebeest Kuil may represent a slightly older stratum of rock art making, relative to Driekopseiland, although the two sites may partly overlap in time. Breuil, in remarks cited above, had not detected any obviously diverse ‘styles’ of engravings here, but it is likely that the rock engravings accumulated over a period of perhaps centuries. There are no clear indications that the geometric engravings are necessarily older or younger than any of the animal and human figure engravings: while no significant superimposed sets of images provide clues on the relative ages of the engravings, they are all fairly uniformly patinated.

In the 1980s, one of several clearings amongst the stones at the top of the hill was excavated by Peter Beaumont (Beaumont & Vogel 1989). It yielded Later Stone Age stone tools, Wilton in character, with rare potsherds at the top of the shallow sequence. Uncalibrated radiocarbon readings from upper and lower units in the excavation span  $1790 \pm 60$  bp to  $1230 \pm 80$  bp (Beaumont & Vogel 1989). If one assumes (as did Stow) that there is a link between the art and the occupation (or activity) represented by these traces, then the readings would provide a plausible, if coarse, estimate for the age of perhaps the bulk of the engravings. An unexcavated stone clearing at the south end of the site contains seemingly younger material including pottery, and better preserved organics including ostrich eggshell and small bone fragments, so that the upper dating limited suggested by the above date of ~ 1150-1300 bp should not be taken as reflecting the most recent occupation. Indeed, the last known indigenous inhabitants, as cited above, are known to have been Kousop and his family, probably in the late 1840s to early 1850s (Péringuey 1909).

J.H. Power had found a tanged arrowhead here (Burkitt 1928:33), which situates Wildebeest Kuil within discussions on these unusual “trace objects”, found in post-2000 BP sites distributed across the central interior to Lesotho (Van Riet Lowe 1947; Humphreys 1991; Mitchell 1996). These artefacts have been interpreted as stone skeuomorphs of iron originals (Mitchell



2002:294), products of a more complex social landscape at that period in the subcontinent. They have relevance in relation to recent discussions on territorial patterning in the Later Stone Age (Humphreys 2007).

Nearly all the engravings at Wildebeest Kuil are in the pecked technique and many are finely crafted – differing from the “rough” feel of the geometrics and other associated images at Driekopseiland. In a few instances traces of older hairline engravings are visible under the pecked engravings, hinting that once there were a greater number of such older images. The engravings reflect what Parkington et al. (2008; cf. Smith 2006) refer to as “a limited and, through time, changing small set of repeated images” – principally large mammals, mainly antelope amongst which eland predominate, with hartebeest, wildebeest, and roan, along with markedly smaller numbers of other large mammals such as rhinoceros, hippo, elephant, and rare felines including lion. There are also ostrich, relatively common on engraving sites, and human figures.

In comparison with Driekopseiland, the convergence here of natural processes and their potential symbolic construal is not as obvious.

However, the points made by Heyd (1999) and by Lewis-Williams and Dowson (1990) about the need to consider placement and the relationship of images to rock support are borne out by findings at Wildebeest Kuil (Morris 1996, 2002; Taçon & Ouzman 2004).

In the case of Wildebeest Kuil, by contrast, there is evidence of much Later Stone Age activity on the hill besides the making of rock engravings. Just what this activity was, what these traces meant – assuming that they were contemporary with the rock art – was the subject of some debate in the early discussions of archaeologists visiting here. It will be recalled that the Abbé Breuil had noticed stone circles and clearings on and around the hill, the bases of dwellings, he surmised (but see Jacobson 2005; Parsons 2005), which contained ash and microlithic stone artefacts (Breuil 1929: Ch XXXVII). Both Miles Burkitt (1928), on an earlier visit, and Desmond Clark (1959), on a much later one, were similarly drawn by the combination of apparent dwellings and Later Stone Age debris alongside rock engravings. Clark went on to include the site in his discussion not so much of rock art but of seasonal aggregation and dispersal which he believed was a behaviour pattern, noted ethnographically, that could be detected in the distribution and nature of Later Stone Age sites in Southern Africa. The Halfway House Kopje (i.e. Wildebeest Kuil), with its evidence of ‘living floors’ in addition to the art, must, he suggested, have “supported a larger population and may have been a wet season camp when family groups and bands came together for annual hunting” (1959:218). (Morris, 2012: 205)

Desmond Clark’s (1959), that the combination of apparent dwellings and Later Stone Age debris alongside rock engravings pointed to this site being part of a seasonal aggregation and dispersal pattern, noted ethnographically, and evident in the distribution and nature of Later Stone Age sites in Southern Africa. Wildebeest Kuil, with its ‘living floors’ and rock art, seemed to have “supported a larger population and may have been a wet season camp when family groups and



*bands came together for annual hunting” (1959:218).*

VS.

*George Stow’s (1905), that the stone circles on and around the hill amounted to a fairly permanent settlement to which he even gave the term “town”. Péringuey (1909) contested this notion, allowing missionary testimony that ‘Bushmen’ and ‘Korannas’ had lived there in recent times; but asserting that the engravings were pre-‘Bushman’ in age: Stow had “allowed his imagination to run riot.”*

*At Wildebeest Kuil, in a somewhat more watered landscape, there would appear to be even less necessity for hunter-gatherers to range widely across the plains in seasonal rounds of aggregation and dispersal; and in fact historical records cited by Humphreys (2009:171) suggest that they would not have done so. Clark’s explanation of Wildebeest Kuil, with its “living floors” and engravings constituting “a wet season camp when family groups and bands came together” seems an unlikely scenario. On the other hand, Stow’s reference to the site as a “town” does seem an exaggeration, but the notion of more permanent inhabitation by people of the Later Stone Age, with missionary records indicating that some version of this occupation extended into the mid-nineteenth century, is not implausible. The life history of Makoon, a Bushman styled as a “chief”, who lived not far north of Wildebeest Kuil in the early nineteenth century, indicates that he had lived on the banks of the Malalareen (Harts River) “all his days” (Campbell 1822, cited by Humphreys 2009:121). Such long-term residence at one spot may or may not be typical. The missionary T.L. Hodgson’s observation (ibid.) that the language of “Bushmen” south of the Vaal differed “materially” from that spoken to the north, however, indicates a context in which it is likely that people were more settled down in places, and less apt to range widely.*

#### *Palaontology*

*When Wildebeest Kuil was developed as a public heritage site this possibility was considered in discussion towards giving it a Khoe-San name, e.g. Gnu-kamma, as a translation “back” to what it “might have been”. In the end the decision was made to stick with the Dutch farm name Wildebeest Kuil which enfolds both this possibility as well as the colonial history that so largely erased the precolonial past.*

#### *Rock Engravings*

##### *Wildebeest Kuil came to*

*be used and marked, its Later Stone Age traces discarded within or between living spaces or engraved on rocks, one may conceive that relations of power were relevant, particularly if or when questions of identity, for example, were in play. On current evidence this is difficult to demonstrate. However, with respect to Driekopseiland, where it has been proposed intensification of ritual may be implicated, it has already been suggested how issues of gender status and power may have had a role. It would appear that both Wildebeest Kuil and Driekopseiland fell within the same language area (Humphreys 2009) so that conceivably the same //kxau-speaking people were involved in both sites. Humphreys (2009) gives an account as to why the Type R Settlement Area arose along the Riet*





*River, the most important of which was perhaps that the Riet was “beyond ‘striking distance’ of the Tswana” who “attacked” southwards and from the west, in conflict recounted to Campbell by the Bushman ‘chief’ Makoon. Of significance are clues from Campbell’s interaction with Makoon, that these attacks by the Tswana as well as !Kora had resulted in a reduction of the Bushman population at the northern end of the //kxau-speaking territory.*

#### *Rock paintings*

*The rock paintings of the Northern Cape and Karoo, distinctively fingerpainted or daubed and mainly comprising a limited repertoire of geometric designs, deserve more in-depth study. One of the first of the archaeological investigations germane to finger paintings was that by John Goodwin (1936) at Keurfontein near Vosburg. A shelter amongst boulders at the top of a hill, overlooking a landscape with many engraving sites, has a few simple finger painted designs in it. Goodwin excavated the shallow deposit finding “Smithfield B” artefacts with a few sherds of grass tempered comb-stamped pottery. Similar material was recovered from the immediate surrounds, Goodwin reporting that “there are no signs of any earlier or later inhabitants of the shelter” (1936:202-3). Much the same kind of scenario emerges from subsequent work, for instance the surveys by Jalmar and Ione Rudner (1968) and by Gerhard and Dora Fock (Fock 1969b). Numbers of Karoo sites with finger paintings appear to have associations with late Holocene “Smithfield B” assemblages that include coarse grass-tempered ceramics. Some sites, however, were found to contain finer thin-walled, grit-tempered wares with lugs usually regarded as having herder associations (but see Parsons 2007)*

#### **Urban Periods**

The Kimberley area was colonised quite late with most farms only granted in the very late 19th or even early 20th centuries. As a result, very few historical structures and features exist on the landscape. The majority of buildings date to the early-mid-20th century and tend to be of low or no heritage significance. Where colonists began settling around the spring from 1889 but only in 1917 were the first residential plots surveyed (Marais 2021, Morris 2012, Morris 2017).

With the advent of mining, the De Beers Consolidated Mines is centred on the Big Hole (the footprint of kimberlite pipe excavation in the centre of the town) De Beers Consolidated Mines, pursued the kimberlite pipe to a depth of 1,097 metres. The Kimberley Mine Museum, a De Beers Consolidated Mines initiative with a lookout point over the famous Big Hole, captures various aspects of the lives of early miners and Kimberley’s residents.

From a Southern African regional perspective, South Africa’s mineral wealth, in particular diamonds and gold, was used to finance British colonial expansion in the region, in a fundamental way shaping the course of the region’s history (Matenga, 2017).



Image of historic Kimberley Town Sourced: Matenga (2017)

## 8. Public Participation & Public Consultations

Background Information Document (BID) provided by Wondokoz Trading (Pty) Ltd presents the following;

- Identified Interested and Affected Parties (I&APS) on the project are therefore required by the law to participate in the EIA process by submitting issues of concern and suggestion on the proposed project.

The purpose of the Basic Assessment process is not merely to assess the impact of a development on the environment. It also facilitates improved decision making by the competent authority, tasked with either granting or the environmental authorisation for the development to proceed.

The EIA Regulations promulgated under section 24 of the National Environmental Management Act 107 of 1998 (NEMA set, 1 sets out the minimum requirements regarding public participation by interested and affected parties (I&APs).

The proposed Public Participation Process (PPP) and/ stakeholder engagement (SE) and/or community engagement press are being conducted by the project Environmental Assessment Practitioner (EAP) and issues raised by Interested and Affected parties will be presented during project specialist integration meetings. These meetings and engagements will prove sufficient in the intangible cultural heritage sites linked with ritual, ceremonial and spiritually significant areas that will need to be recorded, analysed and mitigated appropriately prior to any development occurring



in the area.

As not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed over time, and what is considered of importance at the time of assessment may change as similar items are located, more research is undertaken, and community values change. This does not lessen the value of the heritage approach but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, also changes over time (Pearson and Sullivan 1995:7).

This assessment of the intangible heritage assets and indigenous cultural heritage significance of sites in the study area will be based on the views expressed by the traditional authority and community representatives, consulted documentary review and physical integrity. We will rely on the client to provide the detail thereof through their stakeholder engagement process, where relevant sites, areas and/or features will be earmarked for mitigation should they fall within and/ along the proposed areas, specific to access roads, informal and formal roads as well as areas earmarked for structures.

Any issues relating to heritage will be forwarded to the relevant heritage specialist. Through a fieldwork assessment or survey attempts to consult farmers, landowners and farm workers to help in identifying any intangible heritage sites, sub-surface heritage resources i.e. burial grounds and grave sites within and/ along the proposed route will be engaged, as and when necessary, and where possible. Beyond requests for access and engagements regarding any cultural sites with farmers and staff/ employees no, engagements were undertaken as per the limitation of the scope of this HAI/AIA.

**Background Information Document (BID)** provided by *Wondokoz Trading (Pty) Ltd* presents the following:

*Thevha Sustainable Services (Pty) Ltd* has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the process required to apply for Environmental Authorisation from the Department of Mineral Resources.

- Identified Interested and Affected Parties (I&APS) on the project are therefore required by the law to participate in the EIA process by submitting issues of concern and suggestions on the proposed project.

The prospecting right for Diamond, on Portion 0 of Farm WILDEBEEST KUIL 69 situated within the Kimberly Magisterial District, Northern Cape Province.

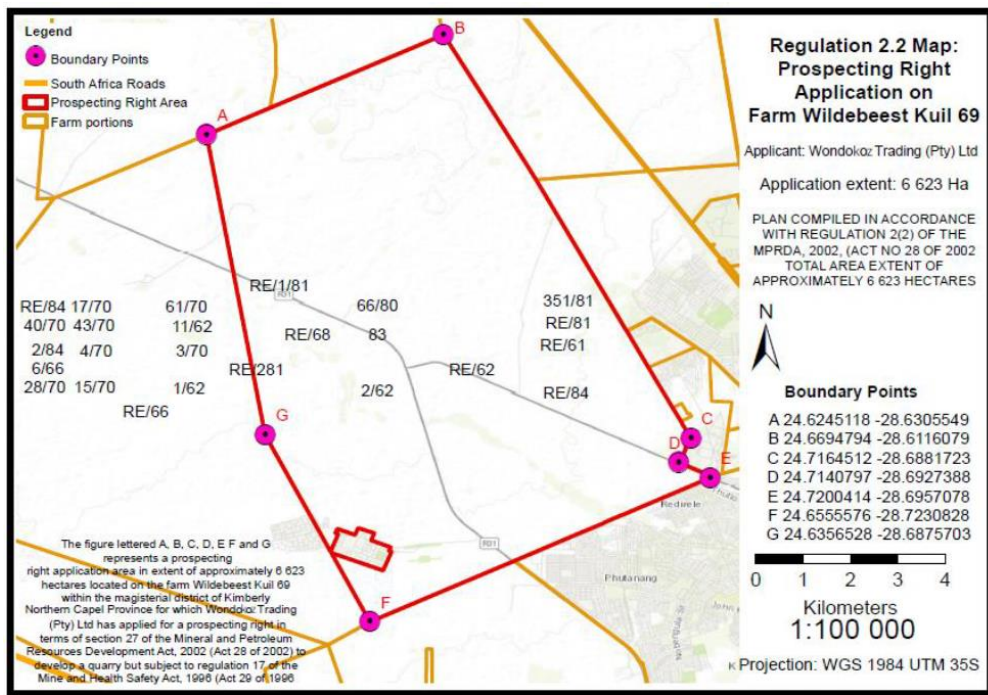


Figure 1: Prospecting Site Locality Map (Thevha Pty Ltd)



Wildebeest Kuil 69 known stone engravings, note close proximity to pans (Morris 2012, 2017)



The proposed prospecting site is in Ward 1, 32 and 30 of the Sol Plaatje Local Municipality under the jurisdiction of the Frances Baard District Municipality. The following farm will be affected:

Table 2: Project-affected land

FARM NUMBER AND PORTION	SG CODE
Farm Wildebeest Kuil Portion 0	C0370000000006900000

It is therefore recommended that the farmers, landowners, tenants and all interested and affected parties be required to confirm the presence of culturally significant areas i.e. graves, burial grounds, spiritual, ritual sites and/ or worshipareas through this public engagement and public participation process.

Should the stakeholder engagement process completed by the Environmental Company prove insufficient in addressing, identifying and locating the culturally significant cultural resources a full-scale social impact assessment is recommended. Where a full-scale social impact assessment is recommended to ascertain the nature of any possible cultural areas of significance to be facilitated by an assessment thereof with the appropriate culturally guided mitigatory recommendations to be affected on the areas. A complete cultural heritage management plan is to be included in the integrated heritage management plan.

### 8.1 Summary of Methodology

- A desktop assessment was conducted of the available historical literature, and it was noted that a comprehensive archaeological survey has already been conducted in the larger areas.
- Desktop geospatial assessment of topographic maps, satellite imagery, paleontological maps and historical research
- The identified resources were considered to evaluate their heritage significance in terms of the grading system outlined in section 3 of the NHRA (Act 25 of 1999).
- Areas of interest were initially earmarked during the web-based geospatial review using high-definition digitalsite maps, aerial satellite images, and digital photographs.
  - Areas with the potential of containing archaeological and/or heritage features and other interest sites were focused on. Other areas of interest included rocky outcrops, erosion dongas and abnormal clumps of trees and other vegetation.
  - Detailed condition assessments of identified sites, graves features and objects were not conducted as it falls outside the scope of this field report.
  - Mitigation and recommendations provided are in line with NHRA Regulations and Archaeological best-practice research methodologies.
- Likelihood assessment, grading and risk analysis was included in the HIA/AIA of identified culral heritage resources with appropriate mitigation recommendations provided
- Recommendations are proposed herein for consideration for implementation by the client, following approval by the relevant PHRA and/ or SAHRA.



## 9. STUDY AREA

### a. Description of the Area

The proposed prospecting activities are to establish mineral resources on the Remaining Extent of Farm Wildebeest Kuil 69 situated within the Magisterial District of Kimberley, Northern Cape Province. The prospecting right for Diamond, on Portion 0 of Farm WILDEBEEST KUIL 69 situated within the Kimberly Magisterial District, Northern Cape Province. The property is located on the western outskirts of Kimberley. Kimberley is the capital of the Northern Cape Province and one of the largest cities in South Africa. The proposed prospecting site is in Ward 1, 32 and 30 of the Sol Plaatje Local Municipality under the jurisdiction of the Frances Baard District Municipality.

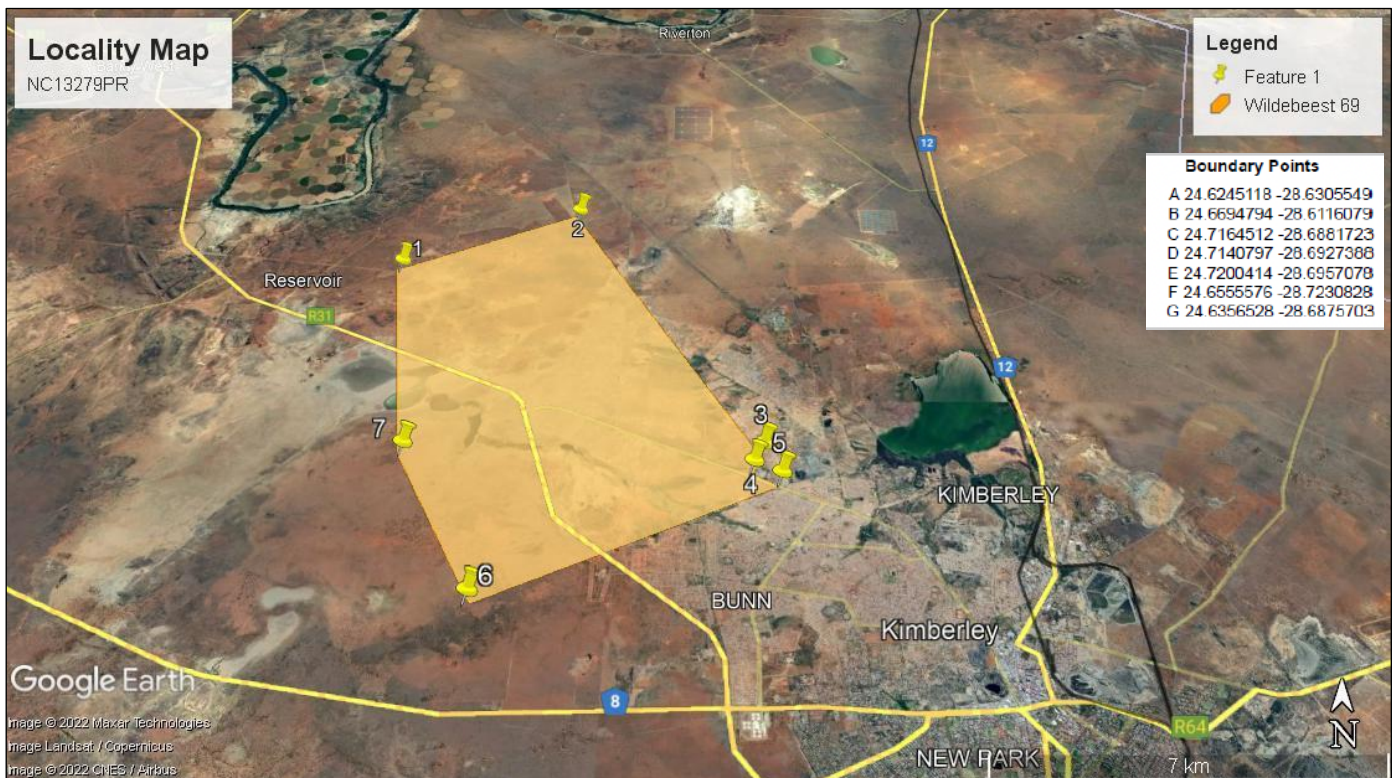


Figure 2: Prospecting Site Extent

The proposed prospecting area is located approximately 25 Kilometres Northwest of the town of Kimberley. The proposed prospecting site is in Ward 1, 32 and 30 of the Sol Plaatje Local Municipality under the jurisdiction of the Frances Baard District Municipality. The application area is approximately 6 623 ha in extent.

The capital city of Kimberley and the largest city of the Northern Cape province of South Africa, its historical significance is due to its diamond mining past and the siege during the World Wars.

Kimberly is set in a relatively flat landscape with no prominent topographic features within the urban limits. The only hills are debris dumps generated by more than a century of diamond mining. From the 1990s these were being recycled and poured back into De Beers Mine. Certain parts, areas and/or sites of the mine dumps, in the vicinity of the Big Hole, have been proclaimed as heritage features and are to be preserved as part of the historic industrial landscape of Kimberley. The surrounding rural landscape consists of relatively flat plains



dotted with hills, mainly outcropping basement rock (andesite) to the north and northwest, or Karoo age dolerite to the south and east. Shallow pans formed in the plains.

### Land Use

Much of the study area is characterised by rural/rural/pastoral low densities of human settlement. The expansion of early farming societies, who, among other things, cultivated crops, raised livestock, and made ceramic containers (pots).

The mined ore and smelted metals occurred in this area between AD 400 and AD 1100 and brought the Early Iron Age (EIA) to South Africa. They settled in semi-permanent villages (De Jong 2010: 35). The SeSotho-SeTswana 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. Most of them were eventually assimilated by Late(er) Iron Age communities, and only a few managed to survive, such as the Korana and Griqua native groups. This period of contact is sometimes known as the Ceramic Late Stone Age and is represented by the Blinkklipkop specularite mine near Postmasburg and found at the Kathu Pans.

The land is currently used for agricultural purposes predominantly farming and grazing. The most prominent anthropogenic elements in these areas include the N14 national route, the R31 main road, power lines and other linear features, such as telephone poles, communication poles and farm boundary fences. The urban nature of the study area is characterised by local formal roads, and social services e.g., schools, informal access roads, formal roads, halls, and community centres inclusive of a museum.

Existing servitudes include: The electrification servitude mainly represents an electric power transmission servitude area over the farm Wildebeest Kuil No.69. Most recently mineral rights prospecting on adjacent farm portions within Wildebeest kuil 69 as well as rezoning of portions for agriculture and filling stations.

### 9.2 Vegetation and Climate

The Kimberley area is a moderate region with primarily summer rainfall. The rainfall is between 250mm and 500mm per year according to *Vegetation of Southern Africa* - By R M Cowling, D M Richardson and S M Pierce. Kimberley normally receives about 283mm rain per year and because it receives most of its rainfall during summer it has a semi-arid climate. It receives the lowest rainfall (0mm) in July and the highest (59mm) in March. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Kimberley ranges from 18.0°C in June to 32.0°C in January. The region is the coldest during July when the mercury drops to 0.3°C on average during the night. (SA Explorer ©, 2013)

The climate of the Northern Cape province is semi-arid with a late summer-autumn rainfall regime. The area is characterised by low shrubland vegetation. The Northern Cape Province biome is predominantly that of Nama-Karoo.

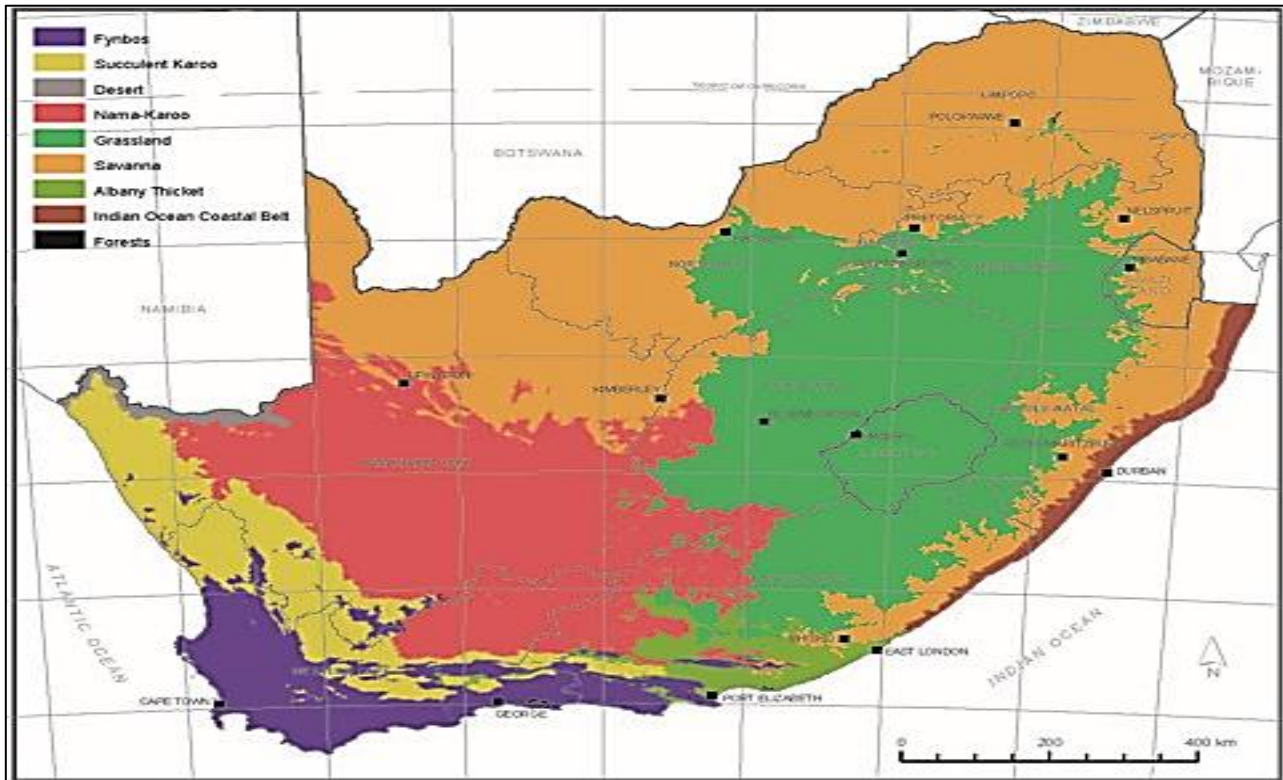


Figure 3: Biome of the Northern Cape Province

The dominant vegetation is grassy, dwarf shrubland. Grasses tend to be more common in depressions and on sandy soils, and less abundant on clayey soils. Grazing rapidly increases the relative abundance of shrubs. Most of the grasses are of the C4 type and, like the shrubs, are deciduous in response to rainfall events (Low & Rebelo, 1996).

The site is predominantly covered by Kimberley Thornveld and Vaalbos Rocky shrubland. Multiple NFEPA wetlands are noted within 500m of the study area (DBaR 2023; Thevha). The surveyed area footprint was provided by *Thevha Environmental Solutions (Pty) Ltd.*

*Arcaheology:*

Early (ESA) and Middle Stone Age (MSA) materials and artefacts aren't well documented in tis area, high concentrations to the western parts of the northern cape have been previously recorded.

According to Morris 2012, 2017; in recent years pans have been found to be very important with several locally significant sites now known alongside ephemeral water sources. Perhaps the most important sites are large pans with exposed bedrock depressions that trap pools of rainwater and around which many artefacts occur. However, small patches of exposed bedrock just a few meters wide and located in the open plains can also trap water Orton (2015, 2016).

The rocky outcrops often also have smoothed patches where grinding (presumably of seeds and other plant foods) took place. Similar grinding patches and/or shallow grooves have been found in a number of other areas around Pofadder (Orton 2018, 2019; Orton & Webley 2012). UIt is not uusual for the area to have small stone-walled features. Orton (2019) documented some of these on and around outcrops where the small weathered boulders



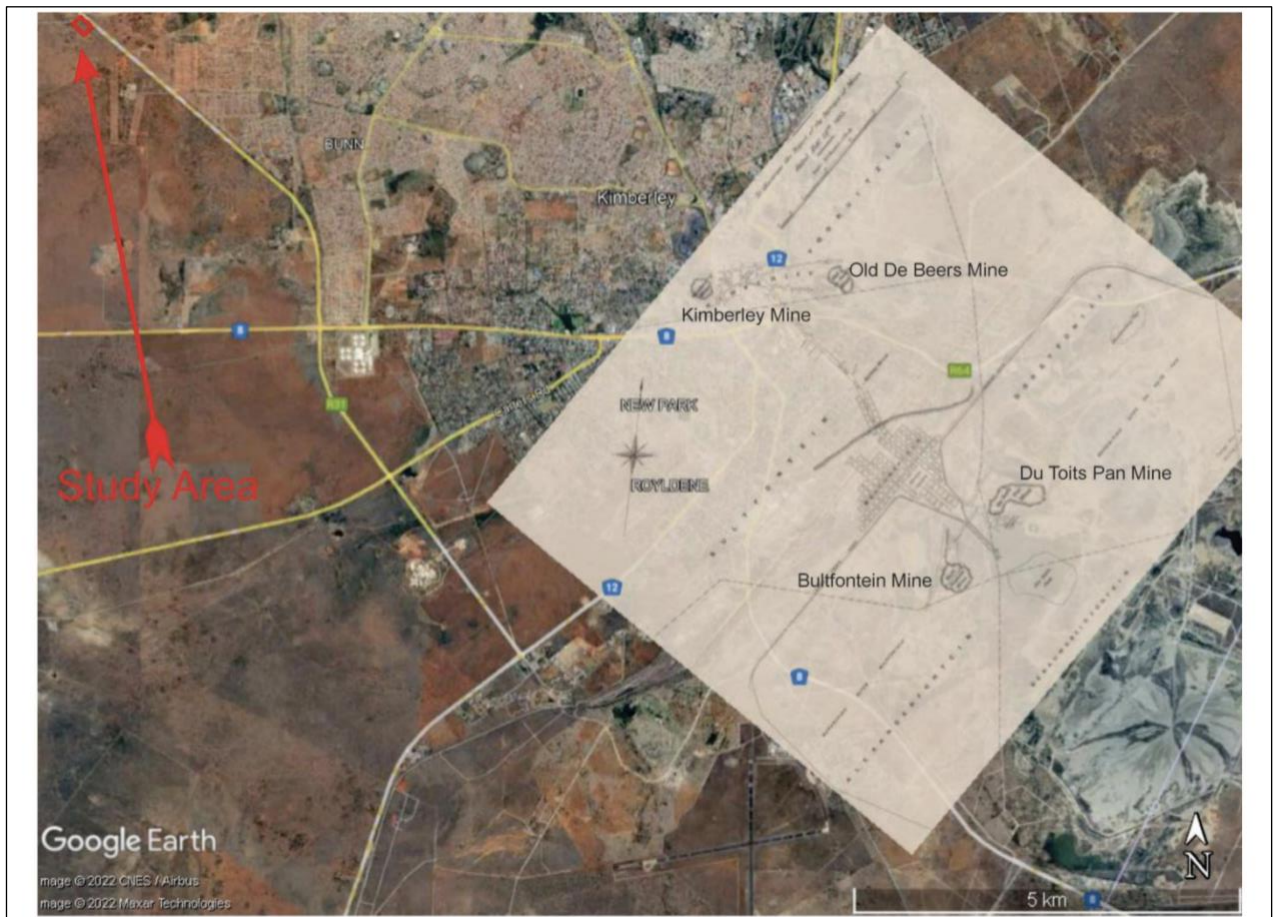


are suitable for piling into walls.

”Rock art is known from the region, the majority of the paintings are geometric motifs that can be ascribed to Khoekhoe herders (Orton 2013; Rudner & Rudner 1968). Historical accounts of travels through southern Africa frequently provide clues to the precolonial occupation of the land. John Barrow and George Thompson both passed through this general area leaving observations on the local population.

Both texts show that the area was well inhabited in the past but that colonial expansion was taking its toll on the indigenous inhabitants. Nevertheless, these observations suggest that archaeological remains, at least pertaining to the more recent prehistoric period, should be abundant on the landscape.

Indicators of scatter of Early Stone Age (ESA) and Middle Stone Age (MSA) artefacts was found across the sites further away and is of very low archaeological significance. However, several discrete Later Stone Age (LSA) sites were found focused around the central pan areas by Palaeo Field Services in 2012 (note image below).



Map indicating historical mining activities, adjacent to the area, ESA and MS artefacts where noted (by Paleo Field Services (2022)



## 10. PALEONTOLOGICAL ASSESSMENT

---

### 10.1 Paleontological Review

Methodological Approach to the palaeontological heritage assessment:

In preparing a palaeontological desktop study the potentially fossiliferous rock units (groups, formations etc) represented within the study area are determined from geological maps and satellite images.

The known fossil heritage within each rock unit is inventoried from the published scientific literature, previous palaeontological impact studies in the same region, and the author's field experience (Consultation with professional colleagues, as well as the examination of institutional fossil collections, may play a role here, or later following field assessment during the compilation of the final report).

This data is then used to assess the palaeontological sensitivity of each rock unit to development (Provisional tabulations of palaeontological sensitivity of all formations in the Northern Cape have been compiled Almond & Pether 2008). The potential impact of the proposed development on local fossil heritage is then determined on the basis of (1) the palaeontological sensitivity of the rock units concerned and (2) the nature and scale of the development itself, most significantly the extent of fresh bedrock excavation envisaged.

The Northern Cape has important examples of fossils that lived far back in ancient Precambrian times, long before multicellular animals became abundant on Earth around 540 million years ago. Carbonate rocks in the Ventersdorp Supergroup in the northeastern part of the province contain what are probably the oldest known fossils in the Northern Cape.

The geological and fossil heritage of the Northern Cape covers over 2.7 billion years of Earth's History. Surface exposure of fresh, unweathered rocks – the optimal source of well-preserved fossils - is unusually extensive here because of the prevailing semi-arid to arid climates. Fossil remains, including marine shells and animal burrows, have been noted.

When rock units of moderate to high palaeontological sensitivity are present within the development footprint, a Phase 1 field assessment study by a professional palaeontologist is usually warranted to identify any palaeontological hotspots and make specific recommendations for any mitigation required before or during the construction phase of the development.



### 11.2 Palaeontological Findings

According to the SAHRA fossil sensitivity map the area is considered to have LOW - HIGH palaeontological sensitivity rating.

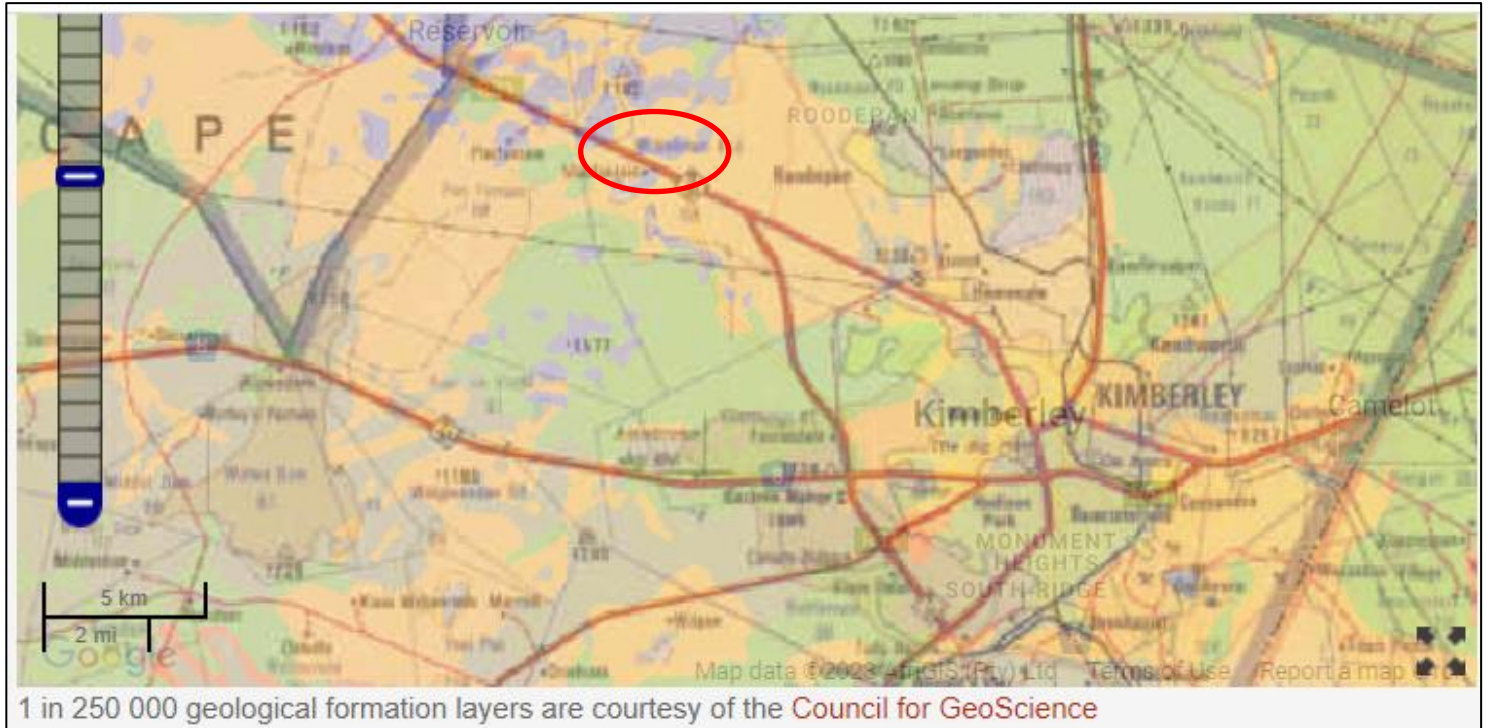


Figure 4: Larger Areas Palaeontological sensitivity Map



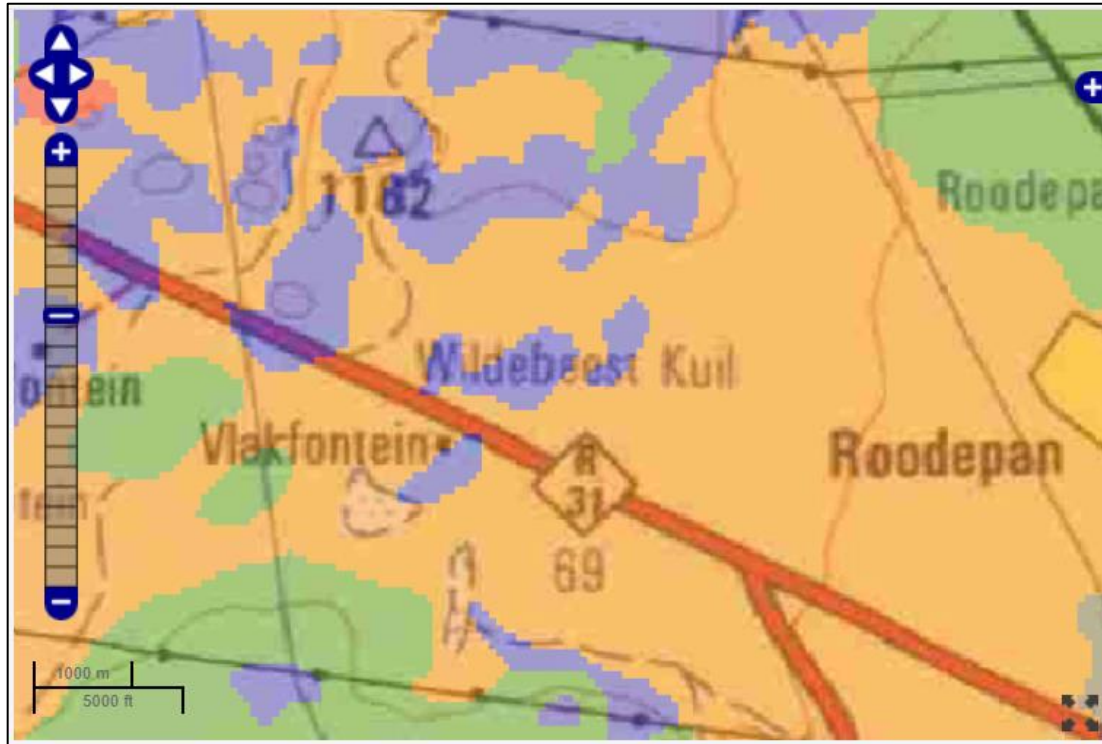


Figure 5: Map indicating the proposed site’s blue and orange/ yellow palaeontological sensitivity

The South African National Palaeontological fossil sensitivity map indicates that the likelihood of fossil materials being uncovered in the project area is likely **MODERATE – HIGH** and that a desktop study and a Chance-finds protocol are required.. Depending on the findings of the desktop study, a field assessment may be required. on-site, the likelihood of these artefacts being uncovered or observed remains **MEDIUM-HIGH**.

Table 3: Table indicating palaeontological sensitivity description.

COLOUR	SENSITIVITY	REQUIRED ACTION
RED	Very High	Field assessment and protocol for chance finds is require
ORANGE/YELLOW	High	Desktop assessment is required, and based on the outcome of the desktop, a field assessment maybe likely
GREEN	Moderate	The desktop study is required
BLUE	Low	No palaeontological studies are required howeveprotocol for finds is required
GREY	Insignificant/zero	No palaeontological studies are required
WHITE/CLEAR	Unknown	This area will require a minimum of desktop study



## PALAEONTOLOGICAL CONCLUSIONS & MITIGATION RECOMMENDATIONS

The likelihood and probability of identifying any palaeontological fossil remain and materials are rated **MODERATE – HIGH**. On the basis of the desktop and Phase 1 field assessment studies, the likely impact of the proposed development on local fossil heritage and any need for specialist mitigation is then determined. Adverse palaeontological impacts normally occur during the construction rather than the operational or decommissioning phase.

Therefore prior to any earth-moving activities a field-based PIA is recommended. The Phase 2 mitigation by a professional palaeontologist – normally involving the recording and sampling of fossil material and associated geological information (e.g. sedimentological data) may be required (a) in the pre-construction phase where important fossils are already exposed at or near the land surface and/or (b) during the construction phase when fresh fossiliferous bedrock has been exposed by excavations.

To carry out mitigation, the palaeontologist involved will need to apply for a palaeontological collection permit from the relevant heritage management authority, i.e. The South African Heritage Resources Agency, SAHRA, for the Northern Cape. The NCPHRA will need to be notified of the intention to develop and acknowledge mitigation activities in their jurisdiction. It should be emphasized that providing appropriate mitigation is carried out, the majority of developments involving bedrock excavation can make a positive contribution to our understanding of local palaeontological heritage.

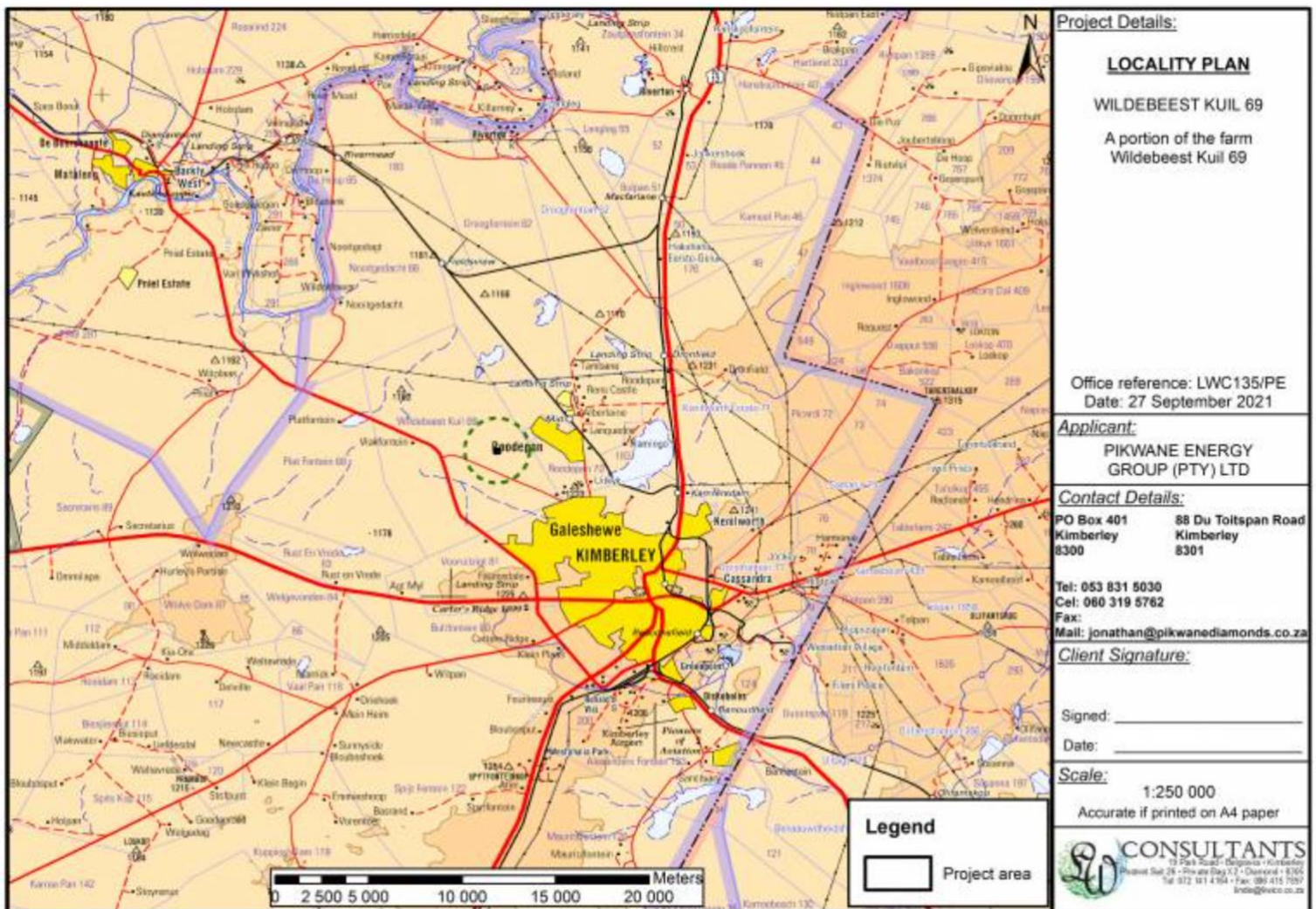


### 11. ARCHAEOLOGICAL & HERITAGE FINDINGS

This report presents the identified findings, discussions and process of documentation of cultural heritage resources undertaken by the heritage specialists and/ or archaeologists to the exclusion of relevant and affected community forum(s) and groups, as well as the affected next-of-kin. An online-based desktop investigation was undertaken.

This section presents the findings of the desktop research which includes archival and historical research about the proposed project area. The assessment was conducted beginning with a historical literature review of texts, documents, writings and available historical data, information and research documents.

The Pre-archaeological site history; History and Colonial sites. Geospatial, Geo-spatial site information.



Heritage impacts are categorized as the following.

- (i) Direct or physical impacts, implying alteration or destruction of heritage features within the project boundaries,
- (ii) indirect impacts, e.g., access restriction or visual intrusion concerning the broader environment.



- (iii) Cumulative impacts are combinations of the above.

Where cumulative impacts are not provided, a secondary probability assessment is provided as follows:

- (I) likelihood assessment (LOW, MEDIUM & HIGH)
- (II) probability rating (LOW, MEDIUM & HIGH)
- (III) significance rating
- (IV) grading assessment (Grade I, II III \*Further subdivided)
- (V) mitigation recommendations (\*specific to heritage resource)

Table 4: Table indicating Likelihood and probability description.

LIKELIHOOD RATING	SIGNIFICANCE DESCRIPTION
LOW	Unlikely that sites or material or objects will be unearthed or discovered in that area
MEDIUM	Regionally significant sites
HIGH	Nationally significant sites
VERY HIGH	Internationally significant sites &/ World heritage listing

The significance of archaeological and historical or culturally significant features, sites, structures and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The SAHRA Guidelines and the Burra Charter define the following criterion for the assessment of cultural significance:

### 12.1 Aesthetic Value

The aesthetic values of the AIA Study Area and the general project area are contained in the valley bushveld environment and landscape typical of this part of the Northern Cape Province. The visual and physical relationship between the AIA study area and the surrounding historical and cultural landscape demonstrates the connection of place to the local and oral history stories of the indigenous African communities who populated this region going back into prehistory.

#### *Aesthetic Value*

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; sense of place, the smells and sounds associated with the place and its use.

Findings: The cultural landscape is largely a natural landscape with aesthetic value and is rated as having medium cultural significance at the local level.

#### *Historic Value*

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. The overall Gauteng region as a place has historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also



have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

#### *Scientific value*

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. Scientific value is also enshrined in natural resources that have significant social value. For example, pockets of forests and bushvelds have high ethnobotany value.

#### *Social Value*

Social value embraces the qualities for which a place has become a focus of spiritual, religious, political, local, national or other cultural sentiment to a majority or minority group. Social value also extend to natural resources such as bushes, trees and herbs that are collected and harvested from nature for herbal and medicinal purposes.

The proposed development site will be situated within an environment and a larger associated cultural landscape, which, although developed by existing agricultural land use, remains representative of the original historical background and cultural landscape of this part of Northern Cape Province.

As such the following may be deduced considering the value of the sites, artefacts, materials, objects and structures, building and burial grounds:

### **VALUATION**

#### *Aesthetic Value*

We cannot at this time provide an aesthetic value to the proposed site earmarked for development. The Phase I assessment cannot provide this level of assessment.

#### *Historic Value*

Although the entire project area is not composed of various infrastructure development, with two historical aspect of cultural significance were recorded on the direct path of an area earmarked for the proposed development. The value of these structures and buildings will need to be evaluated through an on-site investigation and physical assessment.

#### *Scientific value*

Previous construction activities and associated roads, and other auxiliary infrastructure developments and disturbance within the HIA study area associated with the proposed development may have resulted in limited intact significant cultural landscapes with the potential to retain intact large scale or highly significant open archaeological site deposits.

However, should intact archaeological sites be recorded within the proposed site earmarked for the mining development and immediate surrounding areas, they may retain scientific evidence that may add value to the local and regional history.





The Palaeontological Scientific value may only be provided through a full-scale palaeontological assessment by a qualified paleontologist supported by a field-based assessment.

**Social Value**

Under normal circumstances, any site possesses some certain status of social significance at a particular time in a society. The overall area has social value for the local community, as is the case with any populated landscape. The land provides the canvas upon which daily socio-cultural activities are created. All these factors put together confirm the social significance of the project area.

However, this social significance is not going to be adversely impacted by the proposed mining development especially given the fact that the development will add value to the human settlements and activities already taking place. In addition the area has not been extensively already affected by larger scale developments outside of farming and agricultural activities. In addition, the proposed mining activity will add to already existing infrastructure such as informal roads, formal roads, electrification and other proposed infrastructure developments.

The social value of burial grounds and graves is significant in that these heritage assets are considered to positively benefit local communities. The serve as cultural, ritual and spiritually significant sites.

**Aesthetic Value**

The aesthetic values of the AIA Study Area and the general project area are contained in the valley bushveld environment and landscape typical of this part of the Northern Cape Province.

The visual and physical relationship between the AIA study area and the surrounding historical Cultural Landscape demonstrates the connection of place to the local and oral history stories of the African communities who populated this region going back into prehistory.

The proposed development site will be situated within an environment and associated cultural landscape, which, although developed by existing agricultural land use, remains representative of the original historical background and cultural landscape of this part of Northern Cape Province.

**SIGNIFICANCE POINTS (SP)= (MAGNITUDE + DURATION + EXTENT) X PROBABILITY**

The significance of the heritage impact is therefore calculated by multiplying the severity rating with the probability rating. The maximum value that can be reached through this impact evaluation process is 100 SP (points). The significance for each impact is rated as High (PS≥60), Medium (SP=31-60) and Low (SP<30) significance as shown in the below:

*Table 5: Table indicating Significance Rating for proposed project*

SIGNIFICANCE OF PREDICTED <u>NEGATIVE</u> IMPACTS		
Low	0- 30	Where the impact will have a relatively small effect on the environment and will required minimum or no mitigation and as such have a limited influence on the



		decision
Medium	31-60	Where the impact can have an influence on the environment and should be mitigated and as such could have an influence on the decision unless it is mitigated.
High	61-100	Where the impact will definitely have an influence on the heritage resources and must be mitigated, where possible. This impact will influence the decision regardless of any possible mitigation.
<b>SIGNIFICANCE OF PREDICTED <u>POSITIVE</u> IMPACTS</b>		
Low	0-30	Where the impact will have a relatively small positive effect on the environment.
Medium	31-60	Where the positive impact will counteract an existing negative impact and result in an overall neutral effect on the environment.
High	61-100	Where the positive impact will improve the environment relative to baseline conditions.

#### Potential Impacts and Significance Ratings

\*General Condition Assessment of impacts on heritage resources

Land disturbance, dust and deposition on the topographically identified resources are/ is notable.

\*Management Actions

Monitoring and management of construction by the project Environmental Control Officer (ECO) to ensure the implementation of chance finds protocols should any heritage or archaeological objects, materials or human remains be unearthed and/or uncovered during the course of development.

#### GRADING

Section.7(1) of the NHRA provides for the grading of heritage resources into those of National (Grade I), Provincial (Grade II) and Local (Grade III) significance. Grading is intended to allow for the identification of the appropriate level of management for any given heritage resource. Grade I and II resources are intended to be managed by the national and provincial heritage resources authorities respectively, while Grade III resources would be managed by the relevant local planning authority.

These bodies are responsible for grading, but anyone may make recommendations for grading. It is intended under S.7(2) that the various provincial authorities formulate a system for the further detailed grading of heritage resources of local significance but this is generally yet to happen.

SAHRA (2007) has formulated its own system for use in provinces where it has commenting authority. In this system sites of high local significance are given Grade IIIA (with the implication that the site should be preserved in its entirety) and Grade IIIB (with the implication that part of the site could be mitigated and part preserved as appropriate) while



sites of lesser significance are referred to as having 'General Protection' (GP) and rated as GP A (high/medium significance, requires mitigation), GP B (medium significance, requires recording) or GP C (low significance, requires no further action).

#### Heritage Resources Grading Assessment Criteria

- Grade 3a burials
- Grade 3b
- Negligible Grade 3c
- Unknown Grade 3a

*Table 6: Table indicating grading assessment as per NHRA guidelines*

SCORE	GRADE	PROTECTION	RECOMMENDED HERITAGE MITIGATION
16-18	Grade I	National	Nomination for inclusion on the national estate register
13-15	Grade II	Provincial	Nomination as a provincial site/object, included in the national estate
10-12	Grade I IIA	Local	Nomination as a regional site/object, included in the national estate
7-9	Grade I IIB	Local	Heritage resources must be mitigated and partly conserved
4-6	Grade IV A	General	Heritage resources must be mitigated before destruction
1-3	Grade IV B	General	Heritage resources must be recorded before destruction
0	Grade IV C	General	No mitigation required (application for destruction permit maybe required)

#### Significance Assessment

The appropriate management of cultural heritage resources is usually determined on the basis of their assessed significance as well as the likely impacts of any proposed developments. Cultural significance is defined in the Burra Charter as meaning historic, scientific or social value for past, present and future generations.

Social, religious, cultural and public significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of the site of interest, associated place or area are resolved.

Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed for all time, and what is considered of significance at the time of assessment may change as similar items are located, more research is undertaken and community values change.



Significance ratings vary between HIGH, MEDIUM and LOW. The implementation of the aforementioned mitigation measures will reduce the impact rating to LOW or at least MEDIUM. The significance is determined through a synthesis of the characteristics described above (refer to the formula below) and can be assessed as low, medium or high:

$$S = (E+D+M) \times P$$

where S = Significance weighting, E = Extent, D = Duration, M = Magnitude, P = Probability.

Significance ratings vary between HIGH negative and MEDIUM negative. The implementation of the aforementioned mitigation measures will reduce the impact rating to LOW negative or at least MEDIUM contrary, as per the table above and in line with ICOMOS international standards for the significance of heritage resources.

ICOMOS RATING

- Very high (World Heritage Sites)
- High (Nationally significant sites)
- Medium (regionally significant sites)
- Low (locally significant sites)

Table 7: Table indicating significance rating scale as per international standards

RATING	SIGNIFICANCE DESCRIPTION
LOW	Locally significant sites for that area
MEDIUM	Regionally significant sites
HIGH	Nationally significant sites
VERY HIGH	Internationally significant sites &/ World heritage listing

Impact analysis of cultural heritage resources under threat of the proposed development is based on the present understanding of the development type. The practitioner shall advise on the legislative approach to be followed thereafter should the discoveries provide for a secondary Phase 2 Impact assessment to be undertaken when mitigation approaches are being undertaken.





### 11.1 Archaeological Findings

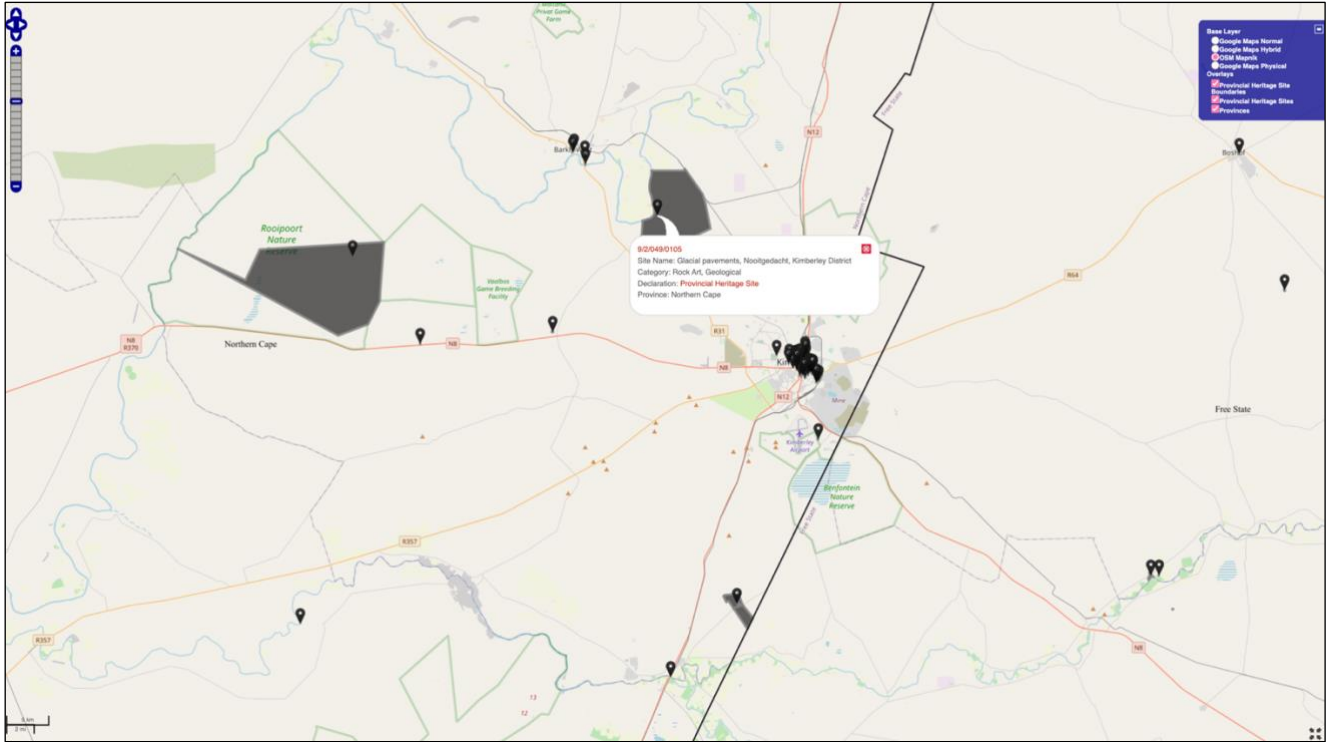
Archaeological sites within the Kimberley region are associated with stone age occurrences. The nearby well-known Wildebeest Kuil Rock Art Centre is home to more than 400 images and many further pecked or rubbed markings are spread over a small hill. Dating back as far as about 1800 years ago, it is believed the engravings record the visions of Later Stone Age “shamans” as they went into states of trance

The Wildebeestkuil rock engraving site was identified in the proposed areas. According to SAHRA “The site has cultural, social, artistic and historical significance. Ngao Boshwa Kapa Bokoni, the Provincial Heritage Resources Authority established in terms of Section 23 of the National Heritage Resources Act (Act 25 of 1999) and Official Notice 5 of 28 February 2003, hereby and in terms of powers vested in it by virtue of Section 2/1.7 of the National Heritage Resources Act declares Wildebeest Kuil situated on Remainder of Farm Wildebeest Kuil No. 69, in the Sol Plaatje Municipality, Frances Baard District as a Provincial Heritage Site.

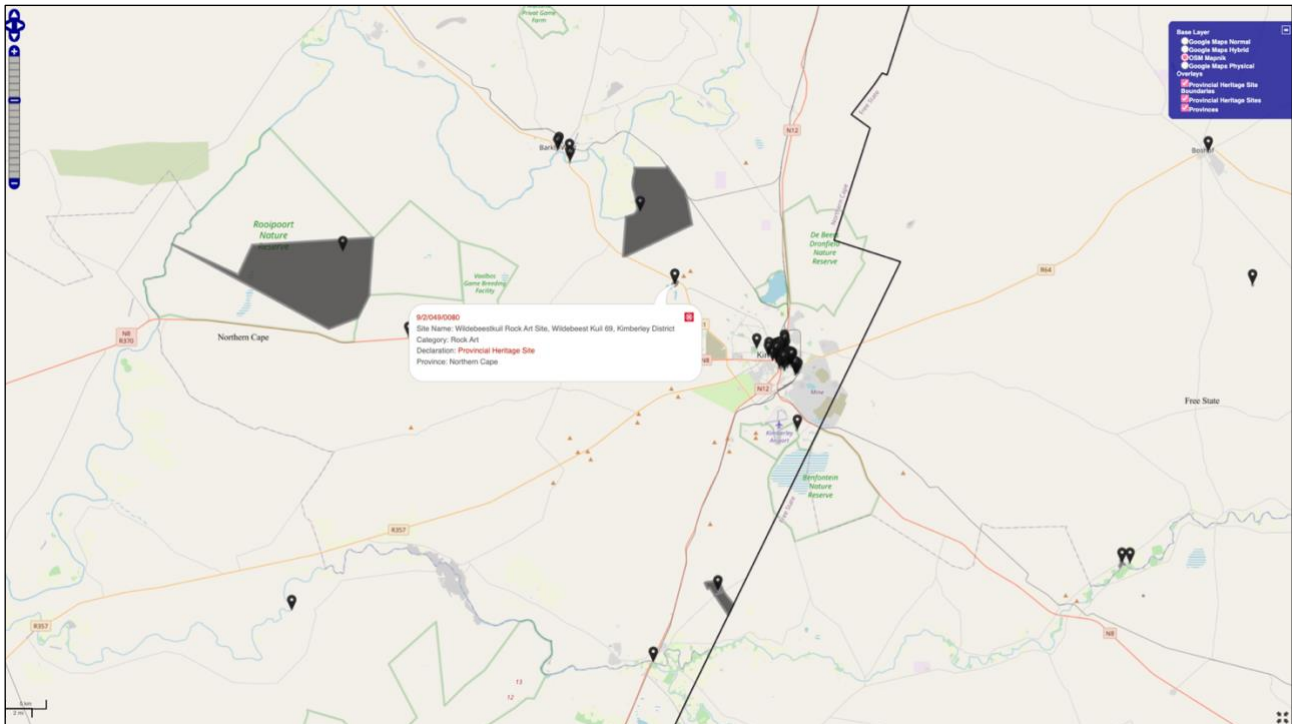
This site consists of a low hill with a high density of rock engravings and associated late stone age debris, concentrated within a relatively small area. More than 400 documented engravings have been identified on the site, one of which is used as the logo of the Provincial Heritage Resources Authority. The rock art is a good example of that found in the area. According to historical record the site is also associated with Kousop, the last of the San leaders of the area to organise active resistance to Trekboer encroachment.”

The site has cultural, social, artistic and historical significance. This site consists of a low hill with a high density of rock engravings and associated late stone age debris, concentrated within a relatively small area. More than 400 documented engravings have been identified on the site, one of which is used as the logo of the Provincial Heritage Resources Authority. The rock art is a good example of that found in the area. According to historical record the site is also associated with Kousop, the last of the San leaders of the area to organise active resistance to Trekboer encroachment.

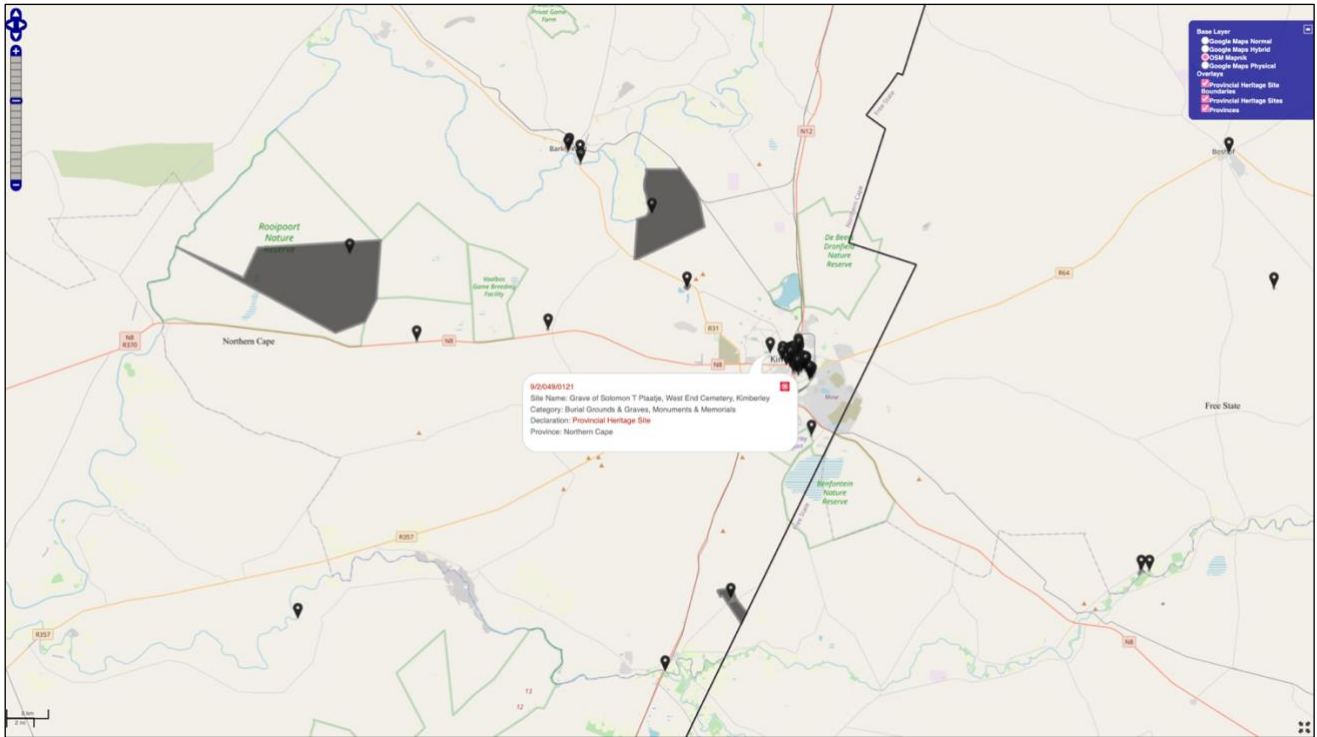
Various declared provincial heritage sites exist within the larger area including the burial ground of Sol Plaatjie within the town of Kimberley. Site Specific details of the declared sites are below:



Declared Provincial Geological Site (SHARIS 2023)



Location of Known Wildebeest Kuil Rock Art Site (SAHRIS 2023)



Declared Burial Ground of Sol Plaatjie (SAHRIS 2023)

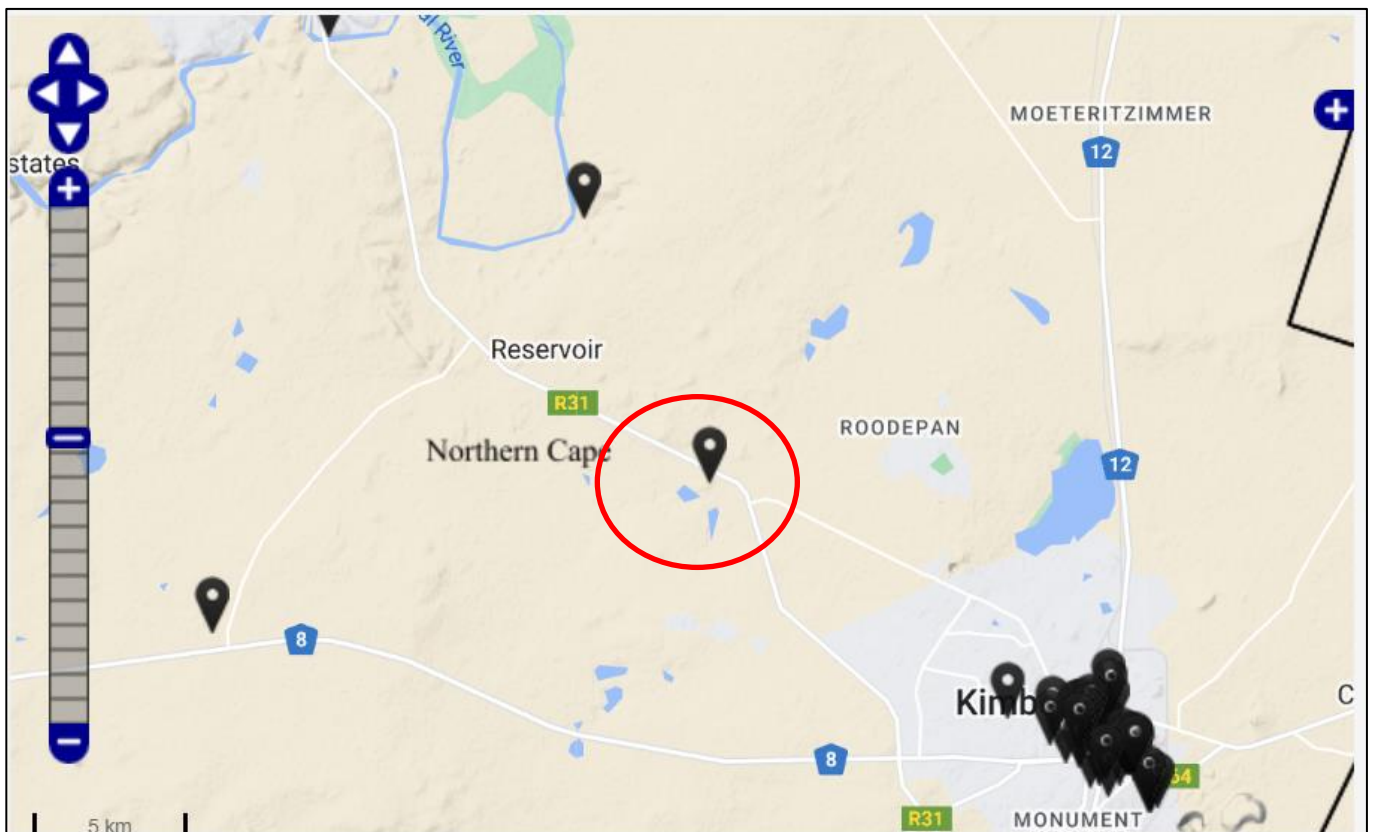


Figure 6: Map indicating the all Provincial heritage sites within and around the project site



### 11.3 Buildings and Structures

There are buildings and structures within the proposed prospecting project site. Of particular interest are the windmills, as they indicate the harnessing of electricity using air and wind energy, which indicates known areas of site occupation for agricultural and domestic use. There are numerous structures visible however, it is difficult to indicate their significance from the map, therefore further site assessment may be required.

Grading and evaluation of the building are to be provided through on-site investigation. To evaluate the architectural and aesthetic principles for conservation, protection and or preservation protocols. Mitigation in regards to buildings and structures identified on-site includes demolition of structures not confirmed to be heritage structures as well as in situ conservation provided mitigation includes at least site documentation and a buffer around structures and buildings within active mining areas.

Most buildings and structures are likely to be dated to the 1920's during the known European settlements in the area. The Farmsteads with identified revorviours may provide a historical cultural landscape of the larger site and region.

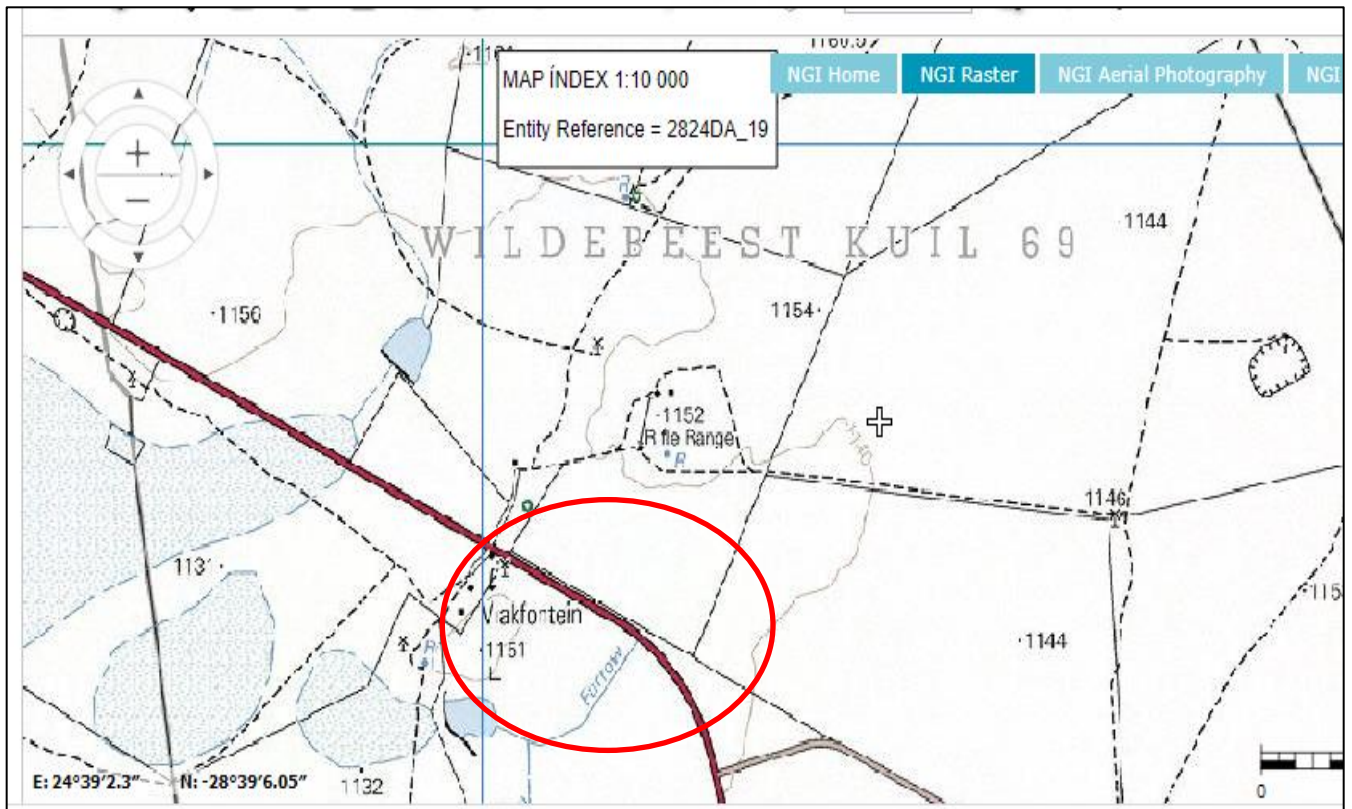


Figure 7: Topographic Site Map indicating buildings and structures within the proposed project site (Map 1:10 000)





Figure 6: 1: 250 000 Map of the project receiving area

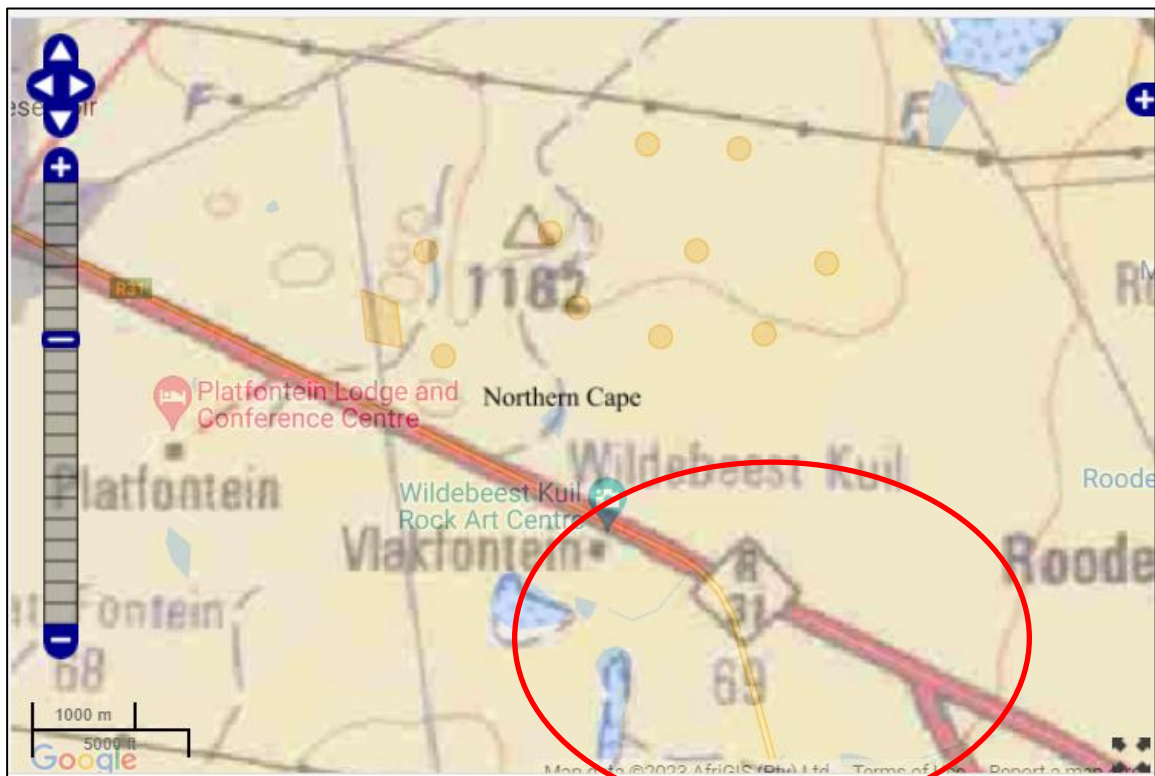


Figure 8: 1:50 000 Map of the project receiving area, note the declared Wildebeest Kuil Rock Art Centre.



Aerial topographic satellite image of an area of interest in the proposed area, this is adjacent to known Rock art Centre (dates to 1940)



Aerial topographic satellite image of an area of interest in the proposed area, this is adjacent to to known Rock art Centre indicated in red circle (dates to 1940)



Aerial topographic satellite image of an area of interest in the proposed area indicating previous farming and agricultural activity (dates to 1940)



Location of the Ou Besie Dam



Note watershed and pans in the proposed area, as well as rocky outcrops

#### HERITAGE STRUCTURES & BUILDING ASSESSMENT:

The study area has not been extensively impacted by industrial and residential developments in the area. Some modern structures are found on-site, these structures have historical or architectural significance and satellites, as well as historic maps, confirm and provide evidence that the structures are older than 60 years, and further mitigation will be necessary for this site.

#### LIKELIHOOD, PROBABILITY & IMPACT RATINGS

There are no observable buildings, or historical structures noted on the wider receiving area. However, evidence of these is notable in the Figure above. Cumulative impacts on these structures remain **MODERATE** with mitigation recommendations for destruction or demolition permits and authorisations to be provided as and/ when necessary.

The mitigation protocols for heritage structures are attached in the below annexures and/ or attachments.

The likelihood and/or probability of identifying heritage structures can therefore be rated **LOW** whilst the



likelihood of identifying culturally sensitive archaeological structures, such as kraals, hut floors and stone walling remains **MEDIUM-LOW**.

The cumulative impact rating of these structures may be provided when identified and or confirmed. None were noted, overall grading score for identifiable heritage structures is **Grade 1-3**, meaning it is granted a Grade IV-B rating where the mitigation recommendation includes the recording of buildings and structures prior to their demolition and or destruction.

#### 11.4 Summary of Findings

Section 38(8) of the NHRA states that if an impact assessment is required under any legislation other than the NHRA then it must include a heritage component that satisfies the requirements of S.38(3). Furthermore, the comments of the relevant heritage authority must be sought and considered by the consenting authority prior to the issuing of a decision. Under the National Environmental Management Act (No. 107 of 1998; NEMA), as amended, the project is subject to an EIA. The present report provides the heritage component. Ngwao-Boswa Ya Kapa Bokoni (Heritage Northern Cape; for built environment and cultural landscapes) and the South African Heritage Resources Agency (SAHRA; for archaeology and palaeontology) are required to provide comment on the proposed project in order to facilitate final decision making by the DMRE.

Table 8: Summary Table of Heritage Resource findings

HERITAGE RESOURCE	STATUS/ FINDINGS + PROBABILITY RATING + GRADING
Built Environment (Structures, places, equipment, place)	Numerous farmsteads exist on farm earmarked for proposed development- Grade IV-B
Historical Settlements (Townscapes)	None identified in the study area, probability LOW- Grade IV-B
Landscapes and Natural features of Cultural Significance	None recorded on the study site, probability LOW - Grade IV-B
Archaeological sites (Deposit, features, structures)	One identified, potential site recorded and flagged as *HIGH risk, likelihood and probability rating HIGH
Heritage Sites	One <i>declared</i> and known recorded within the proposed area
Movable artefacts, objects, material	None identified, interest areas noted HIGH likelihood and probability rating
Burial Grounds and graves	None Identified. There is potential to encounter unmarked subsurface burial grounds, graves, human remains *High Risk
Intangible Heritage Sites (Battlefields, Ritual sites)	Nonrecorded or identifiable - awaiting PPP outcomes
Rock art sites (Engravings, caves, shelters)	None identified or noted, probability Medium-Low



The HIA consisted of a preliminary desktop review of relevant archival material sources, relevant databases survey, geographic maps overview, including aerial and digital satellite imagery. It should be noted that the implementation of the proposed mitigation measures is subject to prior approval from SAHRA and/ NC PHRA's.

All possible care has been taken during the comprehensive intensive desktop study to identify sites of cultural importance within the development areas. However, it is essential to note that some heritage sites may have been missed due to their subterranean nature or due to dense vegetation cover. No subsurface investigation (i.e. excavations or sampling) was undertaken since a permit from SAHRA is required for such activities.

Therefore, should any heritage features and/or objects such as architectural features, stone tool scatters, artefacts, human remains, or fossils be uncovered or observed during construction, operations must be stopped, and a qualified archaeologist contacted for an assessment of the find.

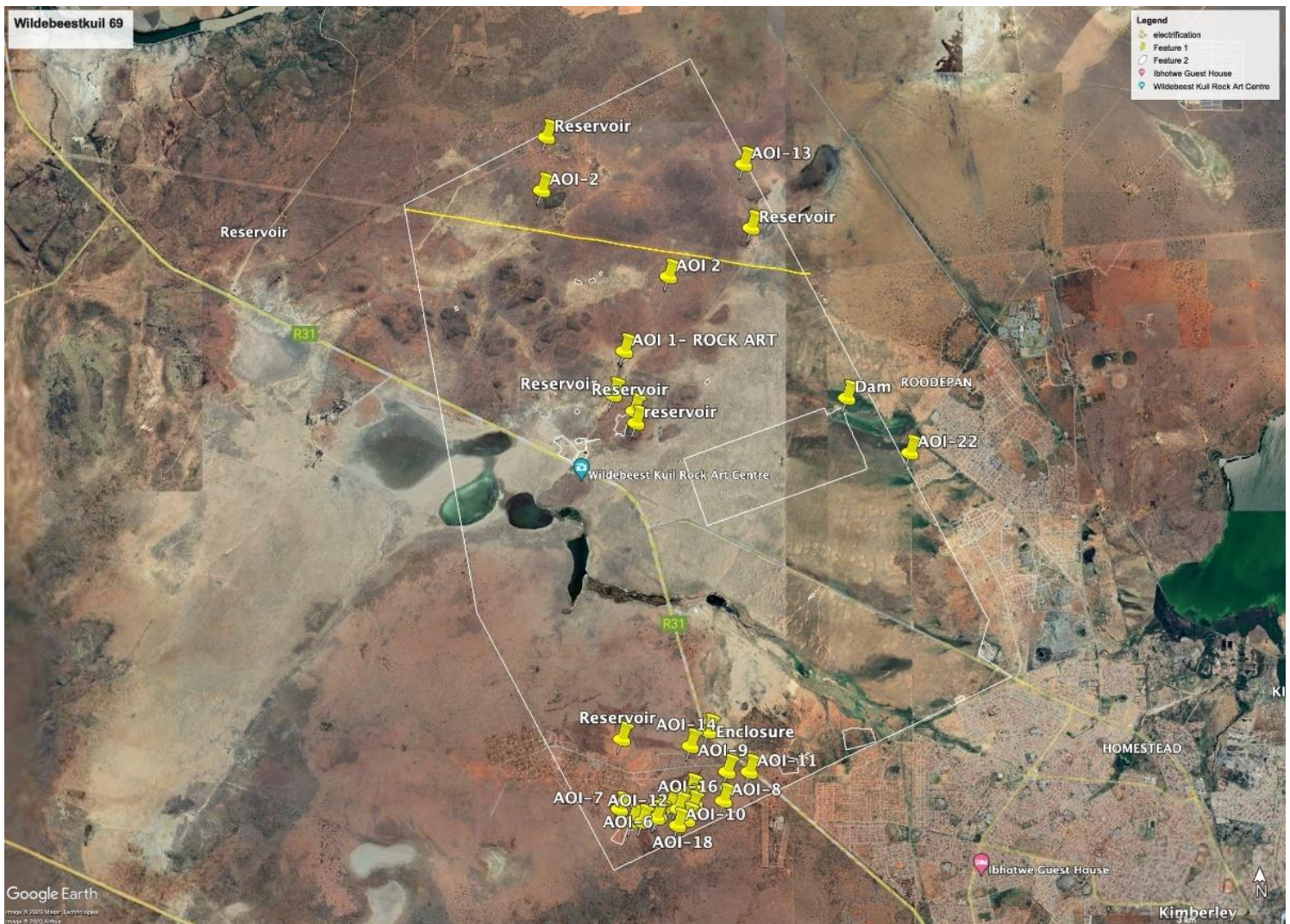


Figure 9: Topographic Map indicating identified areas flagged as possible heritage/ paleontological and/or heritage sites within earmarked area





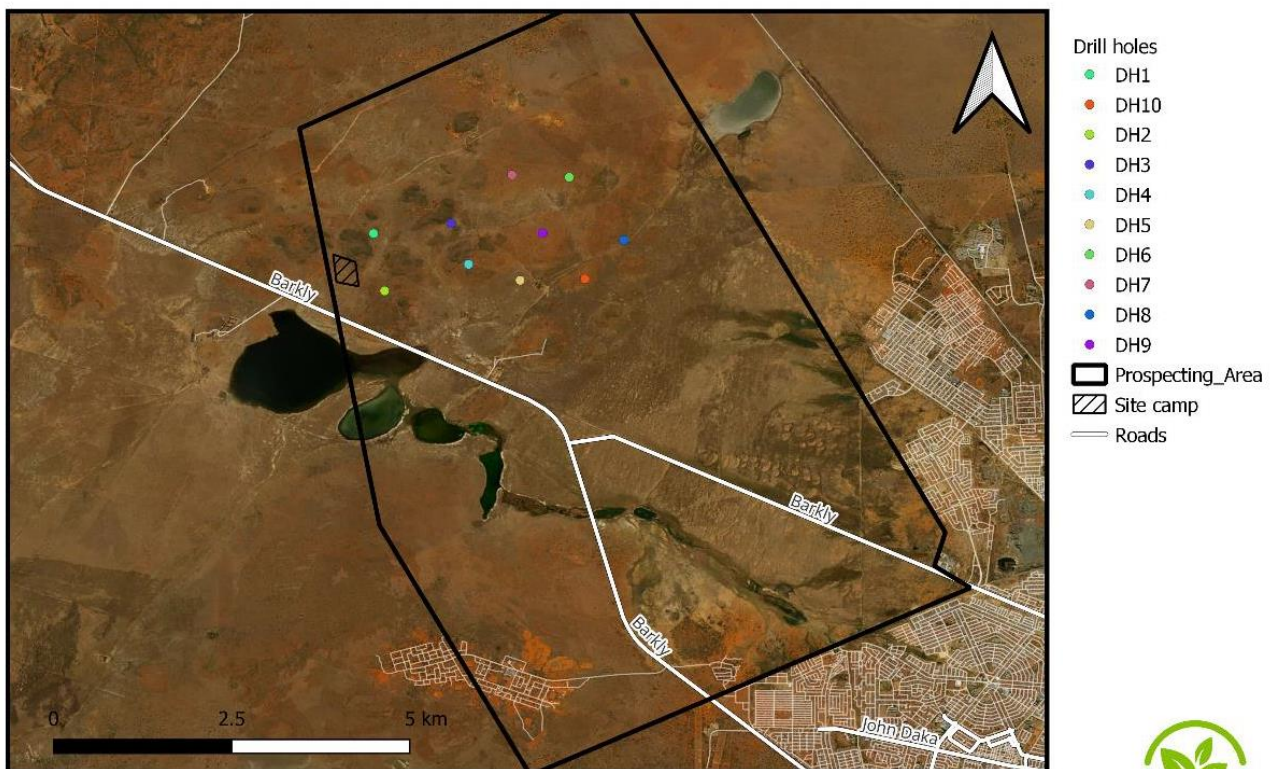
Identifiable Heritage Sites within the study area have been noted and addressed below. While it remains HIGHLY likely with a high probability margin of identifying graves and subsurface human remains. However, this desktop survey proves inadequate to report the presence of graves and burial grounds in the proposed project receiving area.

While a number of burrow pits were noted through satellite imagery reconnaissance. Due to the subterranean nature of burial grounds and graves, the burrow pits will need to be surveyed and analysed for human remains and or sub-surface faunal material may be identified and/or observed as well as provide palaeontological material evidence.

A total of 19 Areas of Interest (AOI) were identified for possible archaeological, potential historical and paleontological material. These include evidence of archaeological material i.e. lithics, historical structures, possible hut floors, circular enclosures, diggings, as well as possible burial grounds.

The four areas fagged in white are within the area earmarked for the proposed site layout plan, specific to the drillholes. With the sitecamp proposed in the area with high likelihood of having archaeological and/ paleontological materials.

These areas maybe ephemeral pan with dark gravel clasts on the surface and in some instances could be accrete low gravel or bedrock outcrops



**SITE LAYOUT MAP**  
**DMRE REF NUMBER: NC13279PR**  
**APPLICANT NAME: WONDOKOZ (PTY) LTD**





Figure 10: Prospecting Site Layout Map, note the areas marked by colour points as project receiving area

### BURIAL GROUNDS AND GRAVES FINDINGS

The Burial Ground was noted having identifiable gravestones and/ headstones and burial indicators, the number of graves is uncertain. The site will need to be investigated and a comprehensive condition assessment conducted for each grave to provide for adequate and compliant conservation.

The exact geospatial information /or location co-ordinates of these structures are presented in the table below:

Table 9: Summary Table of features with mitigation recommendations

FEATURES	CO-ORDINATES	ID/ DESCRIPTION	MITIGATION RECOMMENDATIONS
AOI-	- 30°46'17.44"S;17°57'37.50"E	Possible Lithics & Palaeo	Phase II PIA- Mitigation, Collection
AOI 1	- 30°46'43.60"S17°56'49.09"E	Archaeology	Site Documentation, No further Mitigation
AOI-2	-30°47'14.82"S 17°56'23.19"E	Possible Kraal	Site Documentation, No further Mitigation
AOI-3	-30°47'28.63"S 17°55'38.45"E	Possible Kraal	Site Documentation, No further Mitigation
AOI-4	-30°54'28.13"S 17°56'9.04"E-	Historical Structure	Site Documentation, Demolition and/ or destruction permit, Grade IV-B
AOI-5	-30°50'32.02"S 17°53'29.51"E	Archaeology	Site Documentation, No further Mitigation
AOI-6	-30°49'14.03"S 17°54'0.67"E	Archaeology	Site Documentation, No further Mitigation
AOI-7	-30°50'13.50"S 17°53'21.87"E	Archaeology	Site Documentation, No further Mitigation
AOI-8	-30°49'51.84"S 17°51'20.20"E	Archaeology	Site Documentation, No further Mitigation
AOI	- 30°52'48.71"S17°52'25.07"E	Possible Lithics	Phase II AIA/ HIA, Mitigation, Collection
Possible Burial Site	- 30°53'13.49"S17°52'46.63"E	Archaeology & BGG	Phase II HIA/ AIA, Mitigation, In situ conservation, buffer, grave relocation*HIGH-RISK
Structure	- 30°53'13.49"S17°52'46.63"E	4 Confirmed Building and Structures	Site Documentation, Demolition and/ or destruction permit

*\*All areas of interest have been noted but will need to be confirmed, documented and assessed, as per their description*



Where grading and significance ratings are provided, note these are subject to field-based confirmation, grading and likelihood are to be confirmed on site. The identified objects, structures, buildings, sites and archaeological materials identifiable are limited to what was available at the time of compiling this study. Where oversights are noted and/or do occur these will be addressed through a recommended ground reconnaissance survey.

An assessment of impact ratings at scoping, pre-construction and construction phase is not possible at this time.

## 11. CONCLUSION AND RECOMMENDATIONS

This report included background information on the Stone Age, Iron Age, and pre-colonial and historical archaeology of the region in order to contextualize the likely heritage resources of the area under investigation as well as relevant heritage legislation and conservation policies. The general aim of the impact assessment is to determine the extent of the proposed project on the identified heritage resources and, through deduction, attempt to predict any possible impacts on any of the unidentified heritage resources. All impacts are envisaged to occur during construction activities, during the surface earthwork.

A total of 19 heritage resources were identified topographically including a possible burial ground as well as a known declared provincial heritage site. Appropriate mitigatory recommendations were provided for with grading of identifiable confirmed structures and buildings where possible. Sites not graded have been excluded to ensure adequate grading assessment through field-based survey. High risk and flagged areas include a possible burial ground and stone enclosures. Subsurface terrain implies the existence of a cultural

This impact assessment is only subject to the HIA/AIA with a brief paleontological review. A qualified palaeontologist is additionally needed to the paleontological assessment of the proposed development footprint. An Archaeologist will be required for site minimal mapping and recording of the structures is further needed, site recording and sampling, social consultation and permitting (relevant heritage authorities) and authorization (affected and associated parties) should also be conducted by a qualified archaeologist.

The following recommendations regarding identifiable archaeological, paleontological and heritage resources are proposed:

### a. Archaeological

The archaeological history within the area provides that possible sub-surface archaeological material may be identified onsite. Unmarked human remains may be uncovered or exposed during excavations and/or earth moving activities.

The main heritage concern for this project is the cultural landscape.

In the event that excavations and earthmoving activities expose significant sub-terrain archaeological or heritage resources, such activities must be halted in the immediate vicinity and SAHRA must be notified immediately. Chance finds protocols are attached below.

- If exposed during development, archaeological resources must be dealt with in accordance with the National Heritage Resources Act (No. 25 of 1999) and at the expense of the developer;



- Stone age material is likely to be identified through field-based assessment, with that; archaeological mitigation accordingly recommended for lithics and stone tool assemblages. A suitably qualified Stone Age archaeologist has investigated the archaeological occurrences of stone age material.
- The NCHPRA should be contacted and/ or informed of any areas where archaeological, heritage and cultural resources are identified and/ or exist to facilitate the protection and conservation thereof
- In the event of exposing human remains during construction, the matter will fall into the domain of the South African Heritage Resources Agency and will require a professional archaeologist to undertake mitigation if needed. Such work will also be at the expense of the developer.
- Topographic Map Sheet 1: 2500 000
- The likelihood of finding archaeological resources is HIGH in accordance with map 1:10 000 Ref 2428DA\_19. Potential stone age sites could therefore yield archaeological resources, included grave/burial sites.
- Considering that this area is within the proposed project area, anticipated impact is **HIGH**.
- desktop research does not provide adequate information for the Grading of any possible archaeological resources. it is therefore recommended that a field assessment be conducted.

**b. Palaeontological**

The proposed study area is of **LOW to HIGH** palaeontological sensitivity. Significant impacts on palaeontological heritage resources due to the proposed prospecting activities can be anticipated in some areas. Therefore, a desktop study is required, and depending on the outcome of the study, a field assessment may be required for this project. In the case of any substantial new fossil finds made during construction (e.g. vertebrate teeth, bones, burrows, petrified wood, shells), these should be safeguarded - preferably in situ - and reported by the ECO as soon as possible to SAHRA.

The project Environmental Control Officer (ECO) and/ or Environmental Assessment Practitioner (EAP) responsible for the development must remain aware that all sedimentary deposits have the potential to contain fossils and they should thus monitor all substantial excavations into sedimentary bedrock for fossil remains.

Table 10: Table indicating palaeontological sensitivity description

COLOUR	SENSITIVITY	REQUIRED ACTION
RED	Very High	Field assessment and protocol for chance finds is require
ORANGE/YELLOW	High	Desktop assessment is required, and based on the outcome of the desktop, a field assessment maybe likely
GREEN	Moderate	The desktop study is required
BLUE	Low	No palaeontological studies are required however protocol for finds is required



GREY	Insignificant/zero	No palaeontological studies are required
WHITE/CLEAR	Unknown	This area will require a minimum of desktop study

### Aesthetics and Visual Impacts

- Low aesthetic and visual impacts to be considered during prospecting activities. During prospecting, large construction vehicles and equipment will alter the natural character of the study area and expose visual receptor locations to visual impacts associated with construction.
- The prospecting activities may be perceived as an unwelcome visual intrusion, particularly in more natural undisturbed settings. Vehicles and trucks travelling to and from the proposed site on gravel access roads are also expected to increase dust emissions.
- The increased traffic on gravel roads and the resultant dust plumes could create a visual impact and may evoke negative sentiments from surrounding viewers. Surface disturbance during construction would also expose bare soil which could visually contrast with the surrounding environment.
- Additionally, temporarily stockpiling soil during prospecting may alter the landscape. Wind blowing over these disturbed areas could therefore result in dust which would have a visual impact. The significance of visual impacts without mitigation measures during construction is rated as moderate.
- With carefully planned mitigation measures, the project ECO or Contractor may reduce aesthetic impacts during all phases if any heritage resources outside of the dilapidated built environment structures are identified.
- A full-scale Palaeontological Impact Assessment (PIA) is recommended to be undertaken by a qualified Palaeontologist with necessary procedures and mitigation recommendations be developed and proposed.
- Consult a professional palaeontologist to conduct a physical palaeontological review on the western and northern extent of the site where the areas are unknown.

### c. Buildings & Structures Findings & Recommendations

1. The likelihood of identification of structures and building within the area are **HIGH**
2. **HIGH** impact rating for buildings and structures in the southeastern extent of the proposed area for mining development, due to paleontological sensitivity
3. Grading of the structures and buildings will require a field-based assessment, to evaluate their cultural heritage significance. A recommendation for the application for demolition of structures of **LOW** cultural significance cannot be provided at this time. A full-scale Phase II will need to be undertaken to ensure the architectural and cultural significance of these structures.

The survey identified historical sites and provincial heritage site (i.e. The Wildebeest Kuil Rock Art Centre) within the prospecting right application site.

The proposed prospecting right application yielded archaeological sites/ material. Based on the field study results and field observations, it is the considered opinion of the author that the receiving environment for the proposed prospecting is **MEDIUM TO HIGH** potential to yield previously unidentified archaeological



sites during prospecting work.

Beneficial and adverse impacts can be direct or indirect, as well as cumulative, as implied by the examples. Cumulative impacts are defined as impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project.

Therefore, the assessment of cumulative impacts for the proposed development is considered the total impact associated with the proposed development when combined with other past, present, and reasonably foreseeable future developments projects. An examination of the potential for other projects to contribute cumulatively to the impacts on heritage resources from this proposed development project was not undertaken during the preparation of this report.

The total impact arising from the proposed project (under the control of the applicant), other activities (that may be under the control of others, including other developers, local communities, government) and other background pressures and trends which may be unregulated.

The project's impact is, therefore one part of the total cumulative impact on the environment. The analysis of a project's incremental impacts combined with the effects of other projects can often give a more accurate understanding of the likely results of the project's presence than just considering its impacts in isolation.

The impacts of the proposed prospecting are assessed by comparing the post-project situation to a pre-existing baseline. Where projects can be regarded as in isolation this provides a suitable method of evaluating a project's impact. However, in this case, there are several infrastructure developments, including agricultural activities where baselines have already been affected.

The proposed prospecting will continue to add to the impacts in the region, it was deemed inappropriate to consider the cumulative effects of the proposed development at this time without adequate field based and on-site ground reconnaissance.

Although indirect impacts may be more difficult to foresee, assess and quantify, they must form part of the assessment process. The following assessment criteria have been used to determine the probability of expected and/ or anticipated impacts of the proposed development on possible identified heritage resources:

*Table 11: Table indicating summary likelihood and probability criteria and rating scales*

CRITERIA	RATING SCALE	NOTES
Probability % (the likelihood of an impact occurring)	Low	It is highly unlikely or less than 50% likely that an impact will occur
	Medium	It is between 50%-70% certain that an impact will occur
	High	It is more than 75% certain that an impact will occur, or it is definite that the impact will occur
significance (all impacts including potential risk, and	Low	Low consequence and low probability Low consequence and medium probability Low consequence and high probability



cumulative impact	Medium	Medium consequence and low probability Medium consequence and medium probability Medium consequence and high probability High consequence and low probability
	High	High consequence and medium probability  High consequence and high probability

Adapted from Ubique Heritage Consultants (2018)\*

The significance of the sites, structures and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.

Cultural significance is site-specific and relates to the content and context of the site. Therefore the overall site is provided a **LOW probability** for archaeological material and a **Medium – Low** sensitivity rating.

**HIA CONCLUSIONS AND RECOMMENDATIONS**

All possible care has been taken during the comprehensive intensive desktop study to identify sites and interest areas of cultural importance within the proposed development area. The HIA consisted of a preliminary desktop review of relevant archival material sources, relevant database surveys, and geographic maps overview, including aerial and digital satellite imagery. However, it is essential to note that a field survey is required as some heritage sites may have been overlooked and/or remain unidentified due to their subterranean/ subsurface nature or due to vegetation cover.

- Therefore, a field-based ground reconnaissance survey is recommended to confirm the identified high-risk areas for heritage features, archaeological material and/or objects such as architectural features, stone tool scatters, artefacts, human remains, or fossils.
- Should any cultural material be uncovered or observed during and/ or prior to construction, all operations must be halted or stopped within the immediate vicinity, and a qualified archaeologist and/ or cultural heritage practitioner must be contacted for an assessment of the finds and provide effective and appropriate mitigation measure and processes (Chance finds protocols attached).

Based on the outcome of Phase II a comparative rating of significance will be assigned to heritage resources as prescribed in the National Heritage Resources Act (Act 25 of 1999). Careful planning can minimize the impact of archaeological surveys on development projects by selecting options that cause the least amount of inconvenience and delay. **Permission for the development to proceed can be given** only once the heritage resources authority has received and approved a Phase 2 report and is satisfied that measures are in place to ensure that the archaeological sites that will be impacted upon by the development have been adequately recorded and sampled.

It should be kept in mind that archaeological deposits usually occur below ground level. Should



archaeological artefacts or skeletal material be revealed in the area during construction activities, such activities should be halted in order for an investigation, analysis and recommendations for mitigation to be provided for by suitable and qualified specialists. Chance finds protocols provided herein to be adhered to as far as possible prior to, during and post-construction to ensure lowest possible adverse effects on identified heritage assets and cultural resources.

Archaeological resources are point-specific, it will be required that a field-based survey should be carried out prior to construction to inspect and analyse whether any further mitigation-worthy archaeological resources are present within the newly proposed development footprint. Observed or located heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist has been able to assess the significance of the site (or material) in question and the finds are appropriately documented.

- One possible grave or burial ground, or area containing possible graves has been identified through the desktop assessment. The extent and/ or the number of graves or burial sites has yet to be confirmed. It is HIGH significance rating and is to be treated with respect. Mitigation protocols can be found in attachments 1-3 below. In the unlikely event of any unmarked human burials, graves and/ or burial grounds are identified a full phase II HIA/ or AIA process is recommended.
- Due to the nature of the project palaeontological sensitivity a qualified palaeontological foot survey will be necessary for the site. From the desktop palaeontological review conducted, the development may not lead to detrimental impacts on the palaeontological resources of the area along the proposed areas Eastern extent.
- The monitoring of the development progress by an ECO is recommended during the planning and construction phases is recommended; should any subsurface palaeontological, archaeological or historical material, or burials are exposed during construction activities, all activities should be suspended, and the archaeological specialist should be notified immediately.
- A field-based social impact assessment is recommended should the public participation process provide that such structures are present. A full-scale Phase II HIA is recommended should burial grounds. Human remains or graves be unearthed or uncovered.
- The project environmental control officer (ECO) be informed of the "Chance finds Protocol" to be implemented and adhered to should any cultural heritage structures, objects, materials, features or graves of significance be uncovered during earth-moving activities in the construction phase of the project.
- Prospecting teams to be inducted to identify heritage features before engaging any earth-moving equipment on-site during initial project construction.
- The appointed archaeologist be on-site to monitor the clearing of the vegetation during the ground clearing to areas of interest. As previously stated, a complete Phase II Heritage Impact assessment to be conducted, including an intensive public participation and/or stakeholder engagement process





to be undertaken for the relocation of any graves, or burial grounds identified or uncovered during construction and/ or during prospecting activities.

- The Phase II HIA will include a detailed Palaeontological assessment to ensure the area's palaeo-environmental sensitivity is assessed and rated, with the appropriate recommendations and mitigation requirements presented. A full-scale Palaeontological Impact Assessment (PIA) is recommended to be undertaken by a qualified Palaeontologist with necessary procedures and mitigation recommendations be developed and proposed.
- Observed or located heritage features and/or objects may not be disturbed or removed in any way until such time that the heritage specialist has been able to assess the significance of the site (or material) in question. The cultural landscape qualities of the region are made up of a pre-colonial element consisting of limited Stone Age occupation and much more densely Iron Age occupation, as well as a much later colonial (farmer) component, which eventually gave rise to the current urban element.
- An on-foot field survey and associated ground reconnaissance must be conducted to establish and assess these cumulative impacts of flagged and identified heritage resources. The proposed project site has been significantly disturbed by existing and previous land use activities and current activities and existing developments. It is the professional opinion that the listed project development and its associated activities will have an impact on heritage resources within the site-specific area.
- Visual impact and easthetic value assessment will need to be conducted to evaluate the impacts on possible cultural. Heritage resources on the site

The impact assessment is only subject to the AIA and HIA. Although a desktop palaeosensitivity review was undertaken as part of this HIA assessment, no palaeontological impact assessment was not undertaken.

- Therefore it is recommended that Palaeontological field-based monitoring be conducted where Paleontological resources may be identified prior to and/or during construction. The areas' Paleontological resources chance finds a protocol to be strictly adhered to where possible and evidence of any accidental finds be immediately reported (see Appendix A and E). No objections to the proposed development going ahead provided effective monitoring is conducted appropriately.

This HIA has identified one occurrence of heritage resources; Wildebeestkuil Rock Art Centre that will not be directly impacted negatively by the proposed development.

This HIA/ AIA is subject to the relevant heritage resources agency (SAHRA) accreditation and approval. The final pronouncement of the project lies with the appropriate heritage resources agency.



## REFERENCE LIST

---

- Aerial views of the area: Google Earth 2020.
- Almond, J.E. & Pether, J. (2008). Palaeontological heritage of the Northern Cape.
- Archaeological Impact Assessment of 10 borrow pits and five new quarries for the proposed upgrading of the gravel road (MR739) between Garies and Hondeklipbaai, Northern Cape. Report prepared for Enviro Logic. ACRM. Cape Town.
- James. Webley, L. 1992. The history and archaeology of pastoralist and hunter-gatherer settlement in the north-western Cape, South Africa. Unpublished D.Phil. thesis: University of Cape Town.
- National Environmental Management Act, 1998 (Act 107 of 1998).
- National Heritage Resources Act, 1999 (Act 25 of 1999).
- Palaeontological Heritage Assessment: Desktop Study Proposed Wind Energy Facility and Associated Infrastructure on Namies Wind Farm (Pty) Ltd Near Aggeneys, Northern Cape Province John E. Almond PhD (Cantab.) Natura Viva Cc, Po Box 12410 Mill Street, Cape Town 8010, RSA Naturaviva@Universe.co.za September 2013.
- SAHRA. 1999. Government Gazette 1999. National Heritage Resources Act No. 25 of 1999.
- SAHRA. 2007. SG 2.2 SAHRA APM Guidelines: Minimum Standards for the Archaeological and Palaeontological Components of Impact Assessment Reports.
- SAHRA. 2008. Site Management Plans: Guidelines for the Development of Plans for the Management of Heritage Sites or Places. (see specifically Section 7). ([www.sahra.org.za](http://www.sahra.org.za)).
- The Republic of South Africa. 1998. National Environmental Management Act (No 107 of 1998). Pretoria: The Government Printer. <https://cer.org.za/virtual-library/legislation/national/environmental-framework/national-environmental-management-act-1998>.
- The Republic of South Africa. 1999. National Heritage Resources Act (No 25 of 1999). Pretoria: The Government Printer.
- Engelbrecht, J. & Fivaz, H. (2019) Proposed New Township Development, Lethabo Park, on the Remainder of the Farm Roodepan No.70, Erf 17725, and Erf 15089, Roodepan Kimberley, Sol Plaatje Local Municipality, Frances Baard District, Northern Cape.
- Kruger, N. (2014). The Proposed Reprocessing of the St Augustine Mine Dumps on Two Portions of Erf 8622 in Kimberley, Kimberley Magisterial District, Northern Cape Province. Archaeological Impact Assessment
- Lombard, M., Wadley, L., Deacon, J., Wurz, S., Parsons, I., Mohapi, M. Swart, J. & Mitchell, P. (2012). South African and Lesotho Stone Age sequence updated. *South African Archaeological Bulletin* 67: 123-144.
- Matenga, E. (2017). Phase I Heritage Impact Assessment (Including Palaeontological Assessment) Requested in Terms Of Section 38 of The National Heritage Resources Act No 25/1999 For A Mining Right on a Portion of Portion 1 & Portion of Portion 351 of Farm Vooruitzicht 81 Kimberley District, Northern Cape Province.
- Penn, N. (2005). *The Forgotten Frontier: Colonist and Khoisan on the Cape's Northern Frontier in the 18th Century*. Athens. Ohio University Press and Double Storey Books: Ohio and Cape Town.
- <http://www.solplaatje.org.za/residents/Pages/Overview.aspx>



- <http://www.solplaatje.org.za/Tourism/Pages/About-Kimberley.aspx>
- <https://thebighole.co.za/>
- <https://thebighole.co.za/>
- <https://www.kimberley.co.za/places/kimberley/free/wildebeest-kuil-rock-art-centre/>
- <https://www.atlasobscura.com/places/wildebeest-kuil-rock-art-centre>
- <https://sahris.sahra.org.za/phsmap>
- <http://cdngiportal.co.za/CDNGIPortal/>
- HERITAGE IMPACT ASSESSMENT: PROPOSED POFADDER WIND ENERGY FACILITY 3, ZF MGCAWU DISTRICT, NORTHERN CAPE Required under Section 38(8) of the National Heritage Resources Act (No. 25 of 1999) SAHRA Case No.: 18177 Report for: SiVEST Environmental Division SiVEST SA (Pty) Ltd P.O. Box 1899, Umhlanga Rocks, 4320 Email: michelleg@sivest.co.za On behalf of: Pofadder Wind Facility 3 (Pty) Ltd Dr Jayson Orton ASHA Consulting (Pty) Ltd 23 Dover Road, Muizenberg, 7945 Tel: (021) 788 1025 | 083 272 3225 Email: jayson@asha-consulting.co.za 1 st draft: 15 February 2022 2 nd draft: 01 March 2022 3 rd draft: 21 July 2022 Final report: 30 July 2022
- HERITAGE IMPACT ASSESSMENT: PROPOSED POFADDER WIND ENERGY FACILITY 2, KENHARDT MAGISTERIAL DISTRICT, NORTHERN CAPE Required under Section 38(8) of the National Heritage Resources Act (No. 25 of 1999) SAHRA Case No.: 18176 Report for: SiVEST Environmental Division SiVEST SA (Pty) Ltd P.O. Box 1899, Umhlanga Rocks, 4320 Email: michelleg@sivest.co.za On behalf of: Pofadder Wind Energy Facility 2 (Pty) Ltd Dr Jayson Orton ASHA Consulting (Pty) Ltd 23 Dover Road, Muizenberg, 7945 Tel: (021) 788 1025 | 083 272 3225 Email: jayson@asha-consulting.co.za 1 st draft: 15 February 2022 Final report: 01 March 2022
- Narratives and Journeys in Rock Art : A Reader / Nash, George;Mazel, Aron - Oxford : Archaeopress, 2018 - 702 p. - ISBN: 9781784915612 - Permalink: <http://digital.casalini.it/9781784915612> - Casalini id: 4732527
- PHASE I HERITAGE IMPACT ASSESSMENT (INCLUDING PALAEOANTHROPOLOGICAL ASSESSMENT) REQUESTED IN TERMS OF SECTION 38 OF THE NATIONAL HERITAGE RESOURCES ACT NO 25/1999 FOR A PROSPECTING RIGHT ON A PORTION OF PORTION 1 OF THE FARM VOORUITZIGT 81, KIMBERLEY DISTRICT, NORTHERN CAPE PROVINCE Prepared by Edward Matenga (MPhil, Archaeology; PhD Archaeology &Heritage, Uppsala/Sweden) Friday, 26 May 2017
- Phase 1 Heritage Impact Assessment for proposed new Petrol Station on farm Platfontein 68, Kimberley, NC Province. Report prepared by Paleo Field Services PO Box 38806 Langenhovenpark Bloemfontein, 9330 September 2022
- *Rock art in the Northern Cape: the implications of variability in engravings and paintings relative to issues of social context and change in the precolonial past* by David Roger Neacalbánn McIntyre Morris
- *A thesis submitted in partial fulfilment of the requirements for the degree of Philosophiae Doctor in the Department of Anthropology and Sociology, University of the Western Cape. November 2011. & February 2012. Supervisor: Professor A.J.B. Humphreys*
- *Morris, D. 2006a. The importance of Wildebeest Kuil: 'a hill with a future, a hill with a past'. Paper presented at SACRA Conference, Kimberley, February 2006.*
- *!Xun and Khwe Elders. 2009. "Wildebeest Kuil Story." Digital story (told in !Xun and in Khwedam, with English sub-titles) on Youtube, at*



<http://www.youtube.com/watch?v=CQVHs9yPFZs> (most recently accessed 28 Sep 2011).  
Background information and a transcript of the story in English is at Kalahari Peoples  
Network, “Wildebeest Kuil the digital  
story,” <http://www.kalaharipeoples.net/article.php?i=101&c=14> (most recently accessed  
28 Sep 2011).



## APPENDIX 1: DEFINITION OF TERMS/TERMINOLOGY

- Archaeology- the study of past human cultures through human beings' material culture remains.
- Artefact- Entities whose characteristics result in or partially result from human activity. The shape and the other attributes of the artefact are not altered by the removal of the surroundings in which they are discovered. Examples of artefacts include potsherds, iron objects, lithics, beads, hut remains, shells etc.
- Assemblage- A group of artefacts recurring together at a particular time, space and place, and representing the sum of human activities.
- Archaeological Material- artefacts resulting from human agents which are in a state of disuse and are in, or on land, which are older than 100years, including artefacts, human and hominid remain, features, structures and sites.
- Conservation- means all the processes of looking instead after a place so as to retain its cultural significance
- Cultural Heritage Resources- refers to physical, and cultural properties such as archaeological and palaeontological sites, historic and prehistoric places, buildings, structures and materials, cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials, geological or natural features of cultural significance or scientific significance. Cultural Heritage Resources also include intangible resources such as religious practices, ritual ceremonies, oral histories, memories and indigenous knowledge, structures, places, natural feature aesthetics and scientific architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.
- Cultural Significance- means aesthetic, historical, scientific, social or spiritual value for past, present or future generations. Also encompasses the complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/ research and social values.
- Ceramic Traditions- the cultural representation of ceramics, a series of ceramic units that constitutes ceramic tradition.
- Culture- is defined as the learned and shared commonalities that people have, do and think
- A cultural landscape- refers to a distinct geographic area with cultural significance
- Cultural Resources Management- a system of measures for safeguarding the archaeological heritage of a given area, generally applied within the framework of legislation to safeguard the past.
- Excavation - The method of data acquisition in archaeology involves the systematic unearthing of remains through the removal of lithospheric deposits of soil, stone and rock materials covering and accompanying it.
- Heritage- That which is inherited and forms part of the National Estate (Historical places, objects, fossils as defined by the NHRA Act 25 of 1999.
- Phase 1HIA Assessment- Is an in-depth investigation which identifies archaeological and heritage resources, sites, assets and objects, assessment of their significance and comments on the impact of a given development on the sites. Recommendations for



the site mitigation of conservation are also made in this phase.

- Site - A distinct spatial clustering of artefacts, objects, features, structures and organic environmental remains indicating human agency and activity. These include surface sites, caves and rock shelters, more significant open-air sites, sealed sites (deposits) and rover deposits.
- Stratigraphy- the principle examines and describes the observable layers of sediments and the arrangement of strata in deposits, usually detectable via transverse cross-section
- Stratified Sampling- a sampling strategy where a study area is subdivided into appropriate zones-often based on the probable location of the archaeological regions, after which each zone is sampled at random
- Systematic Sampling- a sampling strategy whereby a grid of sample blocks is set up over the survey area, and each of these blocks is equally spaced and searched
- Tradition- Artefact types, assemblages of tools, architectural styles, economic practices or art styles that last longer than a phase and even a horizon are described by the term tradition. A typical example of this is the early Iron Age tradition of Southern Africa.
- Impact- the positive or negative effects on human well-being and/ or the environment.
- In Situ-material culture and surrounding deposits in their original location and context, for example, an archaeological site that has not been disturbed by farming
- IA- Iron Age period is an archaeological term used to define a period associated with domesticated livestock and grains, metalworking and ceramic manufacture.
- I&AP-Interested and Affected Parties- Interested and affected parties Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a suggestion or movement and its consequences.
- Mitigation- Anticipating and preventing adverse impacts and risks, then to minimise them, rehabilitate or repair has implications to the extent feasible.
- Public participation process- means a process of involving the public in order to identify issues and concerns and obtain feedback on options and impacts associated with a proposed project, programme or development. Public Participation Process in terms of NEMA refers to a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to specific matters
- Palaeontology- Any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.
- GIS- Geographic Information systems are computer software that allows layering of various types of data to produce complex maps; useful for predicting site location and for representing the analysis of collected data within sites and across regions.
- Management- actions associated with the proposed development, that avoid, mitigate, restore, rehabilitate or compensate for the negative or adverse impacts and implications.
- Oral Histories- The historical narratives, stories and traditions passed from generation to generation by word of mouth
- Fossil- mineralised bone and / organic material of animals, shellfish plant and marine life.



## APPENDIX 2: STATEMENT OF HERITAGE SIGNIFICANCE

Rating the significance of archaeological sites and consequently grading the potential impact on the resources is linked to the importance of the site itself. The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions.

Historical structures are defined by Section 34 of the National Heritage Resources Act, of 1999, while other historical and culturally significant sites, places and features, are generally determined by community preferences.

The guidelines as provided by the NHRA (Act No. 25 of 1999) in Section 3, with particular reference to subsection 3 are used when determining the cultural significance or other particular value of archaeological or historical sites. In addition, ICOMOS (the Australian Committee of the International Council on Monuments and Sites) highlights four cultural attributes, which are valuable to any given culture.

**Aesthetic Value:** Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria include consideration of the form, scale, colour, texture and material of the fabric, the general atmosphere associated with the place and its uses and also the aesthetic values commonly assessed in the analysis of landscapes and townscapes.

**Historical Value:** Historic value encompasses the history of aesthetics, science and society and therefore, to a large extent, underlies all of the attributes discussed here. Usually, a place has historical value because of the influence of an event, person, phase or activity.

**Scientific Value:** The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality and on the degree to which the place may contribute further substantial information.

**Social Value:** Social value includes the qualities for which a place has become a focus of spiritual, political, national, or another cultural sentiment to a certain group. It is essential for heritage specialists input in the EIA process to consider the heritage management structure set up by the NHR Act.

It makes provision for a 3-tier system of management, including the South Africa Heritage Resources Agency (SAHRA) at a national level, Provincial Heritage Resources Authorities (PHRAs) at a provincial and the local authority.

The Act makes provision for two types or forms of protection of heritage resources, i.e. formally protected and generally protected sites:

### Formally Protected Sites

- Grade 1 or national heritage sites, which are managed by SAHRA



- Grade 2 or provincial heritage sites, which are managed by the PHRA.
- Grade 3 or local heritage sites.

#### General Protection

- Human burials were older than 60 years.
- Archaeological and palaeontological sites.
- Shipwrecks and associated remains older than 70 years.
- Structures were older than 60 years.

#### APPENDIX 3: HERITAGE IMPACT ASSESSMENT PHASES

- Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
- Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
- Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
- Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
- Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
- Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.





#### APPENDIX 4: PROCEDURE FOR CHANCE PALAEOLOGICAL FINDS

The following protocol must be followed in the case of construction revealing new palaeontological material, such as a big fossil find:

- The responsible officer (e.g. the ECO or contractor manager) shall inform a palaeontologist of major or unusual discoveries during excavation, found by the Contractor Staff.
- If a major in situ occurrence is exposed, the excavation will immediately cease in that area so that the discovery will not be disturbed or altered in any way until the designated specialist or scientists have had a reasonable opportunity to investigate the finding.
- If the palaeontologist is convinced that this is a major find, an inspection of the site must be scheduled as soon as possible in order to minimize delays to the development.
- From the site visit, the palaeontologist will make one of the following recommendations:
  - o The material is of no value so development can proceed, or:
  - o Fossil material is of some interest and a representative sample should be collected and put aside for further study and to be incorporated into a recognized fossil repository after a permit was obtained from SAHRA for the removal of the fossils, after which the development may proceed, or:
  - o The fossils are scientifically important and the palaeontologist must obtain a SAHRA permit to excavate the fossils and take them to a recognised fossil repository, after which the development may proceed.
- If any fossils are found then a schedule of monitoring will be set up between the developer and palaeontologist in case of further discoveries.



## APPENDIX 5: NHRA LEGISLATION IN DETAIL

The National Heritage Resources Act (NHRA) Act 25 Of 1999, according to the above-mentioned act, the following is protected as cultural heritage resources:

- 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 are older than 60 years
- f. Proclaimed heritage sites
- g. Graveyards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of 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. Sites of 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.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon.

An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length.
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5000m<sup>2</sup> or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m<sup>2</sup>
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority



Structures Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

- A structure means any building, works, device or other facility made by people and which is fixed to land and includes any fixtures, fittings and equipment associated therewith.
- Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade-in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure that is older than 60 years as protected. The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA).

In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed. Human remains Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise



disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals. Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations.

Exhumation of graves must conform to the standards set out in the Ordinance on Excavations (Ordinance no. 12 of 1980) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the Human Tissues Act (Act 65 of 1983 as amended).

1. The National Environmental Management Act This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

2. Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible, and where this is not possible the disturbance should be minimized and remedied.



## APPENDIX 6: BURIAL GROUNDS, GRAVES MANAGEMENT AND DEVELOPMENT

Graves younger than 60 years are protected in terms of Section 2(1) of the Removal of Graves and Dead Bodies Ordinance 7 of 1925 as well as the Human Tissues Act 65 of 1983.

– Graves older than 60 years, situated outside a formal cemetery administered by Local Authority are protected in terms of Section 36 of the NHRA as well as the Human Tissues Act of 1983. Accordingly, such graves are the jurisdiction of SAHRA. The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of NHRA) is applicable to graves older than 60 years that are situated outside a formal cemetery administered by a local authority. Graves in the category located inside a formal cemetery administered by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation.

The protocol for the management of graves older than 60 years situated outside a formal cemetery administered by a local authority is detailed in Section 36 of the NHRA: (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victims of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

(c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3)(b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority—

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached



agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority—

- (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
- (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

Extracts relevant to this report from the National Heritage Resources Act No. 25 of 1999, (Sections 5, 36 and 47): General principles for heritage resources management 5.

(1) All authorities, bodies and persons performing functions and exercising powers in terms of this Act for the management of heritage resources must recognise the following principles:

- (a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival;
- (b) every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interests of all South Africans;
- (c) heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and
- (d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain.

(2) To ensure that heritage resources are effectively managed—

- (a) the skills and capacities of persons and communities involved in heritage resources management must be developed, and; and
- (b) provision must be made for the ongoing education and training of existing and new heritage resources management workers.

(3) Laws, procedures and administrative practices must—

- (a) be clear and generally available to those affected thereby;
- (b) in addition to serving as regulatory measures, also provide guidance and information to those affected thereby; and
- (c) give further content to the fundamental rights set out in the Constitution.

(4) Heritage resources form an essential part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management.



- (5) Heritage resources contribute significantly to research, education and tourism and they must be developed and presented for these purposes in a way that ensures dignity and respect for cultural values.
- (6) Policy, administrative practice and legislation must promote the integration of heritage resources conservation in urban and rural planning and social and economic development.
- (7) The identification, assessment and management of the heritage resources of South Africa must—
- (a) take account of all relevant cultural values and indigenous knowledge systems;
  - (b) take account of material or cultural heritage value and involve the least possible alteration or loss of it;
  - (c) promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs;
  - (d) contribute to social and economic development;
  - (e) safeguard the options of present and future generations; and
  - (f) be fully researched, documented and recorded.

#### Burial grounds and graves 36.

- (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.
- (2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (3), and must maintain such memorials.
- (3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority—
- (a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of the conflict, or any burial ground or part thereof which contains such graves;
  - (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
  - (c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.
- (4) SAHRA or a provincial heritage resources authority may not issue a permit for the



destruction or damage of any burial ground or grave referred to in subsection

(3)(a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re- interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection

(3)(b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority—

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority—

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for their approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as they approve in the Gazette.

(8) Subject to section 56(2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-enter the remains of that person in a prominent place in the capital of the Republic.





## General Policy.

(1) SAHRA and a provincial heritage resources authority—

(a) must, within three years after the commencement of this Act, adopt statements of general policy for the management of all heritage resources owned or controlled by it or vested in it; and

(b) may from time to time amend such statements so that they are adapted to changing circumstances or in accordance with increased knowledge, and

(c) must review any such statement within 10 years after its adoption.

(2) Each heritage resources authority must adopt for any place which is protected in terms of this Act and is owned or controlled by it or vested in it, a plan for the management of such place in accordance with the best environmental, heritage conservation, scientific and educational principles that can reasonably be applied taking into account the location, size and nature of the place and the resources of the authority concerned, and may from time to time review any such plan.

(3) A conservation management plan may at the discretion of the heritage resources authority concerned and for a period not exceeding 10 years, be operated either solely by the heritage resources authority or in conjunction with an environmental or tourism authority or under contractual arrangements, on such terms and conditions as the heritage resources authority may determine.

(4) Regulations by the heritage resources authority concerned must provide for a process whereby, prior to the adoption or amendment of any statement of general policy or any conservation management plan, the public and interested organisations are notified of the availability of a draft statement or plan for inspection, and comment is invited and considered by the heritage resources authority concerned.

(5) A heritage resources authority may not act in any manner inconsistent with any statement of general policy or conservation management plan.

(6) All current statements of general policy and conservation management plans adopted by a heritage resources authority must be available for public inspection on request.