

**PHASE I HERITAGE IMPACT ASSESSMENT (INCLUDING  
PALAEOLOGICAL ASSESSMENT) REQUESTED IN TERMS OF  
SECTION 38 OF THE NATIONAL HERITAGE RESOURCES ACT NO  
25/1999 FOR MINING PERMIT AND RELATED INFRASTRUCTURAL  
ACTIVITIES ON A PIECE OF THE FARM LONGLANDS 350  
SITUATED IN THE MAGISTERIAL DISTRICT OF BARKLY WEST,  
NORTHERN CAPE PROVINCE**

**(REVISED ON THE BASIS OF THE INTERIM REPORT CASE ID: 13236)**

Prepared by

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Friday, 07 June 2019



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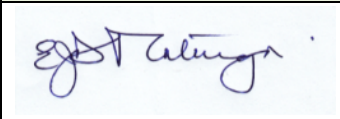
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## DOCUMENTS CONTROL

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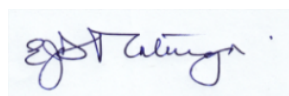
	Name	Signature	Date
FIELD WORK & REPORT	E. Matenga		18/09/2018

### DECLARATION OF INDEPENDENCE

AHSA Pty Ltd is an independent consultancy: I hereby declare that I have no interest, be it business, financial, personal or other vested interest in the undertaking of the proposed activity, other than fair remuneration for work performed, in terms the National Heritage Resources Act (No 25 of 1999).

### DISCLAIMER

All possible care was taken to identify and document heritage resources during the survey in accordance with best practices in archaeology and heritage management. However it is always possible that some hidden or subterranean sites are overlooked during a survey. AHSA will not be held liable for such oversights and additional costs thereof.



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## **ABBREVIATIONS**

EIA	Environmental Impact Assessment
HIA	Heritage Impact Assessment
LSA	Late Stone Age
LIA	Later Iron Age
PHRA	Provincial Heritage Resources Authority
MSA	Middle Stone Age
NHRA	National Heritage Resources Act
SAHRA	South African Heritage Resources Agency

## DEFINITIONS

**Archaeological material:** remains older than 100 years, resulting from human activities left as evidence of their presence, which are in the form of structure, artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces etc.

**Artefact:** Any movable object that has been used modified or manufactured by humans.

**Catalogue:** An inventory or register of artefacts and / or sites.

**Conservation:** All the processes of looking after a site or place including maintenance, preservation, restoration, reconstruction and adaptation.

**Cultural Heritage Resources:** refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistoric places, buildings, structures and material remains, cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. These include intangible resources such as religious practices, ritual ceremonies, oral histories, memories, indigenous knowledge.

**Cultural landscape:** a stretch of land that reflects “the combined works of nature and man” and demonstrates “the evolution of human society and settlement over time, under the influence of the physical constraints and / or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external”.<sup>1</sup>

**Cultural Resources Management (CRM):** the conservation of cultural heritage resources, management and sustainable utilization for present and future generations.

**Cultural Significance:** is the aesthetic, historical, scientific and social value for past, present and future generations.

**Early Iron Age:** refers to cultural remains dating to the first millennium AD associated with the introduction of metallurgy and agriculture.

**Early Stone Age:** a long and broad period of stone tool cultures with chronology ranging from around 3 million years ago up to the transition to the Middle Stone Age around 250 000 years ago.

**Excavation:** a method in which archaeological materials are extracted from the ground, which involves systematic recovery of archaeological remains and their context by removing soil and any other material covering them.

**Historic material:** means remains resulting from human activities, which are younger than 100 years and no longer in use; that include artefacts, human remains and artificial features and structures.

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<sup>1</sup> This definition is taken from current terminology as listed on the World Heritage Convention website, URL: <http://whc.unesco.org/en/culturallandscape/#1> accessed 17 March 2016.

**Historical:** means belonging to the past, but often specifically the more recent past, and often used to refer to the period beginning with the appearance of written texts.

**Intangible heritage:** something of cultural value that is not primarily expressed in material form e.g. rituals, knowledge systems, oral traditions or memories, transmitted between people and within communities.

**In situ material:** means material culture and surrounding deposits in their original location and context, for instance archaeological remains that have not been disturbed.

**Later Iron Age:** The period from the beginning of the 2<sup>nd</sup> millennium AD marked by the emergence of complex state society and long-distance trade contacts.

**Late Stone Age:** The period from  $\pm$  30 000 years ago up until the introduction of metals and farming technology around 2000 years ago, but overlapping with the Iron Age in many areas up until the historical period.

**Middle Stone Age:** a period of stone tool cultures with complex chronologies marked by a shift towards lighter, more mobile toolkit, following the Early Stone Age and preceding the Late Stone Age; the transition from the Early Stone Age was a long process rather than a specific event, and the Middle Stone Age is considered to have begun around 250 000 years ago, seeing the emergence of anatomically modern humans from about 150 000 years ago, and lasting until around 30 000 years ago.

**Monuments:** architectural works, buildings, sites, sculpture, elements, structures, inscriptions or cave dwellings of an archaeological nature, which are outstanding from the point of view of history, art and science.

**Place:** means site, area, building or other work, group of buildings or other works, together with pertinent contents, surroundings and historical and archaeological deposits.

**Preservation:** means the protecting and maintaining of the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

**Rock Art:** various patterned practices of placing markings on rock surfaces, ranging in Southern Africa from engravings to finger paintings to brush-painted imagery.

**Sherds:** ceramic fragments.

**Significance grading:** Grading of sites or artefacts according to their historical, cultural or scientific value.

**Site:** a spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity.

**Site Recording Template:** a standard document format for site recording.

## EXECUTIVE SUMMARY

This report is a Heritage Impact Assessment prepared in terms of Section 38 of the National Heritage Resources Act (25 of 1999) in respect of the proposed prospecting and application for mining rights on a portion of the Farm Longlands 350 5ha in extent near Longlands Village in Barkly West District, Northern Cape. An HIA is a precaution to mitigate likely negative impacts of the proposed activities on heritage resources. This assessment is part of a multi-disciplinary study for Environmental Authorisation of the project in terms of the National Environmental Management Act (NEMA).

The following is a summary of the findings of the study. The heritage sensitivity of the area is very low.

The heritage sensitivity of the area is very low/ summarised as follows:

### *The Stone Age*

There was one (i) occurrence of flake/scrapper. The low occurrence of sites may be due to the small size of the area of the proposed development.

### *The Iron Age*

No Iron Age sites were found on the property.

### *Evidence of settlement in the recent past*

Remains of several rectangular earthen structure is evidence of settlement in the recent past probably within the last 20 years. No heritage significance is associated. Therefore no further action is warranted.

*Ranking of Findings*

	<b>RANKING</b>	<b>SIGNIFICANCE</b>	<b>No of sites</b>
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	1
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	5
		<b>TOTAL</b>	<b>6</b>



*Table of Sites*

SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING
LNL01	28°27'25.62"S	24°23'1.02"E	Recent	Flat terrain, sparse acacia bush. Remains of a rectangular building with earthen plaster.	Low
LNL02	28°27'26.74"S	24°22'58.83"E	Recent	Flat terrain, red-brown loamy soils, sparse bush. Rectangular setting of stones probably marked the perimeter of a homestead. Foundation remains of earthen structures.	Low
LNL03	28°27'27.02"S	24°22'53.18"E	MSA	Flat terrain, sparse acacia bush. Flake tool/scrapper.	Medium B
LNL04	28°27'23.19"S	24°22'52.89"E	Recent	Flat terrain, calcrete and acacia bushes. Remains of an earthen structure.	Low
LNL05	28°27'25.71"S	24°22'49.74"E	Recent	Flat terrain, degraded acacia. Foundation remains of a rectangular earthen building.	Low
LNL06	28°27'23.53"S	24°22'57.66"E	Recent	Flat terrain, sparse acacia trees. Remains of a rectangular earthen structure.	Low

### *Recommendations and Conclusions*

As there are no sites that warrant further action, the mine prospecting can go ahead. In the event of discovery of other heritage resources in future phases of the project, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

## **1. INTRODUCTION**

This Heritage Impact Assessment (HIA) report has been prepared on behalf of Mulaudzi Palesa Keisha in support of an application for Prospecting and Mining Right on Vaalbos Island on the Vaal River near Longlands, Barkly West District, in the Northern Cape Province. The area is 5ha in extent. On 20 August 2018 a ground survey was conducted for possible occurrence of archaeological and historical material. The report is in compliance with Section 38 of the National Heritage Resources Act (No 25 of 1999) which requires that mitigation measures be considered where a proposed development is likely to result in the disturbance or destruction of heritage resources.

### **1.1. Nature of development and expected impacts**

The applicant intends to mine alluvial diamonds in the superficial gravels (placers) on a portion the farm Longlands 350 5ha in extent. Over a period spanning thousands of years the Vaal River has flown over a wide plain with the water channels shifting and in the process depositing gravels mixed with sand. Geological theory has it that the diamonds were eroded from kimberlite pipes and deposited along the course of the river. The planned mining technique is opencast block mining process with waste earth and gravels from the plant being used as backfill material prior to final rehabilitation. Such operations may result in the disturbance or destruction of heritage resources where they exist. For this reason a HIA is conducted so as to prepare a heritage impact statement which presents the archaeological and palaeontological resources present and or what is likely to occur at the site.

## **2. LOCATION AND PHYSICAL SETTING**

The property is located close to the northern bank of the Vaal River on the eastern periphery of Longlands Village 18km northwest of Barkly West and c. 11km upstream of the confluence of the Vaal and Harts River (28°27'24.21"S, 24°22'57.13"E approximate central point of the property). The key geomorphological feature is the Vaal River (known in seSotho as 'Lekwa'). This perennial river meanders across the semi-arid southern plains from its sources on the western foot of the Drakensberg Mountains, only 240km from the Indian Ocean. But it flows west some 1 120km to its confluence with the Orange River,

which continues another 1 350km to the Atlantic Ocean. The river has been a strategic lifeline for communities living in these semi-arid parts of the highveld from Stone Age times and it continues to hold that vital importance as a precious source of water (Figs 1-3). In many places there are natural deposits of calcretes, residual product of rain water seeping through the alluvial gravels. Vegetation is mixed scrub dominated by acacias typically found in the wetter parts of the Karoo. Occasionally the evergreen *Searsia ciliata* (common name Sour Karee) is seen, but vibrant colonies occur in the wetter banks of the Vaal and its islands. Vegetation is largely degraded to bushes probably as a result of exploitation for firewood by the villagers.

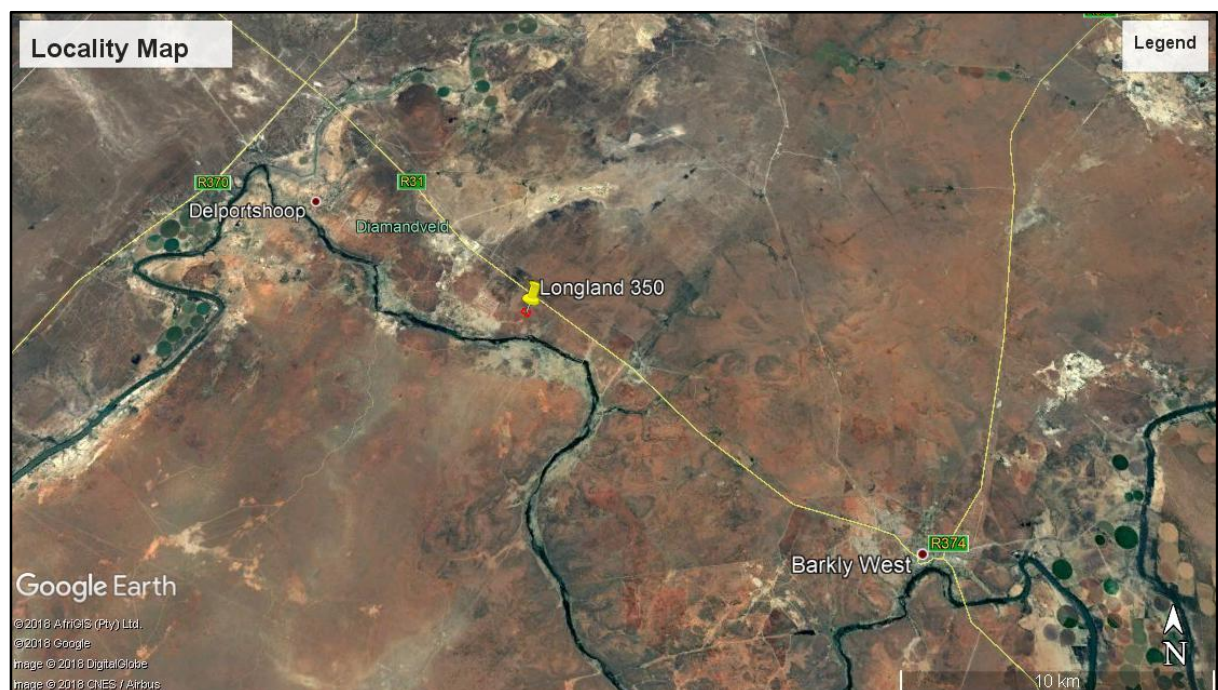


Figure 1: Locality map shows the location of a Portion of the Farm Longlands 350 near the northern bank of the Vaal River between Barkly West and Delportshoop on the confluence of Vaal and Harts Rivers.



Figure 2: View of the area of the proposed development, brown loam soils and degraded acacia bushes.



Figure 3: Longlands Village viewed from the northwest.



Figure 4: View of the Vaal River flood plain from its northern bank near Longlands.

### 3. LEGAL FRAMEWORK

#### 3.1. The National Heritage Resources Act (25 of 1999)

The proposed prospecting requires a Heritage Impact Assessment as stipulated under Section 38 of the National Heritage Resources Act (No 25 1999). Terms and conditions of an HIA are stated as follows:

*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, power line, pipeline, canal or other similar form 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 000m<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.*

Other Sections of the **National Heritage Resources Act** (No. 25 of 1999) NHRA of relevant application are:

Section 34 of the NHRA for provisional protection of all structures and features older than 60 years.

Section 35 (4) of the **NHRA** prohibits the destruction of archaeological, palaeontological and meteorite sites:

Section 36 of the **NHRA** gives priority for the protection of Graves and Burial Grounds graves and burial grounds more than 60 years old, and graves and burial ground of victims of conflict.

### **3.2. International Principles and Policies**

In practice heritage management advocates protection and respect the sanctity of all graves regardless of their age. International principles are based on the same ethical considerations. The the **Vermillion Accord on Human Remains** adopted by the **World Archaeological Congress (WAC)** at the WAC Inter-Congress in South Dakota (USA) urges “*respect for the mortal remains of the dead shall be accorded to all, irrespective of origin, race, religion, nationality, custom and tradition.*”

Some generic principles and standards for the protection of heritage resources are drawn from international charters and conventions, in particular the **Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999)**, which South Africa has adopted.

## **4. APPROACH AND METHODOLOGY**

### **4.1. Literature Survey**

The purpose of a literature survey is to obtain background information in order to form a picture of the heritage potential of the area. A number of reports generated through heritage impact assessment studies in the area were available as reference material. I have carried out a number of surveys in in the vicinity of Longlands and in the broader area:

**Matenga, E. 2017:** Phase I Heritage Impact Assessment Requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for a Mining right on Vaalbos Island on the Vaal River near Longlands, Barkly West District, Northern Cape Province.

**Matenga, E. 2016.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act No 25/1999 for the Proposed Mine Prospecting on a Portion of the Remaining Extent of the Farm 84 & Portion of farm 393, Barkly West District, Northern Cape Province.

**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 the Proposed Mine Prospecting on a Portion of Farm 393, Barkly West District, Northern Cape Province.

**Matenga, E. 2018.** Phase I Heritage Impact Assessment (including Palaeontological Assessment) requested in terms of Section 38 of the National Heritage Resources Act no 25/1999 for the proposed mine prospecting and application for mining rights on the Farm 85, Barkly West District, Northern Cape province.

Other specialists have also worked in the area, e.g. Dreyer, C. 2016. Archaeological and Historical Investigation of the Proposed Diamond Mining Activities at the Farm Winter's Rush (Longlands 350), Barkly West, Northern Cape.



With this research in the vicinity previously, significant data existed to form a picture of the archaeological potential of the area.

#### 4.2. Ground Survey

Data was collected by means of walking surveys, largely random, but also targeting spots seen as likely to yield material. An archaeologist was accompanied by a field assistant.

#### 4.3. Significance Ranking

Heritage sites have been ranked to show potential risks relative to their cultural significance.

##### *Ranking of Findings*

	<b>RANKING</b>	<b>SIGNIFICANCE</b>	<b>No of sites</b>
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	
		<b>TOTAL</b>	

## 5. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

### 5.1. Cultural Sequence Summary

PERIOD	EPOCH	ASSOCIATED CULTURAL GROUPS	TYPICAL MATERIAL EXPRESSIONS
Early Stone Age 2.5m – 250 000 YCE	Pleistocene	Early Hominids: <i>Australopithecines</i> <i>Homo habilis</i> <i>Homo erectus</i>	Typically large stone tools such as hand axes, choppers and cleavers.
Middle Stone Age 250 000 – 25 000 YCE	Pleistocene	First <i>Homo sapiens</i> species	Typically smaller stone tools such as scrapers, blades and points.
Late Stone Age 20 000 BC – present	Pleistocene / Holocene	<i>Homo sapiens</i> including San people	Typically small to minute stone tools such as arrow heads, points and bladelets.
Early Iron Age / Early Farmer Period c300 – 900 AD (or earlier)	Holocene	Iron Age Farmers	Typically distinct ceramics, bead ware, iron objects, grinding stones.
Later Iron Age 900ADff	Holocene	Iron Age Farmers, emergence of complex state systems	Typically distinct ceramics, evidence of long distance trade and contacts
(ii) Mapungubwe (K2)	1350AD		Metals including gold, long distance exchanges
(ii) Historical period	Nguni / Sotho/Venda people	Iron Age Farmers	Mfecance / Difaqane
(iii) Colonial period	19 <sup>th</sup> Century	European settlers / farmers / missionaries/ industrialisation	Buildings, Missions, Mines, metals, glass, ceramics

### 5.2. Appearance of hominids

Hominids were proto-humans which appeared in South Africa more than 3 million years ago. The hominid site nearest to the study area is Taung near Vryburg (105km to the northeast). This is a UNESCO World Heritage Site proclaimed together with the Sterkfontein Caves (Krugersdorp) and Makapans Valley (Mokopane) in a serial nomination. No hominid sites have been reported along the Vaal River.

### 5.3. The Early Stone Age (2 million to 250 000 years BP)

The Stone Age dates back more than 2 million years representing a more explicit beginning of the cultural sequence divided into three epochs, the Early, Middle

and Late Stone Ages. These early people made stone and bone implements. Material evidence is found in caves, rock-shelters and on river sides and edges of streams, and very rarely seen in open country. Such tools bore a consistent shape such as the pear-shaped handaxe, cleavers and core tools.<sup>2</sup> These tool industries have been called Oldowan and Acheulian and were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Acheulian artefacts are usually found near sites where they were manufactured and thus in close proximity to the raw material or at kill sites. Early hunters are classified as hominids meaning that they had not evolved to the present human form. Progressively a good profile of the Stone Age in the Northern Cape Province has been constructed from many heritage impact assessments that have been conducted in recent years. Early (ESA) and Middle Stone Age (MSA) lithics occur over most of area with a more recent find of Later Stone Age (LSA) occupations.<sup>3</sup> The Wonderwerk Cave has become a benchmark for the characterisation of the Stone Age. Excavations reveal a long sequence of occupation spanning the Early (ESA), Middle (MSA) and Later Stone Ages.<sup>4</sup>

#### **5.4. Middle Stone Age (MSA) [250 000 yrs – 30 000 yrs BP]**

The Middle Stone Age (MSA), appeared 250 000 years ago and is marked by the introduction of a new tool kit which included prepared cores, parallel-sided blades and triangular points hafted to make spears. By then humans had become skilful hunters, especially of large grazers such as wildebeest, hartebeest and eland. By then humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. There is archaeological evidence from some of the caves indicating the making of fire.<sup>5</sup>

A number of field surveys have been carried in the broader area north of Longlands confirm significant hunter gatherer activity from the MSA onwards.

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<sup>2</sup> Deacon, H.J. & Deacon, J. 1999. Human Beginnings in South Africa: Uncovering the Secrets of the Stone Age. Cape Town: David Philip.

<sup>3</sup> Schalkwyk, J. 2015. Heritage Scoping Assessment for the Proposed Perseus-Kronos 765KV Transmission Power Line and Substations Upgrade, Northern Cape and Free State Provinces, p6.

<sup>4</sup> Humphreys, A.J.B. & Thackeray, A.I. 1983. Ghaap and Gariep. Later Stone Age Studies in the Northern Cape. Cape Town: South African Archaeological Society Monograph Series 2.

<sup>5</sup> Deacon, J & H. Deacon. 1999. Human Beginnings in South Africa. Cape Town: David Philip.

### **5.5. Later Stone Age (LSA)[40 000 yrs to ca2000 yrs BP]**

By the beginning of the LSA, humans had evolved to *Homo sapiens* which refer to the modern physical form and thinking capabilities. Several behavioural traits are noticed, such as rock art and purposeful burials with ornaments, became a regular practice. LSA technology is characterised by microlithic scrapers and segments made from very fine-grained rock. Spear hunting continued, but LSA people also hunted small game with bows and poisoned arrows. Practitioners of rock art were ancestors of the San and sites abound in the whole of Southern Africa. Wildebeest Kuil Rock Art Centre is a rock engraving site now with an interpretation centre on land owned by the !Xun and Khwe San situated c. 40km to the southeast from the study area along the R31 road from Kimberley to Barkly West. The site was first known to the public in modern times by the renowned 19th century researcher, George William Stow.<sup>6</sup> A number of rock engravings have been reported in the vicinity of Lime Acres and Danielskuil (ca80km northwest) including recent art ascribed to the Griquas and Khoikhoi.<sup>7</sup>

### **5.6. Early Iron Age**

The Iron Age was a gradual spread or expansion of settlement of different groups of speakers of Bantu languages over a period that could have spanned more than 2 millennia. These communities indigenous to the continent brought with them domestic animals, crops, pottery and metal technology. However there are few if any sites attributed to the EIA in the western parts of the country.<sup>8</sup> Most Iron Age settlements are concentrated in the eastern part of the country. 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.

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<sup>6</sup> Wildebeest Kuil Rock Art Centre, at: <http://www.kimberley.co.za/city/wildebeest-kuil-rock-art-centre/> (Consulted 3 May 2017).

<sup>7</sup> Collins, S. 1973. Rock-engravings of the Danielskuil Townlands. *South African Archaeological Bulletin* 109-110: 49-57.; Eastwood, E.B. & Smith, B.W. 2005.

<sup>8</sup> Phillipson, D. W. 2005. *African Archaeology*. Cambridge: University of Cambridge Press.

There is however increasing evidence that sheep and probably cattle as well might have moved into the area much earlier than the Iron Age.<sup>9</sup>

### **5.7. The Later Iron Age**

The LIA is marked by the presence of extensive stonewalled settlements such as the Tlhaping capital at Dithakong near Kuruman.<sup>10</sup>

### **5.8. Historical context**

The study area is historically home to the Tlhaping segment of the Tswana, who descended from the Iron Age people and probably from a far back as the Stone Age. The early 19<sup>th</sup> century was a political turning point with an increasingly uncertain security situation and internal displacements. The first of these episodes was the Difaqane characterised by inter-tribal raids. During the late 18<sup>th</sup> and early 19<sup>th</sup> centuries Griqua herders (people of Coloured stock from the southwest) settled in this area establishing a town called Klaarwater and subsequently renamed Griquatown. Meanwhile 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 at Kimberley sparked the “rush”. The area which became known as Griqualand West was subsequently incorporated into the Cape Colony in the 1880s.<sup>11</sup>

### **5.9. Vaal River alluvial diamond diggings**

The mining of alluvial diamonds in the Vaal River Valley started in 1869 carried out by a party of prospectors from Natal organised by the British Army. As they continued the search for the gemstones along the valley they struck good finds at Klipdrift (Barkly West). These finds sparked South Africa's first diamond rush. Following the news men began to flock from Britain and elsewhere to the new

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<sup>9</sup> Evers, T. M. 1988. Recognition of Groups in the Iron Age of Southern Africa. Unpublished PhD Thesis, University of Witwatersrand. Huffman 2007. A Handbook on the Iron Age. Scottsville: UKZN Press

<sup>10</sup> De Jong 2010: De Jong, R.C. 2010. Heritage impact assessment report: proposed manganese and iron ore mining right application in respect of the remainder of the farm Paling 434, Hay Registration Division, Northern Cape. Unpublished report prepared for Kai Batla Minerals Industry Consultants. Pretoria: Cultmatrix, p 36.

<sup>11</sup> De Jong, R.C. 2010. Heritage impact assessment report: proposed manganese and iron ore mining right application in respect of the remainder of the farm Paling 434, Hay Registration Division, Northern Cape. Unpublished report prepared for Kai Batla Minerals Industry Consultants. Pretoria: Cultmatrix.

diggings. By April 1871 c. 5000 men had swarmed the Vaal, Modder, and Orange Rivers. The alluvial stones from the region proved to be of high quality. The miners staked claims while the local Griqua chiefs and the Boer Republics of the Transvaal and Orange Free State also joined in the fray. Ownership rights were initially given to local chiefs and Boer Trekkers. But the diggers proclaimed the Klip Drift Republic on 30th July 1870 with Stafford Parker as its elected president. In the same year Sir Henry Barkly, governor of the Cape visited the diggings, which prompted the miners to rename Klipdrift Barkly West. In 1872, the British annexed the diamond fields and proclaimed Griqualand West as a crown state. It was subsequently incorporated into the Cape Colony in 1880. The majority of the prospectors abandoned the various Vaal River claims in the wake of richer finds at Kimberley in 1871. Mining of the river gravels has been going on sparking sporadic rushes over the last nearly one and half centuries.<sup>12</sup>

The above forms the archaeological and historical context for the identification of heritage resources in the study area.

## **6. FINDINGS OF THE SURVEY**

The heritage sensitivity of the area is very low/ summarised as follows:

### *The Stone Age*

There was one (i) occurrence of flake/scrapper. The low occurrence of sites may be due to the small size of the area of the proposed development.

### *The Iron Age*

No Iron Age sites were found on the property.

### *Evidence of settlement in the recent past*

Remains of several rectangular earthen structure is evidence of settlement in the recent past probably within the last 20 years. No heritage significance

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<sup>12</sup> The Barkly West & Vaal River Diggings. Found at: <http://www.on-the-rand.co.uk/Diamond%20Grounds/Barkly%20West.htm>

is associated. The structures do no warrant protection in terms of the law.

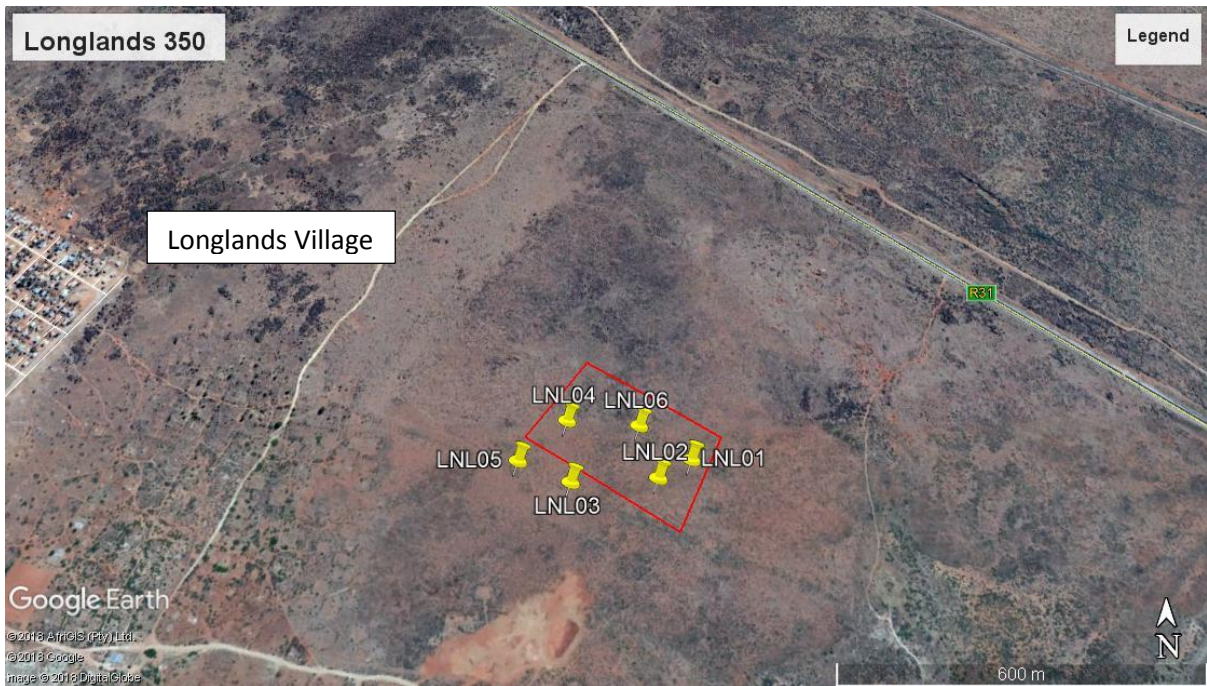


Figure 5: Google-Earth map shows the location of the sites.

### 6.1. Ranking of Findings

	<b>RANKING</b>	<b>SIGNIFICANCE</b>	<b>No of sites</b>
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA. They must be protected.	0
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. Footprint of early modern mining. These may be protected at the recommendations of a heritage expert.	0
3	Medium B	Sites exhibiting archaeological characteristics of the area, but do not warrant further action after they have been documented.	1
4	Low	Heritage sites which have been recorded, but considered of minor value relative to the proposed development.	5
		<b>TOTAL</b>	<b>6</b>





## 6.2. Table of Sites

SITE NO	LATITUDE	LONGITUDE	PERIOD	DESCRIPTION	RANKING
LNL01	28°27'25.62"S	24°23'1.02"E	Recent	Flat terrain, sparse acacia bush. Remains of a rectangular building with earthen plaster.	Low
LNL02	28°27'26.74"S	24°22'58.83"E	Recent	Flat terrain, red-brown loamy soils, sparse bush. Rectangular setting of stones probably marked the perimeter of a homestead. Foundation remains of earthen structures.	Low
LNL03	28°27'27.02"S	24°22'53.18"E	MSA	Flat terrain, sparse acacia bush. Flake tool/scrapper.	Medium B
LNL04	28°27'23.19"S	24°22'52.89"E	Recent	Flat terrain, calcrete and acacia bushes. Remains of an earthen structure.	Low
LNL05	28°27'25.71"S	24°22'49.74"E	Recent	Flat terrain, degraded acacia. Foundation remains of a rectangular earthen building.	Low
LNL06	28°27'23.53"S	24°22'57.66"E	Recent	Flat terrain, sparse acacia trees. Remains of a rectangular earthen structure.	Low

### 6.3. Assessment of Impacts Using the Heritage Impact Assessment Statutory Framework

#### Section 3(3) of the NHRA

The following is an assessment of the value of the identified heritage resources in accordance with Section 3 of the NHRA which defines the National Estate.

*(3) Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—*

	<b>STATUTORY REFERENCE</b>	<b>OBSERVATIONS</b>
(a)	Its importance in the community, or pattern of South Africa's history	None
(b)	Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage	None
(c)	Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	A stone tool indicating human activity during the MSA/LSA is a common occurrence on the highveld region of the Northern Cape
(d)	Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None
(e)	Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None
(f)	Its importance in demonstrating a high degree of creative or technical achievement at a particular period	None
(g)	Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None
(h)	Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa	None
(i)	Sites of significance relating to the history of slavery in South Africa.	None

#### Section 38 of the NHRA

Section 38 (Subsection 3) of the National Heritage Resources Act also provides a schedule of tasks to be undertaken in an HIA process:

Section 38(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2)(a): Provided that the following must be included:

**(a) The identification and mapping of all heritage resources in the area affected**

Six sites (6) sites were recorded of which five (5) are recent possibly dating to within the last 20 years. No further action is warranted.

**(b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7**

There are no Grade I or Grade II sites.

**(c) An assessment of the impact of the development on such heritage resources**

The risk ranking is a definition of potential risks based on perceived value of the heritage and potential threats posed by the proposed development. No sites need to be protected.

**(i) 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**

Mining is an important lever of economy development of the South African economy. The mineral wealth can provide stimulus for rapid socio-economic development in the Northern Cape Province and the country as a whole. Mining is labour intensive and can contribute immensely to alleviate the current high rate of unemployment. General improvement in the quality of livelihoods in local communities and the country at large is expected.

**(j) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

N/A

***(f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives***

N/A

***(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.***

In the event of discovery of other heritage resources during site preparation and mining phase, the Provincial Heritage Resources Authority or SAHRA will be informed immediately and an archaeologist or heritage expert called to attend.

#### **6.4. Risk Assessment of the Findings**


<b>EVALUATION CRITERIA</b>	<b>RISK ASSESSMENT</b>
Description of potential impact	Negative impacts range from partial to total destruction of surface and under-surface movable/immovable relics.
Nature of Impact	Negative impacts can both be direct or indirect.
Legal Requirements	Sections 34, 35, 36, 38 of <b>National Heritage Resources Act No. 25 (1999)</b>
Stage/Phase	Prospecting for minerals (test pits, drilling)
Nature of Impact	Negative, both direct & indirect impacts.
Extent of Impact	Test pits, excavations and ground clearing has potential to damage archaeological resources above and below the surface not seen during the survey.
Duration of Impact	Any accidental destruction of surface or subsurface relics is not reversible, but can be mitigated.
Intensity	Uncertain.
Probability of occurrence	Medium.
Confidence of assessment	High.

Level of significance of impacts before mitigation	High.
Mitigation measures	If archaeological or other heritage relics are found during the construction phase, heritage authorities will be advised immediately and a heritage specialist will be called to attend. This is standard precaution in view of inherent limitations of archaeological fieldwork.
Level of significance of impacts after mitigation	Low.
Cumulative Impacts	None.
Comments or Discussion	None.

## 7. RECOMMENDATIONS AND CONCLUSIONS

As there are no sites that warrant further action, the mine prospecting can go ahead. In the event of discovery of other heritage resources in future phases of the project, the Provincial Heritage Resources Authority or SAHRA must be alerted immediately and an archaeologist or heritage expert called to attend.

## 8. CATALOGUE OF HERITAGE SITES

SITE NO	COORDINATES	PERIOD
LNL01	28°27'25.62"S, 24°23'1.02"E	Abandoned recently
		
<b>DESCRIPTION:</b> Flat terrain, sparse acacia bush. Remains of a rectangular building with earthen plaster.		
<b>HERITAGE SIGNIFICANCE:</b> Abandoned recently, no heritage significance.		

SITE NO	COORDINATES	PERIOD
LNL02	28°27'26.74"S, 24°22'58.83"E	Abandoned recently



**DESCRIPTION:** Flat terrain, red-brown loamy soils, sparse bush. Rectangular setting of stones probably marked the perimeter of a homestead. Foundation remains of earthen structures.

**HERITAGE SIGNIFICANCE:** Abandoned recently, no heritage significance.


SITE NO	COORDINATES	PERIOD
LNL03	28°27'27.02"S, 24°22'53.18"E	MSA/LSA




**DESCRIPTION:** Flat terrain, sparse acacia bushes. Flake tool/scrapper.

**HERITAGE SIGNIFICANCE:** Significant as evidence of tool manufacturing and use during the MSA/LSA.



SITE NO	COORDINATES	PERIOD
LNL04	28°27'23.19"S, 24°22'52.89"E	Abandoned recently
 <p data-bbox="204 1137 1259 1223"><b>DESCRIPTION:</b> Flat terrain, calcrete and acacia bushes. Remains of an earthen structure.</p> <p data-bbox="204 1240 1198 1276"><b>HERITAGE SIGNIFICANCE:</b> Abandoned recently. No heritage significance.</p>		

SITE NO	COORDINATES	PERIOD
LNL05	28°27'25.71"S, 24°22'49.74"E	Abandoned recently
		
<p><b>DESCRIPTION:</b> Flat terrain, degraded acacia. Foundation remains of a rectangular earthen building.</p>		
<p><b>HERITAGE SIGNIFICANCE:</b> Abandoned recently. No heritage significance.</p>		

SITE NO	COORDINATES	PERIOD
LNL06	28°27'23.53"S, 24°22'57.66"E	Abandoned recently



**DESCRIPTION:** Flat terrain, sparse acacia trees. Remains of a rectangular earthen structure.

**HERITAGE SIGNIFICANCE:** Abandoned recently. No heritage significance.

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- 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 the Proposed Mine Prospecting on a Portion of Farm 393, Barkly West District, Northern Cape Province.

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### **Websites**

The Barkly West & Vaal River Diggings. Found at: <http://www.on-the-rand.co.uk/Diamond%20Grounds/Barkly%20West.htm> Consulted October 2017.