

**PHASE I HERITAGE IMPACT ASSESSMENT (INCLUDING PALAEOLOGICAL
ASSESSMENT) REQUESTED IN TERMS OF SECTION 38 OF THE NATIONAL
HERITAGE RESOURCES ACT NO 25/1999 FOR A MINING RIGHT ON PORTION 4 OF
THE FARM BLAAUWBOSCHFONTEIN 229, BOSHOF DISTRICT, FREE STATE
PROVINCE**




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DECLARATION OF INDEPENDENCE

(AHSA) Archaeological and Heritage Service Africa (Pty) Ltd is an independent consultancy: We hereby declare that we 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 of the National Heritage Resources Act, 1999 (Act 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. The researcher 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
NEMA	National Environmental Management Act
SAHRA	South African Heritage Resources Agency

Glossary

Archaeological material: remains resulting from human activity left as evidence of their presence which, as proscribed by South African heritage legislation, are older than 100 years, which are in the form of artefacts, food remains and other traces such as rock paintings or engravings, burials, fireplaces and structures.

Artefact/Ecofact: 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/heritage place or landscape including maintenance, preservation, restoration, reconstruction and adaptation.

Cultural Heritage Resources: refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistorical 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. This include intangible resources such religion practices, ritual ceremonies, oral histories, memories indigenous knowledge.

Cultural landscape: "the combined works of nature and man" and demonstrate "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".

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

Early Stone Age: Predominantly the Acheulean hand axe industry complex dating to + 2Myr yrs – 250 000 yrs. before present.

Early Iron Age: Refers cultural period of the first millennium AD associated with the introduction of metallurgy and agriculture in Eastern and Southern Africa

Later Iron Age: Refers to the period after 1000AD marked by increasing social and political complexity. Evidence of economic wealth through trade and livestock keeping especially cattle

Excavation: A method in which archaeological materials are extracted, involving systematic recovery of archaeological remains and their context by removing soil and any other material covering them.

Grave: a place of burial which include materials such as tombstone or other marker such as cross etc.

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

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

Historical archaeology: the study of material remains from both the remote and recent past in relationship to documentary history and the stratigraphy of the ground in which they are found; or archaeological investigation on sites of the historic period. In South Africa it refers to the immediate pre-colonial period, contact with European colonists and the modern industrial period.

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 2nd millennium AD marked by the emergence of complex state society and long-distance trade contacts.

Late Stone Age: The period from \pm 30 000-yr. to the introduction of metals and farming technology

Middle Stone Age: Various stone using industries dating from \pm 250 000 yr. - 30 000 yrs. ago

Monuments: architectural works, buildings, sites, sculpture, elements or structures of an archaeological nature, inscriptions, cave dwellings 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 protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary.

Sherd: ceramic fragment.

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.

EXECUTIVE SUMMARY

1. This Heritage Impact Assessment (HIA) has been prepared on behalf of Kophia Diamonds (Pty) Ltd for a Mining Right on Portion 4 of the Farm Blaauwboschfontein 229 near Boshof in the Free State Province. The HIA is part of an Environmental Impact Assessment (EIA) undertaken to pave way for the proposed development.

2. The heritage sensitivity of the broader area can be gleaned from the many impact studies that have been undertaken to date which confirm a significant MSA/LSA footprint.

3. *The Stone Age*

No cultural material of the Stone Age period was found. Poor ground visibility might have been a contributing factor. It is likely that some artefacts are buried in the superficial sandy loam soils; this is considering that on the neighbouring property Catherine's Fancy 831 there were sparse occurrences of stone tools on the eroded edge of a pan.

4. *The Iron Age*

No Iron Age relics were found on the property.

5. *Early commercial farming*

Evidence of settlement was found suggesting the location of an abandoned workers compound (Site BBF01). Rusted iron sheets, the base of purple glass bottle with illegible word imprinted was found. The soil has an ashy colouration. Acacia trees have colonised the area. This site was rated of low significance and no further action is required.

6. *Graves and burial grounds*

Exposures of human bones at the northern edge of a mining trench indicate the presence of a burial ground which was not visible from the surface (Site BBF02). The bones are exposed in four areas representing individual graves. In one case a rusted metal sheet cover can be seen. In two other cases the decomposed wooden frames of coffins can be seen in the vertical profile of the trench.

7. Mitigation for graves

The human remains accidentally exposed and others that might be buried in the vicinity must be moved to a formal cemetery by way of a professionally managed exhumation.

8. Significance ranking of findings

The significance ranking (with a colour scheme) refers to perceived impacts and risk of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

	RANKING	TYOLOGY & SIGNIFICANCE	NO OF SITES
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.	1 burial ground
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.	0
4	Low	Heritage sites which have been recorded, but considered of minor importance relative to the proposed development.	1
		TOTAL	2

9. Conclusion and recommendations

The human bones accidentally exposed on the side of the mine trench indicate a burial ground that was not visible from the surface. The remains must be moved to a formal cemetery to allow the mine works to continue.

The mining right must be approved subject to action taken to move the graves to a formal cemetery. Should archaeological artefacts or more skeletal material be exposed in the area during in the course of mining, operations should be halted, and the provincial heritage resources authority or SAHRA notified in order for an investigation and evaluation of the finds to take place.

1. INTRODUCTION

This Heritage Impact Assessment (HIA) report has been prepared in accordance with Section 38 of the National Heritage Resources Act (25 of 1999) for a Mining Right on Portion 4 of the Farm Blaauwboschfontein 229 near Boshof, Lejweleputswa District Municipality in the Free State Province.

1.1. Locational details of the receiving environment

LATITUDE	LONGITUDE	NOTES
28°33'21.92"S	25°27'55.56"E	Approximate centre of the proposed mining area

The Farm Blaauwboschfontein 229 is located 22 km east of the town of Boshof in the Free State Province. Boshof lies on the western boundary of the Free State Province and is much closer to Kimberley in the Northern Cape Province (being situated 50 km to the east) than it is to other major towns in the Free State. The topography in this region is flat and open hosting grasses with few scattered trees. The topsoil overburden appear to be shallow and below it is calcareous horizon exposed in many places on the property. Elsewhere on neighbouring properties stands of *Acacia erioloba* (Camel thorn) were seen growing on the sandy loams. This vegetation configuration is typical of a large expanse of territory from the outskirts of Kimberley and falls within the Kimberley Thorn Bushveld.¹

¹Anderson, T. 2001. A beginner's Guide to the Plants of Kimberley and Surrounds. McGregor Museum, p3.

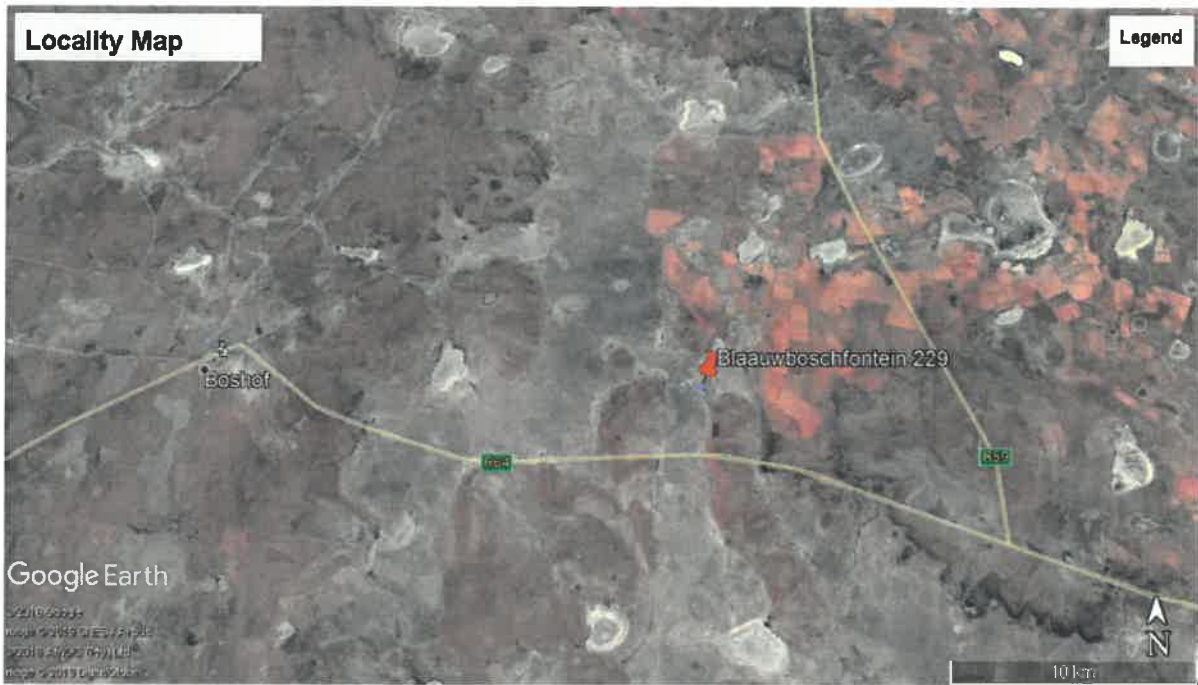


Figure 1: Google-Earth map shows the location of the Farm Blaauwboschfontein 229 east of Boshof in the Free State Province



Figure 2: Landscape view of a northern portion of the farm shows a treeless plain with grasses.



Figure 3: The grasses grow on superficial sandy loams and below them a calcretic hardpan



Figure 4: This stand of acacia appears to be secondary growth over an abandoned settlement.

1.2. Nature of the proposed development

Kophia Diamonds (Pty) Ltd intends to expand the existing mining footprint to extract diamonds. This will entail large scale excavation of the topsoil horizon employing earthmoving machinery and mining of the diamond bearing pipes by opencast methods. The nature and scale of proposed activities require that a pre-development impact assessment be undertaken to pre-empt potential disturbance or destruction of heritage resources if they exist in and around the footprint of the proposed development.

2. LEGAL FRAMEWORK

2.1. Section 38(3) of the National Heritage Resources Act (25/1999)

Under Section 38 of the National Heritage Resources Act (No 25 1999), the 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, powerline, 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 000m² 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 m² in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

2.2. Definition of Heritage (National Estate)

Section 3 lists a wide range of cultural phenomena which could be defined as heritage, or the *National Estate* (3(2)). Section 3(3) outlines criteria upon which

heritage value is ascribed. This Section is useful as a field checklist for the identification of heritage resources.

2.3. Protection of Buildings and Structures Older than 60 years

Section 34 provides provisional protection of buildings and structures more than 60 years old:

(1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

2.4. Protection of Archaeological Sites

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

No person may, without a permit issued by the responsible heritage resources authority—

(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 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.

2.5. Protection of graves and burial grounds

Section 36 of the NHRA gives priority for the protection of Graves and Burial Grounds of victims of conflict and graves and burial grounds more than 60 years old. Cautious approaches are considered including managed exhumations and re-interment to pave way for development. International ethical standards as set out in the World Archaeological Congress Vermillion Accord (USA, Dakota, 1989) favor this

approach and recommend decisions informed by consultation with communities who by association might have strong feelings for protection *in situ* and may argue that a development project is better moved to an alternative site.

2.6. The Burra Charter on Conservation of Places of Cultural Significance

Some generic principles and standards for the protection of heritage resources in South Africa are drawn from international charters and conventions. In particular South Africa has adopted the **Australia Charter for the Conservation of Places of Cultural Significance (the Burra Charter 1999)** as a benchmark best practice in heritage management.

2.7. Concept of cultural landscapes

Cultural landscapes are defined in Paragraph 47 of the *Operational Guidelines for the Implementation of the World Heritage Convention (2015 edition)* as “cultural properties that represent the combined works of nature and of man” They are illustrative of 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 external and internal.

Annex 3 of the *Operational Guidelines for the Implementation of the World Heritage Convention* recognises three types of Cultural Landscapes:

- (i) Landscapes designed and created intentionally by man, e.g. parks, gardens, constructed for aesthetic reasons;
- (ii) Organically evolved landscape arising from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Two subcategories are recognised: (i) a relict (or fossil) landscape and (ii) a continuing landscape which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress.
- (iii) Associative cultural landscape whose character is determined by natural elements upon which social, cultural or religious significance is associated.

2.8. The National Environmental Management Act (107/1998)

This environmental Act states that a survey and evaluation of cultural resources must be done in areas where development projects that will affect the environment will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made. Environmental management is a much broader undertaking to cater for cultural and social needs of people. 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.

3. METHODOLOGY

3.1. Literature Review

A literature review was necessary as background study. General literature related to the cultural sequence, location and physical setting of the property. It was necessary to locate and review reports of Heritage Impact Assessments undertaken in the broader area to form a picture of the heritage potential of the area. This author has undertaken several heritage impact studies in a broad area to the west and northwest of Boshof along the Vaal and Orange Rivers and produced reports. In almost all cases lithics have been encountered dating to the Middle Stone Age /Later Stone Age. Other impact reports were also studied:

PGS Heritage. 2018. Catherine's Fancy 831, which forms part of the Blaauwbosch Mine, Boshof District, Free State Province. Heritage Impact Assessment. Several sites with lithics dating to the MSA/LSA were recorded.

Orton, J. 2016. Heritage Impact Assessment: Scoping and Environmental Impact Assessment for the proposed development of the Edison PV 100 MW Photovoltaic Facility near Dealesville, Free State: Sparse occurrence of Stone Age artefacts noted. Historical ruins, graves and graveyards were found. The locale is a cultural landscape exemplifying commercial farming.

Van der Walt, J. 2013. Archaeological Impact Assessment for the proposed Boshof - Les Marais \ Buitenfontein 5MW Solar Energy Facility near the town of Boshof in the Free State Province: Finds comprised flake waste and a blade dating to the MSA.

3.2. Fieldwork

A site visit was made on 8 February 2019 and a ground reconnaissance undertaken on foot by an archaeologist and field assistant.

3.3. Significance Ranking of findings

The significance ranking (with a colour scheme) refers to perceived impacts and risk of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

	RANKING	TYOLOGY & SIGNIFICANCE	No of sites
1	High	National and Provincial heritage sites (Section 7 of NHRA). All burials including those protected under Section 36 of NHRA.	
2	Medium A	Substantial archaeological deposits, buildings protected under Section 34 of NHRA. These may be protected at the recommendations of a heritage expert.	
3	Medium B	Sites exhibiting archaeological and historical 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 importance relative to the proposed development.	
		TOTAL	

4. ARCHAEOLOGICAL AND HISTORICAL CONTEXT

The cultural sequence in South Africa is presented here as a theoretical framework for the identification of features / structures and objects of archaeological, historical and cultural interest.

4.1. Cultural sequence summary²

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	Tswana / Sotho, Nguni people	Iron Age Farmers	Stone walls Mfecance / Difaqane
(iii) Colonial period	19 th Century	European settlers / farmers / missionaries/ industrialisation	Buildings, Missions, Mines, metals, glass, ceramics

4.2. Appearance of hominids

The appearance of hominids marks the beginning of the South African cultural sequence. A good fossil record exists. Hominids were proto-humans which existed more than 3million years ago. Three famous sites in Gauteng, Limpopo and Northwest Provinces collectively represent the Cradle of Humankind and inscribed

² Adapted from Exigo Consultancy. 2015. Frances Baard District Municipality: Proposed Nkandla Extension 2 Township Establishment, Erf 258 Nkandla, Hartswater, Northern Cape Province.

as UNESCO World Heritage Site as a serial nomination.³ One of these sites Taung near Vryburg is 190 km northwest of the study area.

4.3. The Stone Age

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

The Stone Age commenced more than 2 million years before present (BP) representing a more record 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.⁴ Such tools bore a consistent shape such as the pear-shaped handaxe, cleavers and core tools. These tool industries have been called Oldowan and Acheulean and were probably used to butcher large animals such as elephants, rhinoceros and hippopotamus. Acheulean artefacts are usually found near sites where they were manufactured and thus in close proximity to the raw material or at kill sites. The early hunters are classified as hominids meaning that they had not evolved to the present human form. Locales along and adjacent to the Orange – Vaal River systems have yielded evidence of great interest.⁵

4.3.2. Middle Stone Age (MSA) [250 000 yrs – 30 000 yrs BP]

The Middle Stone Age (MSA), which appeared 250 000 years ago, 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. It is also believed that by then, humans had evolved significantly to become anatomically modern. Caves were used for shelter suggesting permanent or semi-permanent settlement. Furthermore there is archaeological evidence from some of the caves indicating that people had mastered the art of making fire.⁶ The coverage west of Kimberley is good with a number of field surveys have been carried out along the

³ Deacon, J. and N. Lancaster. 1986. *Later Quaternary Palaeo-environments of Southern Africa*. Oxford: Oxford University Press.

⁴ <http://archaeology.about/od/bterms/g/bordercave.htm>

⁵ Morris, D. 2009. Phase 1 Archaeological Impact Assessment at Bucklands Settlement near Douglas, Northern Cape, p3.

⁶ Deacon, J & H. Deacon. 1999. *Human Beginnings in South Africa*. Cape Town: David Philip.

Vaal and Orange Rivers confirming significant hunter gatherer activity in the area from the MSA onwards. This author has encountered lithics of the MSA/LSA in the broader area to the west and northwest of the study area.

Florisbad located 65 km to the southwest is a famous fossil site which has yielded among other finds a pre-modern human skull dating back to the transition from the ESA to the MSA 260 000 years BP.⁷

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

By the beginning of the LSA, humans are classified as *Homo sapiens* which refer to the modern physical form and thinking capabilities. Several behavioural traits are exhibited, 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. Because of poor preservation, open sites become of less value compared to rock shelters. The practitioners of the Late Stone Age as with Rock Art are ancestors of the Khoisan.⁸ The rock engravings at Wildebeest Kuil 20km outside Kimberley has been developed into a museum site.

4.4. **The Iron Age Culture [ca. 2000 years BP]**

The Iron Age culture supplanted the Stone Age at least 2000 years ago, associated with the introduction of farming and use of several metals and pottery. Iron Age communities are said to have been speakers of Bantu languages practicing agriculture and keeping domestic animals such as cattle, sheep, goat and chickens. There is however increasing evidence that sheep and probably cattle as well might have moved into the area much earlier than the Iron Age.⁹

4.4.1. *Early Iron Age*

An alternative perspective is to see the Early Iron Age as a gradual spread or expansion of settlement of different groups of people indigenous to the continent

⁷ Florisbad. Found at: <http://www.nasmus.co.za/museum/satellite-museums/florisbad>. Consulted March 2019.

⁸ Gaigher, S. 2012. Heritage Impact Assessment Report for the proposed establishment of the Prieska Solar Energy facility located east of Prieska on Portion 3 of the Farm Holsoot 47, Northern Cape Province, p15.

⁹ 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

which took place over a long period of time, rather than a migration in the strict sense of the word. Generally, however, the EIA is rendered in terms of two migration streams seen as converging in South Africa, one originating in eastern Africa which has been called the *Urewe-Kwale Tradition* (the eastern stream) and another from the west, spreading through Zambia and Angola, which he termed the *Kalundu Tradition* (western stream). There are few if any sites attributed to the EIA in the western parts of the country. Most EIA settlements are concentrated in the woodland zone in the eastern part of the country preferred for settlement, although there is strong possibility that transhumant pastoralism was practiced and seasonal hunting camps were established in the inhospitable western regions of the country.

4.4.2. *The Later Iron Age*

The LIA is characterised by the appearance of stonewalled settlements frequently occurring in the northern parts of the Free State and Northwest Provinces. They are associated with several Tswana sub-groups – Rolong, Tlhaping and Korana. The area under study was historically under the jurisdiction of the Rolong and Korana.

4.5. **European contact period**

Blaauwboschfontein is one of many farms established in the wake of Great Trek when the Voortrekkers expanded settlement across the Orange River. Boshof a town established on the farm Vanwyksvlei in 1855 22 km marked the transition from rural farming to urban settlement. It was named after Johannes Nicolaas Boshof, the second President of the Boer Republic of the Orange Free State (1855-59).¹⁰

The town Dealesville, 32 km southwest of Blaauwboschfontein, was proclaimed on 20 July 1899 (on the eve of the Anglo-Boer War), on another farm Klipfontein, named after the farm owner, John Henry Deale.

One of the major highlights of the European contact period and its climax was the Anglo-Boer War (now called the South African War). The vicinity of the Boshof was the scene of much military activity as Boer resistance to the onslaught by the British army had by 1900 morphed into a guerrilla style war in which commandos operated

¹⁰ Boshof. Found at: <https://www.free-state-info.co.za/provinces/town/433/boshof> Consulted March 2019.

in smaller units in the countryside and attempted as much as possible to avoid massed confrontation and a war of attrition.

On 5 April 1900 a British force under Brigadiers General Lord Chesham acted on the orders of General Frederic Roberts to attack a Boer Commando led by a French Volunteer Comte de Villebois-Mareuil. In the enemy camp there were several other elements who had joined as foreign volunteers including French, German, Dutch and a Russian Prince. When the British were closing the Boers soldiers bolted out of the battle, while de Villebois-Mareuil did not pay heed to advice to withdraw. De Villebois-Mareuil was killed by a shell after which the foreign volunteers capitulated. Despite the defeat de Villebois-Mareuil was honoured by the British troops who buried him with dignity. A monument was later erected on the Farm Middelkuil, 10 km East of Boshof, where the battle took place, to commemorate battle.¹¹



Figure 5: French postcard rendering of the Battle of Boshof.

The history of diamonds in the vicinity of Kimberley began with casual (chance) findings on farms in a broader area from the Orange Free State to Barkly West. The discovery of a Kimberlite pipe at Colesberg Kopje in 1871 sparked the rush which led

¹¹ Battle of Boshof. Found at: https://en.wikipedia.org/wiki/Battle_of_Boshof. Consulted March 2019; Battle of Boshof. Found at: <https://www.revolv.com/page/Battle-of-Boshof>

to the establishment of Kimberley. The workings at Blaauwbosch commenced in 1908.

The above forms the broad context for the identification of heritage resources in the area under study.

5. FINDINGS OF THE HERITAGE SURVEY

5.1. Heritage sensitivity of the broader area

The heritage sensitivity of the broader area can be gleaned from many impact studies that have been undertaken to date which confirm a significant MSA/LSA footprint. A number of farm buildings at farmsteads are recognised as historical landmarks of modern commercial farming. Mining also has had an indelible impression on the landscape. The findings of this study have to be considered in the broad context of these findings.

5.2. The Stone Age

No material dating to the Stone was found. Poor ground visibility might have been a contributing factor. It is likely that some artefacts are buried in the superficial sandy loam soils; this is considering that on the neighbouring property, Catherine's Fancy 831, there were sparse occurrences of lithics on the eroded edge of a pan.¹²

5.3. The Iron Age

No Iron Age sites were found on the property.

5.4. Early commercial farming

Evidence was noted of settlement suggesting the location of a workers compound which was abandoned (Site BBF01). Finds included rusted iron sheets, base of purple glass bottle with an illegible imprinted word. Soil has an ashy colouration which confirms occupation. Acacia trees have colonised the area. This site is rated of low significance and no further action is required (Figures 6-9 and 15).

¹² PGS Heritage. 2018. Catherine's Fancy 831, which forms part of the Blaauwbosch Mine, Boshof District, Free State Province. Heritage Impact Assessment. Page 30



Figure 6: Pieces of rusted iron sheets are evidence of past settlement.



Figure 7: Pieces of rusted iron sheets and ashy colouration are evidence of past settlement.



Figure 8: Base sherd of a green glass bottle, imprinted words not legible.



Figure 9: Stand of secondary acacia growth is a sign of past settlement.

5.5. Graves and burial grounds

Exposures of human bones at the northern edge of a mining trench indicate the presence of a burial ground which was not visible from the surface (Site BBF02,

Figures 1--15). The bones are exposed in four areas which represent individual graves. In one case a rusted metal sheet cover over the skeleton can be seen. In two other cases the decomposed wooden frames of coffins can be seen in the vertical profile of the trench.

5.5.1. Mitigation

The remains must be moved to a formal cemetery to allow the mine works to continue.



Figure 10: View of mine trench facing north and 4 locations with human bones c. 140cm below surface (two locations pointed by the middle arrow are out of view of the camera).

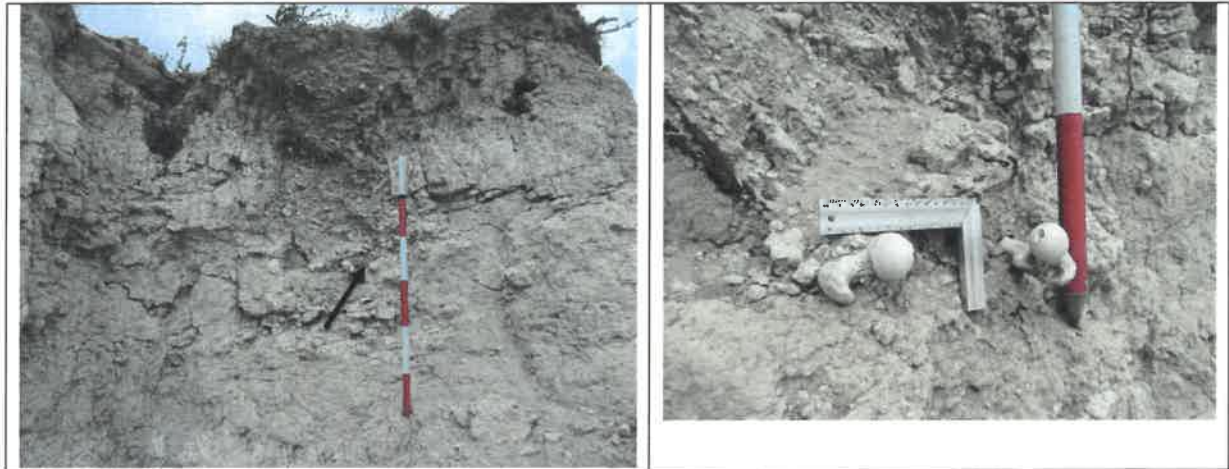


Figure 11: Burial 2(i) (Right arrow in Figure 10). Pair of femur bones (heads) and rusted metal sheet cover exposed on the wall of the trench. In the trench profile the grave shaft is also defined.



Figure 12: Burial 2(ii) (Middle arrow in Figure 10). Decomposed timber frame of coffin exposed on the wall of the trench. In the trench profile the grave shaft is defined.



Figure 13: Burial 2(iii) (Middle arrow in Figure 10). Decomposed timber exposed on the wall of the trench. In the trench profile the grave shaft is defined.

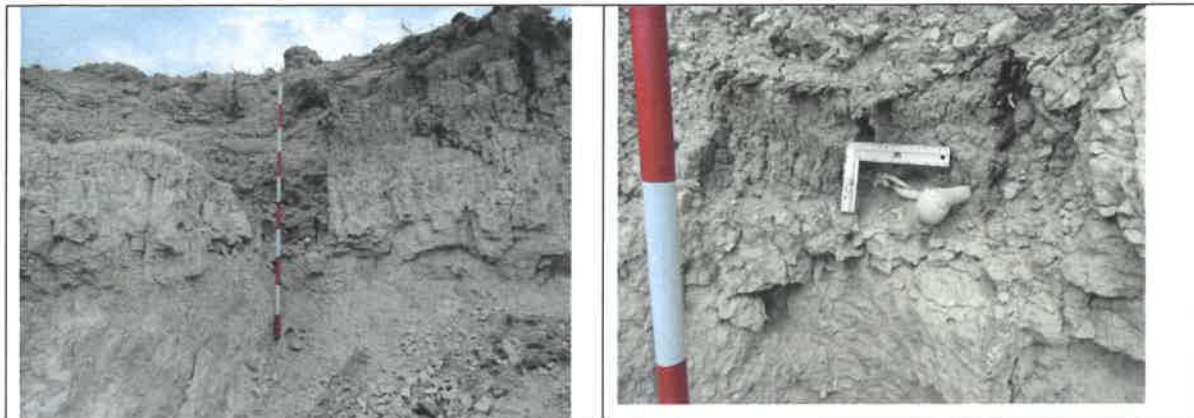


Figure 14 Burial 2(iv) (Left arrow in Figure 10). Decomposed timber frame of coffin and femur head exposed on the wall of the trench. In the trench profile the grave shaft is also defined.

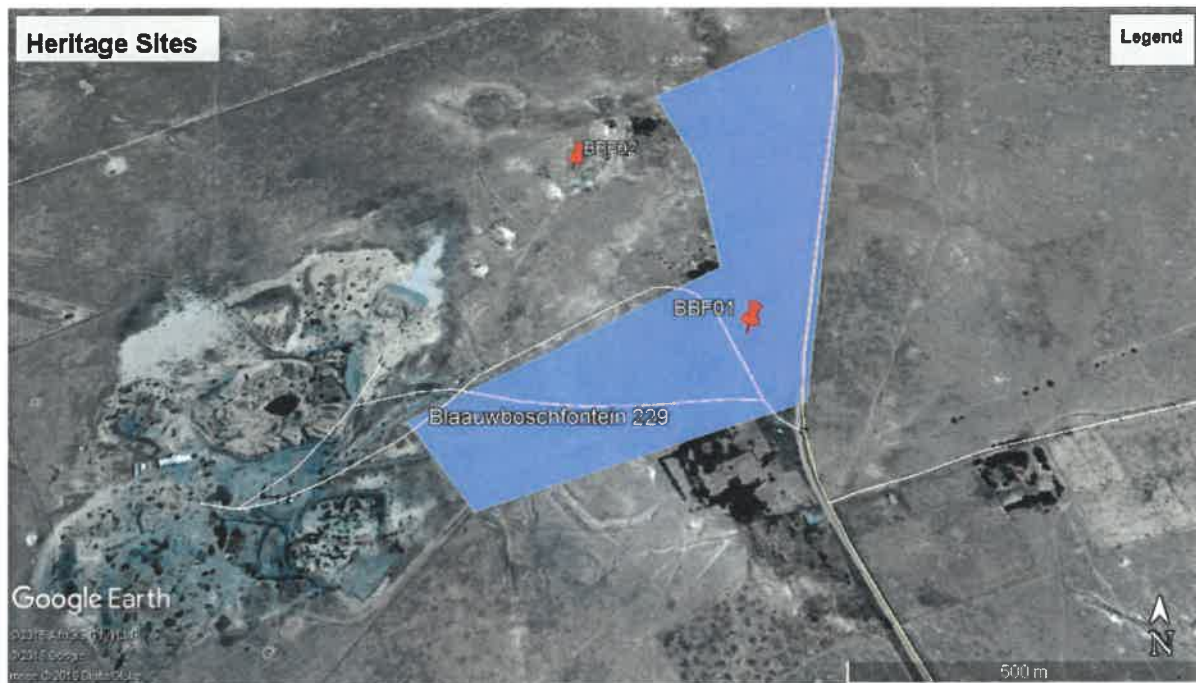


Figure 15: Location of heritage sites.

5.6. Significance ranking of findings

The significance ranking (with a colour scheme) refers to perceived impacts and risk of the proposed development. Appropriate interventions and mitigation strategies are also proposed.

	RANKING	TYOLOGY & SIGNIFICANCE	NO OF SITES
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.	1 burial ground
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.	0
4	Low	Heritage sites which have been recorded, but considered of minor importance relative to the proposed development.	1
		TOTAL	2

5.7. Risk assessment of the findings

EVALUATION CRITERIA	RISK ASSESSMENT
Description of potential impacts	Negative impacts range from partial to total destruction of surface and under-surface movable/immovable relics.
Legal Requirements	Sections 34, 35, 36, 38 of National Heritage Resources Act (25/1999).
Stage/Phase	Mining by opencast or shaft methods
Nature of Impact	Destruction of a burial ground
Extent of Impact	Opencast excavations and trenching have potential to damage the burial ground
Duration of Impact	Any destruction of the burial ground 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	Professionally managed exhumations in terms of Section 36 of NHRA and SAHRA regulations.
Level of significance of impacts after mitigation	Low.
Cumulative Impacts	None.
Comments or Discussion	Public notices and participation recommended.

6. CONCLUSION AND RECOMMENDATIONS

The human remains accidentally exposed indicate a burial ground that was not visible from the surface. The remains must be moved to a formal cemetery to allow the mine works to continue.

The Mining Right must be approved subject to an action being taken to move the graves to a formal cemetery. Caution is further advised that archaeological deposits are usually buried underground. Should archaeological artefacts or other skeletal material be exposed in the area, operations should be halted, and the provincial heritage resources authority or SAHRA notified in order for an investigation and evaluation of the finds to take place.

7. CATALOGUE OF SITES

SITE NO	COORDINATES		PERIOD
BBF01	28°33'20.5"S	25° 27'56.40"E	19 th -20 th Century
<div style="display: flex; flex-direction: column; align-items: center;">   </div>			
<p>OBSERVATIONS: Stand of secondary acacia growth, pieces of rusted iron sheets and soil colouration are evidence of past settlement.</p>			
HERITAGE STATUS	Settlement associated with early commercial farming.		
POTENTIAL IMPACTS & PROPOSED MITIGATION	-		

SITE NO	COORDINATES		PERIOD
BBF02	28°33'06.10"S	25° 27'44.5"E	MSA/LSA



OBSERVATIONS: 4 locations of human bones exposed c 140cm below surface (two locations pointed by the middle arrow). Heads of femur bones, rusted metal sheet cover exposed, decomposed timber frames of coffins also exposed on the wall of the trench. Grave shafts also defined on the profile of the trench.

HERITAGE STATUS	Burial Ground (Section 36 of NHRA)
POTENTIAL IMPACTS & PROPOSED MITIGATION	Professionally managed exhumation.

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Legislation and Policies

National Heritage Resources Act (No 25: 1999)

National Environmental Management Act (No 107/1998)

ICOMOS Australia Charter for the Conservation of Places of Cultural Significance
(the Burra Charter 1999)

The ICOMOS Charter for the Conservation of Historic Towns and Urban Areas (the
Washington Charter 1987)