

Heritage impact Assessment application

AI Summary

From: **Kavenaarue Tjiuro** <ktjiuro@gmail.com>

Date: Tue, May 12, 2026 at 1:45 PM

Subject: Re: Heritage impact Assessment application

To: Eliot Mowa <esmowa@gmail.com>

Well received thank you


Kavenaa Tjiuro

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image.png

On Mon, 11 May 2026 at 15:44, Eliot Mowa <esmowa@gmail.com> wrote:

On Mon, May 11, 2026 at 3:39 PM Eliot Mowa <esmowa@gmail.com> wrote:

Dear Mr Kavena

As discussed via phone the other day, kindly find attached .1 Application for consent completed form.2 Proof of payment .3 HIA Report for review by your esteemed organisation.

Kind regards

Eliot



**ESM ARCHAEOLOGICAL
AND CULTURAL
HERITAGE CONSULTANTS**

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**ARCHAEOLOGICAL AND HERITAGE IMPACT
ASSESSMENT REPORT FOR PROPOSED SMALL-SCALE MINING ACTIVITIES ON
MINING CLAIMS NO: 72092,70310,72093 AND 72610, OTWANI,
KUNENE REGION.**



Compiled by:

Dr Eliot Mowa, B.ED (UNAM)
Maritime Archaeology (University of Bristol).
PhD in archaeology (University of Pretoria).

Compiled for:

Eco-wise Environmental Consulting

April 2026

Table of Contents

Key Concepts and Terms	5
Acronyms	7
SUMMARY	8
1. Introduction	8
2. Site description and location	9
3. Assumptions and Limitations	12
4. Legal requirement	12
5. Methodology	13
6 Historical and Archaeological Setting	15
7.Findings	17
7.1. Stakeholder Engagement	18
10. Recommendation/ Management actions	25
11. Conclusion	26

Table of Figures

Table 1; Acronyms and Definitions table	7
Figure 1: Geological composition of Kunene Region.....	10
Figure 2: Site Map	11
Figure 2: Vegetation type within the four Mining Claims.	11
Figure 4: Top: Mining Claim 72092,70310,72093 indicating existing mining activities with a deep open pit.Bottom: picture indicating contemporary cattle post campsites on top of the hill hosting the mining pit.....	19
Figure 5: Water facility and security house with water tank at the gate hosting within mining claim 70310.	20
Figure 6: Mr Kavemumunu, near right, with two guides from Otwani standing on the exposed geological landscape due to the copper mining activities in the past within MC70310.	20
Figure 7: Camp Aussicht. located about four kilometers southeast of MC 72610.....	21
Figure 8: Top Picture: An extensive copper mining open-pit site. Bottom picture. Note the green corrosion stain indicative of copper oxide MC 72610.	22
Figure 9: Mining employees belonging to new horizon company on site MC 72610.....	22
Figure 10: Cattle post of which part of the kraals is within MC 72610 and another part of the kraals outside MC 72610.....	23
Figure 11: Map MC 72610 indicates part of the kraals that fall within the mining claim relative to the active mining activity site.	24

DECLARATION

We hereby declare that we do:

1. Have knowledge of and experience in conducting archaeological assessment, including knowledge of Namibian legislation, specifically the National Heritage Act (27 of 2004), as well as regulations and guidelines that have relevance to the proposed activity.
2. Perform the work relating to the application objectively, even if this results in views and findings that are no favourable to the applicant.
3. Comply with the aforementioned Act, relevant regulations, guidelines, and other applicable laws. We also declare that we have no interest or involvement in:
 - (i) the financial or other affairs of either the applicant or his consultant; and
 - (ii) the decision-making structures of the National Heritage Council of Namibia.

Signed by:

Dr E.S.Mowa

A handwritten signature in black ink, appearing to read 'E.S.Mowa', with a horizontal line drawn through it.

Key Concepts and Terms

Periodisation: Archaeologists divide the different cultural epochs according to the dominant material finds for the different time periods. This periodisation is usually region-specific, such that the same label can have different dates for different areas. This makes it important to clarify and declare the periodisation of the area one is studying.

These periods are nothing a little more than convenient time brackets because their terminal and commencement are not absolute and there are several instances of overlap. In the present study, relevant archaeological periods are given below;

Early Stone Age (~ 2.6 million to 250 000 years ago)

Middle Stone Age (~ 250 000 to 40-25 000 years ago)

Later Stone Age (~ 40-25 000, to recently, 100 years ago)

Early Iron Age (~ AD 200 to 1000)

Late Iron Age (~ AD 1100-1840)

Historic (~ AD 1840 to 1950, but a Historic building is classified as over 60 years old)

Definitions Just like periodisation, it is also critical to define key terms employed in this study. Most of these terms derive from Namibian National Heritage legislation and its ancillary laws, as well as international regulations and norms of best-practice. The following aspects have a direct bearing on the investigation and the resulting report.

Cultural (heritage) resources are all non-physical and physical human-made occurrences and natural features that are associated with human activity. These can be singular or in groups and include significant sites, structures, features, Eco facts and artefacts of importance associated with the history, architecture or archaeology of human development.

Cultural significance is determined by utilising aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

Value is related to concepts such as worth, merit, attraction or appeal, concepts that are associated with the (current) usefulness and condition of a place or an object. Although significance and value are not mutually exclusive, in some cases the place may have a high level of significance but a lower level of value. Often, the evaluation of any feature is based on a combination or balance between the two.

Isolated finds are occurrences of artefacts or other remains that are not in situ or are located apart from archaeological sites. Although these are noted and recorded, but do not usually constitute the core of an impact assessment, unless if they have intrinsic cultural significance and value.

In-situ refers to material culture and surrounding deposits in their original location and context, for example, an archaeological site that has not been disturbed by farming.

Archaeological sites/materials are remains or traces of human activity that are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures. According to the Namibia National Heritage Act (NNHA) (Act No. 27 of 2004), no archaeological artefact, assemblage or settlement (site) and no historical building or structure older than 60 years may be altered, moved or destroyed without the necessary authorisation from the National Heritage Council or a provincial heritage resources authority.

Historic materials are remains resulting from human activities, which are younger than 100 years, but no longer in use, including artefacts, human remains and artificial features and structures.

Chance finds means archaeological artefacts, features, structures or historical remains accidentally found during development.

A grave is a place of interment (variably referred to as burial) and includes the contents, headstone or another marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where it is referred to as being situated in a cemetery (contemporary) or burial ground (historic).

A site is a distinct spatial cluster of artefacts, structures, and organic and environmental remains, as residues of past human activity.

Heritage Impact Assessment (HIA) refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, which requires authorisation of permission by law and which may significantly affect the cultural and natural heritage resources. Accordingly, an HIA must include recommendations for appropriate mitigation measures for minimising or circumventing negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

The impact is the positive or negative effects on cultural heritage.

Mitigation is the implementation of practical measures to reduce and circumvent adverse impacts on heritage or enhance the beneficial impacts of an action.

Mining heritage sites refer to old, abandoned mining activities, underground or on the surface, which may date from the pre-historical, historical or the relatively recent past.

Study area or 'project area' refers to the area where the developer wants to focus its development activities (refer to plan).

Phase I studies refers to surveys using various sources of data and limited field walking to establish the presence of all possible types of heritage resources in any given area.

Acronyms

Table 1; Acronyms and Definitions table

Abbreviation/Acronyms	Description/Definition
AIA	Archaeological Impact Assessment
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LIA	Late Iron Age
NHA	Nation Heritage Act, Act 27 of 2004
SM	Site Manager
NHCN	National Heritage Council of Namibia
ESA	Later Stone Age
EPL	Exclusive Prospecting Licence
ECC	Environmental Clearance Certificate
CFP	Chance Find Procedure
EMA	Environmental Management Act No.7 of 2007
ML	Mining licence

SUMMARY

A combined field survey and desktop-based Heritage Impact Assessment was carried out between **1 and 2 April 2026** for the proposed mining activities within **Mining Claims 72092, 70310, 72093, and 72610**. The assessment considered that previous mining operations had already occurred within the project area, potentially disturbing or destroying any surface archaeological remains.

Despite this existing disturbance, and apart from areas affected by earlier activities, only MC 72610 was identified as containing limited potential cultural material, as outlined in the assessment findings

1. Introduction

ESM Archaeological and Heritage Consultants was sub-contracted by Eco-wise Environmental Consulting to conduct a Heritage Impact Assessment for the proposed mining activities on four mining claims located within Otwani settlement, 70 kilometres south of Opuwo urban settlement in Kunene Region, Namibia.

This HIA study, therefore, serves as one of the baseline reports produced to assess the impacts of development on the sensitive heritage landscapes at a local and regional scale, on the mining licenses. Consequently, it is expected that the devised mitigation measures will aim at preventing possible disturbances, alterations, damages, and the destruction of the sensitive heritage landscapes within the areas.

The main objective of this assignment was to conduct an HIA on the mining claims. The assessment reported here aims to identify existing desktop archaeological sites that may be affected by the exploration. Archaeological assessment forms the basis of recommended management actions to avoid or reduce the negative impacts, as part of the environmental impact assessment. In particular, the assessment addresses the following objectives:

1. The identification and assessment of potential impacts on archaeological/heritage resources arising from the mining activities.
2. The identification and demarcation of sensitive archaeological/heritage sites requiring special mitigation measures to eliminate, avoid, or compensate for possible destructive impacts.

3. Formulation and motivation of specific mitigation measures for mining activities within MC 72092,70310,72093 and 72610.

2. Site description and location

The four mining claims, MC 72092, MC 70310, MC 72093, and MC 72610, are located in a remote and sparsely populated part of the Otwani settlement area, approximately 70 kilometres south of Opuwo. Three of the mining claims are situated adjacent to one another (Figure 2), while MC 72610 lies approximately 10 kilometres southeast of the other three claims. The mining claims are located south and southeast of Otwani settlement on either side of the C43 road between Opuwo and Warmquelle settlement.

The project area is characterised by vegetation dominated by Mopane and Acacia woodlands (Figure 3), interspersed with grassland cover. Scattered villages occur throughout the area, with Otwani settlement being the largest nearby community, located approximately five kilometres west of the three adjoining mining claims. The majority of local inhabitants are Himba nomadic pastoralists, whose livelihoods depend largely on livestock farming, particularly cattle, sheep, and goats.

Geographically, Otwani is situated within the central part of Kaokoland, an area marked by mountainous terrain and geological formations dominated by the Otavi Group (Figure 1). The region is known for its mineral wealth, particularly copper deposits, as demonstrated by ongoing exploration and mining activities in the wider Otwani area.

The environmental and geographical characteristics of the project area have a direct bearing on its heritage context. The mountainous terrain, seasonal grazing patterns, and dispersed settlement structure reflect a long-established pastoral land-use system associated with the Himba communities of Kaokoland. These environmental conditions have shaped the movement, settlement, and cultural practices of local communities over generations, contributing to a living cultural landscape that remains evident today.

Although the mining claims are not situated within an area of high archaeological density, the surrounding landscape holds cultural significance due to its continued use by pastoral communities for seasonal grazing and temporary settlement. Features such as cattle posts, kraals, and livestock routes form part of the tangible cultural heritage of the area and provide evidence of traditional land-use practices that have historical continuity. Furthermore, the relative remoteness of the area has allowed aspects of this cultural landscape to remain largely intact despite increasing mining and exploration activities.

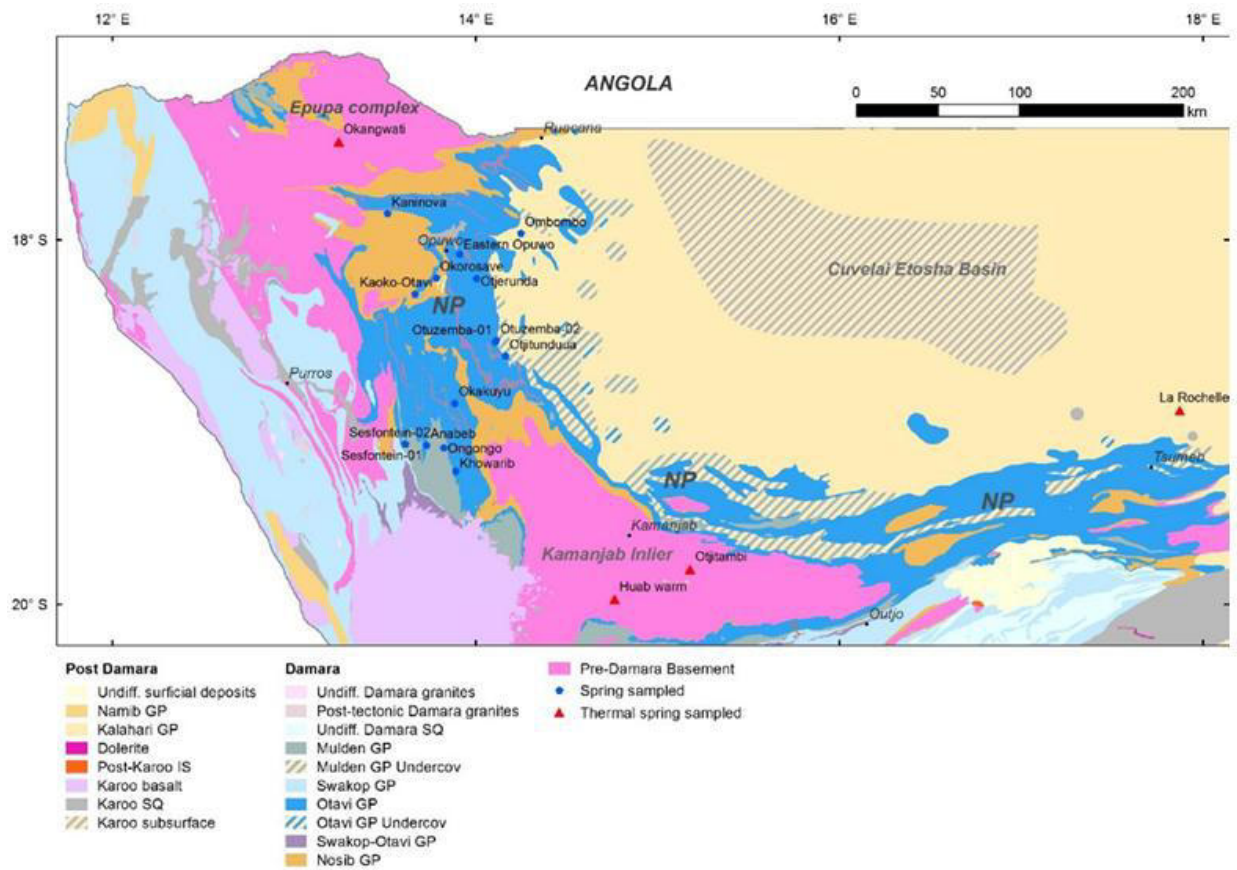


Figure 1: Geological composition of Kunene Region

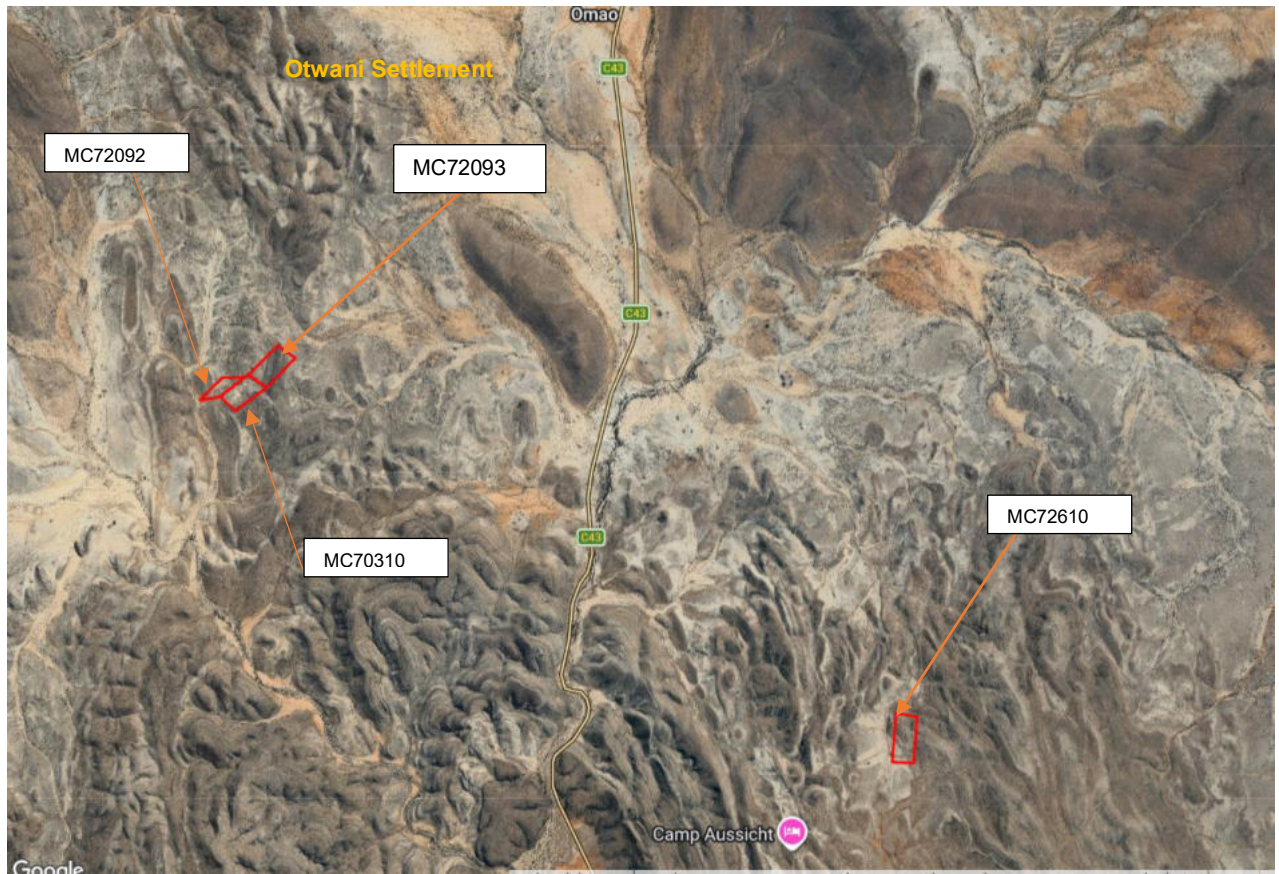


Figure 2: Site Map



Figure 2: Vegetation type within the four Mining Claims.

3. Assumptions and Limitations

This archaeological assessment relies on inference used to inform assessments harvested from heritage records from the National Heritage Council, archaeological GIS spatial data from reports, publications, and GIS data obtained from a series of research and records that have been substantially exposed during the last decades, through a series of detailed archaeological assessments carried out.

4. Legal requirement

The government of the Republic of Namibia enacted the National Heritage Act (No. 27 of 2004) as a legal instrument to provide for the protection of heritage resources. Heritage resources imply both sites and objects of archaeological, paleontological, and rare geological objects (including meteorites); ethnographical, historical (including military objects, historic graves, or sacred sites), shipwrecks; built monuments of significant architectural heritage, and objects of scientific interest. The developed operational guidance, the “Interim Guidelines for Heritage Consultants”¹ has been formulated to implement the National Heritage Act concerning archaeological assessment. Further, a critical provision of the Heritage Act is section 46, which “prohibits the locating, removal, damage, alteration or excavation of heritage sites or remains” defined in the Act as “any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface”² without a heritage permit. Section 48 of the Act provides the procedure for the application and granting of permits that are required in the event of damage to a significant site occurring as an inevitable result of development, while Sections 53(7) and 55(8) of the Heritage Act relate to the application of a Consent for works and activities subject to an environmental impact assessment. Moreover, archaeological impact assessment of mineral exploration is included in the category of “any other development or activity that may change the character of an area of land” as outlined in section 54 (6) of the National Heritage Act, which needs to be subjected to a HIA.

Another relevant legal instrument where the archaeological impact assessment in Namibia is required is the Environmental Management Act, (No. 7 of 2007), whose definition of “anthropogenic elements” is intricately included in the “environment’ definition. Consequently,

¹ Guidelines for Heritage Impact Assessment, National Heritage Council, September 2021.

² Part 1, Definitions 1 of the National Heritage Act, (No. 27 of 2004).

the list of activities that may not be undertaken without an Environmental Clearance Certificate applies to the management of impacts on archaeological sites and remains, whether these are considered in detail by the environmental assessment or not (Kinahan 2012). Internationally, appropriate operational guidelines include those from the World Bank OP/ BP 4.11 in respect of “Physical Cultural Resources” (R2006-0049, revised April 2013) and the World Heritage Convention (1972).

5. Methodology

The heritage assessment combined both **field-based** and **desktop-based** approaches to ensure a comprehensive understanding of the potential heritage context within the project area. This integrated methodology relied on the collection and analysis of both primary and secondary data sources to identify and evaluate any heritage resources that may be affected by the proposed mining activities.

The field survey involved a systematic ground assessment of the four mining claims, namely **MC 72092, MC 70310, MC 72093, and MC 72610**, using non-invasive survey methods to identify visible heritage resources within the project area. In accordance with the provisions of the National Heritage Act, 2004, the assessment focused on identifying heritage resources such as historical structures, artefacts older than 50 years, graves, and palaeontological or archaeological features including rock art, caves, and stone tools. A Global Positioning System (GPS) device was used to record the geographic coordinates of identified features, while a digital camera and archaeological photographic scale were employed to document these resources visually. In addition, informal interviews were conducted with local community members to gather indigenous knowledge and local perspectives regarding the presence of heritage resources in the area.

The desktop study consisted of an extensive review and analysis of existing literature, archival records, and available data relating to the archaeological and cultural context of **MC 72092, MC 70310, MC 72093, and MC 72610**. Secondary sources examined during this phase included published archaeological reports, previous heritage impact assessments, academic publications, and relevant government archives. These sources were reviewed to identify any previously recorded heritage sites or culturally significant features located within or near the project area.

Furthermore, literature concerning the cultural practices, social organisation, and economic activities of local communities in the **Otwani area** was examined in order to better understand the broader heritage landscape. This review included information on traditional land-use practices, sacred sites, and aspects of intangible cultural heritage such as rituals, oral traditions, and

customary beliefs, as well as the historical development and settlement patterns of communities in the region.

By applying this combined field and desktop assessment methodology, the study aimed to establish the heritage sensitivity of the project area and to ensure that any potential impacts of the proposed development on cultural and heritage resources were adequately identified and addressed. **Table 2** presents the ranking scales for archaeological significance and vulnerability as developed by QRS (Kinahan, 2012), which were used to guide the evaluation of identified heritage resources.

Significance Rating	Vulnerability Rating
<ul style="list-style-type: none"> 0. No archaeological, paleontological and historic significance 1. Disturbed or secondary context, without diagnostic materials 2. Isolated minor find in undisturbed primary context, with diagnostic materials 3. Archaeological, paleontological & historical site (s) forming part of an identifiable local distribution or group 4. Multi-component site (s), or central site (s) with high research potential 5. Major archaeological, paleontological & historical site (s) containing unique evidence of high regional significances 	<ul style="list-style-type: none"> 0. Not Vulnerable 1. No threat posed by current or proposed development activities 2. Low or indirect threat from possible consequences of development (e.g. soil erosion); 3. Probable threat from inadvertent disturbance due to proximity of development 4. High likelihood of partial disturbance or destruction due to close proximity of development 5. Direct and certain threat of major disturbance or total destruction

Table 2: Assessment criteria for the evaluation of cumulative impacts on archaeological sites developed by (QRS, Kinahan 2012).

CRITERIA	CATEGORY	DESCRIPTION
Extent or spatial influence of impact	National Regional Local	Within Namibia Within the Region On site or within 200m of the site impact
Magnitude of impact (at the indicated spatial scale)	High Medium Low Very Low Zero	Social and/or natural functions and/ or processes are severely altered Social and/or natural functions and/ or processes are notably altered Social and/or natural functions and/ or processes are slightly altered Social and/or natural functions and/ or processes are negligibly altered Social and/or natural functions and/ or processes remain unaltered

Duration of impact	Short Term	Up to 3 years
	Medium Term	4 to 10 years after construction
	Long Term	More than 10 years after construction

6 Historical and Archaeological Setting

The Otwani area, located in the former Kaokoland (now part of the Kunene Region in northwestern Namibia), has a rich historical background rooted in the migration, settlement, and pastoral traditions of the Ovahimba people. Kaokoland has long been inhabited by semi-nomadic pastoral communities who depended mainly on cattle and goat farming for survival. The Ovahimba, a subgroup of the Herero-speaking people, are believed to have migrated into northwestern Namibia around the sixteenth century, settling in the harsh but resource-rich landscapes of Kaokoland where they adapted to the arid environment through seasonal livestock movement (Britannica, 2023).

During the German colonial period (1884–1915), Kaokoland remained one of the least controlled regions in Namibia due to its remote mountainous terrain and sparse population. Unlike central and southern Namibia, where colonial settlement and military campaigns heavily disrupted indigenous communities, the people of Otwani and the surrounding areas continued to be governed largely under traditional authorities and customary law (Wallace & Kinahan, 2011).

After the defeat of Germany in World War I, South Africa assumed control of Namibia, then known as South West Africa. During the South African administration, Kaokoland was treated as a remote native reserve with little infrastructural development. Administrative centres such as Opuwo were gradually introduced, but villages like Otwani remained isolated and underdeveloped. The people continued relying on traditional livelihoods, particularly pastoralism, while formal education, healthcare, and road infrastructure remained minimal (Mendelsohn, Jarvis, Roberts & Robertson, 2002).

Under the apartheid system, Kaokoland was designated as a homeland for the Himba people, further entrenching its isolation. This homeland policy aimed to separate ethnic groups geographically, limiting socio-economic development in rural areas. As a result, Otwani remained marginalized, with limited government investment and continued dependence on communal grazing land and traditional leadership structures (Wallace & Kinahan, 2011).

Despite colonial and apartheid-era marginalization, Otwani has remained culturally significant as a centre of Himba traditional life. The community has preserved many cultural practices, including traditional dress, clan organization, livestock-based livelihoods, and customary

ceremonies. The remoteness of Kaokoland helped protect these traditions from rapid modernization, allowing communities like Otwani to maintain their cultural identity over generations (Mendelsohn et al., 2002).

The Kunene Region of northwestern Namibia remains one of the most archaeologically significant yet understudied landscapes in southern Africa. Its position as a biogeographic corridor between Central and southern Africa, combined with the preservation of Middle Stone Age (MSA) assemblages in primary geomorphic contexts, offers critical opportunities for understanding hominin adaptation to arid environments (Nicoll, 2017).

The region's geological framework is dominated by the Epupa Metamorphic Complex (EMC) within the Kaoko Belt, comprising Proterozoic granitoid gneisses, schists, and anorthosites dated between 1757 and 1835 Ma (Bybee et al., 2019). These bedrock formations constrain river morphology and provide lithic raw materials. The Kunene River, one of Namibia's few perennial systems, has incised relict fluvial terraces during Pleistocene pluvial episodes. At the Cafema site, a 5-meter-high terrace capped by cobble gravels has been dated through Optically Stimulated Luminescence to approximately 220 kyr, corresponding to Marine Isotope Stage (MIS) 7 (Nicoll, 2017).

The most significant archaeological component dates to the Middle Stone Age. The Cafema surface assemblage comprises over 30 quartzite artifacts, including Levallois-Mousterian points—the first reported from northern Namibia (Nicoll, 2017). Raw material analysis indicates hominins preferentially exploited local alluvial cobbles rather than primary bedrock sources within 2 km, reflecting efficient procurement strategies (Nicoll, 2018). This assemblage provides rare chronological control for MSA occupation in northwestern Namibia, with implications for early *Homo sapiens* dispersal corridors.

Later prehistoric traditions are represented by rock art at Twyfelfontein, a UNESCO World Heritage Site containing approximately 2,500 engravings dating to around 6,000 years ago (Smith & Ouzman, 2004). Nearby petroglyph localities in #Khari Soso and undocumented stone circle features in southern Kunene have not been systematically dated (Sullivan, 2023; Mason, 1958). Contemporary Himba pastoralists maintain traditional lifeways in the region, offering ethnoarchaeological analogues for interpreting prehistoric settlement patterns.

7.Findings.

Table 3: Potential cultural heritage findings.

Archaeological Findings	Coordinates
Name:	Contemporary Nomadic Seasonal Kraal
GPS Coordinates	18 40'55.1" S 13 45' 24.59" E
Mining Claim	72610
Description:	Two kraals, one for small stocks such as calves or goats and a bigger kraal for large stocks such as cattle. Plus a tent for the cattle herder/guide
Significance rating: 1. Disturbed or secondary context, without diagnostic materials	Vulnerability:2. Low or indirect threat from possible consequences
Mitigation measure	20 meter bufferzone radius

Apart from the cattle post (Figure 10) identified within MC 72610 (Table 3), no other potential heritage resources were recorded within the four mining claims, namely MC 72092, MC 70310, MC 72093, and MC 72610. All four mining claims show evidence of extensive mineral exploitation, and the likelihood of identifying surface heritage resources may have been significantly reduced by prolonged mining and exploration activities that have disturbed the landscape over time.

The cattle post identified within MC 72610 may, however, represent a site of cultural significance due to its role in supporting the seasonal movement patterns of local communities. Information obtained from a mine employee indicated that the cattle post is used by members of the Otwani community during the dry season, when livestock are moved into the area after grazing resources in other areas have been depleted. This practice forms part of the traditional semi-nomadic pastoral system of the Himba people, whose livelihoods are closely linked to seasonal livestock mobility.

From a heritage perspective, the cattle post embodies both tangible and intangible cultural heritage values. The physical features of the site, including the kraal and campsite, represent the tangible components of a broader cultural practice rooted in the pastoral traditions of the Himba

community. These features are directly associated with intangible heritage elements such as traditional land-use systems, indigenous knowledge, and customary seasonal migration practices. As such, the site holds heritage significance that extends beyond its physical remains and should therefore be protected from disturbance.

Furthermore, local information suggests that the cattle post has been in use for many years, reinforcing its cultural relevance within the landscape. Its continued seasonal use demonstrates the persistence of traditional pastoral practices in the Otwani area and highlights the importance of recognising living cultural heritage features within the assessment of potential development impacts.

7.1. Stakeholder Engagement

As part of the Heritage Impact Assessment (HIA), informal stakeholder consultations were undertaken with members of the local community residing in the Otwani area to obtain indigenous knowledge regarding the possible existence of heritage resources within and around the mining claims.

One of the consulted individuals was an employee of Camp Aussicht, a local lodge situated near Mining Claim (MC) 72610. The employee, identified as Mr. Hansie, voluntarily shared information concerning the historical and cultural context of the area surrounding the claim. He indicated that, based on his knowledge and experience since commencing employment at Camp Aussicht, there are no known heritage resources within the vicinity of the mining claims. He further noted that Camp Aussicht has existed in the area for approximately 43 years (Figure 7).

The assessment team also consulted Mr. Mbinge Kavemumunu, a security guard employed at the mining site and a resident of Ondera village within the Otwani area (Figure 6). Mr. Kavemumunu stated that he is not aware of any heritage resources located within or adjacent to the mining claims.

In addition, Mr. Elvis Muzuma, a general worker employed by New Horizon Company within MC 72610, was consulted regarding the environmental and cultural context of the mining site. Mr. Muzuma reported that he is unaware of any heritage sites or culturally significant features within the mining claim area (Figures 8 and 9).

Despite the absence of formally identified heritage resources reported during community consultations, a cattle post camp and kraal located along the boundary of MC 72610 was observed during the field assessment. According to information provided by local informants, this feature is used seasonally by pastoralist communities who relocate to the area during the dry season in search of grazing land and water for livestock. While no archaeological or historical materials were identified at this locality, the cattle post may hold cultural significance as part of the

traditional pastoral land-use system of the local community. It is therefore regarded as the only feature within the assessed area with potential cultural heritage value.



Figure 4: Top: Mining Claim 72092,70310,72093 indicating existing mining activities with a deep open pit.Bottom: picture indicating contemporary cattle post campsites on top of the hill hosting the mining pit.



Figure 5: Water facility and security house with water tank at the gate hosting within mining claim 70310.



Figure 6: Mr Kavemumunu, near right, with two guides from Otwani standing on the exposed geological landscape due to the copper mining activities in the past within MC70310.



Figure 7: Camp Aussicht, located about four kilometers southeast of MC 72610.





Figure 8: Top Picture: An extensive copper mining open-pit site. Bottom picture. Note the green corrosion stain indicative of copper oxide MC 72610.



Figure 9: Mining employees belonging to new horizon company on site MC 72610.



Figure 10: Cattle post of which part of the kraals is within MC 72610 and another part of the kraals outside MC 72610.

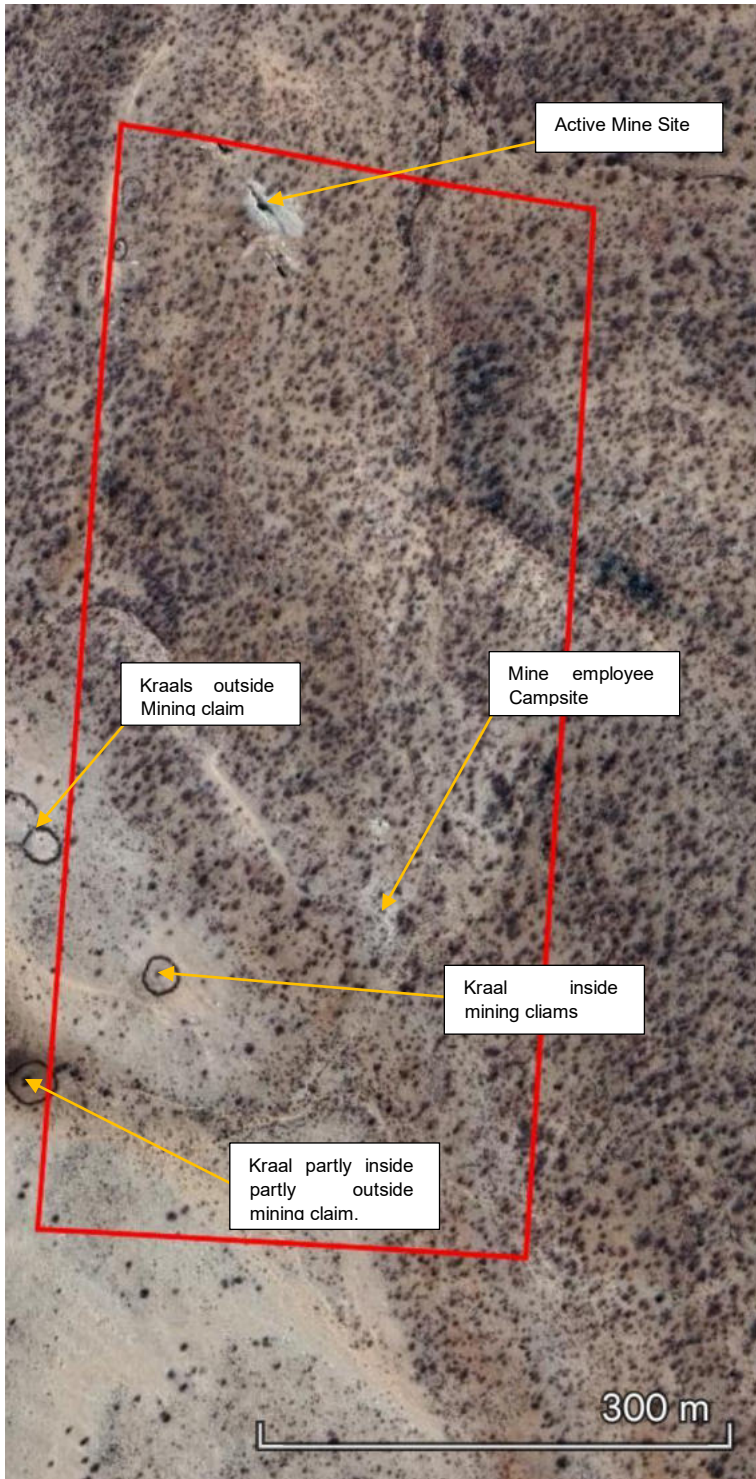


Figure 11: Map MC 72610 indicates part of the kraals that fall within the mining claim relative to the active mining activity site.

10. Recommendation/ Management actions

Since the area proposed for mining activities has already been extensively disturbed by long-term copper mining in the past. It is unlikely that any significant heritage resources remain intact within the immediate project footprint. Previous development activities likely displaced or destroyed most surface or near-surface cultural materials.

The potential for encountering buried or subsurface heritage resources, though low, cannot be completely dismissed. Therefore, as a precaution, all activities should be conducted with awareness of the possibility of uncovering unexpected buried heritage materials. Additionally, the tangible cattle post campsite and kraal, though it is found at the edge of MC 72610, we recommend that a 20 meter buffer zone be put in place around the cattle post campsite and its related infrastructures (Figure 11).

Moreover If any archaeological materials, human remains, or other heritage resources are unearthed during upgrade activities or ground-disturbing activities, all work in the affected area must be halted immediately. The discovery should then be reported to the relevant heritage authority without delay, and the **Chance Finds Procedure** outlined below must be followed to ensure that such findings are managed under national heritage legislation and best practice protocols.

1. Chance Finds Procedure (CFP) management guideline:

These assessments incorporated both desktop and field surveys. This includes, among others, methodologies such as surface observation; therefore, Significant subsurface heritage resources might be lying hidden from sight. On-site personnel and contractors must be sensitized to recognize “chance finds heritage” in the course of their work. The procedure set out here covers the reporting and management of such finds. The CFP covers the actions to be taken from the discovery of a heritage site or object to its investigation and assessment by a trained archaeologist. The CFP is intended to ensure compliance with the relevant provisions of the National Heritage Act (27 of 2004), especially Section 55 (4): “a person who discovers any archaeological objects must as soon as possible report the discovery to the council”. The procedure of reporting set out below must be observed so that heritage materials are reported to the authorities.

A. Responsibilities:

Operator To exercise due caution if archaeological remains are found

Foreman To secure site and advise management timeously

Superintendent To determine safe working boundary and request inspection

Archaeologist To inspect, identify, advise management, and recover remain

B. Procedure:

Action by the person (operator) identifying archaeological or heritage material

- If operating machinery or equipment: **stop work**

- Identify the site with flag tape
- Determine GPS position if possible
- Report findings to foreman
- C. Action by foreman:
 - Report findings, site location and actions are taken to the superintendent
 - Cease any works in the immediate vicinity
- D. Action by superintendent
 - Visit the site and determine whether work can proceed without damage to findings;
 - Determine and mark the exclusion boundary
 - Site location and details to be added to the Archaeological Heritage database system
- E. Action by archaeologist
 - Inspect site and confirm the addition to AH database system;
 - Advise National Heritage Council and request a permit to remove findings;
 - Recovery, packaging and labelling of findings for transfer to National Museum.
- F. In the event of discovering human remains
 - Actions as above;
 - Field inspection by archaeologist to confirm that remains are human;
 - Advise and liaise with NHC Guidelines; and
 - Recovery of remains and removal to National Museum or National Forensic Laboratory, or as directed.

11. Conclusion

Based on the findings of the archaeological field assessment, one site of potential heritage significance was identified within the footprint of Mining Claim (MC) 72610 in the assessed area. The surveyed landscape is predominantly characterised by disturbed surfaces and exposed geological formations, with limited evidence of significant archaeological material within the mining claim boundaries.

Several seasonal cattle post settlements were documented outside the boundaries of the four mining claims. This settlement distribution reflects broader regional land-use patterns in Kaokoland, where pastoral communities have historically practised seasonal mobility during dry periods in search of water and grazing for livestock. Such movement forms an integral part of the traditional pastoral system of the region and contributes to the cultural landscape of the area.

In the wider regional context, the most archaeologically significant heritage resources are located further south at Twyfelfontein, one of Namibia's recognised World Heritage Sites. Twyfelfontein is renowned for its extensive concentration of rock art shelters and Later Stone Age occupation sites, representing a cultural landscape of outstanding heritage value due to the richness and diversity of archaeological remains preserved there. Compared to this broader heritage landscape, the assessed mining claims contain relatively limited archaeological material of comparable significance.

Nevertheless, the project proponents should acknowledge the cultural importance of tangible contemporary heritage features such as kraals and seasonal cattle posts, particularly because of their association with the pastoral lifeways of the Himba communities residing in the area. These features form part of the living cultural heritage landscape and reflect long-standing indigenous land-use practices.

In light of the above findings, it is recommended that consent for the proposed mining activities be granted, subject to compliance with specific mitigation measures and recommendations. These include the establishment of a **20-metre buffer zone** around the identified cattle post to protect its cultural value and prevent direct disturbance. In addition, the **Chance Find Procedure** must be strictly implemented throughout all exploration activities. This procedure will ensure that, should any previously unknown heritage materials, human remains, or archaeological artefacts be encountered during exploration, all work in the immediate vicinity is halted, the discovery is reported promptly, and the relevant heritage authorities are consulted for assessment and further guidance in accordance with applicable heritage legislation.

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