



**ESM ARCHAEOLOGICAL
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**ARCHAEOLOGICAL AND CULTURAL IMPACT
ASSESSMENT REPORT FOR MINERAL EXPLORATION ON MINING LICENCE 129 AND 133
NEAR UIS SETTLEMENT, D ÂURES CONSTITUENCY, ERONGO REGION**

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DECLARATION

We hereby declare that we do:

1. Have knowledge of and experience in conducting archaeological assessments, 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 not 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 Mowa



Key Concepts and Terms

Periodization Archaeologists divide the different cultural epochs according to the dominant material finds for the different periods. This periodization 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 periodization 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 (~ AD1100-1840)

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

Definitions Just like periodization, 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 utilizing aesthetic, historical, 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 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 authorization 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 authorization 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 minimizing 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 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 refer 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
BP	Before the Present
CFP	Chance Find Procedure
COVID19	coronavirus disease 2019
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act No.7 of 2007
EMP	Environmental Management Plan
EPL	Exclusive Prospecting Licence
ESA	Later Stone Age
GIS	Geographic Information System
HIA	Heritage Impact Assessment
km	kilometre
LIA	Late Iron Age
ML	Mining licence
NHA	Nation Heritage Act, Act 27 of 2004
NHCN	National Heritage Council of Namibia
SADF	South African Defence Force
SM	Site Manager
SMP	Site Management Plan
SWAPO	South West Africa People's Organisation

SUMMARY

A field survey was conducted on two mining licences in the Daures Constituency of the Erongo region. These comprised ML129 and ML133 all held by Uis Tin Mining Company Pty LTD. Fieldwork yielded significant heritage resources in both mining licenses and site management plans as part of the mitigation measures that have been proposed.

1. Introduction

Archaeological/heritage resources in Namibia are protected under the National Heritage Act (2004) and National Heritage Regulations (2005), and mining activities are also subject to heritage assessment.

As a result, most of these landscapes are either under current mining exploration and mining licences or have licence applications with a record of negative cumulative impacts that have significantly affected the natural settings of these cultural landscapes (aesthetic, geologic and visual integrity) of the sites with clear damages recorded in some archaeological sites. These negative effects have reduced the site's scientific values; and compromised the cultural integrity and the conservation and protection efforts of these significant heritage resources in this region.

This HIA study, therefore, serves as one of the baseline reports ever produced that assesses the impacts of mining activities on the sensitive heritage landscapes at a local and regional scale in the Erongo Region. Consequently, it is expected that the devised mitigation measures will aim at preventing possible encroachment, disturbances, alterations, damages and the destruction of the sensitive heritage landscapes within the areas targeted for mining.

Ensuring that Uis Tin Mining Company (PTY) LTD and its operators are cognisant of the critical provisions of the legal instrument, the National Heritage Act (No. 27 of 2004) so that they can operate sustainably in harmony with heritage conservation efforts and ensure that their operations are not in conflict with other land-uses within these communal areas.

The main objective of this assignment is to conduct HIAs within mining licences 129 and 133 (hereafter ML 129 and ML 133 respectively) that could be negatively affected by envisaged mining activities. The assessment reported here is intended to identify existing desktop and field survey data-sensitive archaeological sites that could be affected by the mining activities within the two mining licenses. Archaeological assessment forms the basis of recommended management actions to avoid or reduce negative impacts, as part of the environmental 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 the project to be considered by the authorities for the issuance of Heritage Consent and thereafter, a clearance certificate; enabling the proponent to legally proceed with envisioned mining activities.

2. Site description and location

The two Mining licenses belonging to Uis Tin Mining Company Pty LTD are located in the Erongo region near the settlement of Uis in a communal area of the Daures constituency. In particular, ML 129 is located 14 kilometres southwest of Uis along the C35 gravel road linking Uis with the coastal town of Henties Bay. ML 133 lies approximately 30 km south-east of the Uis settlement along the D1930 linking Uis with the Usakos urban settlement in the Erongo Region (**Figure 1**).

Locality of ML 133 and ML 129

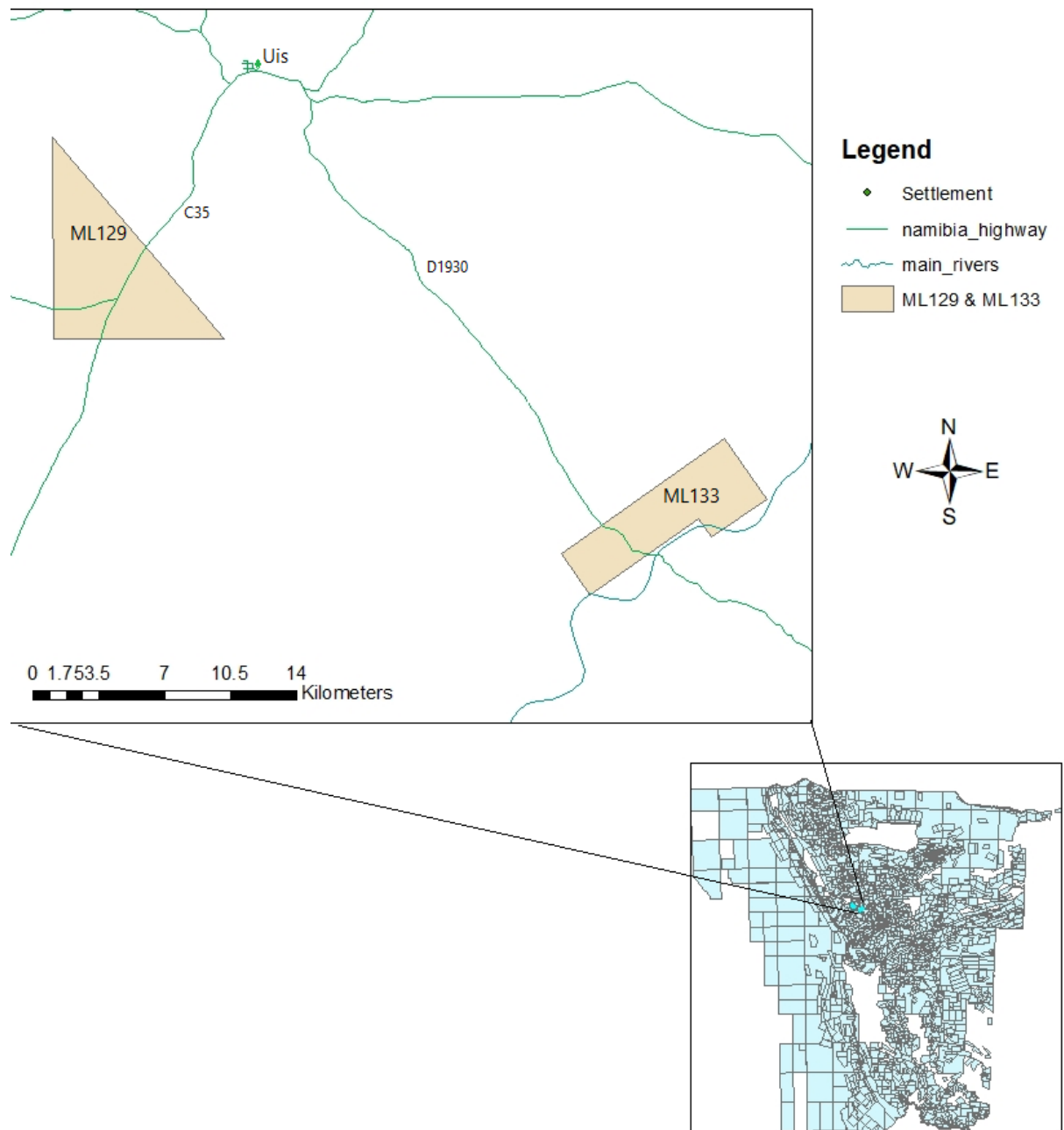


Figure 1. Site Locality of ML 129 and ML 133 in the Daures Constituency about Uis settlement.

3. Assumption and Limitations

This archaeological assessment relies on inference used to inform desk assessment 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, by a series of detailed

archaeological assessments carried out during the mineral investigation and mining operations, and the development of infrastructure required by these operations. These records were further augmented by a field survey carried out on the 22nd of October 2023. Based on cumulative field records, the indicative value of surface finds was recorded in the course of the field survey. However, although it was possible to predict the likely occurrence of further archaeological sites with some accuracy through GIS maps, this assessment was limited to surface observations and existing survey data only. It is, therefore, necessary to caution the project proponent that hidden, or buried archaeological or palaeontological remains might be exposed in the course of mining operations. It is for this reason that the proposed mitigation measures are adopted.

4. Legal requirement

The government of the Republic of Namibia has 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 interests. 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 relates 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

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).

or activity that may change the character of an area of land” as outlined in section 54 (6) of the National Heritage Act that 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, 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

This assessment used both primary and secondary sources. Desktop research focused on analysing existing and available data on archaeological surveys research and surveys in the Erongo region. Other relevant data were provided by the National Heritage Council, such as a series of reports and publications harvested from research and detailed archaeological assessments carried out during the course of developmental-led infrastructures. The geological and satellite imagery maps were sourced online through Google Maps and through the Ministry of Mines and Natural Resources’ online GIS interactive mining cadastre map, which guided the intensive examination of the general landscape to ascertain typical archaeological terrains while interviews with local communities including security personnel deployed to guard against illegal mining activities in the licenses already secured by Uis Tin Mining Company Pty LTD were crucial in locating and identification of known sensitive heritage resources.

All archaeological/heritage sites located in the course of this field survey were recorded through field notes, photography and GPS employing the site's affinities including (location, physical setting, diagnostics features, and estimation of age but without collection of material). No sub-surface archaeological features were recorded and it cannot be assumed that they are not in existence either. The site's significance and vulnerabilities were assessed according to the (0-5 scale) and Vulnerability (0-5 scale) (see Table 2, below)

developed by the Quaternary Research Services and accepted at the National Heritage Council.

Table 2: Ranking scales for archaeological significance and vulnerability by (QRS, Kinahan 2012).

Significance Rating	Vulnerability Rating
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	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

To measure the sensitivity of archaeological sites taking into consideration their significance and vulnerability rating in Table 2, the assessment also estimated the extent of possible impact, the magnitude of impact, and the duration of these impacts on sensitive heritage resources within ML 129 and 133 area. The scales of estimation are set out and explained in Table 3 below.

Table 3: 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 Medium Term Long Term	Up to 3 years 4 to 10 years after construction More than 10 years after construction

6. Erongo Regional Archaeological Setting

According to several researchers, the Erongo Region including the central Namib Desert is recognized as a major archaeological landscape in Namibia (see Kinahan 1990, 2012, 2021; Lenssen-Erz 1997; Nankela 2011; 2013, 2017, 2020 etc.) see (**Figure 2**). However, a considerable part of the region remains archaeologically undocumented because research has concentrated mostly on key major granite landforms which helped establish the sequence of human occupations and determined the relationship between archaeological sites and the particular types of terrain across the landscape. Archaeological surveys from mining and infrastructure-related developmental projects were also useful but were mainly restricted to specific project areas and therefore do not reflect the wider archaeology of the area (Kinahan 2020). Nevertheless, the region's archaeological wealth is evidenced in a substantial number of prehistoric human settlements dating from the Early through Middle to Late Stone Age periods (Nankela 2021).

The earliest evidence of human activity in Central Namibia is traced back to 800,000 years Before the Present (BP) according to (Kinahan 2011). Multiple sources further attest that an abundance of significant archaeological sites has been recorded within the last 12 000 to 10,000 years, during the Holocene period which coincides with the onset of warmer and

moist conditions after the retreat of the Last Ice Age period which led to the sudden expansion of human occupation as aridity intensified in the entire central Namib Desert and hinterland (Stuut et al 2000; Kinahan 2020; 2021; Nankela 2007; Lenssen-Erz 2007). Such changes eventually forced Hunter-Gatherers groups to seek refuge in mountainous areas such as Brandberg, Spitzkoppe Mountains, Erongo complex and several rock shelters of the Namib plains including Messum highlands in search of food and shelter (Kinahan 2021; Nankela 2017).

Chronologically, evidence from several archaeological excavations carried out in principal archaeological areas such as the Brandberg, Erongo and Spitzkoppe Mountains indicates that human occupation of these areas dates back from the last 6000 BP to 50 years BP when the rock art tradition was abandoned (Nankela 2021 *crf.* Nankela 2017). There are several rock shelters within the Brandberg and Erongo Mountains whose dates produced evidence traced back from the Middle Stone Age Period (see Breunig 2003; Schmidt 2011). However, such sites are restricted in distribution according to Nankela (2017) as a result of many factors including but not limited to population decline, abandonment of sites and or conservation challenges as the MSA climatic conditions in Central Namib at a time presented significant challenges to its prehistoric inhabitants, as it brought unfavourable cold and arid climatic conditions (Nankela 2017).

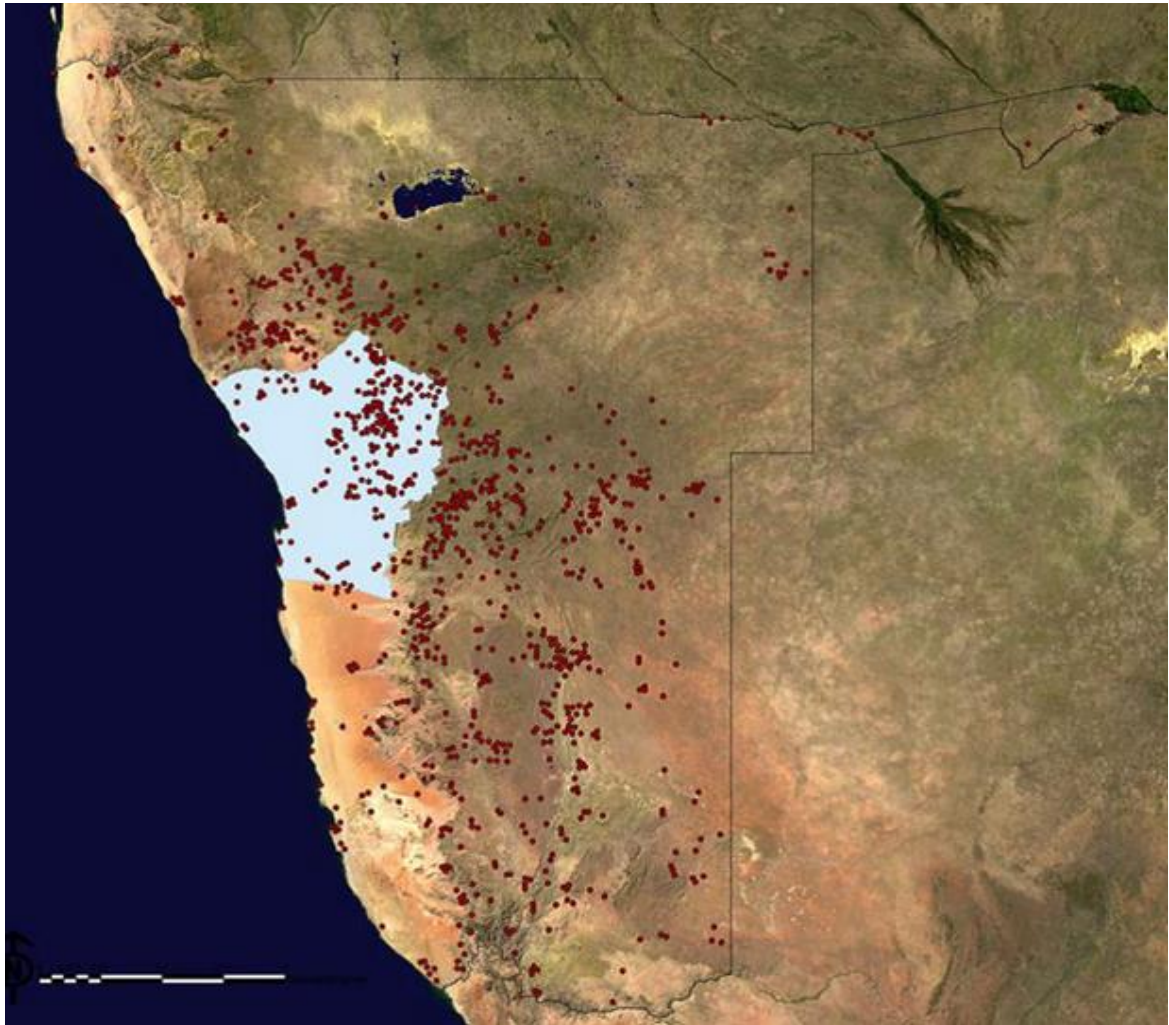


Figure 2: General distribution of archaeological sites in Erongo Region (blue area) concerning sites in Namibia. Author: (Nankela 2021 *rfc.* Kinahan 2012).

Nonetheless, these archaeological data are attributed to the Hunter-Gatherers tradition, the present-day ancestors of today's San people in Namibia. Due to completed archaeological research, a number of these archaeological sites have attained national recognition, employing national declaration as per the National Heritage Act 2004. These include Philipp Cave in Farm Ameib; Paula Cave in Okapekaha Farm and Omandumba East and West Farms both in Erongo Mountains; Brandberg Monument Area and the Bushman Paradise at Spitzkoppe Mountain. However, according to Nankela 2017, the entire Erongo Mountains is an archaeological landscape whose distribution of archaeological sites is highly concentrated and comparable to those recorded in the Brandberg Mountain. The only existing challenge according to Nankela (2017) is attributed to a lack of research funding, a severe shortage of archaeologists to complete research on this mega-complex and a lack of political will and awareness.

The second component of the heritage resources in the Erongo region is linked to herders' occupations as well as recent historical events in most parts of the Central Namib Desert including the coastal areas (Kinahan 2012; Nankela 2021). These records have also been harvested through a series of surveys linked to impact assessments. The recent historical evidence is presented in the activities including colonial battlefields, historic graves, road-works, old salt works, historical Mines and shipwrecks. Some of these features, for example, graves, are specific and localised and might be easily defined and demarcated; whereas else, other structures are very extensive and difficult to demarcate (Kinahan 2012). Nonetheless, all these features are considered to be valuable heritage items worth preserving.

Localised Heritage Context.

The two mining licenses under study particularly the western proximities of ML 129, yielded significant heritage resources in the form of rock paintings, graveyards, stone hut features and lithic artefacts (Heritage Council verification report 2023). This was preceded by an impact assessment carried out by the undersigned consultant on EPL 7345 which shares a boundary with ML 129 under study. As such the area around ML 129 has highly significant heritage resources. Moreover, in May 2023 South African D-Squadron military veterans had a reunion and laid a plaque in commemoration of the members who died during the 1978 Cassinga military operation in Angola. This historic landmark does fall within ML 129, **Figure 3**. According to Anonymous (2023 <https://tracks4africa.co.za/listings/item/w139839/stone-scorpion/>), the construction was instituted by the D-squadron of the South African military force in the 1970s during their training to Brandberg in preparation for Cassinga military operation in 1978.



Figure 3 Scorpion Stones during the reunion by D-squadron veteran members of the SA military force laying of a plaque in 2023 Source: Anonymous 2023
[\(https://tracks4africa.co.za/listings/item/w139839/stone-scorpion/\)](https://tracks4africa.co.za/listings/item/w139839/stone-scorpion/),

7. Geological settings

The two-mining licence under study lies within relatively flat gravel plains in the Erongo region, a zone that can climatically be classified as a true desert due to scarcity of plants, and a barren landscape except for a few succulents widely spaced plants. This is a typical characteristic of Succulent Karoo biomes that characterize the western coastal plain of Namibia. Geologically ML 129 is dominated by Mica schist, quartzite, graphitic schist of Kuiseb formation and Damara Kuboos-Bremen intrusives of Cambrian origin (Mining cadastre 2023). ML 133 is composed of Mica schist, quartzite, graphitic schist of Kuiseb formation and Aluvium, sand gravel, calcrete gravel and dunes of Neogene origin (**Figure 4**). Damara Kuboos intrusive are mainly dominated by granite rocks which are one of the key features that hosts rock shelters and caves suitable for human habitation as well as rock art in Erongo region. However not all such intrusive protrude from the surface, some granite rocks in the two MLs understudy are found subsurface.

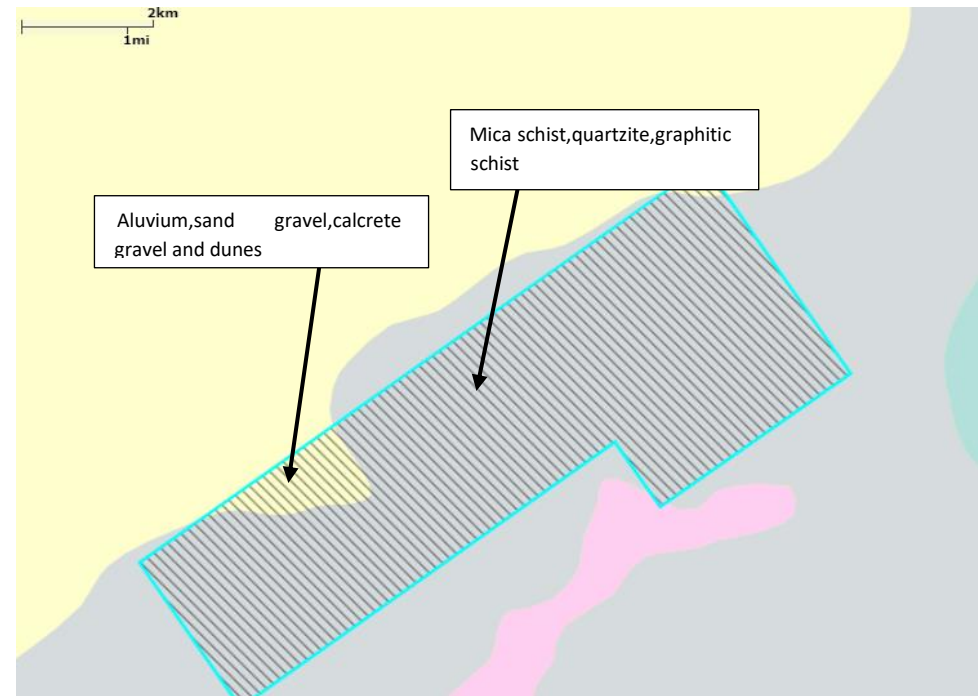
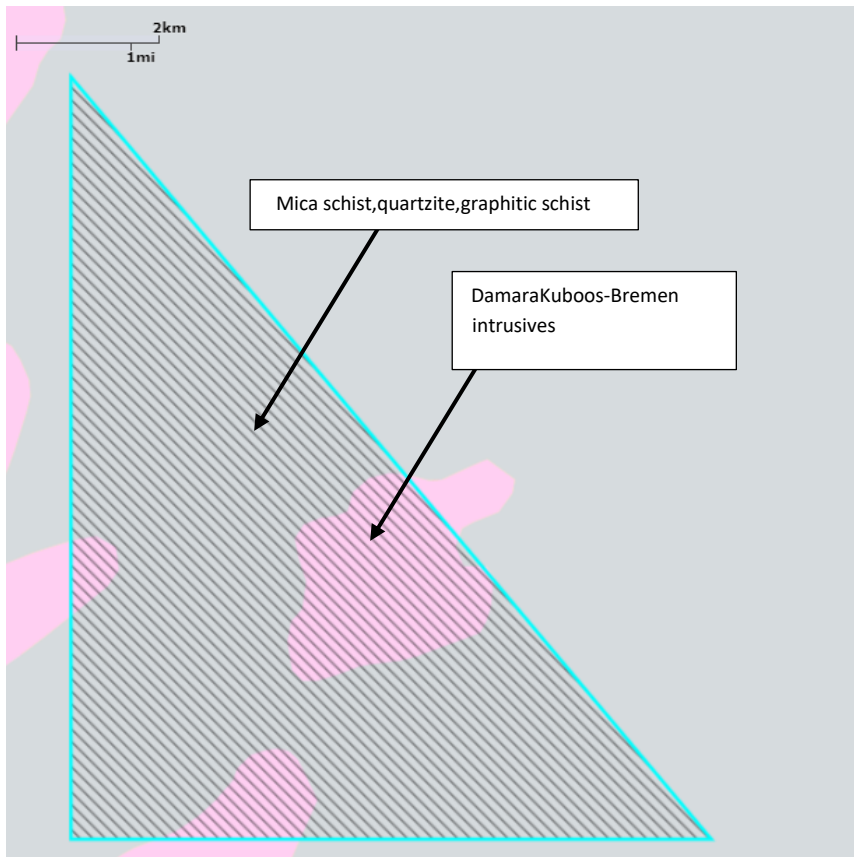


Figure 4 Geologic Composition map for ML 129 and ML 133.

8. Assessment result

ML 133

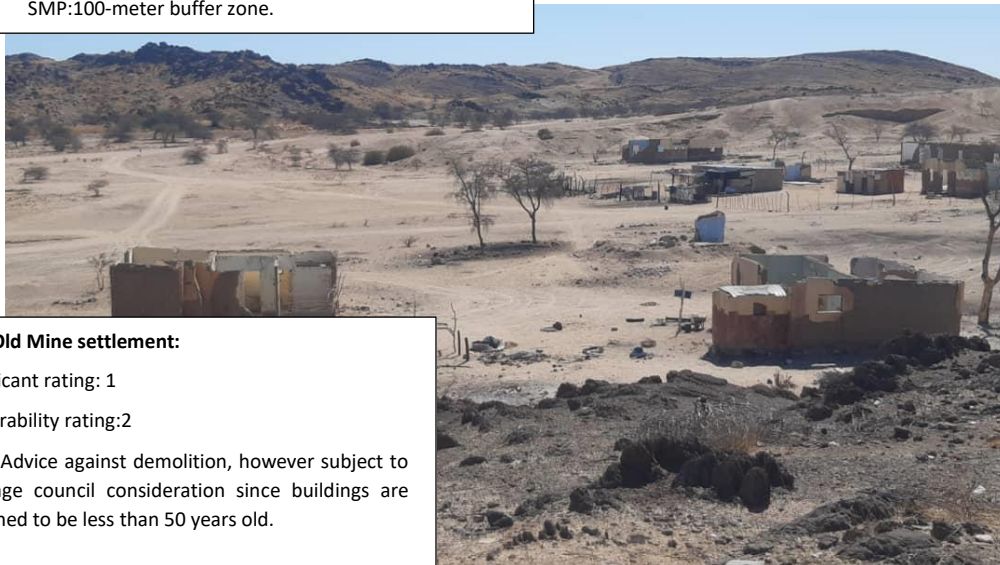


Site 2. An Old precolonial Damara Settlement

Significant rating :4

Vulnerability rating:3

SMP:100-meter buffer zone.



Site 3. Old Mine settlement:

Significant rating: 1

Vulnerability rating:2

SMP: Advice against demolition, however subject to heritage council consideration since buildings are assumed to be less than 50 years old.



Site 1. Grave Site

Significant rating :3

Vulnerability rating:2

SMP: 100-meter buffer



Site 4. Suspected Children's Grave Site

Significant rating :3

Vulnerability rating:2

Figure 5: Top Left Photograph: Mrs Renate Uises and Precolonial settlement in Nanais (ML 133). Top Right: Burial site within Nainais (ML133). Bottom photograph of an Old mine worker accommodation structure within ML 133.

Site 1. Grave Site

Description: 37 graves in the area, the majority of the graves are unidentified, oldest dated grave is of an individual who died in 1932. The cemetery is not fenced and is still being utilised with the recent burial in 2020.

Coordinates: -21.439435 15.05501

Significant rating :3

Vulnerability rating:2

SMP: 100-meter buffer zone.

Site 2. An Old precolonial presumably Damara Settlement.

Description: Precolonial settlement built with stones. Stones are put together circularly. Open space in the centre surrounded by stone hut structures.

Coordinates: -21.4423889 15.0711389

Significant rating:4

Vulnerability rating:3

SMP:100-meter buffer zone.

Site 3. Old Mine settlement:

Description: The administration and mine workers' accommodation structures lie within a riverbed, and a few buildings including the mine foreman or manager accommodation lie on a hill near an open pit trench area, which is the old mine excavation locality. Six buildings are within the area, all in ruins or falling apart and uninhabited.

Coordinates: -21.449225 15.067663.

Significant rating: 1

Vulnerability rating:2

SMP: Advice against demolition, however subject to heritage council consideration since buildings are assumed to be less than 50 years old.

Site 4. Suspected Children`s Grave

Description: eight to nine suspected graves, the graves are aligned at the foot of a rocky outcrop hill, suspected to have been buried here in the recent past.

Coordinates: -21.45262 15.06573

Significant rating :3

Vulnerability rating:2

SMP: 100-meter buffer zone.

Discussion: ML 133 Findings

ML 133 is located near the settlement of Nainais, there is little historical data regarding this area before mining activities were established in the 1920s. Settlement within this area likely dates to pre-colonial times judging by the earliest dates marked on the burial site **(Site 1)**. According to a local community member who has lived in Nainais for more than 50 years, Mrs Renate Uises (2023 Pers. comm) informed the consultant that the stone structures within Erongo are typical Damara architects and it is likely Damara communities settled here long ago **(Site 2)**. Another evidence of human habitation in Nainais comes in the form of the graveyards, as indicated in the findings. Most graves have piles of stones as grave indicators although it is without a name. The oldest grave is dated from 1932, an estimated 30 years before the establishment of mining in the area. A third gravesite **(Site 4)** was discovered in Nainais hosts approximately eight to nine graves, it is suspected these might have been children buried here, the nature of their death is unclear however the site needs to be protected.

It is plausible that some of the unmarked graves could be older. The old mine at Nainais operated between 1960 and 1989 according to sources, several administrative and mine worker accommodation structures are evident, however, these lie in ruins, likely due to poor maintenance, and a testament to the fact that the structures were abandoned immediately after the mine closed in the late 1980s **(Site 3)**. Of particular cultural interest is the construction material utilised during the construction of both administrative buildings and mine worker accommodation. Bricks were rather made from a form of coarse sand perhaps mixed with clay or light cement. Judging by the appearance of the walls, these bricks seem to have been made using locally sourced material in the Nainais environment. The sand is unique, unlike cement bricks that are conventionally utilised when constructing houses. It is unlikely in the event the

proposed mining is operational and workers accommodation and administrative facilities are constructed would use similar sand/clay bricks. Such construction is a testament to the time, environment and circumstances that prevailed in the 1960s when the mine was established. Such rich cultural and historical structures need to be preserved in their pristine condition, however, their cultural significance is outweighed by the dilapidated state and age of the buildings in addition to the fact that the buildings are younger than 50 years old, contrary to the Heritage Act threshold. Moreover, these structures are a testament to human settlement and economic activities in Nainais.

ML 129

Site 2. Scorpion Stone

Significant rating:5

Vulnerability rating:4

SMP: 200-meter buffer zone.



Site 5: //Karupb (a water well that resembles female genitalia)

Significant rating:4

Vulnerability rating:2

SMP: 100-meter buffer zone.



Site 3 Stone Hut features

Significant rating:4

Vulnerability rating:4

SMP: 200-meter buffer zone.



Site 1: Khula settlement

Significant rating: 1

Vulnerability rating: 1

SMP: Advice against demolition, however subject to heritage council consideration since buildings are assumed to be less than 50 years old.



Figure 6. Top Left Photograph: Scorpion Stone during survey. Top Right: The //Karupb Well . Bottom Left:Stone Hut feature: Bottom Right: Khula Settlement.

Site 4 Graves

Significant rating :3

Vulnerability rating:2

SMP: 100-meter buffer zone.



Figure 7. Ganamas Cemetery is still currently in use.

Site 1: Khula settlement

Description: Abandoned fenced settlement. Settlement falling apart. Outside the house, there are parking lots made of stones. Drinking trough for animals and a tank still in use. A bar and a restaurant were operational but closed. All structures at Khula are uninhabited and of recent construction (less than 50 years old).

Coordinates: -21.320953 14.803837

Significant rating: 1

Vulnerability rating: 1

SMP: Advice against demolition, however subject to heritage council consideration since buildings are assumed to be less than 50 years old.

Site 2. Scorpion Stone

Description: Stone Scorpion Historic Monument. Collection of stones in the shape of a scorpion in white with black background all made of white and black stones. A marble plaque with an engraving of names of fallen soldiers during the Cassinga attack/battle by D-Squadron. The marble/granite plaque next to the scorpion feature was unveiled in May 2023 to coincide with the Cassinga Day commemoration.

Coordinates: -21.335579 14.777391

Significant rating:5

Vulnerability rating:4

SMP: 200-meter buffer zone.

Site 3 Stone Hut features

Description: The stone Structure is likely an accommodation structure.

Has two walls jolted together at a right angle facing the Southwestern direction. Possibly used as a windshield to protect the inhabitants against prevalent windy weather possibly utilised the site as habitation and fireplace.

Coordinates: -21.3158889 14.8038611

Significant rating:4

Vulnerability rating:4

SMP: 200-meter buffer zone.

Site 4 Graves

Description: The burial site is still being utilised, fenced around at Ganamas village. Several graves are still in use.

Coordinates: -21.2693889 14.7672778

Significant rating :3

Vulnerability rating:2

SMP: 100-meter buffer zone.

Site 5: //Karupb (a water well that resembles female genitalia)

Description: A naturally formed well or oasis within granite rocks, still being used to fetch water by villagers. Stores rainwater for up to six months after the short rainy season. Culturally revered for its healing properties by the community, beliefs stemming from the shape of the oasis.

Coordinates: -21.3262778 14.8041111

Significant rating:4

Vulnerability rating:2

SMP: 100-meter buffer zone.

ML 129 Discussion.

ML 129 lies about 14 kilometres on the C34 gravel road linking Uis to the coastal settlement of Henties Bay. The license covers a settlement of Zebedeus, a popular tourist stopover with locals having a market by the road selling crystal stones mostly to tourists. For this reason, some locals ventured into the tourism industry business by expanding the recreational facilities offering bars, restaurants and ablution facilities to tourists. This is evident at Khula Settlement (**Site 1**). However, the area has been abandoned probably in the wake of the COVID19 pandemic. Though this can't be classified as historic, it is a cultural structure nonetheless and it should be preserved by all means possible. Furthermore, the licence covers an area equally popular among tourists known as Scorpion Stone (**Site 2**) along a gravel road leading to Gobogoboseb mountains, needless to say, the area is tagged on Google map as a historic landmark highlighting its popularity among tourists.

The significant virtue of this site lies in the historic event of the Cassinga attack/battle in 1978 Angola between SWAPO-PLAN liberation fighters and the South African Army. On the plaque laid on the site are two names of the South African military personnel who ostensibly died on 04 May 1978 and the third died in December of the same year likely from injury sustained during the attack on Cassinga. This landmark is internationally known as a historic monument and evidently, it is the only memorial landmark in the country commemorating fallen soldiers from the South African armed forces during Cassinga. Events leading to Cassinga are contested by both sides in the conflict and there are conflicting narratives SWAPO sympathisers argue that it was a refugee camp, while SADF apologists dispute that Cassinga was a military base equipped with anti-aircraft gun installations. Additionally, the significance of the monument highlights the historic provenance of the Brandberg area as a colonial military training ground for SA forces in Namibia. Therefore the buffer zone proposed needs to be respected to protect this historic monument during exploration or mining activities.

Stone Hut features such as those highlighted in (**Site 3**) are all more common in this area highlighting human settlement in precolonial times, these sites need to be protected by all means as primary sources of archaeological and palaeontological data.

Furthermore, Ganamas village falls within this Mining Licence. A Graveyard or burial site still being utilised was established during the field survey (**Site 4**), and this equally needs protection from any mining activities.

Moreover, Mr Jeremiah Mupetami (pers. comm 2023) a resident of Zebedeuis settlement highlighted to the heritage specialist that they value a local well or oasis that serves as a freshwater source as heritage (**Site 5**). The local community and in particular Mr Mupetami consider it a locally significant natural feature and unique cultural resource because of the shape of the well which resembles female genitalia, they believe drinking water from the well aids or heals certain ailments and human deficiencies such as infertility. As such their appeal considering Zebedeus as a general tourist hotspot, is for such to be recognised by heritage authorities and marketed to attract tourists to uplift local people's economic well-being. Equally, this needs protection from the adverse effects of mining activities as per the buffer zone proposed.

9. Management actions

1. We recommend that buffer zones proposed in Mining Licence 133 be adhered to and we commend against desecration of burial sites, or demolition of old uniquely constructed buildings since these are historically and culturally significant to the local community and researchers or academics in understanding periods of human settlement in the Nainais area.
2. Within Mining Licence 129, we recommend that a buffer zone proposed for each respective heritage resource be equally observed and no mining activities nor construction of associated infrastructures such as access roads etc within proposed buffer zones, this is due to the sensitivity and vulnerability rating as per each heritage resource.

1. Chance Finds Procedure (CFP) management guideline:

These assessments were desktop-based, and field surveys were carried out, therefore; significant subsurface heritage resources might be discovered in the course of prospection activities on ML 133 and ML 129. Onsite 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 findings. 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 remains

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.

10. Conclusion

This desktop and fieldwork assessment on ML 129 and ML 133 yielded significant heritage resources that have been outlined in this report including appropriate site management plans (SMP) for each heritage find. Such will guide heritage authority in the decision making for issuance of consent to the proponent.

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