ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSMENT REPORT

FOR THE PROPOSED BASE & RARE METALS, INDUSTRIAL MINERALS & PRECIOUS METALS EXPLORATION ACTIVITIES ON EXCLUSIVE EXPLORATION LICENCE No.9983 SITUATED ABOUT 3KM NORTH WEST OF USAKOS ERONGO REGION, NAMIBIA

Compiled by:

OUTRUN CONSULTANTS CC



Prepared for:

ELDONPAN MINERALS CC (The Proponent)

As required under Section 53 (7) and Section 54 (7) of the National Heritage Act (No. 27 of 2004).

Document Information/Project Details

Item	Description
Report Title	Archaeological and Heritage Impact
	Assessment Report For The Proposed Base &
	Rare Metals, Industrial Minerals & Precious
	Metals Exploration Activities On Exclusive
	Exploration License No.9983 Situated 3km
	North West Of Usakos Erongo Region,
	Namibia.
Target Commodities	Base and Rare Metals, Precious Metals and Industrial Minerals
Purpose of the assessment	The purpose of study is to identify, record and
	recommend measures for mitigation in areas of
	the archaeological and cultural heritage
	significance, this include rock art sites,
	artefacts, graves or burial grounds features,
	paleontological, structures, buildings,
	landscape etc. that might be impacted by the
	proposed exploration activities.
Project Proponent/Developer	Eldonplan Minerals CC
	P. O. Box 24544
	Ausspannplaz
	Windhoek
	Namibia
	Contact Number: +264 816000381
	Email: ejshivute@gmail.com
Size of the application areas	5156.2361 hectares (Ha)
Author (S) Identification	Nkosana Hlabangana (Archaeologist &
. ,	Heritage Specialist)
	Telephone: +264 814650075
	Email: <u>hlabangankosana@gmail.com</u>
	Josiah T. Mukutiri (EIA Practitioner)
	Telephone: +264 812 683 578
	Email: outrungreeninfo@gmail.com
Site-survey	Mr. Nkosana Hlabangana
Report Date	18/09/2025

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I, NKOSANA HLABANGANA as an Independent Archaeologist declare that,

- As a professional archaeologist, I have the expertise of undertaking an AHIA using both methods of research desktop survey and field survey in correlation to the Namibian National Heritage act of (27 of 2004) adhering to the regulations and guidelines.
- This work has no compromise and has been done ethically.
- I have expertise in conducting heritage impact assessments, including knowledge of the Act, Regulations, and any guidelines that have relevance to the proposed activity.
- I will perform the work relating to the application objectively, even if the results in view and findings are not favourable to the applicant.
- I have no interest in the project financially, but only to be remunerated for the work done.
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Signature:	Date:	

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 Table 1: Glossary list used in this report

Abbreviation	Description
AHIA	Archaeological and Heritage Impact Assessment
AMP	Archaeological Management Plan
AD	Anno Domini
ASAPA	Association of Southern African Professional Archaeologists
CFP	Chance Find Procedure
EAPAN	Environmental Assessment Professionals Association of Namibia
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment*
EIA	Early Iron Age*
EMP	Environmental Management Plan
ESA	Early Stone Age
GIS	Geographical Information System
NHC	National Heritage Council
MAN	Museum Association of Namibia
MIA	Middle Iron Age
MSA	Middle Stone Age
LIA	Late Iron Age
LSA	Late Stone Age
PM	Project Manager
SM/I	Site Manager/Inspector
SAfA	Society of Africanist Archaeologists
SAMA	South African Museums Association

Table 2: Definitions of Key Concepts and Terms

habitation or occupation that are 50 or more years old found on of beneath the surface of the land or in the sea; (b) rock art, being an form of painting, engraving or other representation on a fixed rock surface or loose rock or stone which is 50 or more years old; Archaeological Site This means an area in which archaeological objects are situated. Archaeological remains can be defined as any features or object resulting from human activities, which have been deposited on or it the ground reflecting past ways of life and are either 50 years old of older than that.
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older than that.
1
An artefact or A general term for an item made or given shape by human culture
artefact such as a tool or a work of art, especially an object of archaeological
interest
Isolated finds Occurrences of artefacts or other remains that are not <i>in situ</i> or an
located apart from archaeological sites. Although these are noted an
recorded but do not usually constitute the core of an impact assessmen
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 no
been disturbed by farming.
Built environment The built environment includes an array of historic building
structures and objects, from missions, forts and rock walls to entir
town sites and settlements.
Monuments Architectural works, works of monumental sculpture and painting
elements or structures of an archaeological nature, inscriptions, cav
dwellings and combinations of features, which are of outstandin
universal value from the point of view of history, art or science;
Heritage significance Means aesthetic, archaeological, architectural, cultural, historica
scientific or social significance;

A grave:	A place of interment (variably referred to as burial) includes the		
	contents, headstone or other markers 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).		
Historic building	Refers to structure or building which is over 50 years or more.		
Chance Finds	This means archaeological artefacts, features, structures or historical		
	cultural remains such as human burials that are found accidentally in		
	the context previously not identified during cultural heritage scoping,		
	screening and assessment studies. Such finds are usually found during		
	earth-moving activities.		
Study area or	Refers to the area where the Proponent/developer wants to focus its		
'proposed project	development activities.		
area'			
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.		
ESA	>2 600 000 years ago – 250 000/200 000 years ago		
MSA	250 000/200 000 years ago – 40/25 000 years ago		
LSA	25 000 years ago – AD 200 (up to historic times in certain areas)		
Iron Age Period	AD 200 – AD 1840		
Historic Period	AD 1840 – 1950		

1. Introduction

1.1. Background and General Heritage Context Of The Area

Outrun Consultants CC was appointed by Eldonpan Minerals CC (The Proponent) to conduct an Environmental and Social Impact Assessment (ESIA) for the proposed exploration activities on EPL 9983 in Karibib District. As a requirement a Heritage Impact Assessment was conducted as a specialist study to complement the ESIA study. Half of the EPL is covered by the //Gaingu Conservancy and archaeological resources in and around the conservancy are protected under the Namibian National Heritage Act (Act No. 27 of 2004). Any planned developments, such as construction, road expansion, exploration, or mining near Usakos, must undergo a Heritage Impact Assessment (HIA) and obtain consent from the National Heritage Council of Namibia (NHC). This Archaeological and Heritage Impact study seeks to identify archaeological, cultural; historical and heritage issues associated with the proposed mineral exploration activities on Exclusive Prospecting License (EPL) 9983. The issues identified during site visits, fieldwork, and public participation are presented in this Archaeological Heritage Report and evaluated in terms of their significance at the local, regional, and national levels. These issues are further analyzed through an established assessment process outlined in the report, which aims to determine the cumulative impacts of the proposed project on non-renewable archaeological and heritage resources. The report also provides appropriate recommendations and mitigation measures to ensure the proper and responsible management of cultural and heritage resources.

Eldonpan Minerals CC is planning to embark on mineral exploration activities on EPL9983, which have been legally applied for at the Ministry of Industries, Mines and Energy (MIME). Erongo Region is a cultural landscape; the importance of this landscape is summarized as a landscape containing evidence for an important interchange of human values that adapted to the arid environment. The indigenous people of the area are Damara people who descended from the larger Khoekhoen clans that occupied the cultural landscape before colonisation. They travelled between regions within their territory to access resources at different times of the year. The EPL is about 15-20km to Spitzkoppe Mountains, which hold a deep spiritual resonance for the San Bushmen, who consider this area a sacred site. Evidence of their historical presence is etched onto the rock surfaces in the form of ancient petroglyphs and rock art. These rock paintings depict animals and scenes of daily life, offering a window into the past of the region's first

inhabitants. The Spitzkoppe have thus become an invaluable source of cultural and spiritual identity for these indigenous peoples.

The Erongo Mountains / Spitzkoppe area (within and around the //Gaingu Conservancy) contain thousands of rock-paintings and some engravings, many estimated to be more than 2,000 years old. The name "\neq Gaingu" is the Damara word meaning "call each other" and refers to the Spitzkoppe mountain as well as the conservancy surrounding it. The conservancy framework gives the local community rights and responsibilities over their natural and cultural heritage, under Namibia's communal conservancy legislation. This situates the heritage within a more recent 'community conservation' history. Local community involvement has been essential in the conservation of Spitzkoppe. The project "COSMO-ART" identifies the rock art sites in \neq Gaingu Conservancy as important because: "they are National Monuments; they have been scientifically studied (existence of a corpus)."

The archaeologist also found additional rock paintings about 9 km from the EPL boundary, at a site known by local stakeholders (Mrs Claudia!Goases) as //Gasi//Hoab Mountain. The rock art and archaeological traces suggest hunter-gatherer populations (such as the San) used the area over millennia, before later arrival of pastoralist groups and then colonial/modern land uses. The area has layered histories: from deep-time hunter-gatherer use (rock art), through pastoralist/Indigenous land use, to colonial mining and stone/metal extraction phases, and now community-based conservation. There is evidence of small-scale mining of semi-precious stones by local community members around Erongo Mountain Ranges. During the public consultation meeting, the community expressed strong anger over leopards killing their livestock and attacking people in the Erongo Mountain Ranges. However, this situation has also helped protect the rock paintings located about 9 km from the EPL boundary, as the presence of leopards has deterred small-scale miners from entering the area. Consequently, //Gasi//Hoab Mountain has become a no-go zone due to the high number of leopards in the area. The archaeologist found out that, balancing heritage conservation with natural resource use (wildlife, tourism, mining) and community livelihoods is a key challenge in the area.

Locally, the rock art and archaeological sites within the conservancy provide a tangible connection to ancestral land-use, Indigenous identity (particularly of San / Damara / other groups), and

landscape memory. This underpins community-based conservation, tourism (e.g., rock-art tourism), and heritage awareness. Regionally, the Erongo Mountains / Spitzkoppe area is one of the richer rock-art zones in Namibia, contributing to our understanding of the later Stone Age and early pastoralist transitions in Namibia, and the cultural landscape of the central Namib escarpment. Nationally, the sites form part of Namibia's inventory of archaeological heritage under the National Monuments legislation. They have relevance to national narratives about precolonial human settlement, hunter-gatherer heritage, landscape change, and the conservation of non-renewable cultural resources. For example, the inventory of national monuments cites rock-paintings and engravings in the region.

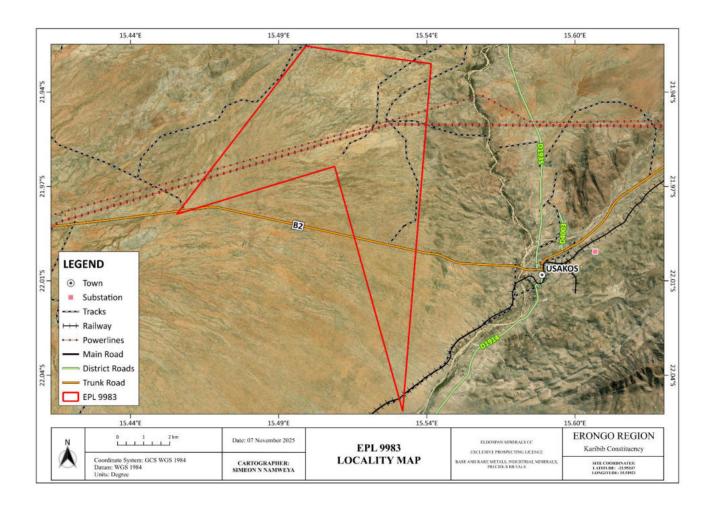


Figure 1: Locality map of the area of interest.

Accessibility and EPL Coverage

The proposed project is in the Erongo region, in Usakos Area predominantly mixed agriculture comprising mostly livestock farming with limited crop production and tourism in the ‡Gaingu Conservancy (GC) and former commercial farm which is now communal land Usakos West Farm in Erongo Region. The site accessibility map of the proposed project is shown in Figure 2 below. The EPL is accessible via the district road B2 that cuts through the EPL from Usakos D1914 road.

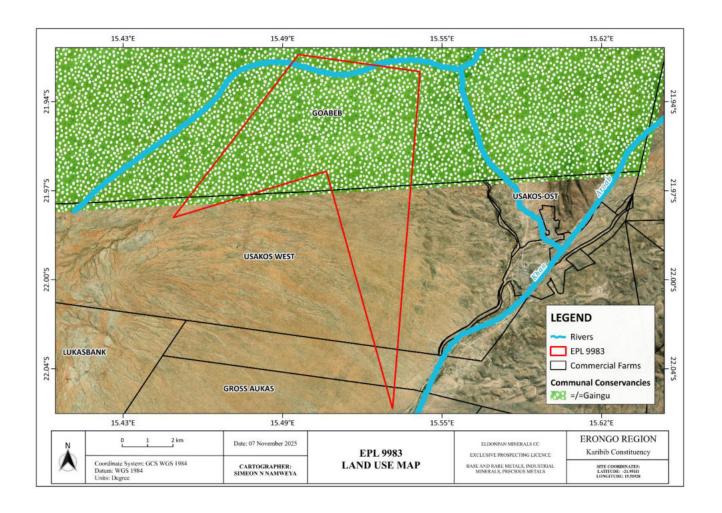


Figure 2: Land use map of the EPL coverage.

The approximate coordinates of the area are provided below in the form of a topographical map with corner boundaries as well as the center coordinates (figure 3).

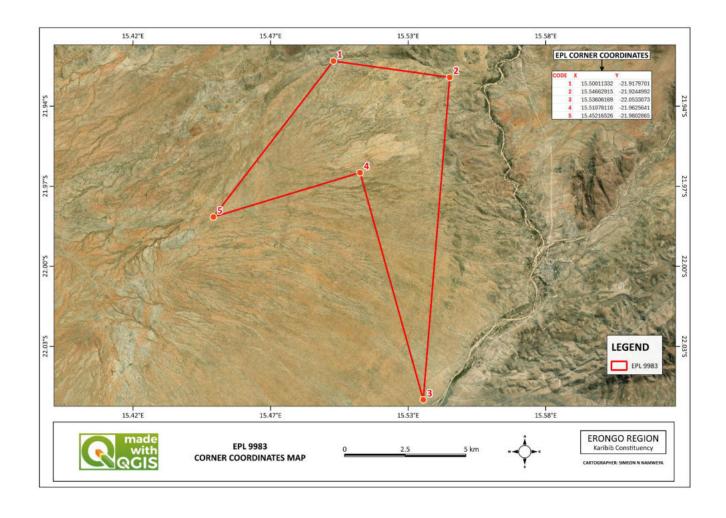


Figure 3: Approximate GPS coordinates Corners/boundaries of the Proposed Project Site

Therefore, the principal aim of the study is to survey the area of study, identify archaeological, cultural and heritage sites, document them, and assess their importance within a local, regional and national context. It serves to assess the impact of the proposed project on non-renewable heritage resources and to submit appropriate recommendations about the responsible cultural responsibly managing the discovered heritage resources. It is also conducted to protect, preserve, and develop such resources within the framework provided by the National Heritage Act of 2004 (Act No. 27 of 2004). This report outlines the approach and methodology used before and during the survey, which includes Phase 1, a review of relevant literature; Phase 2, consultation and the physical surveying of the area on foot and by vehicle; Phase 3, reporting the outcome of the study.

In accordance with the existing Namibian relevant Acts, this report has therefore been compiled to complement the Environmental Scoping Assessment (ESA) Report and to be submitted to the National Heritage Council of Namibia as a requirement and condition of the issuance of a Consent Letter. The Consent Letter will need to be submitted to the Environmental Commissioner to make an informed decision on the issuance of the Environmental Clearance Certificate (ECC) for the proposed project.

1.2. Terms of Reference

Outrun Consultants CC was contracted by Eldonpan Minerals CC (Proponent), to undertake Archaeological & Heritage Impact Assessment (AHIA) for the proposed base and rare metals, precious metals and industrial minerals. The primary task of the archaeological assessment reported here was to identify sensitive archaeological sites or anything of cultural material that could be affected by project activities. The archaeological assessment addresses the following primary elements:

- (a) Locate, identify, record, photograph and describe sites of archaeological, historical or cultural interest,
- (b) Record coordinate points (GPS) of identified areas as significant,
- (c) Determine the levels of significance of the various types of heritage resources that might be affected by the proposed project, and
- (d) Suggest appropriate management and mitigation measures for the archaeological and cultural heritage resources that might occur in the area proposed for exploration and mining works, which can be potentially destroyed in the course of exploration activities.

2. Legislative context

This chapter outlines the regulatory framework applicable to the proposed project. This HIA report is a component of a broader Environmental & Social Impact Assessment (ESIA) study and addresses the requirements of the NHA Act 27 of 2004 and National Heritage Regulations (Government Notice 106 of 2005, in line with the Environmental Management Act, 2007 (EMA), and with reference to the assessment of impacts of the proposed exploration and mining activities on the archaeological, cultural and heritage resources associated with the receiving environment.

In principle, the National Heritage Act, 2004 (Act No. 27 of 2004) provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects. Special provision is given for protection and management of certain heritage resources in Namibia, these are listed in **Part VI from paragraph (53-58)** including listed buildings which are 50 years old or more than that, archaeological object or paleontological interest in existence which is 50 years or more years old, meteorite, historic shipwrecks and shipwreck objects (Underwater heritage) this include the remains of all ships that have been situated on the coast or in the territorial waters or the contiguous zone of Namibia for 35 years or more are historic shipwrecks for the purposes of this section.; and other heritage resources.

Part I, Section1 paragraph (a) and (b) defines "archaeological" in relation to a place or an object, means (a) any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface on land or in the sea; and (b) rock art, being any form of painting, engraving or other representation on a fixed rock surface or loose rock or stone which is 50 or more years old. While Part V Section 46 of the Act prohibits removal, damage, alteration, or excavation of heritage Sites or remains. Section 48 sets out the procedure for application and granting of permits as may be required in the event of damage to a protected site occurring as an inevitable result of development.

Furthermore, Section 51 (3) sets out the requirements for impact assessment. Part VI Section 55 Paragraphs (3) and (4) require that any person who discovers an archaeological site should immediately notify the National Heritage Council.

Table 3: Summary of the relevant Act(s) and Ordinance

National Regulatory	Summary	Applicability to the Project
National Heritage Act, No. 27	The Act makes provision for	There is potential for heritage
of 2004.	the protection and	objects to be found during the
	conservation of places and	clearance of land and
	objects with heritage	operations, therefore the
	significance	Stipulations in the Act have
		been taken into consideration
	Section 55 compels	and are incorporated into this
	exploration companies to	A/HIA report and the overall
	report any archaeological	project EMP.
	findings to the National	
	Heritage Council after which a	The project shall be compliant
	permit needs to be issued	with section 55. And adhere to
	before the find can be	the recommended measures
	disturbed.	made in the report.
National Monuments Act of	No person shall destroy,	N/A
Namibia (No. 28 of 1969) as	damage, excavate, alter,	
amended until	remove	
1979	from its original site or export	
	from Namibia: Meteorites,	
	fossils, petroglyphs,	
	ornamental infrastructure	
	graves, caves, rock shelters,	
	middens, shells that came into	
	existence before the year 1900	
	AD: or any other	
	archaeological or	
	paleontological finds.	

Burial Place Ordinance, Act No. 27 of 1966.

To prohibit the desecration or disturbance of graves in burial places and to regulate matters relating to the removal or disposal of dead bodies.

Municipal Ordinance 13 of 1963 has been replaced by the Local Authorities Act 23 of 1992.

(3) No person shall, except with the permission of the Administrator, in any way disturb, damage, remove or destroy a grave, monument, gravestone, cross, inscription, rail, enclosure, chain or erection of any kind whatever, or part thereof in any burial place.

Graves and burial grounds are of cultural heritage significance, and they are rated high in cultural-social context. There is a possibility of uncovering sub-surface graves during exploration activities hence the adoption of Chance Find is highly recommended.

Environmental Management Act (7 of 2007) Government Notice 232 27th December 2007 PART I: The definition of the environment employed by the Environmental Management Act (7 of 2007) specifically includes "anthropogenic factors" such as archaeological remains or any other evidence of human activity.

Archaeological materials, heritage resources, historical, cultural landscapes topographical settings are part of the environment in its context, hence this Act is very relevant to the proposed development and the Proponent is henceforth mandated take to into consideration all the necessary

steps so as not to affect or **PART** II: Environmental impact assessment (EIA) in destroy the environment Namibia is governed by this where heritage resources are legislation and usually found. includes specialist a archaeological survey and assessment, following the stated Principles of Environmental Management Namibia's requires that cultural...heritage...must be protected and respected for the benefit of present and future generations. **Environmental Assessment** The policy seeks to ensure that This Archaeological Policy of Namibia 1995 environmental consequences Heritage Assessment study of development projects and considers the term environment to be part and policies considered, are understood and incorporated parcel of archaeological and into the planning process, and cultural heritage in its the term environment is contexts. broadly interpreted to include biophysical, political, social economic, aspects, traditional norms, cultural and historical components.

3. Scope of the Study and Objective of the Report

This Archaeological & Heritage Impact Assessment (AHIA) aims at identifying any significant heritage resources in such a way as to allow the development to proceed without undue impacts to the heritage resources of a particular area. In addition, this report aims to fulfil the requirements of the Heritage Authorities of Namibia who will review the AHIA and grant or refuse authorization. Similarly, the report will inform the EIA in the development of a comprehensive ESMP to assist the project Proponent in responsibly managing the identified heritage resources in order to conserve and preserve them within the framework provided by the National Heritage Council Act (Act No 27 of 2004). Hence, this AHIA report will outline any management and mitigation requirements that needs to be complied with from a heritage point of view and that should be included in the conditions of authorization should this be granted.

4. Assumptions, Limitations and knowledge gaps

The HIA report herein was carried out at the surface levels only and hence any completely buried archaeological sites could not be readily located. Similarly, it is not always possible to determine the depth of archaeological material visible at the surface. Based on this assumption, the possibility of discovery or unearthed of heritage resources during the clearing of vegetation, trenching and / or drilling phases cannot be excluded. However, this limitation can be successfully mitigated with the implementation of a chance find procedure as recommended in the report. As with mitigation measures recommended in this report, (*SECTION 4.2 below for Chance Finds Procedure (CFP) in accordance with the National Heritage Council*) are outlined by the National Heritage Council. In addition to that, the Author of this report has prepared an Archaeological Heritage Mitigation Plan.

5. Approach and Methodology

5.1. Literature Review

A brief survey of available literatures was conducted to extract data and information on the area in question to provide general heritage context into which the exploration and mining would be set. The review referred to reputable publications, unpublished reports including EIA reports and online material from various websites. A survey of available literatures was carried out to assess the archaeological and heritage context into which the proposed project would be set. Maps of the area were used to identify the geologic, topographic, landscape and elevation of the proposed project area. Archaeological, historical and heritage sites are identified using Garmin GPS and photographs taken during the surface survey.

5.2. GIS Spatial analysis

Google Earth and topographic maps of the area were utilized to identify geologic, topographic, elevation of the area, and possible places where sites of heritage significance might be located. The GIS spatial database was utilized to collect any useful information on any the above mentioned in the area, while a GPS unit was used for geo-referencing purposes during the field survey.

5.3. Site Investigation

The objective of the site visit was threefold:

- (a) to conduct a comprehensive survey of the proposed project area in order to locate, identify, document, photograph, and describe any sites of archaeological, historical, or cultural significance, should any be present;
- (b) to accurately record the geographic coordinates (GPS points) of all identified sites or areas deemed to be of significance;
- (c) to assess the levels of significance and assign appropriate grading to the various categories of heritage resources encountered within the project area. The prevailing conditions observed during the field survey of the proposed project area are in **Figure 4 below.**



Figure 4: An overview of the environmental setting within EPL 9983

6. Site Significance Rating:

The presence and distribution of historical, cultural or heritage resources define a 'heritage or cultural landscape' of an area. In this landscape, every site is relevant, and because heritage resources are non-renewable, heritage surveys are needed to investigate the proposed project area or a representative sample, depending on the nature of the project. In the case of the proposed project, the local extent of its impact necessitates a representative sample and only the footprint of the areas demarcated for development was surveyed. In all the initial investigations and surface surveys, however, Nkosana Hlabangana (Archaeologist) is responsible only for the identification of resources visible on the surface. The grading and level of significance of the identified heritage resources in interest are given in the following pages in *Table 6*.

Table 4: Grading of Heritage Significance and Field Rating

Level of significance	Grading	Description
Exceptional/upper higher	5	 Major national heritage resources A rare and outstanding example Containing unique evidence of the high regional and national significance
Considerably high	4	 Very important to the heritage of the region A high degree of integrity/ authenticity Multi-component site and objects High research potential
Moderate	3	 Contributes to the heritage of the locality and region Have some altered or modified elements, not necessarily

			detracting from the overall
			significance of the place
		•	Forming part of an identifiable
			local distribution or group
		•	Research potential
Low	2	•	Isolated minors found in
			undisturbed primary context,
			with diagnostic materials
		•	Makes some contribution to the
			heritage of the locality, usually
			in combination with similar
			places or objects
Little	1	•	Makes little contribution to the
			heritage resources of the
			locality
		•	Heritage resources in a
			disturbed or secondary context,
			without diagnostic or associated
			heritage
Zero/ no significance	0	•	Absence of heritage resources
		•	Highly disturbed or secondary
			context, without diagnostic or
			associated heritage
i	1		

Impact Assessment Methodology as developed by QRS Namibia

This Archaeological and Heritage Impact Assessment followed a two-based process of assessment; desktop and field-based assessments. The criteria below are used to establish the impact rating on sites based on the findings. These are recognized by the International Council of Monuments and Sites (ICOMOS), as well as those formulated by the Quaternary Research Services (QRS) in Namibia by Kinahan (2012). The methodologies were adopted in line with the standards for

environmental assessment and the protocol developed for archaeological heritage assessment in Namibia that reflect Namibian conditions and are accepted as a basis of evaluation by the National Heritage Council. To establish the heritage significance of the resources, and their vulnerability to possible disturbance during development activities, the assessment criteria below developed by QRS (Kinahan, 2012) established parallel 0-5 scales, as summarized in (*Tables 7-9*) below.

Table 5: Archaeological Significance and Vulnerability Rankings (Kinahan, 2012)

Scale	Significance Ranking	Scale	Vulnerability Ranking
0	no significance	0	Not vulnerable
1	Disturbed or secondary context,	1	No threat posed by current or
	without diagnostic material		proposed development activities
2	Isolated minor find in undisturbed	2	low or indirect threat from possible
	primary context, with diagnostic		consequences of development (e.g.
	material		soil erosion)
3	Archaeological site (s) forming part	3	Probable threat from inadvertent
	of an identifiable local distribution or		disturbance due to the proximity of
	group		development
4	Multi-component site (s), or central	4	High likelihood of partial disturbance
	site (s) with high research potential		or destruction due to the proximity of
			development
5	Major archaeological site (s)	5	The direct and certain threat of major
	containing unique evidence of the		disturbance or destruction
	high regional significance		

6: Assessment criteria for the evaluation of cumulative impacts on archaeological sites devised by the QRN.

Criteria	Category	Description
The extent or spatial influence	National	Within Namibia
of impact	Regional	Within the Region
	Local	On-site or within 200 m of the
		impact site impact
The magnitude of impact (at	High	Social and/or natural
the indicated spatial scale)	Medium	functions and/ or processes
	Low	are severely altered
	Very Low	Social and/or natural
	Zero	functions and/ or processes
	Zero	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
	Long Term	construction
		More than 10 years after
		construction

Table 7: Reversibility Rating Criteria

Reversibility Ratings	Criteria	
Irreversible	The activity will lead to a permanent impact.	
Reversible	The impact is reversible, within 10 years	

6.1. Results of Public Consultation and Stakeholder Engagement

On 20 June 2025, a public consultation meeting was held with both primary and secondary stakeholders, including the //Gaingu Conservancy and the Traditional Authority. The meeting aimed to address community concerns about the potential effects of the proposed project on heritage, archaeological, and cultural resources.

During the discussion, participants expressed concerns about possible disturbances to heritage sites, cultural materials, historical structures, and intangible heritage. They specifically mentioned the rock paintings located approximately 9 km from the EPL boundary, at a site locally known (by Mrs. Claudia !Goases) as //Gasi//Hoab Mountain. Although the rock art lies outside the EPL 9983 boundary, the archaeologist took note of this concern for documentation purposes. A site visit was later scheduled for 18 September 2025 with Mr. Daniel, despite reports that the mountain range hosts a large population of leopards that pose risks to villagers and livestock.

The community also raised concerns regarding whether the EPL holder would accommodate small-scale miners. The archaeologist observed that balancing heritage preservation with natural resource use—such as wildlife management, tourism, mining, and livestock farming—remains a significant challenge in the area. Overall, no cultural materials or heritage objections were identified within the EPL 9983 boundary.



Fig 5: Public consultation meeting at Goabeb Resettlement Farm

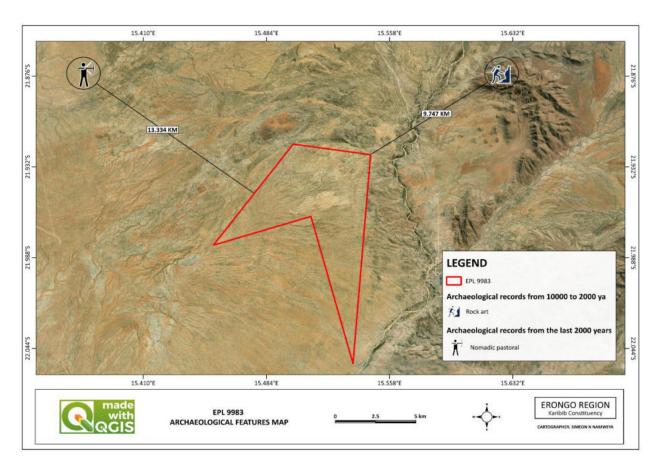


Figure 5: The Archaeological Features Map within the landscape of which the EPL is situated.

6.2. The General Archaeological Environment Sequences of Southern Africa.

The Southern African archaeological environment is divided into the Stone Age, the Iron Age and the Historical Period. **Table 11** below summarizes different periods in relation to technological advancement and cognitive evolution.

Table 8: The Archaeological Context: Sequence, Period and Definitions

Period	Approximate Dates		
Early Stone Age	> 2 600 000 years ago - 250 000/200 000		
	years ago		
Middle Stone Age	250 000/200 000 years ago – 40/25 000 years		
	ago		
Later Stone Age	25 000 years ago – AD 200 (up to historic		
	times in certain areas)		
Early Iron Age	AD 200 – AD 900/1000		
Middle Iron Age	AD 900/1000 – AD 1300		
Late Iron Age	AD 1300 – AD 1850		

Source: (Sampson, 1974).

6.3. Archaeological Sequence in Namibia

To put Namibian heritage and archaeological contexts into perspective, the following information is crucial to the general understanding of the occurrence and the associated period in different timeframes, that would represent the known human occupation sequence in Namibia and Southern Africa in general. This helps in building knowledge about past adaptations and cultural dynamics. According to Nankela (2017), the archaeological sequences of Namibia can be summarized as follow (*Table 12*).

Table 9: Archaeological Sequences in Namibia

Period	Year	Area/Location	Evidence	Description
Pleistocene	400 000- 100	Namib Plains,	Bone fragments	
	000	Namib Desert &	of extinct	
		Lower Kuiseb	elephants and	
			stone tools	
Holocene	10 000 - 1 000	Around Namibia	Scattered	Sites are fragile,
			artefacts, rock	inaccessible and
			art sites,	due to
			potsherds, beads,	inadequate
			grave cairns, hut	archaeological
			circles, human	investigations in
			remains, axes,	some sites.
			pointed flakes,	
			cleavers and	
			blades.	
Historic Period	500	Around Namibia	Cemeteries, old	Namibia
			mine workings,	indicates
			waste rock	intensive
			walling,	settlements
			architectural	between
			heritage and	indigenous
			WWI military	people and
			engagements.	Europeans.

7. Physical and Environmental Context of the Area

7.1.1. Site Description and Environmental Setting of the Proposed Development

The vegetation: Vegetation units provided in Mendelsohn and Roberts (1997) were used as a baseline and were ground-truthed during the field survey. The identified unit provides a good indication of the types of vegetation occurring along the proposed exploration area. The project area is moderately disturbed, with a sparse shrub layer, evidence of frequent grazing patterns. The area displays relatively low levels of vegetation species diversity, with only a few protected species present. Usakos and its catchment area, lies within the Namib Desert transition zone and the Savanna biome, where vegetation is sparse and highly adapted to low rainfall and high temperatures. The dominant vegetation type is Acacia shrubland and semi-desert grassland. Most plants are drought-tolerant, featuring small leaves, thorns, or succulent tissues to minimize water loss. Some species shed leaves during dry periods or develop deep root systems to access groundwater.

See Figures 8 below



Figure 6: The vegetation and landscape view of EPL9983.

8. Assessment of the Findings within the Proposed Project Development

8.1. On-site findings

The field survey was undertaken on Thursday 18 September 2025, the primary objective being to walk the 5156.2361 ha site and inspect the lands for unrecorded visible archaeological monuments and features. An intensive geophysical survey of the subject lands had previously been undertaken and the results of this investigation were considered throughout the field survey.

However, during field survey the archaeologist did not observe anything of archaeological material within the EPL 9983 boundaries. The archaeologist was curious and eager to hunt for rock art in the //Gasi//Hoab Mountain which is 9km away from the EPL boundary. The search for rock art was not easy since the mountain ranges are steep and leopards territory. The findings are as follows:

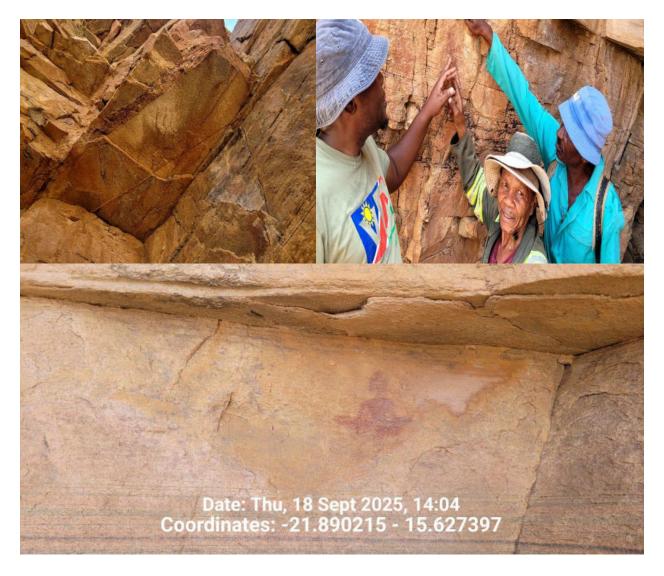


Figure 7: Cave with rock art painting located along //Kharu!ab River in //Gasi//Hoab Mountain

The archaeologist interpreted these Bushmen (San) Dancing Figures above shows, spiritual and ritual Significance. Dancing figures in San rock art often represent trance dances or healing rituals, central to San spiritual life. These dances were performed by shamans (healers) who entered a trance state to communicate with the spirit world, heal the sick, or ensure success in hunting. The dancing posture often bent knees, outstretched arms, and rhythmic movement may symbolize spiritual transformation, communal unity, or connection with ancestral spirits. Artists depicted dancers with dynamic lines to express energy, rhythm, and power, possibly

capturing the moment when humans and spirits "merge" during trance. Hence, this cave has both tangible and intangible (spiritual) values attached to it.

Again, a seated or "Yoga-like" Woman Figure symbolizes a meditative or resting posture: A woman in a seated or cross legged ("yoga-like") posture could represent rest after ritual activity, a spiritual meditation state, or fertility symbolism as women were often associated with fertility, San continuity, and the earth in cosmology. In domestic or ritual alternatively, such images may depict everyday social life, women resting, preparing food, or observing rituals illustrating the balance between spiritual and daily human activities. The combination of dancing men and seated women near a river likely represents a ritual or ceremonial event possibly a trance dance connected to fertility, rainmaking, or healing. The setting by the river emphasizes the importance of water as both a physical necessity and a spiritual symbol in San life.

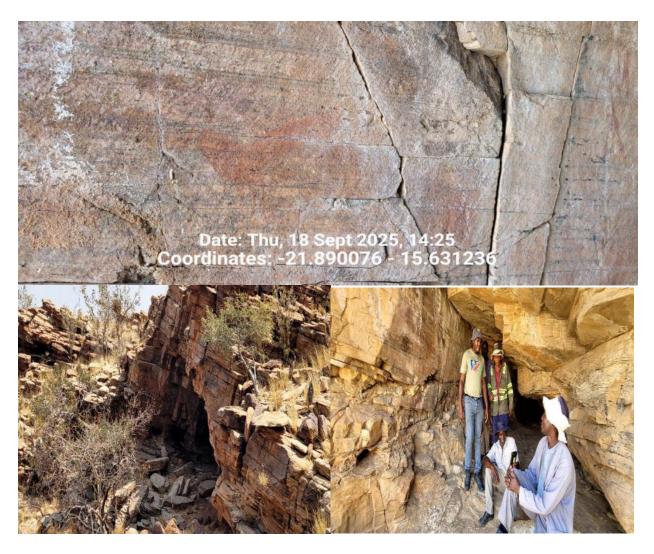


Figure 8: Cave on top of //Gasi//Hoab Mountain with Kudu rock paintings

The kudu rock paintings located in a cave at the summit of the //Gasi //Hoab Mountain are interpreted as expressions of San spiritual beliefs. The kudu, a potent symbol of trance and transformation, reflects the shamanic connection between humans and the spirit world. The elevated cave setting further reinforces the sacred and ritual nature of the site, suggesting it was used for ceremonies related to healing, rainmaking, and the renewal of life forces. The archaeologist believed this cave belong to Sangoma or the head of the clan. According to school of thought this was a spiritual chamber for the Sangoma.



Figure 9: Pottery fragments collected by Ryan at the cave along //Kharu!ab River (figure 7)

It is commendable that community members have demonstrated an interest in their local heritage by identifying and safeguarding items they consider archaeologically significant. However, continuous education is necessary to ensure they understand the importance of preserving material culture in situ and reporting any discoveries before attempting to collect them. Only registered heritage specialists or the relevant authorities are authorized to collect such materials for purposes of carbon dating, preservation, and proper documentation.

Even though the pottery users might not have been the same people who made rock art, they may have recognized the cave's spiritual significance. Caves with rock paintings often remained ritually important for centuries. Later groups may have used them for ceremonies, initiation rites, or ancestral offerings, leaving behind pottery fragments as part of these activities.

Interpretation. The pottery could represent ritual deposits or offerings, showing continuity in the sacred use of the site over time. According to the school of thought the pottery shows signs of soot, burning, or domestic use (e.g., storage or cooking), it indicates that people sheltered or camped in the cave periodically.

Table 14 below lists and briefly describes all the archaeological findings which are outside the EPL 9983 boundary that were recorded during the site surface walk-over. The sites were documented and described as follows:

Table 10: Assessment of Significance and Grading of Archaeological and Heritage Resources on the Proposed Project

LOCATION	DESCRIPTION	HERITAGE	GRADE	VULNERABILITY
	OF THE	SIGNIFICANCE		DESCRIPTION
	FINDINGS			
-21.890215 /	Cave with rock		4	4
15.627397	art painting located along //Kharu!ab River in //Gasi//Hoab Mountain	HIGH		
-21.890076 / 15.631236	Cave on top of //Gasi//Hoab Mountain with Kudu rock paintings	CONSIDERABLY HIGH	4	4

GIS Data Spatial Analysis on the findings

The map below represents the findings made during the surface walk-over outside the EPL 9983 boundaries, it should be noted that all of the cultural heritage findings made are outside the boundaries of the EPL9983. However, their significance and reporting are noteworthy for the archaeological records of the landscape and documentation purposes.

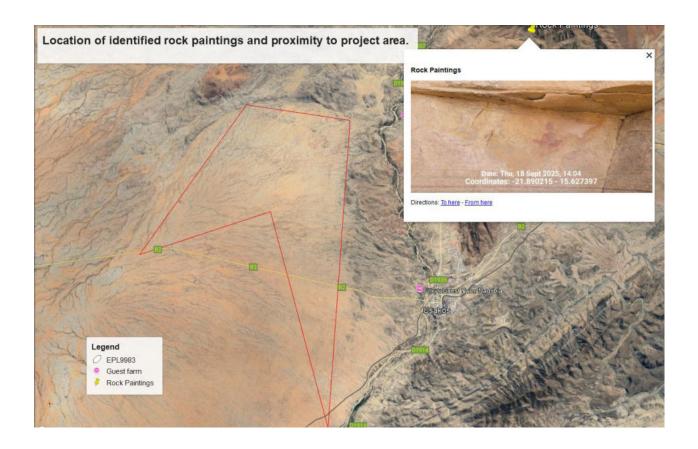


Figure 10: Map of the sites of Archaeological Findings outside the EPL 9983 boundary.

9. Potential Impacts on Archaeological, Historical and Cultural Heritage Sites

This section describes the potential impacts that may emanated from the proposed project especially the prospecting and exploration and mining activities concerned. However, for the record it should be noted that this study is meant for the archaeological and heritage assessment of the proposed prospecting and exploration activities only, and not actual mining. There was no archaeological findings within EPL 9983.

The proposed project is likely to involve the disturbance of topsoil during the trenching and drilling of marble rocks. It is possible that unknown sites may be uncovered during exploration and prospecting. From the archaeologist and heritage specialist perspective, the direct impacts on these resources can potentially occur during earthworks, the mining equipment, and the opening up of new access roads. However, knowledge of and awareness of the possible existence of heritage resources plus the proposed mitigation measures discussed herein will help in reducing the envisaged impacts to an acceptable level.

Summary of the Impacts

Direct impacts or risks of impact on archaeological sites located near the proposed development can be reduced to acceptable levels by the adoption of appropriate recommended mitigation measures including integration of the archaeological heritage record and *Chance Finds procedure* in the project EMP (see *Appendix 1*, & recommended mitigations). Special efforts should be made to reduce and avoid impacts on any discovered site, artefacts or yet-to-be-discovered archaeological sites.

10. Identification of Key Impacts

The key impacts of the proposed project on the archaeological and heritage resources will be the physical disturbance or destruction of sites or remaining within or close to the designated footprint of the proposed development and its associated surface works, and disruption of the landscape setting or physical context of the archaeological sites or remains. Such impacts will be both local, in the sense of the specific site, and at the landscape level where the proposed project will take place.

11. Residual Cumulative Environmental Effects

Although some archaeological materials such as stone artefacts and consequently sites are likely to be destroyed or lost during the clearance of land and construction of other facilities necessary for prospecting and exploration activities. Similarly, the focus of mitigation measures in this report is to recommend the layout of the project to avoid any possibility of encountering significant heritage or archaeological sites and will thus make a negligible contribution to cumulative impacts. The cumulative impacts are deemed to be of low significance in this case but with project-specific mitigation as listed in section 16.2, this would drop to very low after mitigation.

11.1. Identification of alternatives

There are no located alternative sites for the proposed project now since the project is at an initial stage (exploration phase), however, the layout will be designed accordingly to avoid any damage to the already known and located archaeological/heritage sites including the built environments. This is to indicate that if the site is located already, the development project must find an alternative location to either avoid the site completely, mitigate it or rescue it before any damage can be done, and to do this a permit from NHC will be required.

11.2. Anticipated Impacts on Visual and Landscape

All known significant archaeological and heritage resources will be/should be avoided by the proposed project (aside from the landscape where the proposed project will take place) i.e. the landscapes cannot be mitigated in the conventional archaeological sense, and impacts to them are contextual (visual impact affecting the sense of a place) mitigation usually involves avoidance, careful placement of the proposed project infrastructures and other development, or the creation of appropriate buffer zones and screens to minimize visual intrusion.

12. Management Plan and Mitigation Measures

Detailed mitigation measures are given herein in the form of recommendations (refer to the bulleted list in *Section 16.2* below under the conclusion and recommendation section). These mitigation measures will be included and implemented along with the general EMP of the project, as well as the implementation of the *Chance Find Procedures* and *Heritage Monitoring Plan* for the proposed project as set out in *Appendix 1* below.

12.1. Conclusion and Recommendation

The archaeological and heritage assessment conducted within EPL 9983 revealed no evidence of material culture, heritage sites, or archaeological remains within the proposed project area. The only recorded heritage feature is a rock art site located approximately 9 km outside the EPL boundary, at //Gasi//Hoab Mountain, as identified by the archaeologist and local stakeholders.

Although this site lies beyond the project area, it holds cultural and archaeological significance and should therefore be acknowledged and protected. The area surrounding //Gasi//Hoab Mountain is also known for a high abundance of leopards, which has inadvertently created a natural protective buffer that deters human intrusion and potential vandalism of the rock paintings.

Based on the absence of heritage resources within EPL 9983, the proposed development is unlikely to cause any direct impact on archaeological or cultural heritage resources. However, it is recommended that:

- Any chance finds uncovered during exploration or construction should be immediately reported to the National Heritage Council of Namibia or a qualified heritage specialist for assessment.
- The rock art site 9 km away should remain undisturbed, and no project-related activities should extend beyond the EPL boundary.
- Community awareness and heritage education should be encouraged to promote ongoing protection of local cultural sites.

In conclusion, there are no heritage constraints to the proposed activities within EPL 9983, provided that standard heritage management and reporting procedures are followed.

12.2. Recommended Mitigation Measures

It is extremely important for the Project Proponent, and all those involved in the project to fully understand that all archaeological and paleontological objects and meteorites are the property of the State, except such an archaeological or paleontological object the private possession and ownership of which (a) was acquired not in contravention of *Section 12* of the National Monuments Act, 1969 (Act No. 28 of 1969) or a law repealed by that Act; and thus, as part of mitigation measures, it should be noted that according to National Heritage Act No. 27 of 2004 that all activities that will involve digging or excavating the ground will require a permit from National Heritage Council of Namibia. Therefore, to prevent accidental damage to the archaeological landscape, including any potential sub-surface archaeological finds or features, the following mitigation strategies are proposed and recommended.

- If any archaeological material or human burials are uncovered during development activities, then work in the immediate area should be halted, the find would need to be reported to the heritage authorities and may require inspection by an archaeologist.
- Buffer zones should be maintained around well-known significant archaeological, historical or cultural heritage sites as far as possible. Graves, caves, rock shelters, stratigraphic profiles and areas with cultural significance are excluded from any development.
- A "No-Go-Area" should be put in place where there is evidence of sub-surface archaeological materials, archaeological sites, gravesites, historical, rock paintings, cave/rock shelters or past human dwellings. It can be a demarcation by fencing off or avoiding the site completely by not working closely or near the known site. The 'No-Go Option' might have a NEUTRAL impact significance (refer to *figure 36*).
- Direct damage to archaeological or heritage sites should be avoided as far as possible and, where some damage to significant sites is unavoidable, scientific/historical data should be rescued.
- Cognizance must be taken of the larger historical landscape of the area to avoid the destruction of previously undetected heritage sites. Should any previously undetected heritage or archaeological resources be exposed or uncovered during the development phases of the proposed project, these should immediately be reported to the heritage specialist or heritage authority (National Heritage Council of Namibia).
- The Proponent and Contractors should adhere to the provisions of Section 55 of the National Heritage Act in the event significant heritage and cultural features are discovered in the course of developmental works.
- Whoever is going to oversee mitigation and monitoring measures should have the authority to stop any construction activities that are in contravention of the National Heritage Act of 2004 and National Heritage Guidelines as well as the overall project EMP.

It should be taken into consideration that, according to **Part VI sub-section (1), (2)** or **(3)** A person who contravenes these provisions commits an offence and is liable to a fine not exceeding N\$100 000 or to imprisonment for a period not exceeding 5 years, or to both such fine and such

imprisonment. A Project Proponent should heed these recommendations and comply with the existing legislation and Act as reflected in this report.

12.3. Statement and reasoned opinion of the specialist

It is the specialist's opinion that the extent of the proposed project's footprint should be as minimal as possible not to impact other sites of significance. And thus, the Project Proponent and the exploration crew should adhere to and comply with the recommendations given, and the adoption of the *Chance Finds Procedure* should be integrated into the general EMP.

13. Bibliography

Kinahan, J. (2012) Archaeological Guidelines for Exploration & Mining in the Namib Desert

Mendelsohn, J. (2003). Atlas of Namibia: A Portrait of the Land and its People. Windhoek: The Ministry of Environment and Tourism of Namibia.

National Heritage Act 27 of 2004. 2004. Government Gazette.

Namibia's Environmental Assessment Policy (1995) for Sustainable Development and Environmental Conservation

Scherz, E.R. (1972) Felsbilder in Suedwest-Afrika: Teil II: die gravierungen in nordwest Suedwest-Afrika. Bohlau Verlag, Koeln

Kinahan, J. (2012) Archaeological Guidelines for Exploration & Mining in the Namib Desert

Mendelsohn, J. (2003). Atlas of Namibia: A Portrait of the Land and its People. Windhoek: The Ministry of Environment and Tourism of Namibia.

Miller, R., 1992. The mineral resources of Namibia. Windhoek: Geological Survey of Namibia, Ministry of Mines & Energy.

National Heritage Act 27 of 2004. 2004. Government Gazette.

Namibia's Environmental Assessment Policy (1995) for Sustainable Development and Environmental Conservation

Miller, R., 1992. The mineral resources of Namibia. Windhoek: Geological Survey of Namibia, Ministry of Mines & Energy.

Lenssen-Erz, T & Vogelsang, R 2005 "Populating No-Man's-Land: Rock Art in Western Namibia", *Goodwin Series*, 9, Further Approaches to Southern African Rock Art, December, 54-62, [www] http://www.jstor.org/stable/3858034 [opens new window] (accessed 11 Mar 2010).

Sampson, C. G. 1974. The Stone Age Archaeology of Southern Africa. New York & London: Academic Press Inc.

Appendix 1: Archaeological "Chance Finds Procedure"

This survey is based on surface indications alone, and it is, therefore, possible that sites or items of significance will be found by chance during development work. Therefore, this Chance Finds Procedure intends to provide the construction and exploration crews with general guidelines for the appropriate response to the discovery of known, unknown or suspected archaeological materials, including human remains, during Project activities. While *Chance Find Procedures* are valuable, they are not a substitute for prior assessment and evaluation of archaeological resources. The objectives of these guidelines are to promote the preservation and proper management of heritage resources that are unexpectedly encountered during Project activities and to minimize disruption to construction activities and scheduling.

A step-by-step *Chance Find Procedure* is provided below for archaeological sites and accidental findings. Contact information is also provided in *Appendix 1* and the general Archaeological and Heritage Management Plan is set in *Appendix 2*.

Scope:

The "chance finds" procedure covers the actions to be taken from the discovery of an archaeological site or item to its investigation and assessment by a trained archaeologist or other appropriately qualified people. This procedure 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 object must as soon as practicable report the discovery to the Council". The procedure of reporting set out below must be observed so that archaeological remains reported to the NHC are correctly identified in the field.

Project Manager or ECO/Site Manager/Supervisor must report the findings to the following competent authorities:

- National Heritage Council of Namibia (061 244 375)
- National Museum (+264 61 276800),
- National Forensic Laboratory (+264 61 240461).

Heritage Monitoring and Management Requirements

Throughout the development phases of the proposed project, monitoring is necessary to ensure compliance with measures agreed upon in the recommended mitigation as well as to assess how effective the mitigation measures are in protecting the values and significance of the heritage resources. This can be achieved through regular monitoring of the project site or random visits the compliance with measures outlined in the recommendation section is monitored, recorded, and reported. However, in principle, heritage monitoring and management should be conducted and implemented by an archaeologist/heritage specialist or trained personnel while other activities, especially day-to-day monitoring can be done by Environmental Control Officer (ECO) or in some cases a trained Site manager can be responsible for this.

Site monitoring: As most heritage resources occur below the surface, all earth-moving activities need to be routinely monitored in case of accidental discoveries. The greatest potential impacts are the initial soil removal and subsequent earthworks during the construction or development of the area. The ECO should monitor all such activities daily. If any heritage resources are found, the *chance findings procedure* must be followed as outlined in **Appendix 1** and **2**.

Monitoring is generally only considered appropriate where changes are probable or likely, and where these changes could be significant and would require remedial or specific management measures. This process can be done in all stages of the development of the proposed project, and during the actual operational phases where more impact on archaeological and heritage resources is probable.

Appendix 1: Archaeological and Heritage Monitoring Measures for Proposed Project

Table 11: Chance Find and Heritage Monitoring Measures

Area/Site	Archaeological/Heritage	Potential Impact	Mitigation Measures	Responsible Party	Method Statement
	Aspect				required
Chance Find (Chance Archaeological and Heritage sites (Accidental discoveries)	Aspect General area was the the proposed project is taking place (i.e. proposed development or construction etc.) which may yield archaeological, cultural materials or human remains. This means that there are	Possible damage to previously unidentified Archaeological and heritage sites during the construction phase. Unanticipated impacts on archaeological sites where project actions	In situations where unpredicted impacts occur construction activities must be stopped, and the heritage authority should be notified immediately.	Project Proponent- Contractor/ Exploration crews, Project Manager (PM) / Environmental Control Officer (ECO) or Site Manager, On- site/standby	Monitoring measures should be issued as instruction within the Project EMP. PM / ECO / Site Manager /
	This means that there are possibilities of encountering unknown archaeological sites during subsurface construction work which may disturb previously unidentified chance finds.	where project actions inadvertently uncovered significant Archaeological sites. Loss of historic cultural landscape. Destruction of burial sites and associated graves (if any)	Where remedial action is warranted, minimize disruption in construction scheduling while recovering archaeological data. Where necessary, Implement emergency	Archaeologist	Archaeologist Should monitor development works on sites where such development projects commence within the project site.

Area/Site	Archaeological/Heritage	Potential Impact	Mitigation Measures	Responsible Party	Method Statement
	Aspect				required
			measures to		
		Loss of aesthetic	mitigate.		
		value due to			
		construction work	Where burial sites		
			are accidentally		
			disturbed during		
		Loss of sense of place	construction, the		
			affected area		
		Loss of intangible	should be		
		heritage value due to	demarcated as a		
		change inland use.	'no-go zone' by use		
		change iniana ose.	of fencing during		
			construction, and		
			access thereto by		
			the construction		
			team must be		
			denied.		
			Accidentally		
			discovered burials		
			in a development		
			context should be		
			salvaged and		
			rescued to safe sites		

Area/Site	Archaeological/Heritage	Potential Impact	Mitigation Measures	Responsible Party	Method Statement		
	Aspect				required		
			as may be directed				
			by relevant				
			heritage authorities.				
			The heritage officer				
			responsible should				
			secure relevant				
			heritage and health				
			authorities permit				
			for possible				
			relocation of				
			affected graves				
			accidentally				
			encountered				
			during construction				
			work.				
Compliance	A review of archaeological and cultural heritage incidents, their impacts, mitigation used and success of mitigation should be						
Review	conducted at a certain stage of the project. The review should be looking at mitigation measures in place, and ways of improvement						
	if needed. This exercise can be done after every 6 months or whenever the Project Proponent sees fit. The overall objective is to						
	ensure full compliance with relevant legislation, especially Under Section 5 (4) of the National Heritage Act No. 27 of 2004, Chance						
	Find Procedure, and the recommendations made by the Heritage Specialist.						

Appendix 2: Archaeological and Heritage Management Plan

Table 12: Management Plan

Area	Mitigation	Phase	Timeframe	Responsible party for implementation	Target	Performance Indicators (monitoring tool)
General project area more specifically the targeted areas and surrounding vicinity	Implement chance find procedures in case possible archaeological or heritage finds are uncovered or expected	Preconstruction and construction	Throughout the project (prospecting and exploration) and if the project will go to the next stage of mining then this management plan can still be used during the actual mining phase	Project Proponent, Contractors, and Exploration crews on site	Ensure compliance with relevant legislation and recommendations from the Author of this report and the National Heritage Act that aims to provide for the protection and conservation of places and objects of heritage significance.	ECO Checklist/Report

Appendix 4: CV of a Specialist



NKOSANA HLABANGANA

ERF 2754 DARLING STREET WANAHEDA WINDHOEK +264 814650075 / +264 852650075 | hlabanganankosana@gmail.com

Objective

To enhance my professional skills, capabilities and knowledge in an organization which recognizes the value of hard work and trusts me with responsibilities and challenges.

Experience

St Augustines High School Penhalonga Zimbabwe

01/01/2015 - 05/12/2015

Librarian

- -Collecting and cataloging library resources including books, films, and publications.
- -Helping people locate reference and leisure reading materials.
- -Maintaining library records and ensuring they are up to date.
- -Performing regular audits of the information and inventory on file.
- -Educating patrons on how to properly search for information using the library databases.
- -Managing budgeting, planning, and employee activities.
- -Overseeing the check-out process for books and other resource materials.
- -Organizing and hosting book sales, author signings, and other reading events.
- -Clarifying the use of library amenities and providing information about library policies.
- -Ensuring the library meets the needs of precise groups of its users, including disabled students.

MIDLANDS STATE UNIVERSITY GWERU ZIMBABWE

05/05/2016 - 01/08/2016

Heritage and Sustainable Development: Norumedzo Forest Bikita Zimbabwe (Project)

- -Conducting interviews with both primary and secondary stakeholders -Excavating,
- dating and interpreting objects and sites of historical interest.
- -Documentation of both tangible and intangible heritage.
- -Extensive and intensive research designs.
- -Collecting data into a database and performing analysis to further understanding of the area and cultures being studied.
- -Assessing developer planning applications to ensure that any proposed construction/mining will not disrupt potentially valuable archeological sites.
- -Gathering data, capturing the information into databases and ensuring data is backed up.

Victoria Falls Safari Lodge

07/01/2017 - 05/01/2020

Lodge Sales Assistant

- Sending faxes/mails and answering phone calls.
- Scheduling calender appointments.
- Making travel arrangements.
- Taking minutes in meetings and preparing power point presentations.
- Ensuring high levels of customer satisfaction through excellent sales service.- Lodge tour guiding.
- Managing Lodge website.

MOUNT OF HOPE TRAINING INSTITUTE

10/01/2021 - 30/04/2022

Administrator

-Answering incoming calls; taking messages and re-directing calls as required -

Dealing with email enquiries

- -Taking minutes
- -Diary management and arranging appointments, booking meeting rooms and conference facilities Data entry.

- -General office management such as ordering stationary -Organizing travel and accommodation for staff and students. -Arranging both internal and external events.

- -Maintaining the school social media accounts.
- -Filing duties -storing hard copies of data in an organized manner to optimize retrieval.
- -Creating accurate spreadsheets.
- -Performing basic bookkeeping duties.
- Outrun Consultants CC

Archaeologist

05/08/2022 - Till to date

- -Excavating, dating and interpreting objects and sites of historical interest.
- -Documentation of both tangible and intangible heritage.
- -Extensive and intensive research designs.
- -Archaeological field work assessments for Archaeological Preliminary Reports.
- -Collecting data into a database and performing analysis to further understanding of the area and cultures being studied.
- -Assessing developer planning applications to ensure that any proposed construction/mining will not disrupt potentially valuable archeological sites.
- -Gathering data, capturing the information into databases and ensuring data is backed up.

Education

MIDLANDS STATE UNIVERSITY GWERU ZIMBABWE

2016

MIDLANDS STATE UNIVERSITY GWERU ZIMBABWE

BA HONOURS DEGREE IN ARCHAEOLOGY CULTURAL HERITAGE AND MUSEUM STUDIES 2:2

Skills

- · Good communication skills.
- Created, collected,edited, aggregated,and summarizer data from multiple sources for reports and analysis, including GPS (Global Positioning System)
- Participated in excavations which required extensive measurements, calculations, data input and compilation, map plotting, and artifact analysis.
- Time management skills.
- Team work.
- Marketing/Selling skills.
- Willing and quick to learn.
- · Computer literate.

Interests

- · Surfing through internet
- Basketball
- Photoshop
- · Being part of volunteering activities
- · Traveling, meeting new people and admiring nature bounties

Languages

- · English
- Ndebele
- Zulu
- Shona

Reference

- · Mr.Munemero "St Augustines High School Penhalonga Zimbabwe "
 - Chief Librarian
 - +263 772588285
- Mrs.P.Tomu "Midlands State University Gweru Zimbabwe"

Project Supervisor katwkwep@msu.ac.zw

- +263 773919099
- Mr.G Mandaza "Mount Of Hope Training Institute"

Administrator/Co-owner mountofhopetraininginstitute@gmail.com

+264853461407 / +264814650075

Mr.Josiah Mukutiri "Outrun Consultants CC"

Director

outrungreeninfo@gmail.com +264 812683578

Gender

• Male

Age

• 31/05/1991

Nationality

• Zimbabwean

NKOSANA HLABANGANA

Bachelor of Arts Archaeology, Cultural Heritage and Museum Studies Honours Degree 321 copy of the original which was exami-ed by me and that, from my observations, the original has not I certify that this document is a true reproduction/ CERTIFICATE REGISTRAR MIDLANDS STATE UNIVERSITY D No satisfied the Examiners, has this day been admitted by Senate to the Bachelor of Arts Archaeology, Cultural Heritage and Museum Studies Honours Degree in the been affered in any manner .. Division having completed the approved programme of study and having NKOSANA HLABANGANA WANAHEDA PLETTY OF ARTS We hereby Certify that LOWER SECOND 08 MAY 2024 S 15/11/2016 VICE CHANCELLOR Gweru, Zimbabwe



Namibia · Qualifications · Authority

Enquiries: Ms. S Shaanika

05 July 2024

Mr. Nkosana Hlabangana PERSONAL COLLECTION of the AOM off of sidelines

Dear Mr. Hlabangana (Passport No. FN284966)

QUALIFICATION EVALUATION REPORT

The Zimbabwe General Certificate of Education at Ordinary Level awarded to you by the Zimbabwe School Examinations Council in the Republic of Zimbabwe in November 2010 has been evaluated by the Namibia Qualifications Authority and found to be comparable to a Certificate at NQF Level 3 (Three) of the National Qualifications Framework for Namibia

The Zimbabwe General Certificate of Education at Advanced Level (Two Subjects) awarded to you by the Zimbabwe School Examinations Council in the Republic of Zimbabwe in November 2012 has been evaluated by the Namibia Qualifications Authority and found to be comparable to a Certificate at NQF Level 4 (Four) of the National Qualifications Framework for Namibia

The Bachelor of Arts Archaeology, Cultural Heritage and Museum Studies Honours Degree awarded to you by Midlands State University in the Republic of Zimbabwe in November 2016 has been evaluated by the Namibia Qualifications Authority and found to be comparable to a Bachelor Honours Degree at NQF Level 8 (Eight) of the National Qualifications Framework for Namibia

ACTING CHIEF EXECUTIVE OFFICER

0 5 JUL 2024

Evaluations hoek Nan

Corner of Simeon Shixungileni and Dr. W Külz Streets, Windhoek









