



ECC-90-302-NTS- 05-B

NON-TECHNICAL SUMMARY

EXPLORATION ACTIVITIES ON EPL 7769

FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, DIMENSION STONES AND PRECIOUS METALS

PREPARED FOR JIN PENG INVESTMENTS (PTY) LTD

SEPTEMBER 2020



NON-TECHNICAL SUMMARY PROPOSED EXPLORATION ACTIVITIES ON EPL 7769 FOR BASE AND RARE METALS, INDUSTRIAL MINERALS, DIMENSION STONES AND PRECIOUS METALS HARDAP AND KHOMAS REGIONS

1 PURPOSE OF THIS DOCUMENT

The purpose of this Non-Technical Summary (NTS) is to provide Interested and Affected Parties (I&APs) a background to the proposed project and to invite I&APs to register as part of the Environmental Social Impact Assessment (ESIA) process.

The proposed project involves exploration activities for base and rare metals, industrial minerals, dimension stones and precious metals on Exclusive Prospecting License (EPL) 7769, held by Jin Peng Investments (Pty) Ltd.

Through registering for the project, all I&APs will be kept informed throughout the ESIA process, and a platform for participation will be provided to submit comments / recommendations pertaining to the project.

This NTS includes the following information:

- The proposed project and location;
- The necessity of the project, potential benefits or adverse impacts anticipated;
- The alternatives to the project that have been considered and assessed;
- How the ESIA process works;
- The public participation process and how to become involved; and
- Next steps and the way forward.

2 DESCRIPTION OF PROPOSED PROJECT

2.1 BRIEF INTRODUCTION

Environmental Compliance Consultancy (ECC) has been engaged by the proponent (Jin Peng Investments (Pty) Ltd) to undertake an ESIA and an Environmental Management Plan (EMP) in terms of the Environmental Management Act, 2007 and its regulations. An environmental clearance application will be submitted to the relevant competent authorities, the Ministry of Mines and Energy (MME) and Ministry of Environment, Forestry and Tourism (MEFT).

2.2 LOCATION

Jin Peng proposes to explore in an area east, north and west of the Rehoboth town. The EPL is within the Hardap Region and a smaller part of it extends east into the Khomas Region. The location is shown in Figure 1.

2.3 WHAT IS PROPOSED

Jin Peng proposes to undertake mineral exploration in Namibia through low impact exploration activities of various methods on EPL 7769.

2.4 Why is the Project Needed

Jin Peng intends to pursue exploration opportunities in Namibia with the aim of identifying new mining prospects in the Hardap and Khomas regions. Namibia is rich with natural resources and the minerals sector is a key contributor to the nations GDP in Namibia. Exploration could lead to mining activities, which would contribute to the national and local economy.

2.5 OPERATION PHASE

The proposed exploration activities are lowimpact and both intrusive and non-intrusive. The following are envisaged during the proposed project:



- Potential creation of access tracks, where existing tracks cannot be utilised;
- Limited vegetation clearing for the creation of tracks;
- Drilling of exploration boreholes; and
- Exploration methods may include soil and rock sampling, geological mapping, geophysical surveys, trenching and drilling.



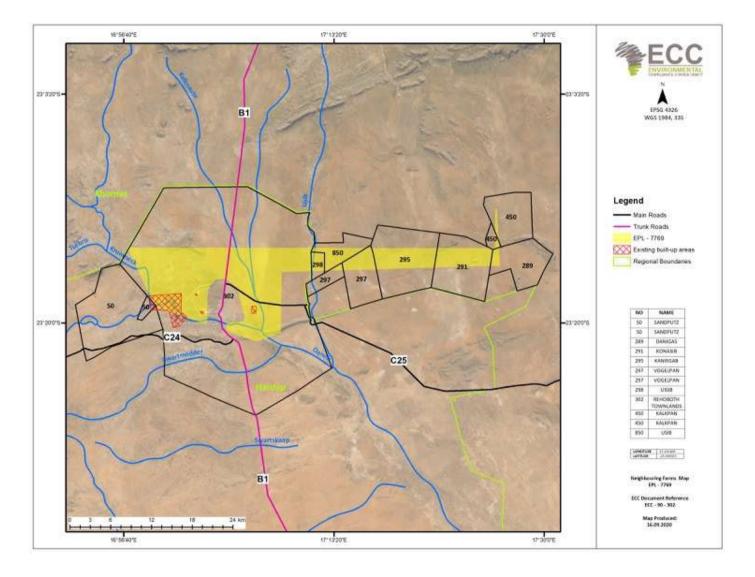


FIGURE 1 – LOCALITY MAP OF THE PROPOSED PROJECT

SEPTEMBER 2020

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2.6 POTENTIAL IMPACTS OF THE PROJECT

2.6.1 SOCIO-ECONOMIC

The potential social impacts are anticipated to be of low significance, and those that may transpire shall be confined within the EPL site, these potential impacts may include the following:

- Potential to unearth, damage or destroy undiscovered heritage remains;
- Minor disruption to the residents of the farms within the EPL, including some increase in noise levels and dust arising from drilling and vehicle use;
- Some jobs will be created as a result of the project; and
- There will be economic benefits due to increased investment and investor confidence in the Namibian minerals sector.

2.6.2 ENVIRONMENTAL

The potential environmental impacts are anticipated to be of minor significance, and those that may occur shall be contained within the EPL site, these potential impacts may include the following:

- Some potential vegetation loss due to possible tracks creation; the vegetation is expected to recover fully during ensuing rain seasons;
- Potential use of resources, including surface and groundwater; and
- Minor risk of loss of contaminant of hydrocarbon, chemical or drill fluids from exploration activities potentially leading to localised ground contamination; this aspect will be controlled at all times.

3 CONSIDERATION OF ALTERNATIVES

Best practice environmental assessment methodology calls for consideration and assessment of alternatives to a proposed project.

In a project such as this one, it is difficult to identify alternatives to satisfy the need of the proposed project; the activities shall be specific to the EPL 7769, which was granted by the MME on the 08th of August 2019.

During the assessment, alternatives will take the form of a consideration of optimisation and efficiency to reduce potential effects e.g. different types of technology or operations, route access and exploration methods.

4 THE ENVIRONMENTAL ASSESSMENT PROCESS

This ESIA, conducted by ECC, is undertaken in terms of the Environmental Management Act, 2007 and its regulations. The process followed in this ESIA is set out in the flowchart in Figure 2.

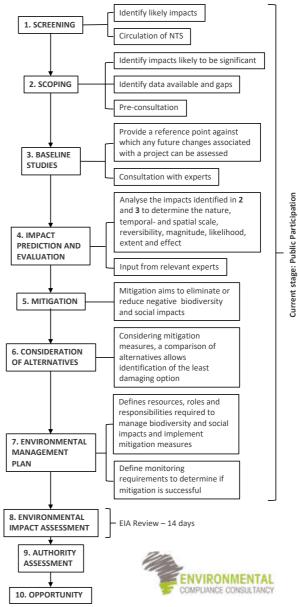


FIGURE 2 - FLOWCHART OF THE ENVIRONMENTAL ASSESSMENT PROCESS



4.1 SCREENING

A review of the proposed project screening findings against the listed activities was conducted; the findings of which are summarised below.

FORESTRY ACTIVITIES

(4) The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorisation in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.

 Limited vegetation clearing may be required for tracks and survey access creation, and possibly for the set up for survey teams' field camps.

WATER RESOURCE DEVELOPMENT

(8.1) The abstraction of ground or surface water for industrial or commercial purposes

 Due to the drilling of exploration boreholes, ground and surface water will need to be abstracted, or sourced.

MINING AND QUARRYING ACTIVITIES

(3.1) The construction of facilities for any process or activities which requires a licence, right or other form of authorisation, and the renewal of a licence, right or other form of authorisation, in terms of the Minerals (Prospecting and Mining Act), 1992

 This listed activity, infers the provisions of the Minerals Act (Prospecting and Mining) Act 33 of 1992, under different licenses as basis upon which certain activities qualify for an EIA. Part X of the Minerals Act (1992) defines prospecting/exploration activities under the lawful ownership of an exploration license (EPL). An exploration license excludes any mining activities, but includes activities strictly relating to exploration work. Hence the current project strictly focuses on exploration and not mining (3.2) Other forms of mining or extraction of any natural resources whether regulated by law or not

 Minerals (e.g. soil and sand), will be sourced out within the project's footprint / locally as far as possible

The potential environmental and social effects are anticipated to be of minor significance, and those that may occur shall be contained on the EPL 7688 site.

4.2 SCOPING

Due to the nature of the proposed project, and the implementation of industry best practice mitigation measures during the mineral exploration phase of the project, the effects on the environment and society are expected to be minimal and localised.

4.3 BASELINE STUDIES

For the proposed project, baseline information was obtained through a desk-based study and site verification processes through focusing on the environmental receptors that could be affected by the proposed project. ECC will also engage with stakeholders, I&APs and the proponent to seek input into the assessment.

4.4 IMPACT ASSESSMENT

Impacts will be assessed using the ECC ESIA methodology. The ESIA will be conducted in terms of the Environmental Management Act, 2007 and its regulations. ECC's methodology for impact assessments was developed using IFC standards in particular Performance Standard 1 'Assessment and management of environmental and social risks and impacts' (IFC 2012, 2017) and Namibian Draft Procedures and Guidance for ESIA and EMP (GRN, 2008) including international and national best practice with over 25 years of combined ESIA experience.

4.5 ENVIRONMENTAL MANAGEMENT PLAN

An EMP shall be developed for the proposed project setting out auditable management actions for Jin Peng Investments (Pty) Ltd to ensure careful



and sustainable management measures are implemented for their activities in respect of the surrounding environment and community.

4.6 PUBLIC PARTICIPATION AND

Advertising

Public participation is an important part of the ESIA process; it allows the public and other stakeholders to raise concerns or provide valuable local environmental knowledge that can benefit the assessment, in addition it can aid the design process. This project is currently at the scoping phase and public participation phase.

At this phase ECC will perform the following:

- Identify key stakeholders, authorities, municipalities, environmental groups and interested or affected members of the public, hereafter referred to as I&APs
- Distribute the NTS for the proposed project (this document)
- Advertise the environmental application in two national newspapers
- Place notices on-site at or near the boundary
- If required host a public meeting to encourage stakeholder participation and engagement, and provide details of issues identified by the environmental practitioner, stakeholders and I&APs
- Record all comments of I&APs and present such comments, as well as responses provided by ECC, in the comments and responses report, which will be included in the scoping report that shall submitted with the application, and
- Circulate I&AP comments to the project team for consideration of project design.

Comments must be submitted in writing and can be emailed using the details in the contact us section below.

CONTACT US

We welcome any enquiries regarding this document and its content. Please contact:

Environmental Compliance Consultancy (ECC)

info@eccenvironmental.com

Tel: +264 816 697 608

www.eccenvironmental.com

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APPENDIX A- ENVIRONMENTAL MANAGEMENT PLAN



3



APPENDIX C- EVIDENCE OF PUBLIC CONSULTATION

The following advertisements were published in the Republikein, Sun, and Allgemeine Zeitung' on 21st September and 28th September 2020. filmin Sun Mallgemeine Zeitung

MONDAY 28 SEPTEMBER 2020

Market Watch





he agriculture and forestry sector surged to 47.2 percent in real value added during the second quarter of 2020. PHOTOS NAMPA

Acceleration in the health sector is owed to the easing of the fiscal consolidation policy in the sector, coupled with the emergence of the pandemic.

>> Easing of fiscal consolidation policy Agriculture, ICT, health drives growth

ICT grew due to increased activities in the usage of data as demand surged up for data and calls as workers switch from working from offices to homes.

The Namibian Statis-tics Agency (NSA) recorded improved performances in the agri-culture and forestry, in-station technology (ICT) and health sectors, ac-ording to the Producer Precise Index report. The improved growth rates of 842 percent were recorded for agriculture and forestry, 10.0 percent for ICT, and 6.0 percent for the health sectors, compared to the previ-cus quarter in 2019. The ICT sector's growth results from increased pup for data and calls as working from offices to homes," NSA pointedout. This was further ex-screbated by demand from higher institutions switching from face-to-face teaching to online learning. Acceleration in the health sector is owed to homes, to have a strain form higher institutions switching from face-to-face teaching to online learning. Acceleration in the health sector is owed to sector, coupled with the emergence of the pard activities resulting in the employment of more health workers to assist

in containing the disease NSA emphasised.

The real Gross Don The real Gross Domes-tic Product contracted by 11.1 percent during the period under review, compared to a decline of 3.6 percent in the same quarter of 2019. Drivers

The deeper reduction in the domestic economy was observed across all sectors of the economy,

except for agriculture and forestry, ICT and health. The poor perfor-mance of the economy was mainly due to the impact of measures that were put in place to combat the spread of the coronavirus pandemic, NSA says. NSA says. The agriculture and forestry sector surged to 47.2 percent in real

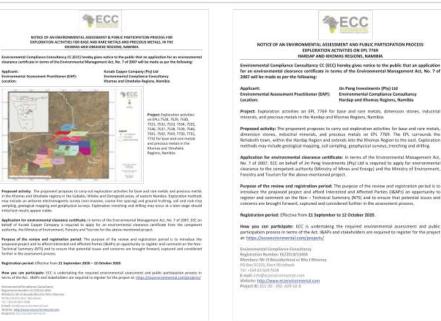


value added during the value added during the second quarter of 2020, relative to a steeper con-traction of 31.8 percent registered during the same quarter of 2019, NSA added. The main driver for the improved perfor-mance stems from an in-crease in activities of the oran forming othe sector. General (SG) of the Namibia Statistics Agency (NSA) Alex HOTO NAMPA

crop farming sub-sector, which posted a massive

growth of 296.7 percent in real value added com-pared to decline of 61.0 percent in the corre-sponding quarter of 2019. The positive per-formance in the sector is attributed to the number of minutes used that in-creased during the period under review, the report further indicates.

- Namo







10 Republikein Sun Allgemeine Zeitung Regskennisgewings

IN THE Magistrate's Court for The District Of Windhoek, Hidd at Windhoek, Case No. 1942 (2020). In the matter between: SQUIRREL INVESTMENTS 95 CC - Execution Creditor and TALENI LOGISTICS CC - Int Execution Dehtor, ABEL DA-NIEL LANGHER - 2nd Execu-tion Dehtor, REPUBLIC OF NAMIBLE MINIS-TRY OF TRADE & INDUSTRY, LIQUOR ACT, 1998. NOTICE OF APPLICATION TO A COM-MITTEE IN TERMS OF THE LI-QUOR ACT, 1998 (regulations 14, 26 & 33). Notice is subset that an appli-

OF APPLICATION TO A COM-MITTEE IN TERMS OF THELL QUOR ACT, 1998 (regulations) Act 1998, particulars of the Lique Carls in the matter between: SQUIRREL INVESTMENTS 95 C - Execution Debtor, ABEL DAN Act 1998, particulars of the Lique Execution Debtor, ABEL DAN Act 1998, particulars of which appear below, will be made to the Regional Liquer Licensing Committee, Region Konzas. I. Name and posinisms of Potentian I. Name and posinisms of Potentian I. Name and posinisms of the Liquer Lino Debtor. 2. Name of business or pro-mises to which applications of the Court of the Massings of the Court for the district of the difficult of the address/ location of pre-mises to which applications. 5. Clerk of the Court with whom applications will be suddeed to business for Mondow. 5. Clerk of the Court with whom applications of the Liquer Suddeys, I business or pre-times to which applications 6. Debto - 02600 (Mondays to S. Clerk of the Magintate's Court for the District V - Hisense, the the relations of selec. 2. Date on which applications 6. Debto - 02600 (Mondays to S. Clerk of the Magintate's Court for the District V - Hisense, the the relations of selec. 2. Date of meeting of Commit-ties at which applications 6. Debto - 02600 (Mondays to S. Clerk of the Magintate's Court for the District V - Hisense, 2. Date of meeting of Commit-te at which applications 6. Debto - 02600 (Mondays to S. Clerk of the Magintate's Court for the District V - Hisense, 2. Date of meeting of Commit-te at which applications 6. Debto - 02600 (Mondays to S. Detk of the Magintate's Court for the District V - Hisense, 2. Date of the Magintate's 2. Date of the Maginta

application will be heard. MM022003688990 IN THE High Court of Nami-bia. (Main Division). Wind-hock. Case Number: HC-MD-CIV-ACT-CON-20220/00144. In the matter between: BATTONIAL SMALL AND ME-DUM ENTERPRISES FUND NAMIBLA - PLAINTIFF and DAVIS WINDSOW TINTING ANU WINDSCREENS CC - 1st Defendant. DAVID KAMPELD - 2nd Defendant. NOTICE OF SALE IN EXECU-TION-MOVABLE PROPERTY in Execution of a Judgment granted against the second court in the above mentioned suid, the undermentioned suid, the besold by Public Auction by the bebury Sheriff the relativit of Windhock at the premises at 422 Inde-on soon thereafter at IbNO or soon thereafter as may be sold: The items to be sold on auc-tion will be: Black BMWX XS Model (REG:

The items to be sold on auc-tion will be: 1 Black BMW X6 Model (REG: N67676W). Terms and conditions of the sale: "voetstoots" and cash to the highest bidder. Dated at Windhock on 17 Septem-ber 2020. Evalue 5 bitter & Pactners Therer Str Entrance in Burg Street PO Box 37, Windhoek (Ref:SM/fh/241968) IN THE Magistrate's Court for the District of Tsumeb. Held at Tsumeb. Case No: 171/20019.

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ber 2020. Engling Stritter & Partners Per: Michael Noelle Legal Practitioners for the Plaintiff 12 Love Street

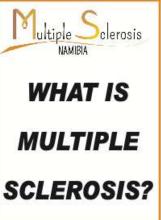
Windhoek Our Ref: MN/8377198 DM020200 4455360

In the District of Jaumeb. The Jan Sameb. Case Not The Jan Sameb. Case Not The Action of the Sameb. Case Not In the matter between: M-FORCE TRADING CC - Plaintiff and MR VICTOR M.G. LOUREIRO TVA RCAG CON-STRUCTION - Defendant. NOTTICE OF SALE IN EXECU-TION In execution of a Judgment against the above hanned De-tendant by the above Honou-rable Court on T June 2020. In execution of a Judgment against the above hanned De-tendant by the above Honou-rable Court on T June 2020. The following movable pro-senger of the Court for the district of Rundu on 1 Octo-ber 2020 at 10h00 in front of the Magistrate's Office, Run-du, Namibia. Tarms of sale: Cash and voet Stots to the highest bidder. Dated at Taumeb this 16 Sep-tAr PRETORIUS & CO Legal Practitioners for Plain-tiff Pretoo Building Erf A, Suite S, Jordan Street Tsumeb. IN THE Magistrate's Court for the District of Tsumeb, Held at Tsumeb, Case No: 123/2019. In the matter between: M-FORCE TRADING CC.-Plaintiff and JONAS SIMU-KETA T/A EXECUTIVE CITV CONSTRUCTION - Defendant. NOTICE OF SALE IN EXECU-TION In execution of a Judgment against the above named De-fendant by the above Honou-rable Court on 1 June 2020, the following movable proper-ty will be sold by the Messen-ger of the Court for the district R kundu on 1 October 2020 at 10h00 in front of the Ma-mibia. N White Isazu Pick-up (Regis-

parates to the model of the paratest of the pa tiff Pretco Building Erf 4, Suite 5, Jordan Street Tsumeb. DM0202000369007

Legal Practitioners for Plaintiff Pretco Building Erf 4, Suite 5, Jordan Street Tsumeb.

035 Regskennisgewings Legal Notices 035 Regskonnisgewings Legal Notices IN THE High Court Of Namibia, Main Division, Held At Wind-Main Division, Held At Wind-boek. Case No: HC-MD-CIV-ACT-DEI-2019/04650. In the matter between: LIBRA GUEST HOUSE CC -Plaintiff and ANDREAS J NAM-BAHU - Defendant. NOTICE OF SALE



A chronic disease of the brain and central nervous system

OFFICE HOURS:

Monday - Friday:

09h00 - 17h00

info@msnamibia.org



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PUBLIC NOTICE TO OUR CUSTOMERS

As part of our commitment to creating long-term value for our stakeholders, NamWater is pleased to announce the upgrade in its emailing system. This new system will help improve customer service and enable the Water Utility to send out monthly water statements to customers.

The Water Corporation, therefore, would like to inform all its customers across the country to send through their respective email addresses including their customer account numbers to customer@namwater.com.na. This automated system will provide an opportunity for each customer to receive his or her water statement at the end of each month, at no cost.

For more information regarding this new system, contact:

Water for All, Forever!

Johannes Shigwedha Telephone: +264 61 71 2277 / +264 811 222 858 Email: ShigwedhaJ@namwater.com.na



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SITE NOTICE

The site notice as depicted in the images below were placed on site on 3 October 2020.







From: Lester Harker <lester@eccenvironmental.com> Subject: Documents available for public review: Proposed exploration activities on EPL 7769 in the Hardap and Khomas regions Date: 6 November 2020 at 2:06:05 PM CAT To: danielmahua@necfu.org Cc: "Jessica Bezuidenhout (Mooney)" <jessica@eccenvironmental.com>, lovisa Nanula <lovisa@eccenvironmental.com>, Mariska Kuschke <mariska@eccenvironmental.com>

Dear Mr Mahua

I refer to our telephone conversation earlier and acknowledge your willingness to partake in the consultations with farmers affected by the proposed project.

ECC herewith notifies you of the availability of the environmental scoping, plus impact Assessment report and the Environmental Management Plan (EMP) draft reports on behalf of Jin Peng Investments (Pty) Ltd for public review.

The reports can be located on our website by following the link provided below: <u>https://eccenvironmental.com/project/exploration-activities-on-epl-7769-for-base-and-rare-metals-industrial-minerals-dimension-stones-and-precious-stones/</u>

Review period: Fourteen days (14) has been allocated to all interested and or affected parties (I&APs) starting on the 06th November 2020 and ending on the 20th November 2020 to review the reports.

Please assist us to relay this notification to all farmers within the Rehoboth Farmers Union who did not provide us with their email addresses. Please also ensure that all comments on the contents of the reports are forwarded to us by using the contact details below and that comments are in writing and reach us on or before the 20th November 2020.

Please do not hesitate to contact us should you have any questions.

Please also find attached the list of farm details as requested.

Kind regards,

Lester Harker

Environmental Compliance Consultancy (ECC)

DECEMBER 2020



Position:	Environmental Assessment Practitioner
Office Tel:	+264 81 669 7608
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Website: www.eccenvironmental.com

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APPENDIX E Archaeological field survey report.

ARCHAEOLOGICAL ASSESSMENT OF PORTION OF EPL7769 AS INDICATED BY A CIRCULAR AREA MARKED ON LOCALITY MAP FURNISHED BY ECC, NAMIBIA

PREPARED BY J.KINAHAN, Archaeologist P.O. Box 22407, Windhoek, Namibia Email jkinahan@iafrica.com.na

PREPARED FOR:



21 October 2020



DECLARATION

I hereby declare that I do:

(a) have knowledge of and experience in conducting 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;

(b) perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

(c) comply with the aforementioned Act, relevant regulations, guidelines and other applicable laws.

I also declare that I have no interests or involvement in:

- (i) the financial or other affairs of either the applicant or his consultant
- (ii) the decision-making structures of the National Heritage Council of Namibia.

7.Km han

John Kinahan, Archaeologist



EXECUTIVE SUMMARY

An archaeological field survey was carried out on a portion of EPL7769 as indicated by a circular area (the Area of Interest/ AoI) marked on a map furnished by ECC. The AoI lies within the north-western parts of the Rehoboth Townlands which has been selected for exploration purposes and the possible mining of dimension stone as a commodity of interest. The field survey did not locate any archaeological sites considered to be significant or to require special mitigation measures. It is however recommended that the project adopt the attached Chance Finds Procedure devised for mining projects.



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- 1. Introduction
- 2. Legal requirements
- 3. The receiving environment
- 4. Conclusions & recommendations
- Appendix 1 Chance finds procedure



1. INTRODUCTION

1.1 Background

Environmental Compliance Consultancy (ECC) is carrying out an environmental assessment of a portion of EPL7769 on behalf of Jin Peng Investments (Pty) Ltd. for a potential dimension stone mining project. Mining is listed in the Environmental Management Act (2007) as an activity requiring environmental assessment and the issuance of an Environmental Clearance Certificate.

ECC has prepared a non-technical summary entitled Proposed Exploration Activities on EPL7769 for Base and Rare Metals, Industrial Minerals, Dimension Stones and Precious Metals, Hardap and Khomas Regions¹ which forms the background source for project data cited here.

Archaeological remains in Namibia are protected under the National Heritage Act (2004) and National Heritage Regulations (Government Notice 106 of 2005), and ECC has accordingly appointed the undersigned, J. Kinahan, archaeologist, to carry out an assessment of the project AoI. A field visit to the site was carried out on 20th October 2020.

1.2 Terms of Reference

The primary task of the archaeological assessment reported here was to identify sensitive archaeological sites that could be affected by the proposed exploration and mining activities. The archaeological assessment forms the basis of recommended management actions to avoid or reduce negative impacts, as part of the environmental assessment. The study is intended to satisfy the requirements of the relevant legislation and regulations, in which the process of review and clearance may require further, or different mitigation measures to be adopted.

Specifically, the archaeological assessment addresses the following primary elements:

- The identification and assessment of potential impacts on archaeological/heritage resources, including historical sites arising from the proposed exploration and mining activities.
- 2. The identification and demarcation of highly 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 clearance certificates.
- 4. Identify permit requirements as related to the removal or destruction of heritage resources.

1.3 Assumptions & Limitations

Archaeological assessment relies on the indicative value of surface finds recorded in the course of field survey. Field survey results are augmented wherever possible by inference from the results of surveys and excavations

¹ ECC DOCUMENT CONTROL: ECC-90-302-NTS-05-B, September 2020



carried out in the course of previous work in the same general area as the proposed project, as well as other sources such as historical documentation. Based on these data, it is possible to predict the likely occurrence of further archaeological sites with some accuracy, and to present a general statement (see Receiving Environment, below) of the local archaeological site distribution and its sensitivity. However, since the assessment is limited to surface observations and existing survey data, it is necessary to caution the proponent that hidden, or buried archaeological or palaeontological remains might be exposed as the project proceeds

2. LEGAL REQUIREMENTS

The principal instrument of legal protection for archaeological/heritage resources in Namibia is the National Heritage Act (27 of 2004). Part V Section 46 of the Act prohibits removal, damage, alteration or excavation of heritage sites or remains. Section 48 *ff* sets out the procedure for application and granting of permits such as might be required in the event of damage to a protected site occurring as an inevitable result of development. 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 notify the National Heritage Council. Heritage sites or remains are defined in Part 1, Definitions 1, as "any remains of human habitation or occupation that are 50 or more years old found on or beneath the surface".

It is important to be aware that no specific regulations or operating guidelines have been formulated for the implementation of the National Heritage Act in respect of archaeological assessment. However, archaeological impact assessment of large projects has become accepted practice in Namibia during the last 25 years, especially where project proponents need also to consider international guidelines. In such cases the appropriate international guidelines are those of the World Bank OP/ BP 4.11 in respect of "Physical Cultural Resources" (R2006-0049, revised April 2013). Of these guidelines, those relating to project screening, baseline survey and mitigation are the most relevant.

Archaeological impact assessment in Namibia may also take place under the rubric of the Environmental Management Act (7 of 2007) which specifically includes anthropogenic elements in its definition of environment. The List of activities that may not be undertaken without Environmental Clearance Certificate: Environmental Management Act, 2007 (Govt Notice 29 of 2012), and the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 (Govt Notice 30 of 2012) both apply to the management of impacts on archaeological sites and remains whether these are considered in detail by the environmental assessment or not.

3. THE RECEIVING ENVIRONMENT

The proposed mining activities are to be carried out on portion of EPL7769 as indicated by a circular area (the Area of Interest/ AoI) marked on a map furnished by ECC (see Figure 1). The Aoi consists of deeply incised granites and metasedimentary terrain with valley fill deposits of Tertiary gravels and sand as well as some aeolian Kalahari sand cover. The eastern side of the AoI is characterized by typical Kalahari savanna vegetation while the western side is dominated by dwarf shrub savanna typical of dry montane conditions. The AoI is



bisected by the Krumneck River, a major tributary of the Oanob River, forming a deep ravine with a narrow margin of riparian vegetation.

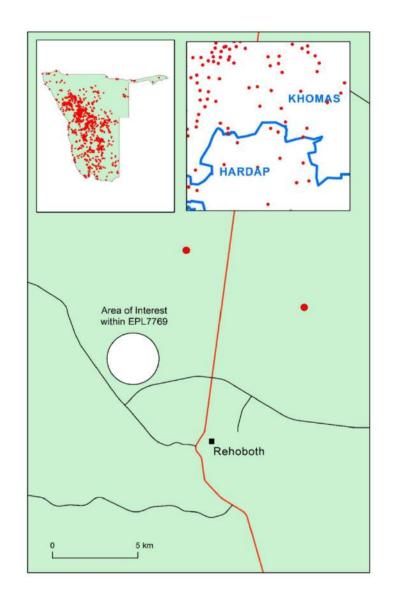


Figure 1: The EPL7769 Area of Interest, showing the known distribution of archaeological sites (red dots) in the adjacent area and regions.

Earlier surveys provide an indication of the archaeological importance of this general area, although the intensity of survey varies considerably and large parts of the area are archaeologically unknown, including that of the AoI itself. The general sequence and archaeological characteristics of the area under consideration, based on current knowledge, are as follows:

- a. Early to mid-Pleistocene (ca. 2my to 0.128my; OIS 6, 7, 19 &c): represented by surface scatters of stone tools and artefact debris, usually transported from original context by fluvial action, and seldom occurring in sealed stratigraphic context.
- b. Mid- to upper Pleistocene (ca. 0.128my to 0.040my; OIS 3, 4 & 5a-e): represented by dense surface scatters and rare occupation evidence in sealed stratigraphic context, with occasional associated evidence of food remains.
- c. Late Pleistocene to late Holocene (ca. 0.040my to recent; OIS 1 & 2): represented by increasingly dense and highly diverse evidence of settlement, subsistence practices and ritual art, as well as grave sites and other remains.
- d. **Historical (the last ca. 250 years):** represented by remains of crude buildings, livestock enclosures, wagon routes and watering points, as well as graves, comprising small cemeteries near farm settlements or isolated burial sites.

In summary, early to mid-Pleistocene sites are associated with pans, outwash gravels, drainage lines and river gravels. These sites are difficult to detect and because they are easily overlooked in the course of mining or construction work they are often damaged or destroyed in the process. Mid- to upper Pleistocene sites occur in similar contexts to the earlier material, but hill foot-slopes and outcrops of rock suitable for artefact production (e.g. chert, fine-grained quartzites) are also focal points. Late Pleistocene to late Holocene sites occur in almost every terrain setting, with the exception of very steep slopes and mountain tops. These sites often exhibit locally integrated distribution patterns which allow some reconstruction of land-use and subsistence. Major Holocene sites relating to the historical period relate mainly to farming settlement in the vicinity of Rehoboth and outlying villages.

3.2 Observations

A detailed foot survey of the area indicated in Figure 1 found no significant archaeological sites and the AoI is therefore considered to have a low archaeological sensitivity. Rocky ridges overlooking the Krumneck River were however found to have localized scatters of stone artefact production debris, mainly hydrothermal vein quartz. The scatters were dispersed and showed a very low artefact density (<1 object/m²), indicating either ephemeral occupation or post-occupation disturbance. Although the artefact scatters contained no typologically diagnostic pieces, the material can be attributed to Late Pleistocene to late Holocene (ca. 0.040my to recent; OIS 1 & 2) hunter-gatherer occupation. The rugged and rocky nature of the terrain probably excludes the likelihood of human burial sites although the possibility cannot be dismissed entirely.

4. CONCLUSIONS & RECOMMENDATIONS

On the basis of the field survey reported here the portion of EPL7769 forming the Area of Interest for a possible dimension stone mining operation is not considered to be archaeologically sensitive. No archaeological sites



requiring further investigation or mitigation were located in the course of the survey. It is however recommended that the proponent should adopt the Chance Finds Procedure in Appendix 1 as part of the project Environmental Management Plan.



Appendix 1: Chance Finds procedure

Areas of proposed development activity are subject to heritage survey and assessment at the planning stage. These surveys are based on surface indications alone, and it is therefore possible that sites or items of heritage significance will be found in the course of development work. The procedure set out here covers the reporting and management of such finds.

Scope: The "chance finds" procedure covers the actions to be taken from the discovery of a heritage site or item, to its investigation and assessment by a trained archaeologist or other appropriately qualified person.

Compliance: The "chance finds" procedure is intended to ensure compliance with 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 heritage remains reported to the NHC are correctly identified in the field.

Responsibility:

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

Procedure:

Action by person identifying archaeological or heritage material

- a) If operating machinery or equipment stop work
- b) Identify the site with flag tape
- c) Determine GPS position if possible
- d) Report findings to foreman

Action by foreman

- a) Report findings, site location and actions taken to superintendent
- b) Cease any works in immediate vicinity

Action by superintendent

- a) Visit site and determine whether work can proceed without damage to findings
- b) Determine and mark exclusion boundary
- c) Site location and details to be added to project GIS for field confirmation by archaeologist

Action by archaeologist

- a) Inspect site and confirm addition to project GIS
- b) Advise NHC and request written permission to remove findings from work area
- c) Recovery, packaging and labelling of findings for transfer to National Museum

In the event of discovering human remains

- a) Actions as above
- b) Field inspection by archaeologist to confirm that remains are human
- c) Advise and liaise with NHC and Police
- d) Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed.