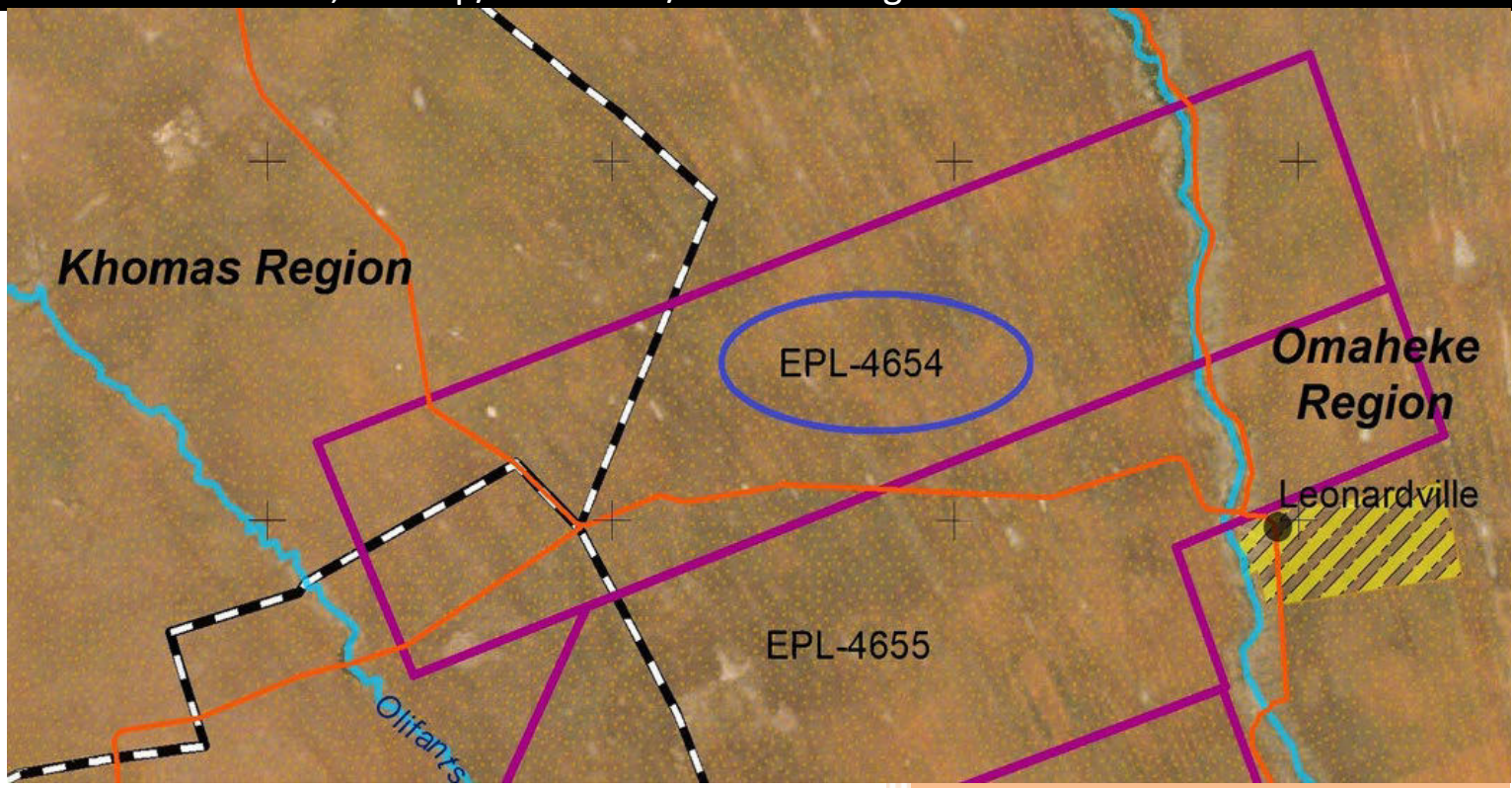
APP005825

2025

Updated Environmental Management Plan

Renewal of the Environmental Clearance Certificate for the Exploration Activities on Exclusive Prospecting Licence (EPL) No. 4654, in the Mariental/ Gobabis/ Windhoek Districts, Hardap/ Omaheke/ Khomas Regions



HEADSPRING INVESTMENTS
ROSATOM

ECT

Environmental Management Plan

RENEWAL OF THE ENVIRONMENTAL CLEARANCE CERTIFICATE FOR THE EXPLORATION ACTIVITIES ON EXCLUSIVE PROSPECTING LICENCE (EPL) NO. 4654, IN THE MARIENTAL/ GOBABIS/ WINDHOEK DISTRICTS, HARDAP/OMAHEKE/KHOMAS REGIONS

PROJECT DETAILS

PROPONENT

Headspring Investments (Pty) Ltd
P.O Box 318
Windhoek
Tel: +264 61 304 588 /+264 81 321 5002
Email: Aldo.Hengari@uranium1.com

R E P O R T D A T E:

29 April 2025

A U T H O R S:

Signature:

Colin P Namene
P.O. Box 24213
Windhoek
Tel: +264 81 458 4297
Fax: 061 – 258 470
Email: colin@environam.com

Signature:

Mize Shippiki
P.O. Box 24213
Windhoek
+264 81 240 5365
061 – 258 470
spike@environam.com

Table of Contents

List of Tables

ABBREVIATIONS

AIDS	Acquired Immuno-Deficiency Syndrome
EA	Environmental Assessment
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
GG	Government Gazette
GIS	Geographic Information System
GN	Government Notice
GPS	Global Positioning System
HIV	Human Immuno-deficiency Virus
I&APs	Interested and Affected Parties
NHC	National Heritage Council
PR	Proponent's Representative
Reg.	Regulation
S	Section
TB	Tuberculosis

1 INTRODUCTION

Headspring Investments (Pty) Ltd (HSI) being the Proponent is proposing to renew the ECC for EPL 4654 which is situated in the Mariental, Gobabis and Windhoek Districts, which are located in the Hardap, Omaheke and Khomas Regions (Eastern Namibia). Mineral rights for EPL No. 4654 are under Headspring Investments (Pty) Ltd. EPL 4654 covers a total area of 74355.5290 Ha and the Proponent is exploring for nuclear fuels. The Ministry of Mines and Energy granted the EPL on 13 May 2022 until 12 May 2024, the EPL has been renewed by the Ministry of Mines and Energy on 17 February 2025 until 16 February 2027.

In 2018, the proponent had appointed Risk Based Solution CC to undertake the Environmental Impact Assessment (EIA) in order to obtain an Environmental Clearance Certificate (ECC) for the exploration activities on the EPL, from the Office of the Environmental Commissioner in the Ministry of Environment, Forestry and Tourism (MEFT). The ECC was issued in 2019.

Environmental Compliance Consultancy CC were subsequently appointed by HSI to apply for the renewal of the above ECC upon expiry in 2022. This ECC is now up for renewal (2025) and the proponent has appointed Environam Consultants Trading (ECT) to apply for the renewal of the ECC.

ECT hereby acknowledges the work previously carried out by Risk Based Solution and Environmental Compliance Consultancy.

This Environmental Management Plan (EMP) has been developed to manage possible impacts associated with the exploration phase. The EMP has been developed in terms of the Environmental Management Act No 7 of 2007, EMA regulations of 2012 and other relevant legislations binding to Namibia. According to the Environmental Management Act of 2007 and its regulations of 2012, mineral exploration is an activity which cannot be undertaken without an ECC.

The EMP is a legally binding document in terms of the provisions of the Environmental Management Act of 2007. The Proponent and its contractors must therefore adhere to the contents of this document.

An EMP is one of the most important outputs of the EIA process as it synthesises all of the proposed mitigation and monitoring actions, set to a timeline and with specific assigned responsibilities. This EMP details the mitigation and monitoring actions to be implemented during the following phases of this development:

- Planning and Design – the period, prior to construction, during which preliminary legislative and administrative arrangements, necessary for the preparation of the land, are made and engineering designs are carried out. The preparation of construction tender documents forms part of this phase;

- Construction – the period during which the proponent, having dealt with the necessary legislative and administrative arrangements, appoints a contractor for the construction of services infrastructure, buildings as well as any other construction process(s) within the development areas;
- Operation and Maintenance – the period during which the development will be fully functional, operational and maintained.
- Decommissioning – the period at which activities on site have reached the end of economic viability and closure is imminent.

The EMP aims to take a pro-active route by addressing potential problems before they occur. The objectives of the EMP are therefore;

- To outline mitigation measures in order to manage environmental and socio-economic impacts associated with the exploration phase
- Provide a framework for implementing the management actions recommended in the EIA for exploration activities.
- To ensure that the project will comply with relevant environmental legislations of Namibia and other requirements throughout its activities.

2 PROJECT LOCATION

Exclusive Prospecting License (EPL) 4654 is co-located in the Hardap, Omaheke and Khomas regions. The license area spans a mix of privately owned commercial farmland and communal land in the Mariental, Gobabis and Windhoek Districts of Namibia. For precise geographic details, refer to Figure 1 (Location Map) and Table 1 (coordinates of EPL 4654).

Table 1: Shows coordinates for EPL 4654

EPL	Area (Hectares)	Coordinates				
		Middle	Corner 1	Corner 2	Corner 3	Corner 4
4654	74355.5290	23.426225°S 18.567774°E	23.451288°S 18.239891°E	23.252378°S 18.795244°E	23.386280°S 18.846151°E	23.596379°S 18.295278°E

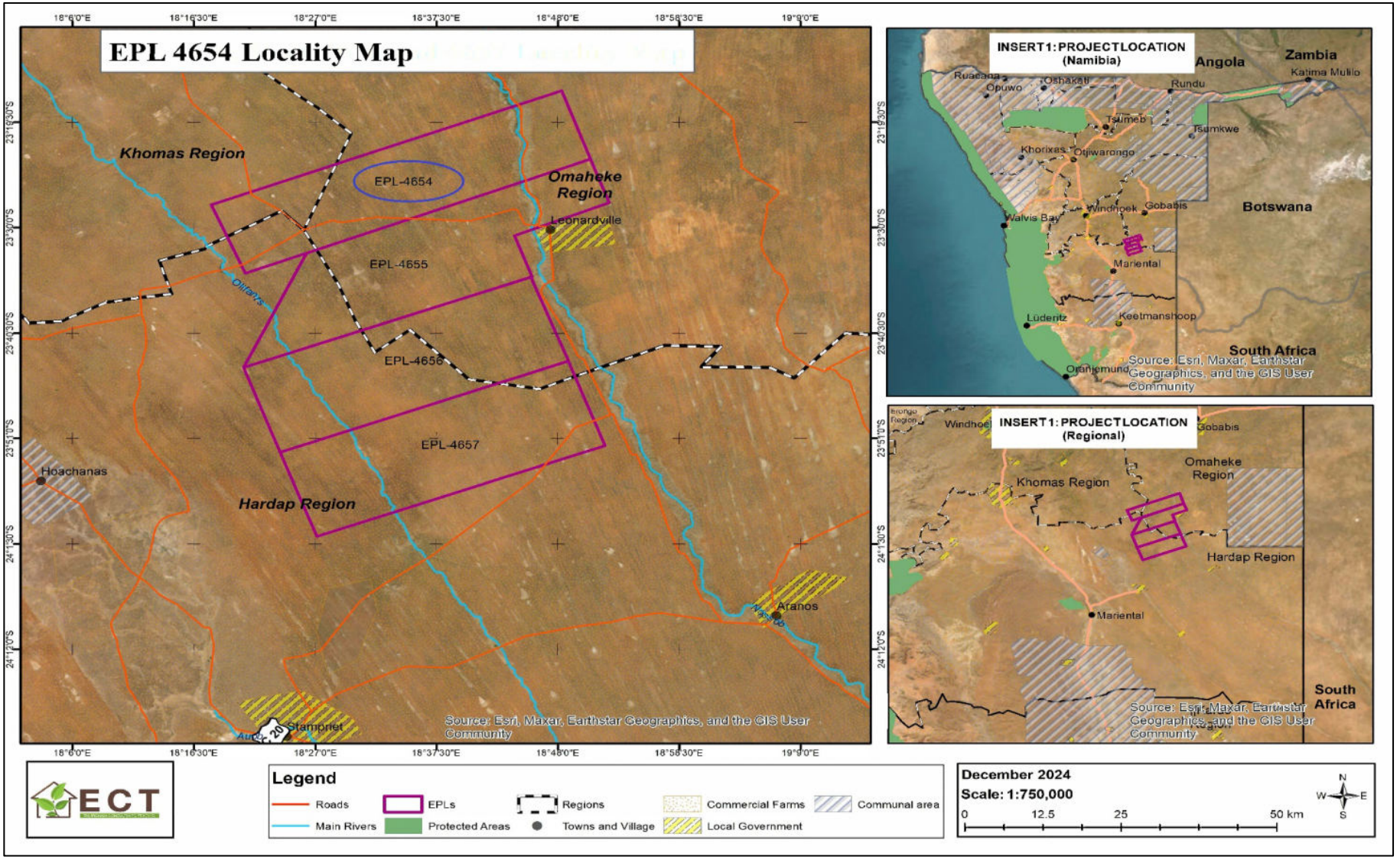


Figure 1: Locality Map of EPL4654

3 OPERATIONAL ACTIVITIES

Table 2 outlines exploration activities conducted between 2019 and 2021. During this period, the Proponent employed **exploration drilling**, a technique used to identify new mineral prospects. This process involved drilling beneath the surface to extract cylindrical **core samples** at specified depths. Core samples, obtained via **core drilling**, provide critical insights into subsurface geology and help assess the presence and quality of mineral resources. After extraction, these samples were transported to the surface for analysis.

To ensure environmental responsibility, the Proponent **rehabilitated each drilling site** prior to moving to the next location. This involved sealing exploration wells with concrete from top to bottom (see **Appendix B: Sealed Exploration Wells**). Post-drilling, core samples were stored in a dedicated facility (referenced in **Appendix B: Storage Facility**) before being sent for **geochemical sampling and analysis** to evaluate mineral composition. These samples will in future be analysed at the Field Mobile Physical and Chemical Laboratory on Farm Tripoli 546.

Concurrently, the Proponent conducted **hydrogeological investigations** by drilling groundwater monitoring wells. Water samples were collected from these wells and tested to establish baseline groundwater conditions, including the presence of **radionuclides** or contaminants. These benchmarks will inform future groundwater assessments throughout the project lifecycle.

Additionally, **geophysical well logging** was performed during the exploration phase. This method involved lowering specialized probes into boreholes to collect continuous or discrete measurements of subsurface properties. Data transmitted electronically to the surface (via analog or digital signals) provide insights into:

- Physical and chemical characteristics of surrounding rock formations,
- Fluid properties within pore spaces and the borehole,
- Well construction integrity.

These measurements are critical for interpreting subsurface conditions and guiding subsequent project phases.

No exploration activities were conducted since 2021 to date on this EPL. Subsequently, no further exploration and drilling activities could be conducted due to the withdrawal of the drilling permits in November 2021 (see Appendix C). When the ECC is renewed, pending drilling permits from the Ministry of Agriculture, Fisheries, Water and Land Reform, the

Proponent plans to carry exploration activities which include; exploration drilling, hydrogeological drilling, core sampling, geophysical well logging and testing of hydrogeological wells for radionuclides.

Table 2: Operational activities

2019	2020	2021	2022 to 2025
▪ Exploration drilling ▪ Geophysical well logging ▪ Core sampling	▪ Exploration drilling ▪ Geophysical well logging ▪ Core sampling ▪ Hydrogeological drilling ▪ Water Analysis	▪ Exploration drilling ▪ Geophysical well logging ▪ Core sampling ▪ Hydrogeological drilling ▪ Water Analysis	▪ No exploration and drilling activities conducted, due to the withdrawal of the drilling permits in November 2021 (see Appendix C)

Table 3: Exploration boreholes drilled in 2019

License	HOLE ID	DEPTH	EAST_TRL	NORTH_TRL	RL_TRL	YEAR
EPL 4654	5-01	142.10	275349.8460	7410943.1950	1288.0980	2019
EPL 4654	5-02	232.00	274229.6300	7413955.2480	1289.8830	2019
EPL 4654	5-03	151.30	273950.5260	7414599.7690	1290.4290	2019
EPL 4654	5-04	150.80	272035.9590	7419967.3410	1288.6360	2019
EPL 4654	5-05	140.80	272955.7350	7417424.0060	1289.6400	2019

Table 4: Exploration and Hydrogeological/Monitoring boreholes drilled in 2020

License	HOLE ID	DEPTH	EAST_TRL	NORTH_TRL	RL_TRL	YEAR
EPL 4654	5-02bis	120.00	274095.0470	7414281.2720	1290.2670	2020
EPL 4654	5-06	179.63	271437.8330	7421449.4620	1294.4110	2020
EPL 4654	5-09	164.58	271525.7390	7421267.7140	1292.2020	2020

Table 5: Exploration and Hydrogeological/Monitoring boreholes in 2021

License	HOLE ID	DEPTH	EAST_TRL	NORTH_TRL	RL_TRL	YEAR
EPL 4654	5-16-1	151.90	276019.8340	7413599.5100	1296.6570	2021
EPL 4654	5-24-1	166.80	276770.4020	7413873.9580	1296.6440	2021
EPL 4654	218-01	162.00	268338.6430	7414177.5150	1280.2170	2021
EPL 4654	218-02	158.64	266833.0220	7413627.0170	1286.7080	2021
EPL 4654	218-03	149.64	269089.8440	7414454.0480	1278.2330	2021
EPL 4654	232-01	254.49	255040.9710	7412688.8920	1300.1270	2021
EPL 4654	232-02	275.40	259546.3380	7414350.3020	1299.9050	2021
EPL 4654	232-03	170.64	267230.9390	7417177.4180	1288.0000	2021
EPL 4654	232-04	170.72	266484.5880	7416908.9410	1282.2330	2021

4 APPLICABLE LEGISLATION

Legal provisions that have relevance to various aspects of this development are listed in **Table 6** below. The legal instrument and applicable corresponding provisions are provided.

Table 6: Legal provisions relevant to this development

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
The Constitution of the Republic of Namibia as Amended	Article 91 (c) provides for duty to guard against "the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia." Article 95(l) deals with the "maintenance of ecosystems, essential ecological processes and biological diversity" and sustainable use of the country's natural resources.	Sustainable development should be at the forefront of this development.
Environmental Management Act No. 7 of 2007 (EMA)	Section 2 outlines the objective of the Act and the means to achieve that. Section 3 details the principle of Environmental Management	The development should be informed by the EMA.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
EIA Regulations GN 28, 29, and 30 of EMA (2012)	GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.	**Activity 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. **Activity 3.2** Other forms of mining or extraction of any natural resources whether regulated by law or not. **Activity 3.3** Resource extraction, manipulation, conservation and related activities.
Convention on Biological Diversity (1992)	Article 1 lists the conservation of biological diversity amongst the objectives of the convention.	The project should consider the impact it will have on the biodiversity of the area.
Draft Procedures and Guidelines for conducting EIAs and compiling EMPs (2008)	Part 1, Stage 8 of the guidelines states that if a proposal is likely to affect people, certain guidelines should be considered by the proponent in the scoping process.	The EA process should incorporate the aspects outlined in the guidelines.
Namibia Vision 2030	Vision 2030 states that the solitude, silence and natural beauty that many areas in Namibia provide are becoming sought after commodities and must be regarded as valuable natural assets.	Care should be taken that the development does not lead to the degradation of the natural beauty of the area.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Water Resources Management Act 11 of 2013	To provide for the management, protection, development, use and conservation of water resources.	The pollution of water resources should be avoided during the operation of the development.
The Ministry of Environment, Forestry and Tourism (MEFT) Policy on HIV & AIDS	MEFT has developed a policy on HIV and AIDS. In addition, it has also initiated a programme aimed at mainstreaming HIV and gender issues into environmental impact assessments.	The proponent and its contractor have to adhere to the guidelines provided to manage the aspects of HIV/AIDS. Experience with construction projects has shown that a significant risk is created when construction workers interact with local communities.
Minerals (Prospecting and Mining) Act 33 of 1992	This Act deals with the granting of access to mineral resources.	Compliance to this instrument is critical.
Labour Act no 11 of 2007	Chapter 2 details the fundamental rights and protections. Chapter 3 deals with the basic conditions of employment.	Given the employment opportunities presented by the development, compliance with the labour law is essential.
Public and Environmental Act of 2015	Section 3 prohibits persons from causing nuisance.	Owner, contractors and employees have to comply with these legal requirements.
Nature Conservation Ordinance no 4 of 1975	Chapter 6 provides for legislation regarding the protection of indigenous plants	Indigenous and protected plants have to be managed within the legal confines.
Atmospheric Pollution Prevention Ordinance (No. 11 of 1976).	The Ordinance objective is to provide for the prevention of the pollution of the atmosphere, and for matters incidental thereto.	All activities on the site will have to take due consideration of the provisions of this legislation.

LEGISLATION/POLICIES	RELEVANT PROVISIONS	RELEVANCE TO PROJECT
Hazardous Substance Ordinance, No. 14 of 1974	The ordinance provides for the control of substances which may cause injury or ill-health or death of human beings because of their toxic, corrosive, irritant, strongly sensitizing or flammable nature.	The waste generated on site and at the campsite should be suitably categorized / classified and disposed of properly and in accordance with the measures outlined in the Ordinance and Bill.
Roads Ordinance 17 of 1972	This Ordinance consolidates the laws relating to roads.	The provisions of this legislation have to be taken into consideration in as far as access to the development site is concerned.
Roads Authority Act, 1999	Section 16(5) of this Act places a duty on the Roads Authority to ensure a safe road system.	Some functions of the Roads Ordinance 17 of 1972 have been assigned to the Roads Authority.
Petroleum Products and Energy Act of 1990	This Act regulates the on-site storage of fuel amongst others	The storage of fuel for the use of machinery should adhere to the relevant legislation.
Heritage Act, 2004 (Act No. 27 of 2004)	The Heritage Act of 2004 makes provision for the developer to identify and assess any archaeological and historical sites of significance. The existence of any such sites should be reported to the Monuments Council as soon as possible. The Council may serve notice that prohibits any activities as prescribed within a specified distance of an identified heritage/archaeology site.	In an event that the Proponent comes across any archaeological or historical sites of significance, they should report immediately to the Monuments Council.

5 ROLES AND RESPONSIBILITIES

This Environmental Management Plan (EMP) shall clearly state the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. The Proponent shall appoint an overall responsible person (Environmental Control Officer) to ensure the

successful implementation of the EMP. The Environmental Control Officer needs to have qualifications and knowledge in environmental management implementation.

5.1 Competent Authority

The competent authority will be, the Department of Environmental Affairs: Ministry of Environment Forestry and Tourism. They will be responsible for the review and approval of the updated EMP.

5.2 Proponent

The Proponent (Headspring Investments (Pty) Ltd), has the overall responsibility for all financial and work force provisions, which will facilitate the implementation of this EMP. The Proponent is responsible for the appointment of other personnel responsible for the implementation of this EMP.

The Proponent is ultimately responsible for the implementation of the EMP, from the planning and design phase to the decommissioning phase of this development, if the development is in future decommissioned. The Proponent will delegate this responsibility as the project progresses through its life cycle.

5.3 Exploration Manager

The Exploration Manager is required to carry out the overall responsibility for the implementation of the EMP and to ensure that all required resources and mechanisms for environmental management are in place. The responsibilities of the Exploration Manager will be:

- Ensure that the Proponent's responsibilities are executed in compliance with the relevant legislation;
- Ensure that all the necessary environmental authorizations and permits have been obtained;
- Assist the exploration contractor/s in finding environmentally responsible solutions to challenges that may arise;
- Should the EM be of the opinion that a serious threat to, or impact on the environment may be caused by the exploration activities, he/she may stop work; the proponent must be informed of the reasons for the stoppage as soon as possible;
- The EM has the authority to issue fines for transgressions of basic conduct rules and/or contravention of the EMP;
- Should the Contractor fail to show adequate consideration for the environmental

aspects related to the EMP, the EM can have person(s) and/or equipment removed from the site or work suspended until the matter is remedied.

5.4 Health Safety and Environmental Officer (HSEO)

The HSEO is overall responsible of all environmental issues and safety of employees. The Proponent is to appoint a Health, Safety and Environment Officer (HSEO) with the following responsibilities with respect to the EMP implementation:

- Responsible of all environmental issues and safety of employees;
- Assist the EM in ensuring that the necessary environmental authorizations and permits have been obtained;
- Assist the EM and Contractor/s in finding environmentally responsible solutions to challenges that may arise;
- Carry out regular site inspections of all exploration areas with regards to compliance with the EMP; report any non-compliance(s) to the EM as soon as possible;
- Organize for an independent internal audit on the implementation of and compliance to the EMP to be carried out half way through each field-based exploration activity; audit reports to be submitted to the EM;
- Continuously review the EMP and recommend additions and/or changes to the EMP document;
- Monitor the Contractor's environmental awareness training for all new personnel coming on site; Keep records of all activities related to environmental control and monitoring; the latter to include a photographic record of the exploration activities, rehabilitation process and a register of all major incidents;
- Attend regular site meetings;
- The HSEO should record and report all incidents on site.

5.5 Environmental Control Officer (ECO)

Required to take independent responsibility of the implementation of this EMP. ECO is contracted to conduct periodic auditing of the sites, compilation of bi-annual and annual reports to be submitted to MEFT: DEA for renewal of the environmental clearance certificate.

5.6 Contractors and Subcontractors

All contractors, subcontractors and service providers are ultimately responsible for:

- Complying with the relevant legislation and EMP provisions;
- Provide Environmental; Method Statements to the Exploration Manager with regards to how certain activities on-site will be conducted;

- Adhering to environmental instructions issued by the EM;
- Arrange that all the contractor's employees receive training. Trainings have to be appropriate for the level of the tasks and functions undertaken.

The Environmental Method Statement referred to above will cover applicable details with regard to:

- Equipment to be used;
- Getting the equipment to and from site;
- How the equipment will be moved while on-site;
- How and where material will be stored;
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
- Identified potential impacts of the activity and mitigation measures thereof;
- Compliance/non-compliance with the Environmental Specifications; and
- Any other information deemed necessary by the EM.

5.7 Employees

Required to follow instructions as directed by the EM. Report any potential environmental issues to the EM, HSEO or supervisor at site.

6 MANAGEMENT ACTIONS

The following tables form the core of this EMP for the exploration phase. The Proponent should continue to implement the proposed mitigation measures during the exploration phase. If the need arises, the Proponent can add additional measures to the EMP as the aim is to protect the environment. The below information shown in the tables, should be used as a checklist for environmental monitoring and auditing on site.

6.1 Management of Negative Impacts Associated with Exploration Phase:

6.1.1 Impact on landscape

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Landscape	The scenery view of the site might be affected by clearing vegetation to pave way for the following activities: - Establishment of exploration camps - Exploration drilling - Hydrogeological drilling - Clearing for access roads	▪ Removed rocks and soil should be replaced back and levelling of the area done so as to try to restore the area to its natural state. ▪ Do not cut down vegetation unnecessary around the site. ▪ Maximise on using existing roads and minimise on creating new access roads, no off-road that could result in land scarring is allowed. ▪ Minimise the presence of secondary structures: remove inoperative support structures. ▪ Remove all infrastructure and reclaim, or rehabilitate the project site after exploration activities are completed.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & Subcontractors ▪ Appointed Environmental Control Officer

6.1.2 Impact on fauna

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Fauna	Noise generated from the following exploration activities might disturb animals: - Drilling activities - Movement of vehicles - Walking and talking In addition, wild animals might also be at risk if exploration personnel practice poaching or smoking at the site. Smoking might result in fires.	▪ Poaching of wildlife and indiscriminate killing of perceived dangerous species (e.g., snakes, etc.) shall not be allowed. ▪ A drilling interval should be established, used and adhered to. ▪ Working hours should be limited to minimum of 8 hours per day. ▪ Noise should be addressed and mitigated at an early stage. ▪ Proper and timely maintenance of machineries and vehicles to prevent noise. ▪ Avoid driving randomly rather stick to permanently placed roads/tracks. This would minimise the effect on localised potentially sensitive habitats in the area. ▪ Stick to speed limits of maximum 30km/h as this would result in fewer faunal road mortalities. ▪ Avoid disturbance of habitat areas such as big trees, boulders, rocky outcrops as these areas serve as habitat for a myriad of fauna. ▪ Prevent and discourage fires as this results in loss of grazing & fauna mortalities. ▪ No foodstuff should be left lying around as this will attract animals which might result in human-animal conflict.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractors ▪ Environmental Control Officer

6.1.3 Vegetation Loss

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Vegetation Loss	Clearing of vegetation will be done to pave way for the following activities: - Exploration drilling - Hydrogeological drilling - Exploration camps - Access roads However, no massive clearing shall be done. Existing roads shall be used and new roads shall only be created when there is need. In cases that vegetation is removed this will cause habitat destruction for both ground dwelling species and tree dwelling species. The ecosystem food chain on and around the area will also be broken. The Proponent should continue to safeguard the flora of the area so as to prevent habitat destruction for both ground and tree habitants.	▪ Protected plant species shall not be removed ▪ Massive clearing shall not be allowed. ▪ All the major trees will be preserved and the activities will fit into the environment without affecting the trees. ▪ Exploration personnel shall not be allowed to cut trees for firewood. ▪ Environmental considerations will be adhered to at all times before clearing roads, drilling and establishing exploration camps. ▪ Prevent and discourage fires as this affect the grazing land and also the flora.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor ▪ Environmental Control Officer

6.1.4 Impact of waste

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Impact of waste	Waste generated might either be general or hazardous waste. General waste includes papers, food leftovers etc while hazardous waste includes oil leaks and spills.	▪ Burial of waste within the EPL area shall not be allowed, all generated waste must be disposed at an approved municipal waste disposal site. ▪ Strictly, no burning of waste on the site shall be allowed as it possess environmental and public health impacts. ▪ Minimize solid waste generated on site (reduce, reuse, or recycle). ▪ Excavation waste should be re-used or backfilled. ▪ Portable toilets and ablution facilities must be provided on site and should not be located close to Ephemeral Rivers or visible discontinuities (fractures, joints or faults). ▪ Provide waste disposal bins and never dispose of hazardous waste in the bins intended for general waste. ▪ No littering shall be allowed. ▪ **Hazardous Waste** ▪ Machinery should be well maintained to prevent oil leaks. ▪ Contractor should only be allowed to store oil/fuel.	Explorati on Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

		on site provided the site store has containment to prevent oil/fuel permeating into the soil in cases of spillages. ▪ Contaminated wastes in the form of soil, litter and other material must be disposed off at an appropriate disposal site. ▪ Servicing of machinery or vehicles on site shall not be allowed. ▪ Use drip trays to capture oil drips and spills from machinery or vehicles.		

6.1.5 Impact on surface and groundwater

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Surface and groundwater	Within the EPL there is a pan. Possible sources which might cause pollution include; oil and fuel leakages from vehicles and drilling machines thus if spillages happen in large volumes or frequently. Drilling activities might interact with the water table hence the need for hydrogeological wells to monitor for any contamination.	▪ Installation of hydrogeological wells to monitor groundwater. ▪ Conduct water sampling tests to use as a benchmark. ▪ Water sampling tests to be conducted after all activities interacting with underground or surface water sources. For transparency seek, affected landowners / farmers must be given full access to the water test results. ▪ Drill water source should be from either, treated water from a mains supply, clean/treated surface waters or groundwater of a satisfactory quality. ▪ Use appropriate additives in broken or fractured bedrock to prevent ingress into the aquifer. ▪ Ensure additives are non-hazardous, non – toxic and biodegradable. ▪ Proper storage of fuel. ▪ Proper disposal of contaminated waste. ▪ Use of drip trays.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.1.6 Air quality

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
Air quality	Sources of air quality pollution will be; - Dust from vehicles and drilling machinery. - Emissions from vehicles and drill rigs. People at risk are likely to be exploration personnel working on the immediate surrounding. Accumulation of dust might lead to respiratory problems.	▪ Soil watering when soil works are being executed and where dust is emitted ▪ Control speed and operation of exploration vehicles. ▪ Prohibit idling of vehicles. ▪ Workers should be provided with dust masks if working in sensitive areas. ▪ Regular monitoring to ensure safe operation.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.1.7 Impact on soil

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Soil	Soil will be disturbed during drilling and also it might be affected by oil or fuel leakages from machines and vehicles. However, comparing with trenching, drilling does not cause significate impact on the soil.	▪ After completion of exploration activities removed soil layers must be replaced and levelling must be done so that the original condition is restored. ▪ Proper care should be taken so that there is no spill that would cause soil contamination. ▪ If any hazardous waste is produced it should be properly handled and sent for disposal to appropriate disposal areas.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.1.8 Noise

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
Noise	Noise might be generated from: - Drilling activities - Frequent movement of vehicles The Proponent should continue to safeguard against noise as excessive noise can affect exploration personnel and animals. High noise levels can inhibit worker communication; reduce productivity and increase the chances of accidents. Prolonged exposure to excessive noise can result in permanent hearing loss and health problems such as sleep disturbance. However, farm owners are unlikely to be affected given that the exploration activities are conducted far from the farm houses.	▪ A drilling interval will be established, used and adhered to. ▪ Working hours should be limited to minimum of 8 hours per day. ▪ Noise should be addressed and mitigated at an early stage. ▪ Proper and timely maintenance of machineries and vehicles. ▪ Employees to be equipped with ear protection equipment. ▪ Limit vehicle movements and adhere to speed limits. ▪ National or international acoustic design standards must be followed.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.2 Management Of Socio-Economic Impacts Associated with Exploration Phase

6.2.1 Occupational Health and Safety

Impact	Description	Mitigation Measures	Project Phase	Responsibility
OHS	Noise, dust, occupational stress, working in hot environments, bushfires, ionising radiation and remoteness of exploration area are some of the occupational hazards associated with the exploration phase. To note, currently the exploration personnel are mainly exposed to natural radiation of the area. However, precautions are being taken for personnel working with Core samples. The personnel carry radiometers to measure the intensity of the natural radiation levels so as to determine whether it is safe to work within the area.	▪ Conduct Hazard identification and risk assessments ▪ Comply with all Health and Safety standards specified in the Labour Act. ▪ Provide all staff on site with relevant and adequate protective clothing and equipment (helmets, gloves, respirators, work suits, earplugs, goggles and safety shoes where applicable). ▪ Use of dust suppression measures. ▪ Reduce noise exposure by isolating noisy equipment and rotate tasks. ▪ Provision of First Aid at the site ▪ Provisions of immediate accident/incident reporting and investigation. ▪ Safety Posters and slogans should be exhibited at conspicuous places. ▪ Employer should allocate time for employees to visit their families. ▪ No person under the influence of alcohol or drugs is allowed to work on site. ▪ Train workers on personal safety and disaster preparedness. ▪ Continuous and vigilant monitoring of the radiation levels.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.2.2 Damage to roads

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Damage to roads	Frequent movement of vehicles and machinery have the possibility of degrading the existing roads.	▪ Do not drive randomly throughout the area ▪ Where access roads have to be established, the routes should be selected causing minimal damage to the environment – e.g. use the same tracks; cross drainage lines at right angles; avoid placing tracks within drainage lines; avoid collateral damage (i.e. select routes that do not require the unnecessary removal of trees/shrubs, especially protected species). ▪ No drilling equipment allowed on farms during the rainy season. ▪ Leave vehicles on tracks and walk to point of interest, when possible. ▪ Rehabilitate new tracks created.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.2.3 Impacts associated with camping of exploration staff

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Impacts associated with camping of exploration staff	Establishment of camps and associated camping results in effects such as clearing of vegetation and in some cases poor housekeeping and fires.	▪ Select camp sites and other temporary lay over sites with care – i.e. avoid important habitats (e.g. raptor breeding sites). ▪ No visitors allowed ▪ Ablution facilities to be provided in the form of portable toilets. ▪ Good housekeeping. ▪ No poaching or collecting of unique plants (e.g., various Aloe and Lithop). ▪ Smoking and drinking alcohol shall not be allowed on sit. ▪ Remove and relocate slow moving vertebrate fauna to suitable habitat elsewhere on property ▪ Avoid the removal and/or damaging of protected flora and big trees. ▪ Ensure that adequate firefighting equipment is available at camp sites and clear kitchen areas to avoid accidental fires. ▪ Exploration personnel should aim to protect the environment.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor ▪ Environmental Control Officer

6.2.4 Heritage impact

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Heritage impact	At the site, there are no known heritage areas or artefacts deemed to be impacted by the exploration activities.	▪ All works are to be immediately ceased should an archaeological or heritage resource be discovered. ▪ The National Heritage Council of Namibia (NHCN) should advise with regards to the removal, packaging and transfer of the potential resource.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO

6.2.5 Risk and spread of HIV/AIDS

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
HIV/AIDS	Even though a few people are employed at this stage (exploration), the disease might still spread hence the need for continuous sensitisation.	▪ Employer should allocate time for employees to visit their families. ▪ Free distribution of condoms.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor

6.2.6 Population Influx

Impacts	Description	Mitigation Measures	Project Phase	Responsibility
Population Influx	Headspring Investments (Pty) Ltd has its exploration personnel and it also contracts local companies for drilling and other activities associated with exploration. This has an effect of increasing the number of people in the area. Security might also be compromised given that new people from different areas will come either in search of work or offering different services.	▪ Local employment should be a priority so as to reduce the number of outsiders. ▪ Contractors should submit a code of conduct and disciplinary actions should be in accordance with Namibian legislation. ▪ An access agreement to be signed prior to exploration. ▪ No gates to be left open or fences damaged ▪ An identification document with all exploration staff to be supplied to farm owners prior to exploration. ▪ All staff to carry identification badges.	Exploration Phase	▪ Proponent ▪ Exploration Manager ▪ HSEO ▪ Contractor & subcontractor

6.3 Positive Impacts Associated with the Project

6.3.1 Employment creation

Impact	Description	Enhancement Required	Project Phase	Responsibility
Employment creation	Currently the Proponent employed the exploration personnel which include; the exploration manager, mine manger, geologist etc. The Proponent also contracted local companies to carry out drilling activities. In addition, locals are also benefiting as they are being employed on non- skilled jobs. The Proponent is also currently renting accommodation for its employees hence indirectly creating employment for locals in this remote area. Even though a few people are currently employed during the exploration phase, if medium to minable deposits are found and mining activities start, many people will be employed. This project therefore is definitely going to be beneficial in future.	▪ Employ locals in all casual labour and ensure gender equality. ▪ Equity, transparency, to be put into account when hiring and recruiting.	Exploration Phase	▪ Proponent

6.3.2 Social responsibility

Impact	Description	Enhancement Required	Project Phase	Responsibility
Social responsibility	Headspring Investments (Pty) Ltd participates in community development programmes.	▪ Continue promoting community development programmes.	Exploration Phase	▪ Proponent

6.3.3 Generation of Revenue

Impact	Description	Enhancement Required	Project Phase	Responsibility
Generation of Revenue	Headspring Investments (Pty) Ltd pays tax hence generating revenue.	▪ The Proponent, Contractors and subcontractors to pay taxes as stipulated by the law of Namibia.	Exploration Phase	▪ Proponent ▪ Contractor & subcontractor

6.3 Management of Impacts at Post-Exploration Phase

Impact	Description	Mitigation Measures	Project Phase	Responsibility
Post-exploration stage	The stage of exploration is expected to have minimum damage to the environment as compared to mining. However, the major issue which need to be looked after the phase of exploration is how the project has impacted the environment. To note, current measure already in place include backfilling and sealing the exploration wells thus after exploration of the site. The exploration team will only move to the next site after rehabilitating the area they have been working on. A general consensus is made between the landowner and Proponent if the land has been rehabilitated well.	▪ All holes or pits shall be backfilled or contoured to a stable angle of repose. ▪ Remove all exploration temporary structures on site and ensure the area is left clean. ▪ Water sampling results for the exploration phase should be available and an analysis should be done to check if groundwater was impacted. ▪ Rehabilitate any area disturbed by the exploration activities.	Post-exploration Phase	▪ Proponent

7 ENVIRONMENTAL MONITORING

A monitoring programme will be in place to ensure conformance with the EMP. The Environmental Control Officer will ensure compliance with the EMP, and carry out monitoring/auditing activities. The Environmental Control Officer must have the appropriate experience and qualifications to undertake the necessary tasks. The Environmental Control Officer will report to the Proponent should any non-compliance be evident or corrective action necessary. The Proponent may opt to engage the services of an independent Environmental Consultant to undertake the monitoring and auditing activities. The suggested monitoring details are outlined in Table 7 below.

Table 7: Monitoring activities

IMPACTS	RECEPTORS	TYPE OF MONITORING	PERIOD/TIME
Alternation of existing landscape	Environment	▪ Inspections	▪ During and after drilling
Dust	Employees	▪ Regular site inspections	▪ Daily
Impact on fauna	Environment	▪ Inspections	▪ Period of drilling
Surface & groundwater Pollution	Environment	▪ Hydrogeological tests	▪ During and after activities that interact with underground and surface water bodies
Noise	Employees & Fauna	▪ Noise monitoring	▪ Daily
Vegetation loss	Environment	▪ Inspection of protected plant species and big trees and incorporate them into the development	▪ Period of establishing exploration camps ▪ Period of drilling ▪ Period of creating access roads.
Heritage	Land	▪ Inspection	▪ Period of exploration
O.H. S	Employees	▪ Site inspection ▪ Conducting Hazard and Risk Assessments	▪ Daily
Impact on soil	Environment.	▪ Site inspections	▪ Period of exploration
Generation of waste (solid)	Land	▪ Site inspection on housekeeping ▪ Regular collection of waste	▪ Daily ▪ Weekly
HIV/AIDS	Employees	▪ Free testing	▪ Annually

8 CONCLUSION

It is recommended that the application for renewing the Environmental Clearance Certificate (ECC) for EPL 4654 be approved, conditional upon rigorous implementation of the Environmental Management Plan (EMP). Adherence to the EMP will mitigate potential environmental impacts and ensure compliance with regulatory standards. The applicant bears responsibility for ensuring the EMP is contractually binding for all contractors involved and for enforcing its provisions as a mandatory on-site reference. Any party found in violation of the EMP must bear responsibility for necessary rehabilitation measures, including costs and corrective actions.

8.1 RECOMMENDATIONS

The following recommendations have been brought forward:

- Environmental monitoring by an independent environmental consultancy must be carried out during the exploration phase to monitor environmental compliance.
- Bi- annual and annual reports should be written and submitted to MEFT.
- These monitoring reports should accompany the application for renewal of the environmental clearance certificate after 3 years

9 REFERENCES

1. Constitution of the Republic of Namibia Act No 1 of 1990, Namibia: [Online] Available from: https://nan.gov.na/acts
2. Environmental Compliance Consultancy, 2022. Environmental Compliance Report for Ongoing Exploration / Prospecting under the Exclusive Prospecting License (EPL) No. 4654 Windhoek/Gobabis/Mariental Districts, Khomas/Omaheke/Hardap Regions Namibia.
3. Environmental Impact Assessment Regulations Act of 2012, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
4. Environmental Management Act of 2007, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
5. Hazardous Substance Ordinance No. 14 of 1974, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
6. Heritage Act No 27 of 2004, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
7. Labour Act No 11 of 2007, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
8. Mendelsohn. J,Jarvis. A, Roberts.C, Robertson. T (2003). Atlas of Namibia. Cape Town South Africa: David Philip publishers
9. Minerals (Prospecting and Mining) Act No 33 1 of 1992, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
10. Nature Conservation Ordinance No. 4 of 1975, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
11. Peters, R. J. (2013). *Acoustics and noise control*. Routledge.
12. Public Health and Environmental Act 2015, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
13. Soil Conservation Act 6 of 1969, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
14. Water Act 54 of 1956, Namibia: [Online] Available from: http://www.lac.org.na/index.php/laws/statutes/
15. Water Resources Management Act 11 of 2013, Namibia: [Enacted on 29 August 2023] Available from: http://www.lac.org.na/index.php/laws/statutes/

Appendix A – Old ECC

ECC – 02208 Serial: jaqoub2208

REPUBLIC OF NAMIBIA
MINISTRY OF AGRICULTURE, WATER AND LAND REFORM
09 SEP 2022
Private Bag 13184, Windhoek
Directorate of Water Resource Management

REPUBLIC OF NAMIBIA

MINISTRY OF ENVIRONMENT, FORESTRY AND TOURISM

OFFICE OF THE ENVIRONMENTAL COMMISSIONER

ENVIRONMENTAL CLEARANCE CERTIFICATE

ISSUED

In accordance with Section 37(2) of the Environmental Management Act (Act No. 7 of 2007)

TO

Headspring Investments (Pty) Ltd
P. O. Box 318, Windhoek

TO UNDERTAKE THE FOLLOWING LISTED ACTIVITY

The Exploration Activities on Exclusive Prospecting Licenses (EPL) No. 4654, in the Windhoek/Gobabis/Mariental Districts, Khomas/Omaheke/Hardap Regions, Namibia.

ENVIRONMENTAL COMMISSIONER

Issued on the date: 2022-07-01
Expires on this date: 2025-07-01

(See conditions printed over leaf)

Reuse Recycle NAMIBIA TRASH BIN

This certificate is printed without erasures or alterations

ECC –

CONDITIONS OF APPROVAL

1. This environmental clearance is valid for a period of 3 (three) years, from the date of issue unless withdrawn by this office
2. This certificate does not in any way hold the Ministry of Environment, Forestry and Tourism accountable for misleading information, nor any adverse effects that may arise from these activities. Instead, full accountability rests with the proponent and its consultants
3. This Ministry reserves the right to attach further legislative and regulatory conditions during the operational phase of the project
4. -
5. All applicable and required permits are obtained and mitigation measures stipulated in the EMP are applied particularly with respect to management of ecological impacts.
6. Strict compliance with national heritage guidelines and regulations is expected throughout the life-span of the proposed activity, therefore any new archaeological finds must be reported to the National Heritage Council for appropriate handling of such.

Appendix B – Site Images

Site image: Typical vegetation around the EPL area

Site image: Core sample storage facility

Site image: Typical exploration well

Site image: Typical monitoring well

Appendix C – Supporting Documents

REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND LAND REFORM

Telephone: (061) 2087228
Fax: (061) 208 7697
Enquiries: J N Mouton
Reference: PL General/PR General

Department of Water Affairs
Private Bag 13193
WINDHOEK
Namibia

The Senior Administrator
Mr Aldo Hengari
Headspring Investments (Pty) Ltd
P O Box 318
WINDHOEK

Dear Sir

NON-COMPLIANCE WITH PERMIT CONDITIONS: PERMIT NO. 11561 ISSUED FOR THE DRILLING OF NINETEEN BOREHOLES FOR EXPLORATION PURPOSES AND PERMIT NO. 11562 ISSUED FOR THE DRILLING OF EIGHTEEN BOREHOLES FOR HYDRO-GEOLOGICAL PURPOSES.

1. Permits 11561 and 11562 were issued to Headspring Investments (Pty) Ltd on 30 March 2021, exploration and hydro-geological purposes, respectively.

2. The Ministry of Agriculture, Water and Land Reform carried out a site visit on October 2021 and is extremely concerned about Headspring Investments (Pty) Ltd's non-compliance with permit conditions 8 and 9 of Permit No. 11561, and 9 and 10 of Permit No. 11562 among others.

3. Specifically, the following gross violations were observed:

   3.1 The boreholes to be drilled for hydro-geological study purposes have actually been drilled in a specific pattern mimicking that of an in-situe leaching technique proposed in a Background Information Document prepared by the Consultant hired to carry out the EIA process for that.

   3.2 The exploration boreholes are **not being drilled** as per the permit conditions, where drilling activities require that the Kalahari aquifer be cased off and grouted before drilling into the Auob aquifer.

   3.3 Some of the exploration boreholes are left open for long periods of time, allowing the mixing to last even longer, forming pathways for the contaminants to enter the subsurface and unsealed boreholes are potential lock falls for livestock or wildlife.

All official correspondence must be addressed to the Executive Director

3.4 For the hydro-geological study boreholes, a plain steel casing is installed to the depth of 60m, way above the Rietmond Layer (blue shale). The Kalahari aquifer was struck below the 70m in almost all the boreholes, while the Auob aquifer below 100m. The cementing is done only later after PVC casing installation and gravel packing.

4. Additionally,

4.1 You have not made the permit conditions available to the drilling contractors, hence the driller, almost if not all of whom where drilling in the area for the first time, and not registered with this Ministry, were not aware of the special drilling specifications for the Stampriet Artesian aquifer system.

4.2 At least 70 more boreholes have been drilled for exploration purposes without a valid permit.

4.3 At least 7 more boreholes have been drilled for hydro-geological study purposes without a valid permit.

5. Based on the above gross violations and non-compliance of permit major conditions Permit No. 11561 and Permit No. 11562 is hereby withdrawn as per condition number, 5(a) and 6(a) respectively, with immediate effect and no further drilling is permitted.

6. You are requested to submit all information as per permit conditions 8.8 for Permit No. 11561 and 9.11 for Permit No. 1156. You are advised to consult Mr. B Swartz (Tel. 061-2087089) of the Geohydrology Division in the Directorate of Water Resources Management in this Ministry for further information.

7. Immediately return Permit No. 11561 and Permit No. 11562 dated 18 March 2021 back to this Ministry for cancellation.

REPUBLIC OF NAMIBIA
MINISTRY OF AGRICULTURE, WATER AND LAND REFORM
09 NOV 2021
Private Bag 13184, Windhoek
Directorate of Water Resource Management

Percy W. Misika
EXECUTIVE DIRECTOR