

**HARMATTAN ENERGY LTD., A CHEVRON AFFILIATE**  
**ESIA FOR PROPOSED EXPLORATION WELL DRILLING IN LICENCE**  
**BLOCK 2813B, ORANGE BASIN, OFF THE COAST OF SOUTHERN NAMIBIA**  
**SCOPING REPORT NON-TECHNICAL SUMMARY**



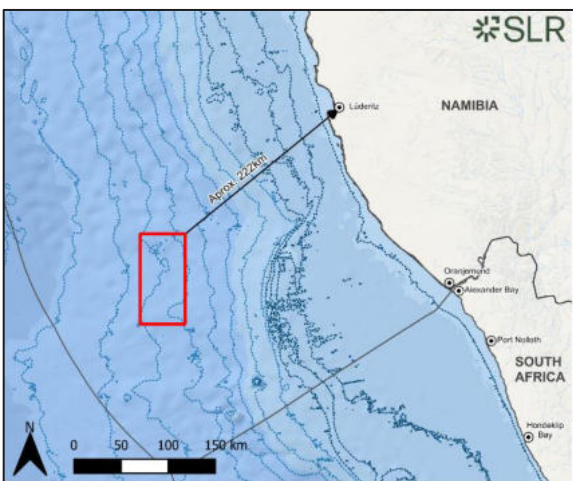
**1.0 Introduction**

Harmattan Energy Ltd., a Chevron affiliate (Harmattan) is the holder of an Exploration Licence for Licence Block 2813B, located southern coast of Namibia. Licence Block 2813B covers an area of approximately 5433 km<sup>2</sup> and is located between 200 km and 290 km offshore in water depths ranging from 2 300 m to 3 300 m.

Harmattan is now applying to undertake further exploration and appraisal activities within Licence Block 2813B. The proposed offshore exploration programme includes:

- Drilling up to five exploration wells and five appraisal wells;
- Vertical Seismic Profiling (VSP);
- Well testing; and
- Plugging and abandonment of wells in the deep offshore.

Before the proposed exploration activities can commence, [Harmattan requires an Environmental Clearance Certificate \(ECC\)](#) from the Ministry of Environment, Forestry and Tourism (MEFT). As part of this process, an Environmental and Social Impact Assessment (ESIA) must be undertaken. SLR Environmental Consulting (Namibia) (Pty) Ltd (SLR) has been appointed to undertake and manage the ESIA process.



Corner	Latitude (°) (S)	Longitude (°) (E)
Top left	28°00'00"S	13°00'00"E
Top right	28°00'00"S	13°30'00"E
Bottom left	29°00'00"S	13°30'00"E
Bottom right	29°00'00"S	13°00'00"E

**Figure 1: Locality Map of Licence Block 2813B off the southern coast of Namibia, with coordinates of the boundary corners**

**Purpose of this Document**

This document informs you about:

- The proposed Project;
- Any project alternatives considered;
- The biophysical, cultural, and socio-economic baseline environment of the proposed Project area;
- The ESIA process being followed;
- Potential biophysical, cultural, and socio-economic impacts identified, and related specialist input; and
- How you can participate in the environmental assessment process.

**Who are the Consultants?**

SLR Environmental Consulting Namibia (Pty) Ltd (SLR) is an independent firm of environmental consultants and has been appointed by Harmattan Energy Ltd., a Chevron affiliate to conduct the ESIA process

**Your Role**

All people who consider themselves an interested and affected party (I&AP) can obtain information about the proposed Project, register on the project database, participate in meetings (see below) and provide input into the ESIA process and reports. You have an opportunity to review this document and/or the Draft Scoping Report and to provide your comments to SLR for incorporation in the ESIA process. Everyone registered on the project database will also have the opportunity to review and comment on the ESIA Report and Environmental Management Plan (EMP) later on. All I&AP comments will be recorded and included in the reports submitted to authorities for decision-making.

**Meeting Details**

SLR will convene two public meetings, to present the project to and engage with I&APs:

**Meeting 1:** Lüderitz (Nest Hotel)  
**Date:** 28 November 2023, **Time:** 11:00

**Meeting 2:** Walvis Bay (Protea Hotel)  
**Date:** 30 November 2023, **Time:** 11:00

**How to Register and Comment**

Please register on the database online by scanning the QR code [or](#) following the link below [or](#) by contacting SLR at the details listed below.



<https://forms.office.com/e/27PE4Di3Fa>

**Contact Details**

**Tel:** +264 61 231 287  
**Email:** harmattan-2813B@slrconsulting.com  
**Website:** <http://www.slrconsulting.com/public-documents/harmattan-2813B>

## 2.0 Overview of the Proposed Project

Harmattan is applying to drill up to 5 exploration wells and up to 5 appraisal wells within Block 2813B. Key activities are briefly described below. A general overview of offshore well-drilling can be found in the following youtube video (click image to view):

<https://www.youtube.com/watch?v=WTZimJK09IA>



### 2.1 Drilling Operation

**Final Drilling Site Selection:** Site selection will be based on further detailed analysis of available seismic and the geological target. A Remote Operating Vehicle (ROV) will be used to finalise the well position based on, inter alia, the presence of seafloor

obstacles or the presence of any sensitive features that may become evident.

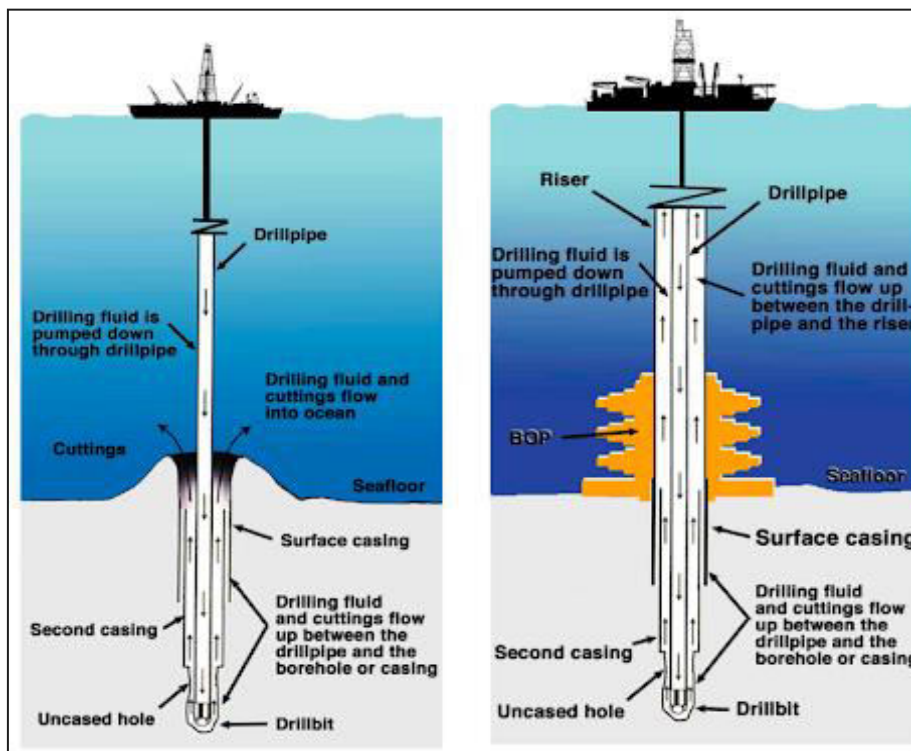
**Drilling Stages:** A well will be created by drilling a hole into the seafloor with a drill bit attached to a rotating drill string, which crushes the rock into small particles, called “cuttings”. After the hole is drilled, casings of steel pipe (which provide structural integrity to the newly drilled hole), are placed in the hole and permanently cemented into place. The diameter of the well decreases with increasing depth. Drilling is undertaken in two stages, namely the riserless and risered drilling stages (see Figure 2).

**Well Testing:** Once the target depth is reached, a well may be evaluated utilising wireline conveyed logging tool or tested (flared) if a resource is discovered.

**Well Sealing and Plugging:** Once testing is complete, the well is sealed with cement plugs, tested for integrity and abandoned according to international best practices.

### 2.2 Equipment and Logistics

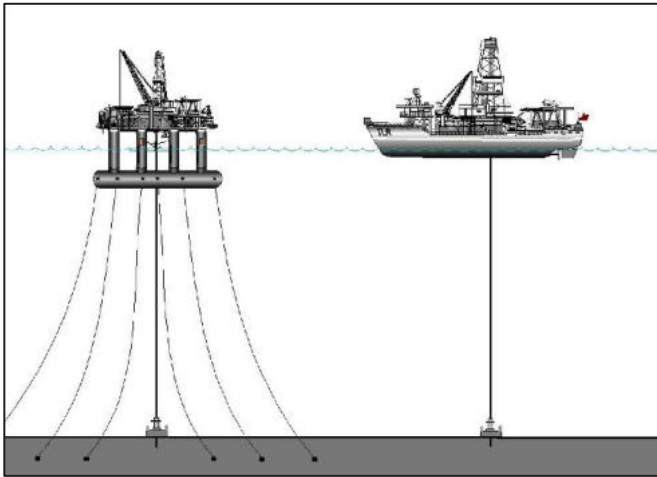
**Drilling Unit:** Harmattan proposes to use a drill ship or semi-submersible drilling unit (Figure 3) to undertake the proposed exploration activities. The final drilling unit selection will depend on availability and final design specifications.



**Figure 2: Drilling stages**

Source: <http://www.kochi-core.jp/cuttings/>





**Figure 3: Semi-submersible drilling unit (left) and drill ship (right)**

Source: Minerals Management Service

**Support Vessels:** The drilling unit will be supported / serviced by up to three support vessels that facilitate the moving of equipment and materials between the drilling unit and the onshore base.

**Helicopters:** Personnel will likely be transported to and from the drilling unit by helicopter operating from Lüderitz or Oranjemund.

**Onshore Logistics Base:** The primary onshore logistics base will be located at either the Port of Walvis Bay or the Port of Lüderitz. It will be used for storage of materials and loading and offloading of support vessels.

**Accommodation:** Shore-based staff will be accommodated in Walvis Bay or Lüderitz. Accommodation during crew changes may be required for incoming or departing offshore staff.

**Waste Management:** All vessels will have equipment, systems and protocols in place for prevention of pollution by oil, sewage and garbage in accordance with international MARPOL requirements. Any oil spill related discharges would be managed by a government approved Oil Spill Contingency Plan. Onshore licenced waste disposal sites and waste management facilities will be identified, verified and approved prior to commencement of drilling operations.

### 3.0 Need and Desirability

Namibia's National Energy Policy currently promotes the country's exploration potential and investments in the oil and gas sector. The Policy is also broadly aimed towards improving socio-economic welfare through the sustainable utilisation of the country's

natural resources. The Fifth National Development Plan 2017/18 – 2021/22 plans to achieve economic progression by developing value added industrialisation, substituting imports for locally produced goods, creating value-chains of production, and to accelerate development of small and medium sized enterprises. Upstream industries involving resource extraction continue to play a key role in the overall goal of realising the full potential of the country's resources. The proposed exploration project is intended to inform the extent, nature, and economic feasibility of pursuing production of hydrocarbon resources. The purpose of the project is to drill exploratory wells to assess the potential to develop oil and gas resources. Should there be a substantial hydrocarbon find in Licence Block 2813B, the project could continue onto the development phase, and additional employment opportunities may be available.

While the exploration for and use of hydrocarbons is aligned with key socioeconomic policies and plans, there are also commitments included in National and International agreements, laws policies and plans (e.g., Namibia's Climate Change Policy Framework, Updated Nationally Determined Contribution), that identify the need to reduce GHG emissions and meet international commitments. As the Intergovernmental Panel on Climate Change (IPCC) has recognized, numerous potential pathways supporting the goals of the Paris Agreement are possible, and all pathways include the continued use of oil and gas. Further, the International Energy Agency (IEA) and others recognize the value and emissions reductions benefits of switching from coal to natural gas. Should a substantial gas resource be found in Namibia, it could contribute to energy transition goals. The proposed exploration project would not result in the production of oil or gas; however, will potentially lead to Namibia optimising its own indigenous resources to better provide for its identified oil and gas needs, potentially reducing its reliance on imports, as at present.

## 4.0 Key Environmental and Socio-Economic Sensitivities

An initial indication of the baseline environment, which together with the proposed project activities informs the nature of possible impacts and the scope of the impact assessment, is provided below.

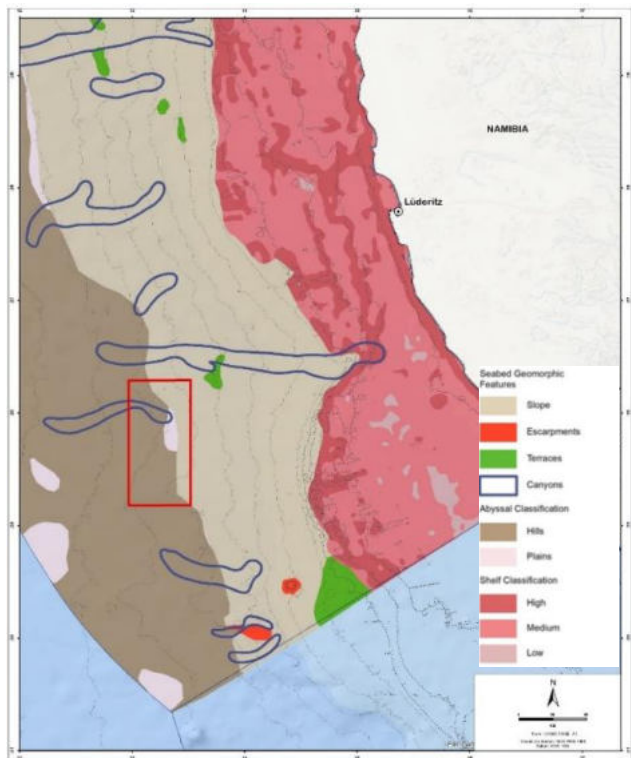
### 4.1 Physical Environment

Licence Block 2813B is located beyond the continental shelf in water depths ranging from





2 300 m to 3 300 m. Sediments in the vicinity of the Licence Block are dominated by muds. A major seabed feature along the southern Namibian coast is Tripp Seamount, located approximately 100 km south-east of the block (Figure 4).



**Figure 4: Seabed features**

Note: Shelf classification relates to shelf profile/gradient.

## 4.2 Biological Environment

Licence Block 2813B is located in the Benguela system, which is characterised by the presence of cold surface water, high biological productivity and highly variable physical, chemical and biological conditions. This system supports a wide variety of marine species including fish, whales, dolphins, seals and seabirds.

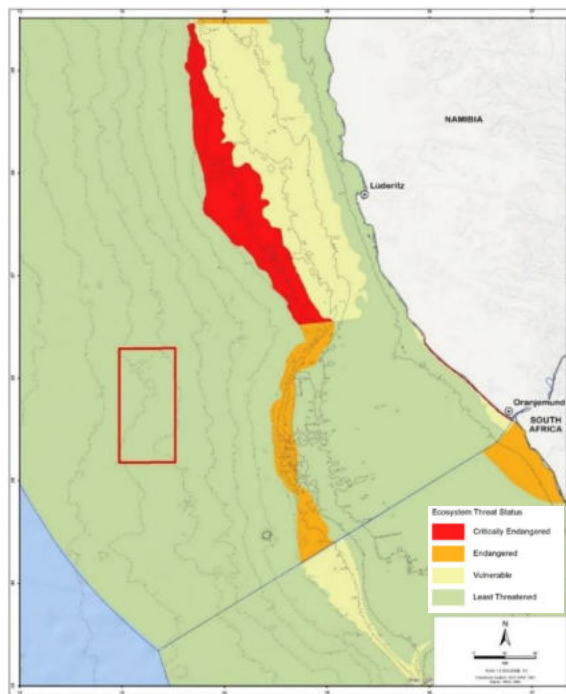
Benthic communities are widespread but vary based on substrate type and depth zone. These communities encompass hundreds of species and exhibit significant temporal and spatial fluctuations, even at small scales. The benthic habitat types in the vicinity of Licence Block 2813B have been classified as 'Least Threatened' (Figure 5).

The Block does not overlap with Ecologically and Biologically Significant Areas or approved Marine Protected Areas (MPAs).

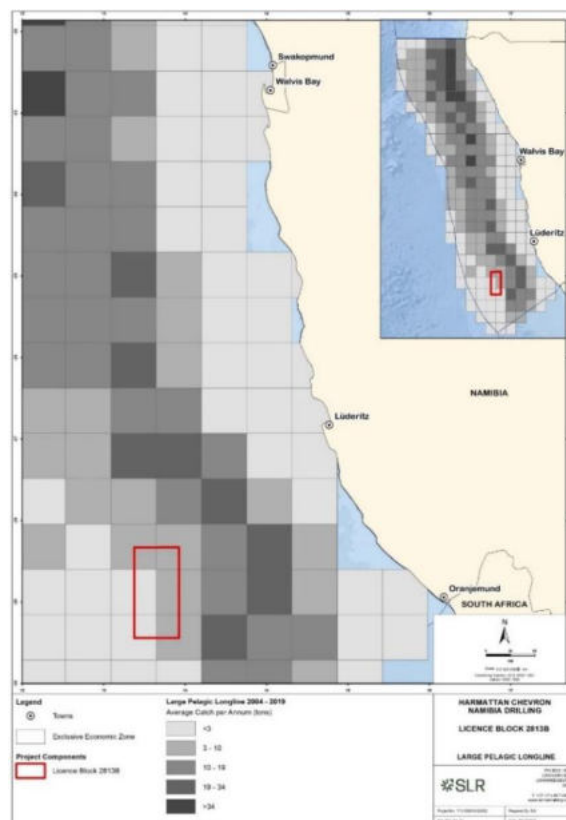
## 4.3 Socio-Economic Environment

The project's area of influence broadly encompasses the offshore environment to the south of Lüderitz and Walvis Bay.

The Namibian fishing industry is the country's second largest export earner of foreign currency and the third largest economic sector in terms of contribution to the Gross Domestic Product (GDP). Several commercial fishing sectors operate off the Namibian Coast, one of which overlaps with Licence Block 2813B – Large Pelagic longline (Figure 6).



**Figure 5: Benthic ecosystem threat status**



**Figure 6: Pelagic longline fishing grounds**



## 5.0 ESIA and Public Consultation Process

### 5.1 ESIA Process

As noted in Section 1.0, the proposed Project requires an ESIA to obtain ECC. The ESIA process identifies and assesses, in consultation with I&APs, the potential negative and positive biophysical, cultural, and socio-economic impacts of the project and identifies management measures required to mitigate impacts to an acceptable level and monitoring requirements (where required).

The process consists of two main phases as shown in Figure 7 – this ESIA process is currently in the Scoping Phase.

raise question, issues or concerns regarding the proposed Project.

Potential I&APs are being notified of the proposed Project through various means, including site notices, advertisements, and email notifications and can **register on the project database to confirm their interest, comment on the Draft Scoping Report and be informed of future opportunities to comment (see page 1).**

Registered I&APs will be informed once reports compiled as part of the ESIA process are available for public review and comment.

SLR has preliminarily identified I&APs from local and national government, fishing operators and offshore oil and gas businesses, and environmental and social NGOs. **Please assist us in identifying any other parties who should be involved – and /or pass on this information.**

## 6.0 Way Forward

SLR looks forward to your registration as an I&AP and engagement at the upcoming meetings.

We will then compile Draft Scoping Report and release it for public comment. All registered I&APs will be notified of this opportunity to comment.

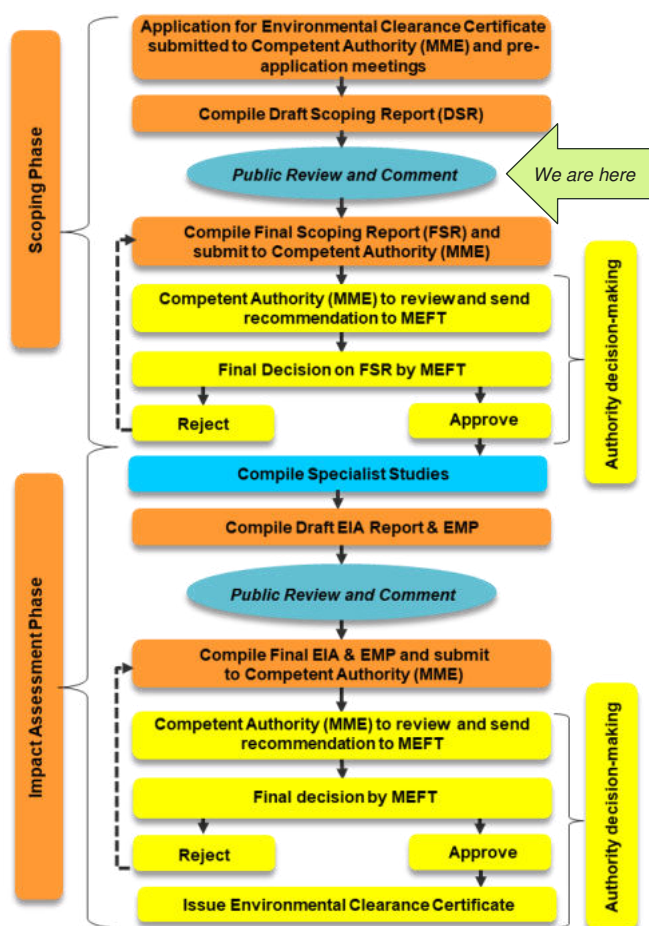


Figure 7: ESIA process phases and steps

### 5.2 Public Consultation Process

Public consultation is a critical component of the ESIA process. The purpose is to notify I&APs of the proposed Project, provide information so that I&APs can familiarise themselves with the proposed activities and provide I&APs with the opportunity to

