Quarterly Activities Report – March 2021

29 April 2021

Highlights

- **Extensive palaeochannels continue to be Identified:**
  - **Extensive new palaeochannel system identified at Namib IV.**
  - **Namib IV palaeochannel system extends at least 19 kilometres.**
  - **Namib IV is in addition to the palaeochannel system discoveries at Koppies and Hirabeb.**
  - **Namib IV adjoins and is located north east of Hirabeb, south west of Koppies.**
- **Extensive airborne EM survey commenced early April**
  - **Extensive airborne electromagnetic survey in progress in Namib Area.**
  - **EM survey targeted at locating palaeochannels, prospective for uranium mineralisation.**
  - **Accelerates exploration with drill programs to be planned from airborne EM survey.**
  - **Namib Area includes recent discoveries at Koppies, Hirabeb and Namib IV.**

Namib IV

During the quarter, a maiden Horizontal Loop Electromagnetic (“HLEM") survey over the central area of exclusive prospecting license (“EPL”) 7662, named “Namib IV”, was undertaken (refer to ASX announcement of 23 March 2021 titled “Extensive Palaeochannels Continue to be Identified”). This survey identified an extensive palaeochannel system extending over 19 kilometres in length and up to 6 kilometres at its widest point (Figure 1).

A drilling program will be undertaken during the June quarter to physically confirm the extent of the palaeochannel system and identify and measure the presence of uranium mineralisation.

Namib IV adjoins and is located north east of Hirabeb and south west of Koppies (Figure 2), however, the palaeochannel system at Namib IV is separate to the Koppies and Hirabeb systems.

The location of the Namib Area in relation to Marenica’s other Namibian projects and infrastructure is shown in Figure 3.

Figure 1 – Location of Namib IV HLEM Survey Lines and Extent of Palaeochannels

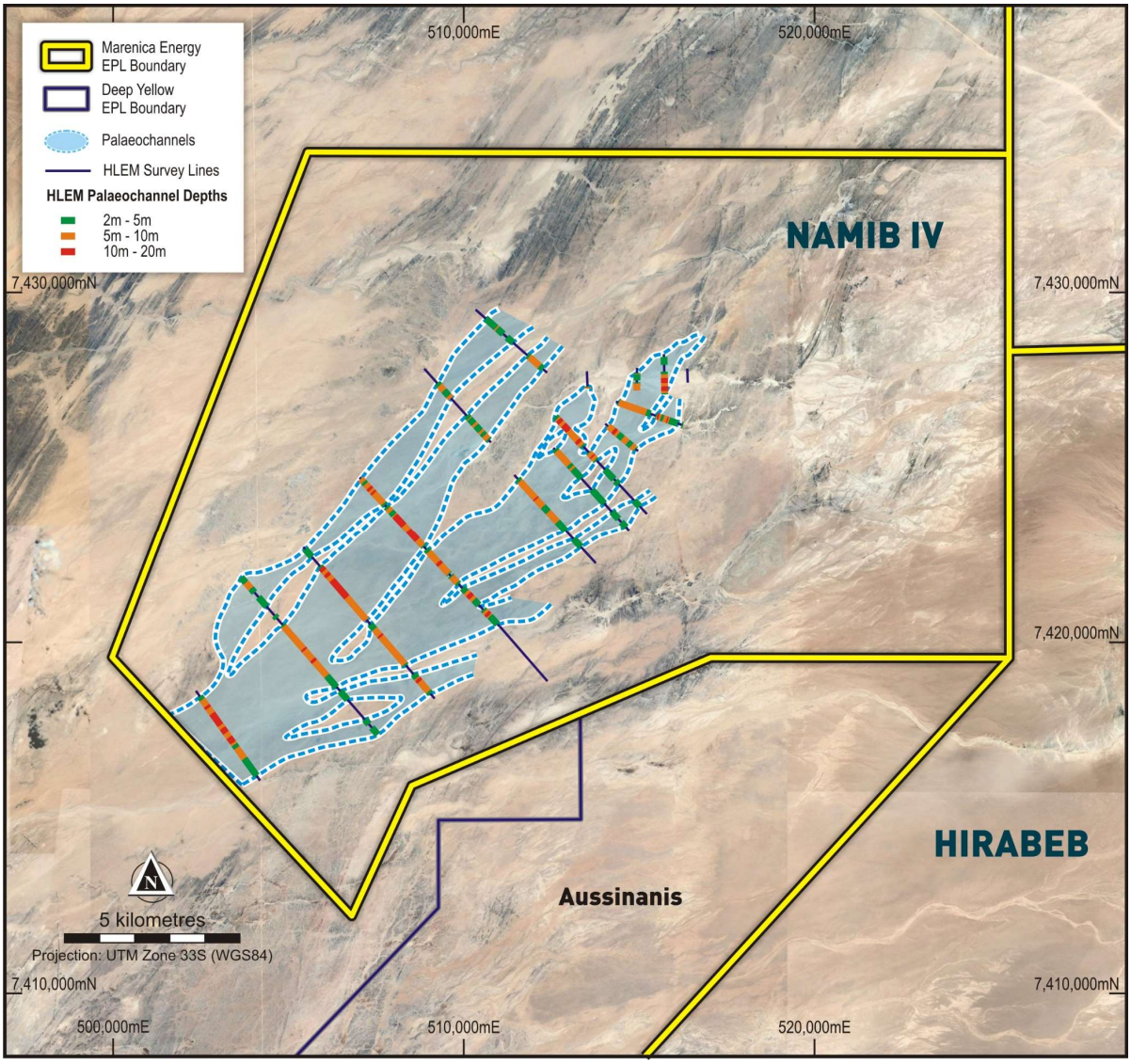
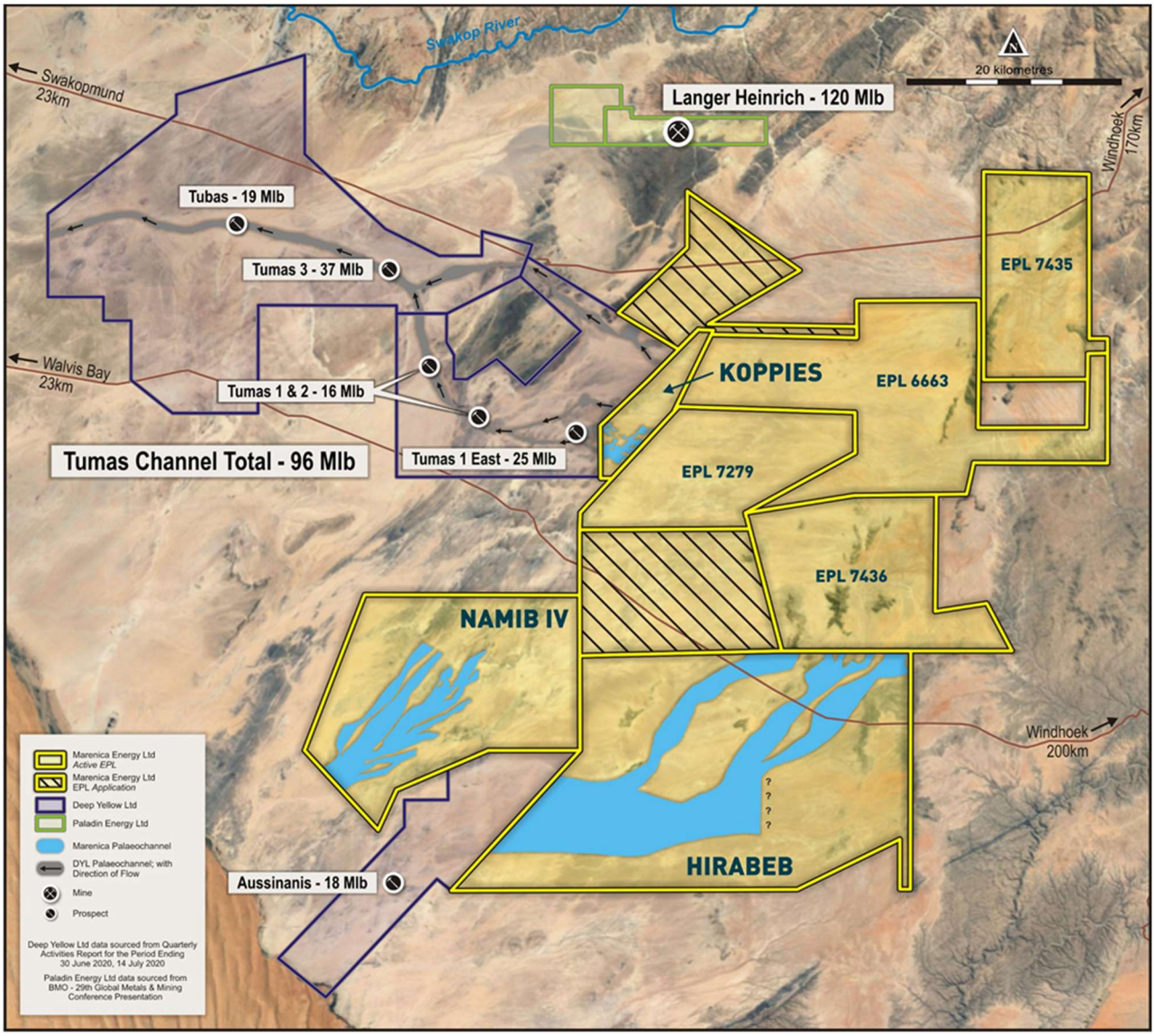


Figure 2 – Location of Namib IV in the Namib Area, Namibia



Airborne Electromagnetic Survey

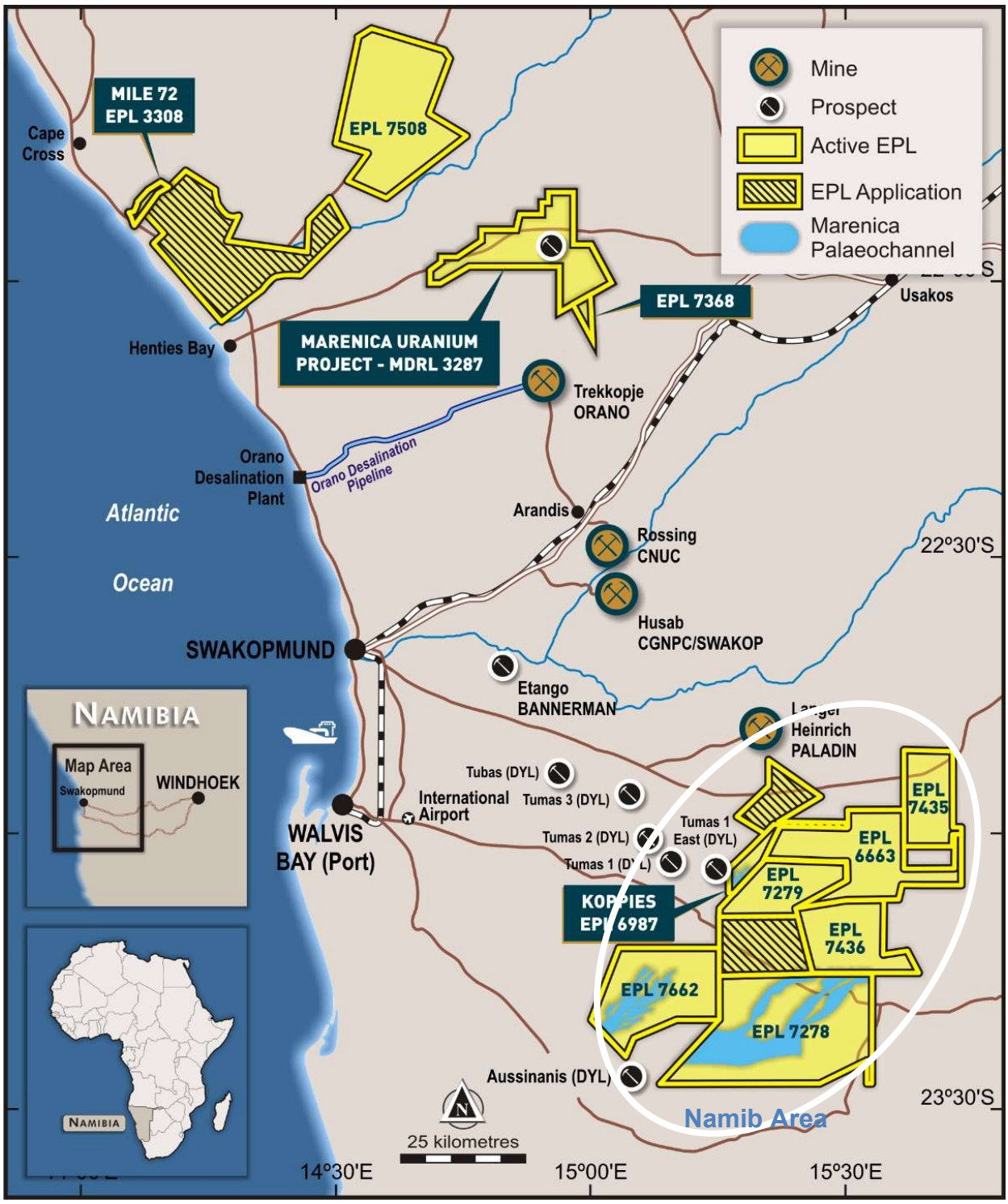
The Namib Area, which includes Koppies, Hirabeb and Namib IV, is characterised by featureless terrain with no obvious surface expression to identify palaeochannels. To date, Marenica's exploration method used to locate these featureless palaeochannels, has been to complete ground-based geophysics, using HLEM surveys and then drill the palaeochannels to physically validate the HLEM survey results and to determine the areas of uranium mineralisation. This exploration method has proved successful in identifying extensive palaeochannel systems hosting uranium mineralisation at Koppies and Hirabeb and an extensive palaeochannel system at Namib IV. Note Namib IV is yet to be drilled to identify mineralisation. HLEM is a widely used ground-based geophysics method, which was primarily used because the Company did not have the financial resources to fund alternative methods. That funding restriction was removed when the Company raised substantial funds in November 2020.

During the quarter, the Company applied significant time and effort into planning, organising and obtaining permits for a helicopter based airborne electromagnetic survey ("airborne EM"), a comparable exploration geophysical method to HLEM which can cover an area of interest at a significantly faster rate of between 120 to 150 km/hour compared to 3 km/day (or 0.4 km/hour) by

HLEM. This significantly accelerates the pace at which the Company's tenements can be surveyed and expands the rate of exploration programs in Namibia.

On 7 April 2021, an airborne EM survey covering an area of 1,500 square kilometres commenced over the Company's tenements in the Namib Area. The airborne EM survey and data analysis are expected to be completed within three months.

Figure 3 – Location of the Namib Area, Namibia



Expenditure

The Group incurred exploration expenditure of $317,682 during the quarter.

Payments to Related Parties

During the quarter, the Company paid directors' fees to the non-executive directors and salary plus superannuation to the managing director, which totalled $97,425.

Authorisation

This report was authorised for release by the Board of Marenica Energy Limited.

For more information, contact:

***Managing Director* – Murray Hill**

T: +61 8 6555 1816

murray.hill@marenicaenergy.com.au

Annexure A – Tenement Schedule

Namibia

Number	Name	Company	Interest	Area (km²)
Active Licences				
MDRL 3287	Marenica	Marenica Minerals (Pty) Ltd	75%	321
EPL 3308	Mile 72	Metals Namibia (Pty) Ltd	100%	20
EPL 6663	Arechadamab	Marenica Ventures (Pty) Ltd	90%	379
EPL 6987	Koppies	Marenica Ventures (Pty) Ltd	100%	49
EPL 7278	Hirabeb	Marenica Ventures (Pty) Ltd	100%	730
EPL 7279	Ganab West	Marenica Ventures (Pty) Ltd	100%	199
EPL 7368	Trekkopje East	Marenica Ventures (Pty) Ltd	100%	17
EPL 7435	Skilderkop	Marenica Ventures (Pty) Ltd	100%	190
EPL 7436	Amichab	Marenica Ventures (Pty) Ltd	100%	251
EPL 7508	Capri	Marenica Ventures (Pty) Ltd	100%	553
EPL 7662	Namib IV	Marenica Ventures (Pty) Ltd	100%	379
Licence Applications				
EPL 6746	Tumasvlaktes	Marenica Ventures (Pty) Ltd	95%	199
EPL 7507	Autseib	Marenica Ventures (Pty) Ltd	100%	688
EPL 7803	Hotsas	Marenica Ventures (Pty) Ltd	100%	117

Australia

Number	Name	Status	Company	Interest	State
100% Interest					
R 38/1	Thatcher Soak	Granted	Africa Uranium Ltd	100%	WA
E 04/2297	Oobagooma	Granted	Jackson Cage Pty Ltd	100%	WA
EL 25758	Angela	Granted	Jackson Cage Pty Ltd	100%	NT
EL 32400	Minerva	Granted	Jackson Cage Pty Ltd	100%	NT
EL 25759	Pamela	Application	Jackson Cage Pty Ltd	100%	NT
Joint Venture					
ELR 41	Malawiri	Granted	Northern Territory Uranium Pty Ltd	23.97%	NT
ELR 45	Walbiri	Granted	Northern Territory Uranium Pty Ltd	22.88%	NT
ELR 46-55	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
EL 30144	Dingos Rest South	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 31319	Sundberg	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 318-328	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MLN 1952	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
EL 1466	Mount Gilruth	Application	Jackson Cage Pty Ltd	33.33%	NT
EL 3114	Beatrice South	Application	Jackson Cage Pty Ltd	33.33%	NT

About Marenica Energy

Marenica Energy Limited (ASX:MEY) is an Australian Securities Exchange listed company focused on uranium exploration and application of its beneficiation process ***U-pgrade™***.

Marenica has developed a counter cyclical growth strategy to acquire tenements and projects which are suitable for value addition through application of the company's proprietary ***U-pgrade™*** process.

Marenica has a large tenement position in the globally recognised Erongo uranium province in Namibia, a country with an established and longstanding uranium mining industry. In Namibia, Marenica has three uranium exploration project areas, being the Namib Uranium Project, Marenica Uranium Project and Mile 72 Uranium Project. The Marenica Uranium Project has a large inferred uranium resource of 61 million pounds. These project areas are located in the North West, North and South East of the Erongo province, which provides diversity and opportunity to explore in a large tenement position.

In Australia, Marenica has uranium tenements and joint venture interests containing substantial uranium resources. The Angela, Thatcher Soak, Minerva and Oobagooma project areas and joint venture holdings in the Bigrlyi, Malawiri, Walbiri and Areva joint ventures contain 48 Mlbs of high-grade uranium mineral resources. The mineral resources are significant in their own right but could be dramatically enhanced when coupled with Marenica's ***U-pgrade™*** beneficiation process.

U-pgrade™ Beneficiation Process

Marenica's portfolio of uranium projects in Namibia and Australia contain uranium mineralisation suitable for processing via its proprietary ***U-pgrade™*** beneficiation process.

A study on the Marenica Uranium Project, indicated that ***U-pgrade™*** can materially lower development and operating costs on calcrete hosted uranium projects.

About U-pgrade™

U-pgrade™ is a potential industry leading and economically transformational beneficiation process for upgrading surficial uranium ores.

This breakthrough process was developed on ore from Marenica's namesake Marenica Uranium Project in Namibia and subsequently, testwork has been undertaken on ore samples from a number of other sources.

In summary, Marenica has demonstrated, in bench scale testwork, that the ***U-pgrade™*** beneficiation process;

- Concentrates the uranium by a factor of 50
- Increases Marenica Project ore grade from 93 ppm to ~5,000 ppm U_3O_8
- Rejects ~98% of the mass prior to leaching
- Produces a high-grade concentrate in a low mass of ~2% (leach feed)
- Rejects acid consumers
- Potentially reduces operating costs by ~50% and capital costs by ~50% as compared to conventional processing.

Beyond application at the Marenica Uranium Project, Marenica has determined, through bench scale testing, that calcrete hosted uranium deposits in Namibia and Australia are amongst those that are amenable to the ***U-pgrade™*** process.