

31 July 2019

About Marenica Energy

- Marenica is a minerals exploration company focussed on uranium.
- Marenica holds a portfolio of mineral tenements in Namibia.
- Marenica will hold a portfolio of mineral tenements in Australia.*
- Marenica continues to actively look at increasing its tenement holdings.
- Marenica owns its patented
 U-pgrade[™] beneficiation process which has the potential to significantly improve the economics of secondary uranium deposits, especially those held by Marenica.

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Quarterly Activities Report for the period ending 30 June 2019

Highlights

- Announced the proposed acquisition of Australian uranium tenements from Optimal Mining Limited to further build on uranium asset portfolio
- The acquisition will increase Marenica's resource base by 48Mlb of high-grade uranium resources at an average of 859 ppm U₃O₈*
- Marenica will have one of the largest uranium resource inventories of companies listed on the ASX*
- Applications for five tenements in Namibia are pending. If only two are granted, Marenica will have the largest uranium land holding in Namibia
- Most of Marenica's uranium resources are likely to be amenable to Marenica's *U-pgrade™* beneficiation process
- Marenica raises \$1.6 million to continue uranium exploration.

^{*}Subject to completed acquisition of Optimal Mining Limited's Australian uranium assets as announced to ASX on 4 July 2019.

Acquisition of Australian Uranium Projects

On 4 July 2019, Marenica announced that it had executed a binding term sheet with Optimal Mining Limited ("Optimal") for the acquisition of Optimal's Australian uranium tenements ("Acquisition Assets"). Completion of the purchase is subject to a number of conditions.

The outright purchase of the Angela, Thatcher Soak, Oobagooma and Minerva project areas and joint venture holdings in the Bigrlyi, Malawiri, Walbiri and Areva joint ventures in Australia will add 48 Mlb U_3O_8 of high-grade mineral resources to Marenica's asset base. The mineral resources are significant in their own right but could be dramatically enhanced when coupled with Marenica's $\textbf{\textit{U-pgrade}}^{TM}$ beneficiation process.

Following completion of the acquisition, Marenica will have high-grade uranium resources in Australia; uranium resources and a recently assembled highly prospective exploration tenement position in Namibia; all of which Marenica expects to add significant value through application of its *U-pgrade*TM beneficiation process. Completion of the transaction will result in Marenica having one of the largest uranium resource inventories of companies listed on the ASX.

Jabiluka OORAGOOMA NORTHERN TERRITORY Port Hedland Kintyre WALBIRI BIGRLYI WESTERN QUEENSLAND **AUSTRALIA** ANGELA Lake Maitland Yeelimie 🔊 SOUTH THATCHERS SOAK **AUSTRALIA** Mulga Rocks Kalgoorlie O Honeymoon **PERTHO NEW SOUTH** WALES VICTORIA Operating Uranium Mine Uranium Deposit Marenica Energy TAS **Uranium Deposit**

Figure 1: Location of the Tenements to be Acquired from Optimal Mining Limited

Table 1: Summary of Uranium Minerals Resources in Australia (subject to completion of the agreement to acquire the Australian Uranium Assets of Optimal Mining Limited)

		Tot	al Resour	rce		Marenica Share				
Deposit	Tonnes	U ₃ O ₈	U ₃ O ₈	V_2O_5	V ₂ O ₅	Tonnes	U ₃ O ₈	U ₃ O ₈	V_2O_5	V ₂ O ₅
	(M)	(ppm)	(Mlb)	(ppm)	(Mlb)	(M)	(ppm)	(Mlb)	(ppm)	(Mlb)
Australia - 100% Holding										
Angela	10.7	1,310	30.8			10.7	1,310	30.8		
Thatcher Soak	11.6	425	10.9			11.6	425	10.9		
100% Held Resource Total	22.3	850	41.7			22.3	850	41.7		
Australia - Joint Venture Holdir	ig									
Bigrlyi	7.5	1,283	21.1	1,197	19.7	1.55	1,283	4.39	1,197	4.1
JV Minor Deposit Total	25.1	627	34.6			1.78	607	2.38		
Joint Venture Resource Total	32.6	778	55.7	1,197	19.7	3.34	923	6.77	1,197	4.1
Australia Total	54.9	807	97.4	1,197	19.7	25.6	859	48.4	1,197	4.1

See Annexure B for the full mineral resource table.

Building a Strategic Uranium Tenement Position in Namibia

During the quarter, Marenica was granted four exclusive prospecting licences ("EPL") in Namibia. These EPL's, in the Erongo region, are highly prospective for surficial uranium mineralisation. Marenica now holds seven EPL's in Namibia and if two of the five pending EPL applications are granted, it will be the largest landholder for nuclear fuels in the country.

M SWAKOPMUND Langer Heinrich **KOPPIES EPL6987** Tumas 3 WALVIS BAY 0 Tumas 2 KHOMAS Tumas 1 HIGHLANDS NAMIB **EPL7279** DESERT **EPL7436** Marenica Energy Active EPL Marenica Energy EPL Application Deep Yellow

Figure 2. Marenica EPL Map - Namib Region of Namibia

Aussinanis 🔕

Dissolved Metal Flow

Mine

EPL7278

MILE 72 - EPL3308 Cape Cross MARENICA URANIUM PROJECT - MDRL 3287 22°00'S TREKKOPJE EAST Usakos **EPL7368** Henties Bay Trekkopje Trekkopje Lease ORANO Atlantic Rossing RIO TINTO 22°30'S Ocean Husab CGNPC/SWAKOP **SWAKOPMUND** Etango BANNERMAN Langer Heinrich PALADIN Tubas Sands DEEP YELLOW **KOPPIES** EPL6987 Tumas DEEP YELLOW WALVIS BAY (Port) **EPL7279** Mine EPL7436 Aussinanis DEEP YELLOW Prospect 23°30'S Active EPL **EPL** Application **EPL7278** 25 kilometres 14°30'E 15°00'E 15°30'E

Figure 3. Marenica EPL Map - Namibia

U-pgrade™ Beneficiation Process

Marenica has been building an asset portfolio of uranium mineral resources in Namibia and Australia on the basis that the uranium mineralisation styles will be suitable for processing via its breakthrough proprietary *U-pgrade™* beneficiation process. *U-pgrade™* was demonstrated in a 2017 Scoping Study, conducted on the Marenica Project, to materially lower capital and operating costs for calcrete hosted uranium projects.

Expenditure

The Group incurred exploration expenditure of \$97,092 during the quarter.

Placement Raises \$1.6 million

On 26 July 2019, the Company announced it had completed a placement raising a total of \$1.6 million, before costs.

The placement of 16,012,417 fully paid ordinary shares at an issue price of 10 cents per share ("Share") plus 16,012,417 free attaching options, will raise a total of \$1,601,241.70, before costs ("Placement"). The options will be granted on the basis of one option for every Share subscribed and will have an exercise price of \$0.17 per share, exercisable within two years of grant ("Placement Option"). The Placement was completed to sophisticated and new institutional shareholders. Patersons Securities Limited was lead manager to the Placement.

The funds raised will be applied to fund exploration activities and working capital, including to:

- Continue to explore Marenica's Namibian uranium tenement portfolio and in particular, its extensive tenement position in the Erongo region. During the calendar year, Marenica was granted five new tenements in the Erongo region and it plans to progressively explore each tenement as soon as possible. Drilling has commenced on the first of those tenements, being EPL 6987, known as Koppies; and
- Advance its Australian uranium projects, being the Angela, Thatcher Soak, Minerva and Oobagooma project areas and joint venture holdings in the Bigrlyi, Malawiri, Walbiri and Areva joint ventures, subject to completion of their acquisition from Optimal Mining Limited. The Company will scope and prioritise the activities to be undertaken on each project area. The application of *U-pgrade™* to these assets will be considered during that scoping process. The mineral resources contained in these projects are variously JORC 2004 and 2012 compliant. In accordance with ASX Listing Rules, Marenica plans to update the mineral resources which are JORC 2004 compliant to JORC 2012; and
- Continue to assess the application of *U-pgrade*™ to third-party assets.

What is U-pgradeTM?

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

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

In summary, Marenica has demonstrated, in bench scale testwork on the Marenica Project, that the U- $pgrade^{TM}$ beneficiation process;

- Concentrates the uranium by a factor of 50
- > 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 Deep Yellow's Tumas deposit, Paladin's Langer Heinrich deposit, Orano's Trekkopje deposit and Toro Energy's Wiluna deposit, are amongst those that are amenable to the *U-pgradeTM* process.

Annexure A - Tenement Schedule

Namibia

Number	Name	Company	Interest	Area (km²)		
Active Licenc						
MDRL 3287	Marenica	Marenica Minerals (Pty) Ltd	75%	321		
EPL 3308	Mile 72	Metals Namibia (Pty) Ltd	100%	20		
EPL 6987	Koppies	Manmar Investments One Eight Two (Pty) Ltd	100%	49		
EPL 7278	Hirabeb	Marenica Ventures (Pty) Ltd	100%	730		
EPL 7279	Ganab	Marenica Ventures (Pty) Ltd	100%	199		
EPL 7368	Trekkopje East	Marenica Ventures (Pty) Ltd	100%	17		
EPL 7436	Amichab	Marenica Ventures (Pty) Ltd	100%	251		
Licence Applications						
EPL 6663	-	Marenica Ventures (Pty) Ltd	90%	379		
EPL 7435	Skilderkop	Marenica Ventures (Pty) Ltd	100%	190		
EPL 7507	Autseib	Marenica Ventures (Pty) Ltd	100%	688		
EPL 7508	Capri	Marenica Ventures (Pty) Ltd	100%	987		
EPL 7662	Namib IV	Marenica Ventures (Pty) Ltd	100%	379		

Australia (Tenement ownership is subject to completion of the agreement to acquire the Australian Uranium Assets of Optimal Mining Limited, as announced to ASX on 4 July 2019)

Number	Name	Status	Company	Interest	State
100% Interes	it				
R38/1	Thatcher Soak	Granted	Africa Uranium Ltd	100%	WA
E04/2297	Oobagooma	Granted	Jackson Cage Pty Ltd	100%	WA
EL25758	Angela	Granted	Jackson Cage Pty Ltd	100%	NT
EL25759	Pamela	Application	Jackson Cage Pty Ltd	100%	NT
ELR 22	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 23	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 24	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 25	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 26	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 27	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 28	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 29	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 30	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 31	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 32	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
ELR 33	Minerva	Application	Jackson Cage Pty Ltd	100%	NT
Joint Venture	е				
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	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 47	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 48	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 49	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 50	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 51	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT

Number	Name	Status	Company	Interest	State
ELR 52	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 53	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 54	Bigrlyi	Granted	Northern Territory Uranium Pty Ltd	20.82%	NT
ELR 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	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 319	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 320	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 321	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 322	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 323	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 324	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 325	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 326	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 327	Karins	Application	Northern Territory Uranium Pty Ltd	20.82%	NT
MCS 328	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

Annexure B -

Uranium Minerals Resources in Australia (subject to completion of the

agreement to acquire the Australian Uranium Assets of Optimal Mining Limited).

		Cut-off	-off Total Resource					Marenica Share						
Deposit		Category	(ppm	Tonnes	U ₃ O ₈	U ₃ O ₈	V ₂ O ₅	V ₂ O ₅	Marenica	Tonnes	U ₃ O ₈	U ₃ O ₈	V ₂ O ₅	V ₂ O ₅
			U ₃ O ₈)	(M)	(ppm)	(Mlb)	(ppm)	(Mlb)	Holding	(M)	(ppm)	(Mlb)	(ppm)	(Mlb)
100% Holding														
Angela Pamela	JORC 2004	Inferred	300	10.7	1,310	30.8			100%	10.7	1,310	30.8		
Thatcher Soak	JORC 2012	Inferred	150	11.6	425	10.9			100%	11.6	425	10.9		
100% Held Resource Tot	al			22.3	850	41.7			100%	22.3	850	41.7		
Australia - Joint Venture	Holding													
Bigrlyi Deposit		Indicated	500	4.7	1,366	14.0	1,303	13.4					1,303	2.8
		Inferred	500	2.8	1,144	7.1	1,022	6.3					1,022	1.3
Bigrlyi Total	JORC 2004	Total	500	7.5	1,283	21.1	1,197	19.7	20.82%	1.55	1,283	4.39	1,197	4.1
Walbiri Joint Venture														
Joint Venture		Inferred	200	5.1	636	7.1			22.88%	1.16	636	1.63		
100% EME		Inferred	200	5.9	646	8.4								
Walbiri Total	JORC 2012	Total	200	11.0	641	15.5								
Bigrlyi Joint Venture														
Sundberg	JORC 2012	Inferred	200	1.01	259	0.57			20.82%	0.21	259	0.12		
Hill One Joint Venture	JORC 2012	Inferred	200	0.26	281	0.16			20.82%	0.05	281	0.03		
Hill One EME	JORC 2012	Inferred	200	0.24	371	0.19								
Karins	JORC 2012	Inferred	200	1.24	556	1.52			20.82%	0.26	556	0.32		
Malawiri Joint Venture	JORC 2012	Inferred	100	0.42	1,288	1.20			23.97%	0.10	1,288	0.29		
Joint Venture Resource	Total			21.6	847	40.2	1,197	19.7		3.34	923	6.77	1,197	4.1
Australia Total				43.9	848	81.9	1,197	19.7		25.6	859	48.4	1,197	4.1

^{*} JORC 2004 Resources, all others are JORC 2012.

The mineral resources above were first reported by Marenica in the ASX announcement of 4 July 2019 titled "Uranium Resource Base Increased by 48 Mlbs to 110 Mlbs". With regards to that announcement, the Company confirms that it is not aware of any new information or data that materially affects the information in that announcement and further confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materiality changed.

The mineral resource estimate for the resources noted as JORC 2004 in the table above were prepared and first disclosed under the 2004 Edition of the Australian Code for the Reporting of Exploration Results, Minerals Resources and Ore Reserves (JORC Code 2004). They have not been updated since to comply with the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Minerals Resources and Ore Reserves (JORC Code 2012) on the basis that the information has not materially changed since it was last reported. A Competent Person has not undertaken sufficient work to classify the estimate of the Mineral Resource in accordance with the JORC Code 2012; it is possible that following evaluation and/or further exploration work the currently reported estimate may materially change and hence will need to be reported afresh under and in accordance with the JORC Code 2012.