



5 December 2019

## ASX Announcement

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# Drilling Identifies Extensive Palaeochannel 3.6 km by 1.2 km

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- Phase 3 RC drill program indicates palaeochannel up to 1.2 km wide in places and at least 3.6 km in length at Koppies 2
- Phase 3 drilling included 65 holes with the deepest reaching the bottom of the palaeochannel at 22 metres
- Phase 2 RAB drill program at Koppies 2 previously reported high grade uranium mineralisation with the best intersections including:
  - KP045 10 m at 687 ppm  $U_3O_8$  from 2 m
    - Including 2 m at 1,974 ppm  $U_3O_8$
  - KP047 5 m at 194 ppm  $U_3O_8$  from 5 m and 2 m at 593 ppm  $U_3O_8$  from 15 m
- Mineralisation is calcrete hosted within palaeochannels, the same style of ore used to develop Marenica's *U-pgrade*<sup>™</sup> uranium beneficiation process

Marenica Energy Limited ("**Marenica**", the "**Company**") (**ASX:MEY**) is pleased to announce that it has completed the Phase 3 reverse circulation ("RC") drilling program on the Koppies tenement in Namibia, Africa. Drilling has identified the Koppies 2 palaeochannel is up to 1.2 km wide, extending the full width of the tenement, being approximately 3.6 km. The significance of the channel width is that the wider the mineralised palaeochannel the greater number of potential contained uranium pounds in any given length. The palaeochannel has been identified through the drill holes intersecting calcrete hosted mineralisation, which is the rock type within palaeochannels Marenica is targeting. Drilling samples have been submitted for assay with results expected in January 2020.

**Marenica Managing Director, Murray Hill, commented:** "Identifying that the Koppies 2 palaeochannel has a width of approximately 1.2 km is fantastic news, especially with a length of at least 3.6 km. The substantial width is expected to greatly increase the contained uranium pounds per unit length of palaeochannel, which is extremely positive for the potential economics of the Koppies project. The Koppies story continues to develop, with the extensive Koppies 2 palaeochannel, excellent grades achieved from Phase 2 drilling, and with only approximately 10% of the Koppies tenement explored, let alone the remaining 2,494 square kilometres of tenements held by the Company in the Namib area."

In August 2019, the Company announced that drilling at Koppies 2 had produced exceptional results including an interval of 2 m at 1,974 ppm  $U_3O_8$ , contained within an intersection of 10 m at 687 ppm  $U_3O_8$  from 3 m in hole KP045 (ASX Release – 7 November 2019). Phase 3 drilling was conducted around the

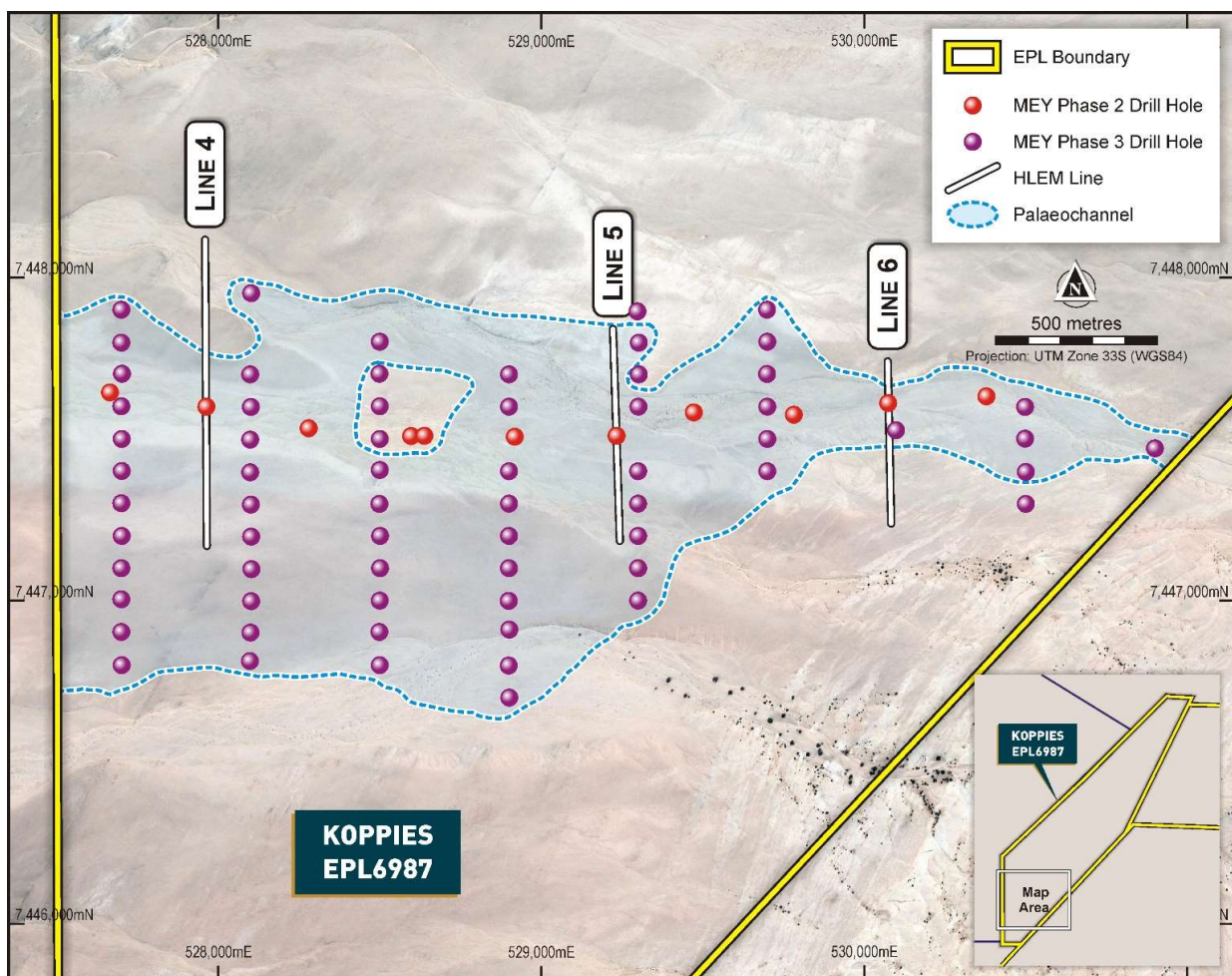
Phase 2 drill holes and areas identified to be palaeochannels from horizontal loop electromagnetics ("HLEM") surveys.

The Phase 2 drill program identified a mineralised palaeochannel at Koppies 2, leading to three HLEM survey lines across the Koppies 2 palaeochannel. The HLEM surveys were designed to determine the potential width of the palaeochannel ahead of the Phase 3 drill program. The location of the Phase 2 and Phase 3 drill holes are shown in Figure 1 relative to the HLEM survey and the palaeochannel outline.

The results of HLEM survey line 5, which is 650 m in length, are shown in Figure 4, where it is clearly evident that the palaeochannel extends beyond the limit of the survey line. The HLEM results indicate a more extensive palaeochannel than expected, which resulted in the drill program being expanded, extending further north and south than initially planned.

The Koppies 2 palaeochannel is over 1.2 km wide in places and extends across the full width of the EPL.

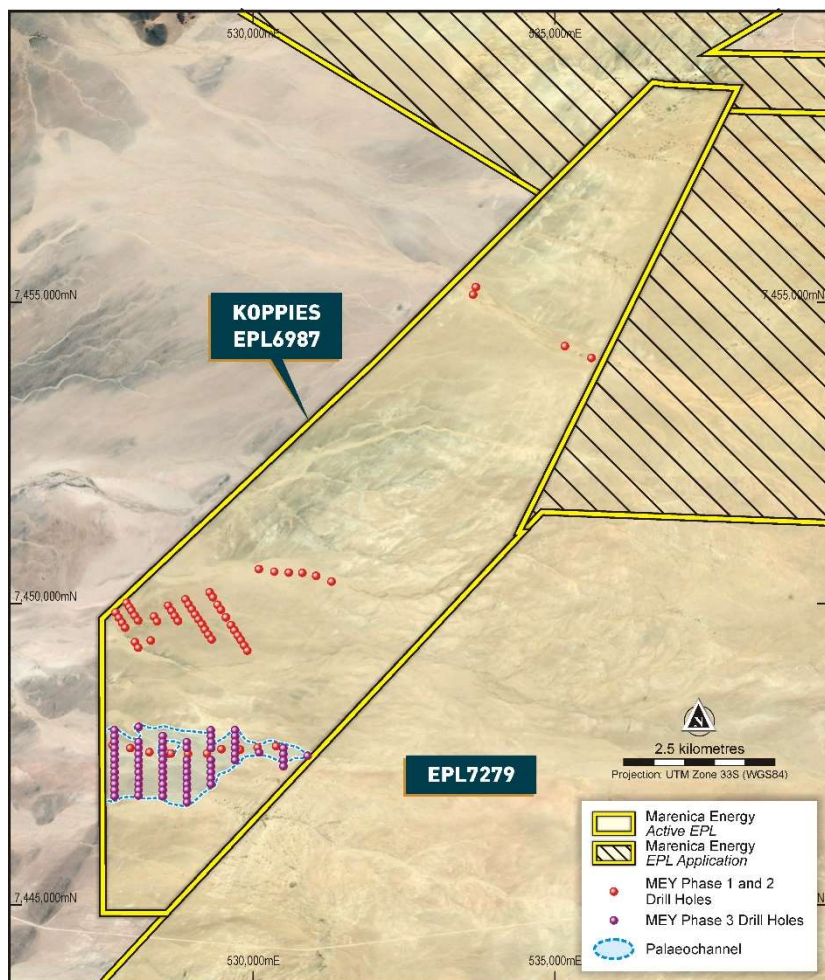
The drilling may not have defined the full extent of the palaeochannel, with potential extensions north and south east of the marked palaeochannel, which will be followed up in subsequent drill programs.



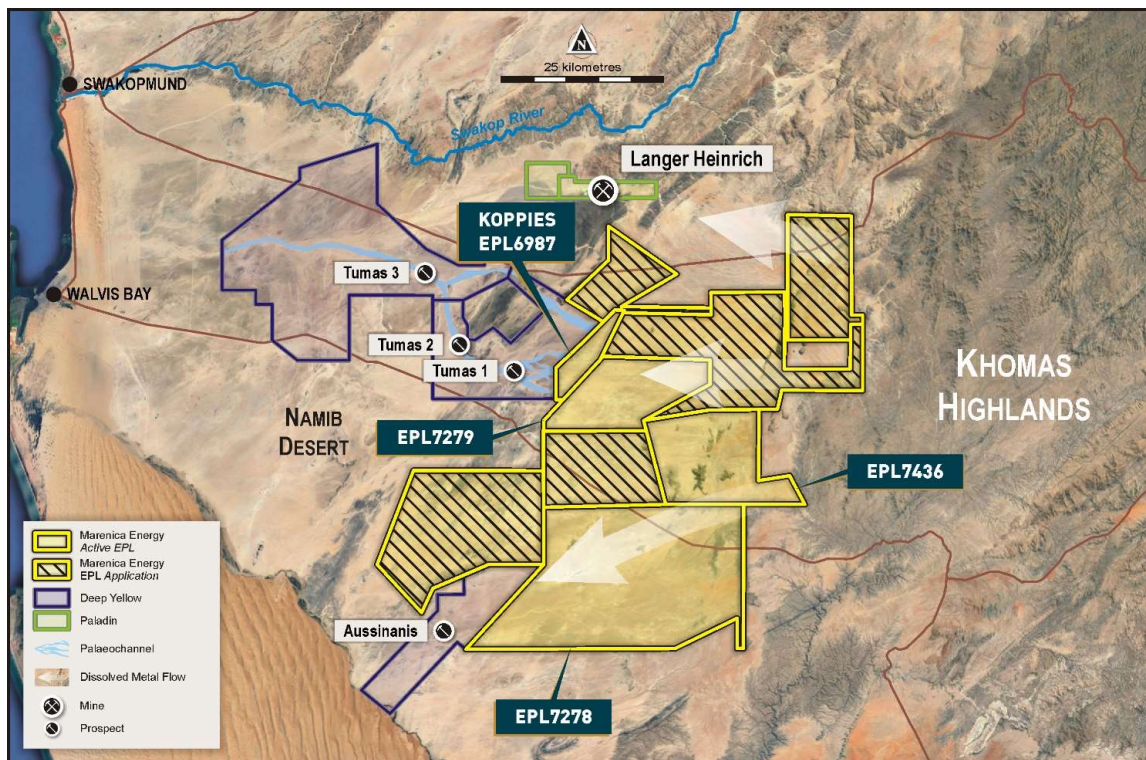
**Figure 1 – Positions of HLEM Survey Lines, Drill Holes and Palaeochannel at Koppies 2.**

The location of Koppies 2 within the Koppies EPL is shown in Figure 2 below and the location relative to Marenica's other EPL's and nearby known calcrete deposits, is shown in Figure 3.





**Figure 2 – Location of Koppies 2 Palaeochannel within the Koppies EPL.**

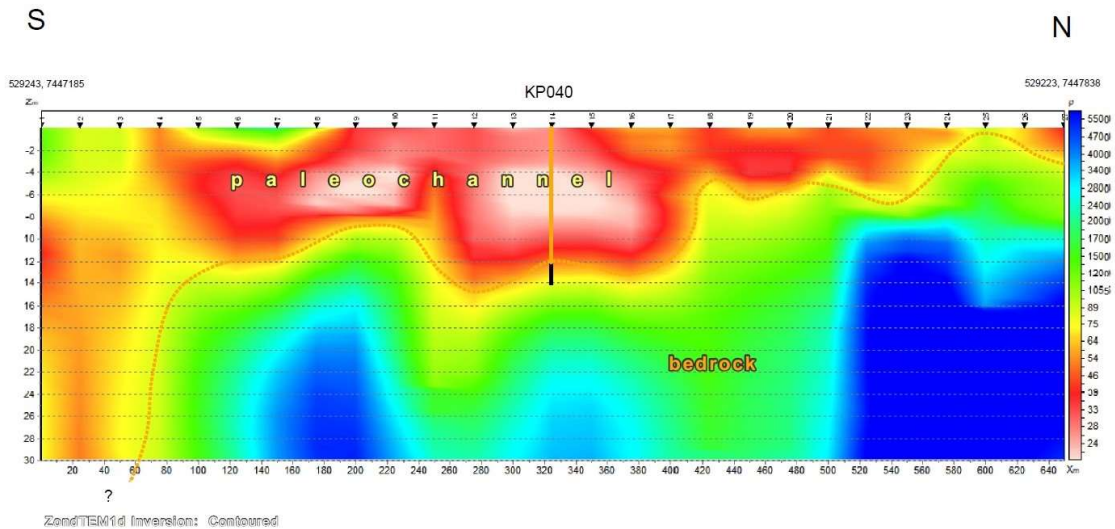


**Figure 3 – Location of Koppies in the Namib Desert, Namibia.**

## Horizontal Loop Electromagnetics (HLEM): 25 m cable

5.11.2019

## Line 5



Earthmaps Consulting CC Nov 2019 WGS84 UTM33S

Figure 4 – HLEM Survey Line 5

Sixty five holes were drilled in the Phase 3 RC drill program within Koppies 2, with these holes drilled around the eleven holes from the Phase 2 drilling (ASX announcement - 7 November 2019). Nine of the Phase 2 drill holes intersected significant and continuous uranium mineralisation, and the best hole, KP045, intersected 10 m at 687 ppm  $U_3O_8$  from 2 m, and included 2 m at 1,974 ppm  $U_3O_8$  from 5 m.

It was calculated from the Phase 2 drill program at Koppies 2 that the average grade of the mineralisation (1 m intersections  $>100$  ppm  $U_3O_8$ ) was 370 ppm  $U_3O_8$ . The Koppies 2, Phase 2 drill program mineralised intersections greater than 100 ppm  $U_3O_8$  are summarised in Table 1. The details of the Koppies 2 Phase 3 drill holes are provided in Table 2.

All palaeochannels intersected by drilling to date are mineralised, demonstrating that the area is highly prospective for calcrete hosted uranium deposits.

The work at Koppies to date clearly demonstrates the potential to delineate further palaeochannels expected to contain uranium mineralisation within the greater Koppies area. This work has amply demonstrated the significant potential of the Marenica tenements. Mineralisation has been discovered in the limited drilling completed so far over a wide area despite limited surface radiometric expression throughout the EPLs. The exploration approach of utilising HLEM and drilling to locate the mineralised palaeochannels has proven to be highly effective.

Marenica's drilling campaigns at Koppies follow the Company's strategy to acquire a significant contiguous strategic package of exploration tenements in the Namib desert, following geological interpretation of regional uranium deposition. The success of the drill program to date supports the Company's decision to apply for exploration ground in this highly prospective mineral field.



Mineralisation identified within the palaeochannels is calcrete hosted, the same style of ore used to develop Marenica's ***U-pgrade™*** uranium beneficiation process. The Company is therefore confident that ***U-pgrade™*** could be successfully applied if mining and processing operations were developed at Koppies, for a consequent significant reduction in development costs compared to Marenica's peers with similar grade ores in Namibia.

**Table 1 - Phase 2 Drill Hole Assay Results from Koppies 2, EPL 6987**

Drill Hole		From (m)	To (m)	Interval (m)	U <sub>3</sub> O <sub>8</sub> Grade (ppm)	Total Hole Depth (m)
KP038		3	6	3	222	16
KP039	and	5	7	2	140	15
		11	12	1	103	
KP040		5	6	1	127	14
KP041		10	11	1	105	13
KP044		5	7	2	144	13
KP045	including	2	12	10	687	12
		5	7	2	1,974	
KP046	and	5	8	1	105	13
		9	11	2	281	
KP047	and	5	10	5	194	19
		15	17	2	593	
KP048		3	5	2	286	17

KP045 and 047 contain 1 m of internal waste



**Figure 5 – RC Drill Rig Operating at Koppies 2**

## **Next Steps**

Following from the identification of a wide palaeochannel at Koppies 2 and confirmation that HLEM has been successful in locating palaeochannels at Koppies, the Company will continue with the exploration program.

Receipt of the assay results from the Phase 3 drill program is expected in January 2020.

Authorised for release by:

Murray Hill  
Managing Director

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# **Competent Persons Statement – General Exploration Sign-Off**

The information in this announcement as it relates to drilling results, exploration results, interpretations and conclusions was compiled by Mr Herbert Roesener, a Competent Person who is a Member of the South African Council for Natural Scientific Professions (SACNASP). Mr Roesener, who is an independent consultant to the Company, has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Roesener consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

**Table 2 Phase 3 Drill Hole Details**

Drill Hole	Easting	Northing	Total Depth (m)	Drill Hole	Easting	Northing	Total Depth (m)
KOR1	527702	7447702	13	KOR34	529300	7447400	12
KOR2	527700	7447601	14	KOR35	529300	7447300	12
KOR3	527701	7447500	11	KOR36	529300	7447200	5
KOR4	527701	7447401	8	KOR37	529300	7447100	7
KOR5	527700	7447301	12	KOR38	529300	7447000	7
KOR6	527701	7447200	15	KOR39	529699	7447701	16
KOR7	527700	7447100	10	KOR40	529700	7447600	16
KOR8	528102	7447951	4	KOR41	529700	7447500	4
KOR9	528099	7447700	15	KOR42	529700	7447400	16
KOR10	528101	7447599	12	KOR43	528901	7446910	15
KOR11	528099	7447498	13	KOR44	528500	7446999	14
KOR12	528099	7447397	12	KOR45	528499	7446903	13
KOR13	528101	7447297	13	KOR46	529298	7447895	2
KOR14	528102	7447198	22	KOR47	530098	7447527	13
KOR15	528103	7447097	10	KOR48	528102	7446998	9
KOR16	528500	7447801	12	KOR49	528100	7446901	7
KOR17	528499	7447702	2	KOR50	530498	7447599	15
KOR18	528500	7447601	3	KOR51	530498	7447501	19
KOR19	528500	7447500	2	KOR52	530500	7447398	15
KOR20	528500	7447404	5	KOR53	528098	7446813	5
KOR21	528499	7447299	18	KOR54	530900	7447471	20
KOR22	528501	7447200	15	KOR55	527700	7447798	14
KOR23	528501	7447100	16	KOR56	527700	7447004	10
KOR24	528899	7446999	16	KOR57	527700	7446903	7
KOR25	528900	7447700	4	KOR58	527701	7446800	6
KOR26	528900	7447600	13	KOR59	529700	7447801	17
KOR27	528900	7447400	13	KOR60	529699	7447900	7
KOR28	528900	7447300	15	KOR61	530500	7447299	2
KOR29	528900	7447200	10	KOR62	528500	7446800	6
KOR30	528900	7447100	16	KOR63	Not drilled		
KOR31	529302	7447798	14	KOR64	528899	7446799	12
KOR32	529302	7447700	4	KOR65	527700	7447900	7
KOR33	529301	7447600	14	KOR66	528901	7446700	5