ASX MEDIA RELEASE Havilah Resources



26 June 2020

ACCELERATED DISCOVERY SUPPORT FOR EXPLORATION

HIGHLIGHTS

Havilah has secured Accelerated Discovery Initiative (ADI) funding for two exploration projects amounting to \$275,000 in total, provided on a dollar for dollar expenditure basis.

The project "Investigation of REE Mineralisation in the Benagerie Dome" has secured matching funding of \$150,000 to drill, sample and test rare earth element (**REE**) mineralisation in the vicinity of the Croziers copper prospect and to progress the current Kalkaroo REE studies.

The second project "Jupiter MT Anomaly Definition Study" has secured matching funding of \$125,000 primarily to collect more detailed magnetotelluric (**MT**) data over the Jupiter conductive zone that will assist in drill-targeting, plus orientation MT data over the major mineralised Kalkaroo fault zone.

Havilah Resources Limited (Havilah or Company) is pleased to report that it has been successful in securing ADI funding from the South Australian Government for two of its leading Curnamona Craton exploration projects in northeastern South Australia.

<u>m a media release</u>, the South Australian Minister for Energy and Mining, the Hon Dan van Holst Pellekaan, said the ADI funding "is designed to deliver a pipeline of investment into the future by encouraging proposals That contemplate both existing and emerging technologies and exploration techniques."

The description in Havilah's successful ADI proposal **"Investigation of REE Mineralisation in the Benagerie Dome**", copied below, highlights the scope of this project:

The primary objective of the proposal is to determine the nature, extent and economic potential of REE mineralisation in the Benagerie Ridge portion of the Curnamona Craton. It will initially focus on the Kalkaroo copper-gold project and the Croziers copper prospect where limited assays indicate potentially economic levels of the higher value REE associated with the copper mineralisation. Using the LREE, La, as a proxy for these elements It has been possible to broadly outline a REE mineralisation envelope at Croziers. This partially overlaps a copper mineralisation envelope and abuts a tungsten mineralised zone (**Figure 1**, <u>refer to ASX announcement of 7 January 2020</u>).

Havilah proposes to carry out a comprehensive program of testing, which initially will include selective re-assaying of Havilah's library of historic drill sample assay pulps. This will be followed by reconnaissance RC drilling programs to define the distribution and grades of the various REE along with the associated copper mineralisation. This drilling will initially be targeted in areas where REE levels appear to be highest, based on the limited La and Ce data currently available.

Mineral separation studies will be conducted in collaboration with the Future Industries Institute at the University of South Australia to determine the mineral phase that is hosting the REE and what separation methods can be employed to recover the REE-hosting minerals in order to produce a saleable product.

This proposal is closely aligned with the Commonwealth Government's Critical Minerals Strategy, which recognises security of the critical minerals supply chain (including REE) as a high priority for government backing and support. It also accords with the South Australian government's ambition to grow future battery and emerging minerals industries and transform them into a significant source of economic development, diversification, jobs and skills.

REE have many modern age uses, including in new generation brushless electric motors, as used in power tools and many electric vehicles These rely on powerful new generation permanent magnets that use Nd, Pr, Dy,Tb compounds

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as vital components. Notably, these four higher value REE make up approximately 80% of the potential value of REE in two drill samples of soft clayey saprolite gold ore at West Kalkaroo (**Figure 2**, <u>refer to ASX announcement of 23</u> <u>April 2020</u>). The levels of these REE in the underlying copper ore types (e.g. native copper, chalcocite and chalcopyrite) will be investigated by this proposal, although it is noted that previous limited La assay values were generally elevated.

The scope of Havilah's second successful ADI proposal entitled "**Jupiter MT Anomaly Definition Study**" is outlined in the description, copied below:

A regional scale (50 km x 50 km) AusLAMP MT (magnetotelluric) survey in the Curnamona Craton identified a broad conductive zone in the upper crust. Collaborative MT survey work in 2017 between the University of Adelaide, GSSA and Havilah followed up with MT readings taken every 2 km along a 120 km roughly E-W survey line.

Processing of this new data by Professor Graham Heinson and his team from the University of Adelaide defined a vertical conductive zone similar to that existing beneath the Olympic Dam IOCG deposit, referred to by Havilah as the Jupiter MT anomaly ('Jupiter target' in **Figure 3**, refer to <u>ASX announcement of 24 January 2020</u>). By analogy, Jupiter could potentially be a pointer towards hitherto unknown near-surface copper-gold mineralisation.

A single traverse line is inadequate to properly define the orientation and lateral extent of the Jupiter conductive zone. The current proposal therefore aims to cover the area with four additional short E-W MT lines to the north and south of the existing MT survey line. MT frequencies will be collected that provide information at shallower depths. This will be supplemented by detailed gravity data and highly sensitive geochemical sampling methods. Other geophysical methods, including ground magnetics and electrical geophysics may also be conducted in order to assist in defining a drilling target.

As an orientation exercise, it is proposed to run one MT line over the major mineralised fault zone at Kalkaroo that is believed to have been the main hydrothermal fluid channelway for the Kalkaroo mineralising solutions.

There will be collaboration with Professor Graham Heinson's University of Adelaide team who will conduct the MT survey work and process and interpret the data as an extension of their previous collaborative research work with Havilah in 2017. Havilah will provide the logistical and financial support for this work as well as be responsible for gathering the other independent geophysical data sets.

The basic premise is that the geological setting of the poorly explored northern Curnamona Craton is highly conducive to the formation of major copper deposits. The ultimate objective of this work is to determine whether Jupiter is indicative of a mineralisation feeder to a copper-gold deposit as on the Gawler Craton. Discovery of new copper-gold mineralisation by this method would be a major breakthrough and give impetus to new exploration initiatives in the Curnamona Craton, with important future economic benefits for the State of South Australia.

Commenting on the successful ADI proposals Havilah's Technical Director, Dr Chris Giles, said:

"Havilah is most grateful to the South Australian Government for its support via the ADI funding.

<u>"This</u> Accelerated Discovery Fund highlights what a great place South Australia is to explore and develop mines, with a supportive mining friendly government, low sovereign risk, safe working conditions and a best practice regulatory framework that engenders social and environmental responsibility.

"The proposals were rigorously evaluated by independent technical experts, so it is testimony to the quality of Havilah's exploration projects that they were selected for ADI funding.

"Havilah is pleased to undertake the collaborative work with **Professor Bill Skinner** and his team at the University of South Australia, that will allow us to tap into the highly specialised REE metallurgical recovery expertise and supporting facilities that are available right here in South Australia.

"Likewise, the University of Adelaide MT team led by **Professor Graham Heinson** are world recognised experts in the field of magnetotellurics and we look forward to continuing our work with them.

"With the assistance provided by this ADI funding we aim to generate successful project outcomes for the benefit of our shareholders and the South Australian economy," he said.







Figure 1 Limited assays available for the Croziers copper prospect indicate potentially elevated levels of the higher value REE. Using the light-REE La as a proxy for these elements it has been possible to broadly outline a REE mineralisation envelope at Croziers (pink and grey). This envelope partially overlaps a copper mineralised envelope (green) and abuts a potential tungsten mineralised zone (yellow).



Figure 2 Drillhole KKAC0491 from West Kalkaroo has highly elevated TREO* in association with gold and copper mineralisation in the oxidised saprolite gold and native copper resource envelope (yellow). Note: ppm equals parts per million. 1 ppm = 1 g/t (gram/tonne). **Total rare earth oxides (TREO) is the industry standard and accepted norm for reporting REE and is based on the sum of the estimated grades for the following 15 rare earth oxides: La₂O₃, C_eO₂, Pr₆O₁₁, Nd₂O₃, Sm₂O₃, Eu₂O₃, Gd₂O₃, Tb₄O₇, Dy₂O₃, Ho₂O₃, Er₂O₃, Tm₂O₃, Yb₂O₃, Lu₂O₃ and Y₂O₃.*





Figure 3 Comparison of MT conductive zones beneath the Jupiter target (top image) and Olympic Dam deposit (bottom image). The MT anomaly sections are reproduced with the permission of Professor Graham Heinson from the University of Adelaide.



This release has been authorised on behalf of the Havilah Resources Limited Board by Mr Simon Gray.

For further information visit www.havilah-resources.com.au Contact: Dr Chris Giles, Technical Director, on (08) 7111 3627 or email <u>info@havilah-resources.com.au</u> Registered Office: 107 Rundle Street, Kent Town, South Australia 5067

Cautionary Statement

This announcement contains certain statements which may constitute 'forward-looking statements'. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

Competent Person's Statements

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on data and information compiled by geologist Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of *'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'*. Dr Giles consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous ASX announcements made by Havilah. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant ASX announcements.