



## **MKANGO RESOURCES LTD.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS**

**For the three and nine months ended September 30, 2020**

This Management's Discussion and Analysis ("MD&A") provides a review of the operational performance of Mkango Resources Ltd. ("Mkango", or the "Company"). The report was prepared in accordance with the requirements of National Instrument 51-102, Continuous Disclosure Obligations, and it should be read in conjunction with the condensed interim consolidated financial statements for the three and nine months ended September 30, 2020 ("Financial Statements") and the audited consolidated financial statements for the year ended December 31, 2019 and the accompanying Management's Discussion and Analysis for that fiscal year. The Financial Statements and the accompanying notes have been prepared in accordance with International Financial Reporting Standards ("IFRS") and are prepared in United States dollars unless otherwise stated. This document is dated November 26, 2020.

The Board of Directors of the Company have reviewed and approved the information contained in this MD&A and the Financial Statements.

Readers are cautioned that this MD&A contains certain forward-looking statements. Please see the section concerning "Forward Looking Statements" below.

Additional information relating to the Company can be found on the Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") at [www.sedar.com](http://www.sedar.com). The Company is listed on the TSX Venture Exchange (the "TSX-V") and holds an additional listing on the AIM Market of the London Stock Exchange ("AIM") under the symbol MKA.

## FORWARD LOOKING STATEMENTS

Certain disclosures set forth in this MD&A may constitute forward-looking statements concerning anticipated development of the Company's operations in future periods. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "anticipate", "believes", "budget", "continue", "could", "estimate", "forecast", "intends", "may", "plan", "predicts", "projects", "should", "will" and other similar expressions. All estimates and statements that describe the Company's future, goals, or objectives, including management's assessment of future plans and operations, including statements regarding exploration results and budgets, mineral resource estimates, work programs, capital expenditures, timelines, strategic plans, market price of commodities or other statements that are not statement of fact may constitute forward-looking information under securities laws. Forward-looking information is based on reasonable assumptions that have been made by the Company as at the date of such information but, by their nature, forward-looking statements are subject to numerous risks and uncertainties, some of which are beyond the Company's control, including the impact of general economic and political conditions, including the potential impact of the global outbreak of COVID-19 (coronavirus), industry conditions, volatility of commodity prices, currency fluctuations, accuracy of drilling and other exploration results, realization of mineral resource estimates, environmental risks, changes in environmental, tax and royalty legislation or other government regulation, the speculative nature of strategic metal exploration and development including the risks of contests over title to properties, the risks associated with obtaining necessary licences or permits, including and not limited to approval of any future mining licence applications and exploration licence extensions, operating or technical difficulties in connection with development activities; personnel relations, competition from other industry participants, the lack of availability of qualified personnel or management, availability of drilling equipment and access, stock market volatility and the ability to access sufficient capital from internal and external sources. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements. Forward-looking statements are based on assumptions management believes to be reasonable, including but not limited to the price of rare earth elements ("REEs" or "rare earths"); the demand for REEs; the ability to carry on exploration and development activities; the timely receipt of any required approvals; the ability to obtain qualified personnel, equipment and services in a timely and cost-efficient manner; the ability to operate in a safe, efficient and effective manner; and the regulatory framework including and not limited to licence approvals, social and environmental matters, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Mkango's actual results, performance or achievement could differ materially from those expressed in, or implied by, these

forward-looking statements. Mkango disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

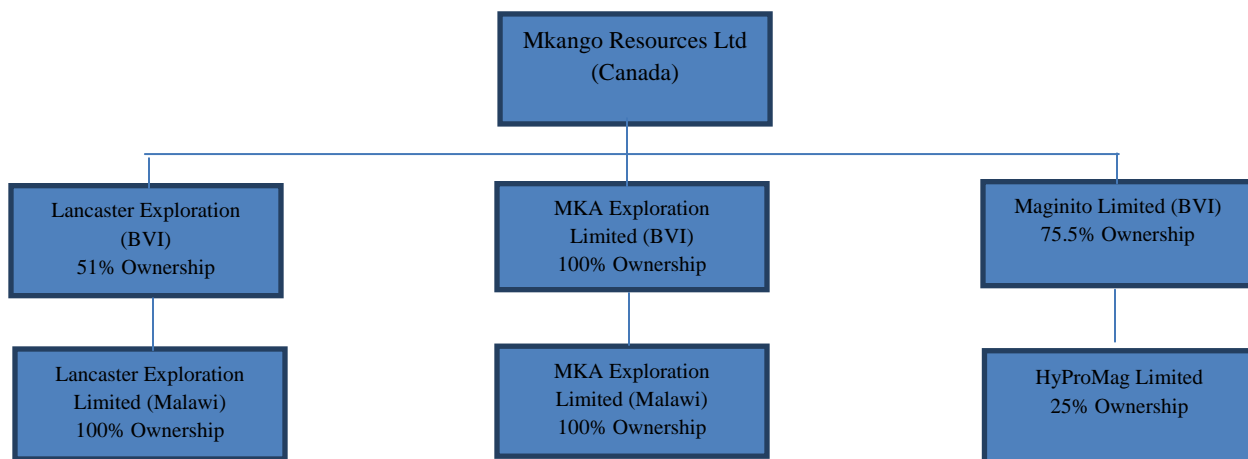
## COMPANY OVERVIEW

Mkango is an exploration and development company focused on rare earths and associated minerals with properties in the Republic of Malawi, Africa, specifically the Songwe Hill rare earths project (“**Songwe Hill**”) within the Phalombe exploration licence (the “**Phalombe Licence**”). Mkango is also pursuing mineral exploration opportunities with three additional properties in the Republic of Malawi, Africa: the Thambani exploration licence (“**Thambani Licence**”), the Chimimbe Hill exploration licence (“**Chimimbe Licence**”) and the Mchinji exploration licence (“**Mchinji Licence**”).

The Company’s core strategy is to advance the Songwe Hill project through the feasibility and development phases, whilst in parallel advancing complementary downstream opportunities in the rare earths supply chain through Maginito Limited (“**Maginito**”), both in partnership with Talaxis Limited (“**Talaxis**”), a wholly owned subsidiary of Noble Group Limited (“**Noble**”). The current work programme for Songwe Hill is focused on completing a feasibility study (the “**Feasibility Study**”), the initial phases of which included a major diamond drilling programme and publication of an updated mineral resource estimate, in addition to ongoing metallurgical optimisation and pilot test work as well, as the ongoing Environmental Social Health Impact Assessment (“**ESHIA**”) and the Corporate Social Responsibility program.

### Corporate Structure

The Company is incorporated in the province of British Columbia, Canada. The Company’s registered office is Suite 2900, 550 Burrard Street, Vancouver, British Columbia, Canada, V6C 0A3.



The Phalombe Licence, the Thambani Licence and the Chimimbe Licence are held by Lancaster Exploration Limited (“**Lancaster BVI**”), a company which was incorporated under the laws of the British Virgin Islands (“**BVI**”) on August 3, 2007. Lancaster BVI is 51% owned by Mkango and 49% owned by Talaxis. 100% of the Thambani Licence and the Chimimbe Licence are held in trust for Mkango.

Lancaster Exploration Limited (“**Lancaster Malawi**”) was incorporated on May 19, 2011, under the laws of Malawi. Lancaster Malawi is a wholly owned subsidiary of Lancaster BVI and as such, includes a non-controlling interest representing 49% of Lancaster Malawi’s assets and liabilities that are owned by Talaxis.

MKA Exploration Limited (“**MKA Exploration**”) was incorporated under the laws of BVI on July 25, 2018 and under the laws of Malawi (“**MKA Exploration Malawi**”) on May 6, 2019. Both companies are 100% owned by Mkango. The Mchinji License is held by MKA Exploration.

Maginito Limited (“**Maginito**”) was incorporated under the laws of the BVI on January 3, 2018. Maginito is 75.5% owned by Mkango and 24.5% owned by Talaxis. Maginito is focused on downstream opportunities relating to the rare earths supply chain, in particular neodymium alloy powders, magnet and other technologies geared to

accelerating growth in the electric vehicle market. This includes a collaboration previously entered into with Metalysis Limited (“**Metalysis**”), discussed below, and its investment in HyProMag Limited (“HyProMag”).

## Accounting Treatment

The Condensed Interim Consolidated Financial Statements include 100% of the assets and liabilities related to Lancaster BVI and include a non-controlling interest, representing 49% of Lancaster BVI's assets and liabilities that were owned by Talaxis as at September 30, 2020. The non-controlling interest excludes the Thambani Licence and the Chimimbe Licence, 100% of which are held in trust for Mkango, and the Mchinji Licence which is 100% owned by MKA Exploration Limited. The consolidated financial statements include 100% of the assets and liabilities related to Maginito and include a non-controlling interest representing 24.5% of Maginito's assets and liabilities attributable to Talaxis. Accounting policies are applied consistently throughout all consolidated entities.

## OVERALL PERFORMANCE AND OUTLOOK

The Company is focused on advancing the Songwe Hill project, in addition to its other projects in Malawi, and on downstream opportunities relating to the rare earths supply chain. The Company expects that funding received from Talaxis and from the exercise of warrants will be sufficient to fund Mkango's operations in the near term.

Highlights for the three and nine months ended September 30, 2020, include:

- The Company had cash of \$5,780,211 at September 30, 2020 compared to \$6,440,697 at June 30, 2020.
- The loss for the three months ended September 30, 2020 was \$793,393 compared to \$1,114,760 for the three months ended September 30, 2019 bringing the loss for the nine months ended September 30, 2020 to \$3,229,848 compared to \$2,178,078 for the nine months ended September 30, 2019. Mineral project expenses increased by \$619,926 as work on the Feasibility Study progressed. There was a reduction in foreign exchange losses of \$344,469 due to unrealized exchange gains on cash held to meet payment obligations in foreign currencies other than the US Dollar and a reduction of \$720,745 in revaluation gains on warrants recognized in the comparative period.
- Work on the Feasibility Study on Songwe Hill is continuing with work underway in Malawi, Australia, South Africa and the UK. The Company believes that some work streams may still be impacted from the impact of COVID-19, however the degree of impact is currently uncertain. Following a review of the various ongoing work streams, the Company is now targeting completion of the Feasibility Study in the second half of 2021, in line with an anticipated more stable market environment and favourable backdrop to advance project development. We note, however, that extended periods of COVID-19 disruption may further impact this timing. Operations at HyProMag are continuing where possible, in line with current UK government guidelines. At this time, the extent of the impact the COVID-19 outbreak may have on HyProMag is unknown, as this will depend on future developments that are highly uncertain and cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the disease, and the duration of the outbreak, including the duration of travel restrictions, business closures or disruptions, and quarantine/isolation measures that are currently, or may be put, in place by countries to fight the virus.
- On September 15, 2020 the Company announced the results of a reconnaissance shallow soil sampling and auger programme in its 869 square kilometre ("sq km") Mchinji licence (EPL 0544/19) in Mchinji district, Malawi, held by Mkango's 100% owned subsidiary MKA Exploration Ltd. The results demonstrate the presence of interesting grades of rutile plus anatase (both naturally occurring mineral forms of titanium dioxide: TiO<sub>2</sub>) mineralisation of up to 1.07%, with overall TiO<sub>2</sub> grades in the range 0.51 to 4.10% in auger samples and 0.14–2.38% in soil samples; also ilmenite grades of 1.30 to 3.40% (average 1.85%) – see table below. The grade of the TiO<sub>2</sub>-bearing minerals in the highest-grading auger hole are in the range of 0.63 to 1.07% rutile plus anatase (average 0.73%) and 1.30 to 3.40% ilmenite (average 1.85%), hosted in free-dig saprolite material from surface.
- On May 27, 2020 the Company announced the launch of the Innovate UK grant funded project, "Rare-Earth Recycling for E-Machines" ("RaRE") in which HyProMag Limited ("HyProMag") is a partner. Mkango's subsidiary, Maginito Limited ("Maginito"), holds a 25% equity interest in HyProMag.
- On May 1, 2020 the Company advanced \$261,106 (£200,000) to HyProMag Limited under a convertible loan facility agreement dated January 9, 2020. The convertible loan has a maturity date of January 8, 2023, carries interest at 5% per annum and is unsecured.
- On February 12, 2020 the Company announced results from its exploration programme in the Thambani Licence focused on further definition of uranium, tantalum and niobium mineralisation in the licence area. Assay results from 128 rock samples collected during the 2019 exploration programme returned significant

uranium, tantalum and niobium with values ranging up to 0.74% U<sub>3</sub>O<sub>8</sub>, 0.41% Ta<sub>2</sub>O<sub>5</sub> and 3.24% Nb<sub>2</sub>O<sub>5</sub>. Of the total, 43 graded above 500ppm U<sub>3</sub>O<sub>8</sub>, of which 13 graded above 1,000ppm U<sub>3</sub>O<sub>8</sub>; all but one of these 43 samples were in-situ rock samples. In parallel, Mkango continues to evaluate partnership opportunities for the project.

- On January 9, 2020, the Company announced that its subsidiary Maginito had completed the acquisition of an initial 25% interest in HyProMag Limited, a company focused on rare earth magnet recycling. Maginito has invested an initial £300,000 for a 25% interest in HyProMag and has an option to invest a further £1 million to increase its interest to 49%.

## **SUBSEQUENT EVENTS**

Subsequent to the end of the quarter, the Company announced the commencement of an extensive hand-auger drilling and soil sampling programme to identify rutile prospects within its 869 square kilometre Mchinji licence in Malawi, held by Mkango's 100% owned subsidiary MKA Exploration Ltd.

The drill programme is following up on reconnaissance work, which resulted in the discovery of rutile during a shallow soil sampling and auger programme completed and announced in September. The initial exploration work was limited by the equipment available in Malawi during the COVID pandemic but the Company was encouraged that the highest TiO<sub>2</sub> grades were returned by nine consecutive samples in a single auger hole (A6), drilled to a depth of 8.9m, that contain between 4.10% and 9.01% total heavy minerals (specific gravity > 2.95) and grade between 3.17% and 4.09% TiO<sub>2</sub> (see press release of 15 September, 2020).

These early-stage results show geological similarities to saprolite-hosted rutile mineralisation recently discovered on the adjoining Sovereign Metals Ltd licence to the east. This suggests potential for discovering high-grade rutile deposits within Mkango's large licence area, which is adjacent to an area that Sovereign Metals believes could potentially be a new province of rutile mineralisation. The exploration programme will be funded from the Company's existing working capital.

On November 16, 2020 the Company announced the launch of a new website for Maginito ([www.maginito.com](http://www.maginito.com)), together with a new Maginito company presentation, available for download from the website via the following link: [https://maginito.com/site/assets/files/1/20201103\\_maginito\\_presentation-1.pdf](https://maginito.com/site/assets/files/1/20201103_maginito_presentation-1.pdf)

## **DISCUSSION OF OPERATIONS**

Mkango holds a 51% interest in Lancaster BVI, which holds a 100% interest in three exclusive prospecting licences in southern Malawi, the Phalombe Licence, the Thambani Licence and the Chimimbe Licence. Pursuant to the definitive agreements, 100% of the Thambani Licence and Chimimbe Licence are held in trust for Mkango. Mkango holds a 100% interest in MKA Exploration Limited BVI which holds a 100% interest in the Mchinji License. Talaxis has agreed to fund the Feasibility Study for the development of Songwe Hill, the main exploration target within the Phalombe Licence, and has an option to fund the development of the project.

License	Project	For the nine months ended September 30,	
		2020	2019
Phalombe	<i>Songwe Hill project</i>		
	Metallurgy expenses	\$983,249	\$342,070
	Government fees	9,423	52,147
	ESHIA <sup>(1)</sup>	46,306	152,637
	Drilling programme	-	35,907
	Technical studies	501,749	250,442
	Consulting fees	148,409	188,121
	Grant refund	(53,703)	(56,228)
	Malawi office and camp expenses	50,728	97,540
Thambani, Chimimbe and Mchinji	Exploration project costs	102,094	105,692
Total Malawi project expenditures		1,788,255	1,168,329
Research and development	Maginito	-	25,464
Total mineral project and research and development expenses		\$1,788,255	\$1,193,793

(1) Environmental Social Health Impact Assessment and Corporate Social Responsibility expenditures.

Exploration and evaluation expenditures are recognized in the consolidated statement of comprehensive loss as mineral project expenditures pending determination of technical feasibility and commercial viability.

## SONGWE HILL

### Background

The Phalombe Licence covers an area of 849.1 square kilometers ("sq km") in southeast Malawi, within which Songwe Hill is the main development target and features carbonatite hosted rare earth mineralization. Songwe Hill was subject to historic exploration programs during the late 1980s. Lancaster BVI was awarded the licence by the Malawi Government on January 21, 2010 and subsequently renewed it, with the most recent renewal on January 21, 2019 being for a further 2 years to January 21, 2021.

The geological units of significance with respect to rare earth mineralization in the Phalombe Licence are intrusions and lavas of the Jurassic/Cretaceous Chilwa Alkaline Province, in which carbonatites are widely present. In addition to the large carbonatitic intrusion at Songwe Hill, numerous smaller carbonatites occur throughout the Province and include dykes, sheets, and volcanic systems such as Nkaloje, which also occurs within the Phalombe Licence area.

### Exploration

Mkango has been exploring and evaluating the Songwe Hill rare earth deposit since January 2010. Following confirmation of the previously investigated enriched zones, exploration focused on identifying the nature and extent of the rare earth mineralized carbonatites and related rocks. Mkango's early exploration activities consisted of lithochemical sampling, soil sampling, channel sampling, geological mapping, ground magnetic, density and radiometric surveys, and petrographic/mineralogical analyses.

In particular, detailed geological mapping of Songwe Hill was carried out in 2010 and 2011. The mapping demonstrated that carbonatite outcrops existed over a significantly larger area than had previously been recognized. Mapping further achieved a more precise delineation of the distribution of the main rock types. The mapping broadened the surface area of known rare earth mineralization significantly beyond the areas identified in previous exploration and identified new areas of rare earth enriched carbonatite.

The results of these activities confirmed the rare earth enrichment initially identified by historical exploration and suggested that the mineralized carbonatites were more widespread than originally identified. Mkango embarked on diamond drilling campaigns in 2011 ("Phase 1"), 2011–2012 ("Phase 2") and 2018 ("Phase 3"). Mkango also produced a bulk sample after the Phase 3 drilling in 2018.

The Phase 1 programme was successful in confirming the presence of rare earth mineralization first outlined by historical exploration. Eleven of the 13 holes intersected significant zones of rare earth mineralization. Having confirmed the presence of the mineralization, the Phase 1 drilling was expanded to areas not previously tested and demonstrated the extension of rare earth mineralization both laterally and vertically.

The Phase 2 drilling focused on expanding the area of known mineralization, infilling between existing holes and testing the mineralization at depth. All drill holes intersected rare earth mineralization and the maximum depth at which rare earth mineralization was encountered was 350 metres (“m”) below the surface of the hill.

The original resource estimate based on the Phase 1 and Phase 2 drilling programs enabled a maiden resource of 13.2 million tonnes (“Mt”) grading 1.62% total rare earth oxides (“TREO”) in the Indicated category and 18.6mt grading 1.38% TREO in the Inferred category which was announced on October 10, 2012. The Indicated resource estimate formed the basis for a Pre-Feasibility Study completed in 2014, which was subsequently updated in 2015.

### **Talaxis Agreement**

In March 2017, Mkango announced a transaction with Talaxis, whereby Talaxis invested £500,000 in Mkango by means of a placing. The placing closed in October 2017, which resulted in Talaxis’ ownership of 12.5% in Mkango’s outstanding common shares (“Shares”). In addition, Talaxis owns warrants, which could, if exercised, take its ownership to 18.1% of Mkango’s Shares. Talaxis has agreed that it will not exercise warrants if this causes Talaxis to own more than 20% of the Company’s outstanding Shares. In November of 2017, Mkango announced a further transaction with Talaxis (the “**Talaxis Agreement**”), whereby Talaxis agreed to make investments totalling £12 million (\$16 million) in Lancaster BVI to fund a Feasibility Study for Songwe Hill, with an option to fund project development, and a further investment totalling £2 million (\$2.8 million) in Maginito (described more fully below) to further advance Mkango’s downstream strategy.

On January 24, 2018, in accordance with the terms of the Talaxis Agreement, Talaxis invested an initial £5 million (\$7 million) for a 20% interest in Lancaster BVI and a further £1 million (\$1.3 million) for a 24.5% interest in Maginito.

On May 18, 2018, Mkango signed the Songwe Hill Joint Venture Agreement, the Talaxis Investment Agreement and the Cooperation Deed (the “**Definitive Agreements**”) in relation to the Talaxis Agreement.

On March 28, 2019, in accordance with the terms of the Definitive Agreements, Talaxis invested £7 million (\$9.0 million) for a further 29% interest in Lancaster BVI.

Following completion of the Feasibility Study, Talaxis has an option to acquire an additional 26% interest in Lancaster BVI by arranging funding for project development, including funding the equity component thereof. If Talaxis exercises its option, Mkango will retain a 25% interest in Lancaster BVI, which will be free carried to production.

### **Feasibility Study**

Following the receipt of £5 million (\$7 million) by Lancaster BVI on January 24, 2018, pursuant to the transaction with Talaxis, Mkango commenced the Feasibility Study, the initial phases of which comprised an extensive diamond drilling programme, metallurgical optimisation and work in relation to the ongoing ESHIA.

On June 4, 2018, Mkango announced commencement of the major Phase 3 diamond drilling programme at Songwe Hill. The programme was completed in early September 2018 and comprised 91 drill holes totalling 10,900 m of infill, step-out and geotechnical drilling, the latter for the purposes of mine design.

In five press releases between August 21, 2018 and December 3, 2018 ([www.sedar.com](http://www.sedar.com)), Mkango announced the results of all 91 drill holes which, together with a schematic geological map illustrating the location of the drill hole collars and estimated drill hole traces, are available on the Company’s website ([www.mkango.ca](http://www.mkango.ca)).

Approximately 60% of the Phase 3 drill holes were infill holes aimed at better defining the geology and geometry of the mineralized body, to facilitate a better understanding of the geological characteristics and setting of the mineralization, and to refine the geological model as a prelude to re-defining the Mineral Resource. All infill holes



intersected significant widths of mineralized carbonatite and breccia. Modelling of the lithologies based on geochemistry confirms that the core of the deposit is a uniformly mineralized carbonatite intrusive with steep sides.

Approximately 30% of the Phase 3 drill holes were step-out holes, aimed at expanding the known Mineral Resource by identifying or better delineating mineralization that is outside the volume of the previously defined Mineral Resource. Most of these holes contained mineralized intersections although not all reached their targeted depths. These holes have resulted in expansion of the estimated Mineral Resources by identifying new areas of mineralized carbonatite beyond the limits of the previous exploration programs.

Oriented core was recovered from 16 of the holes to provide geotechnical information within the Mineral Resource for future mine design.

Forty-nine of the drill holes intersected significant zones of rare earths mineralisation grading above 1% total TREO.

#### Selected Drill Results:

<b>PX056</b>	<b>114.8 m grading 1.6% TREO</b> (60.7 – 175.5 m) including <b>30.0 m grading 2.0% TREO</b> (135.0 – 165.0 m). Inclined hole (60 degrees west).
<b>PX059</b>	<b>63.0 m<sup>1</sup> grading 1.7% TREO</b> (6.0 – 69.0 m), including <b>23.0 m<sup>2</sup> grading 2.3% TREO</b> (7.0 – 30.0 m), and <b>15.4 m grading 1.6% TREO</b> (128.0 – 143.4 m). Inclined hole (60 degrees west).
<b>PX073</b>	<b>67.1 m grading 1.6% TREO</b> (8.8 – 75.9 m) including <b>25.2 m grading 2.0% TREO</b> (45.0 – 70.2 m). Inclined hole (60 degrees west).
<b>PX076</b>	<b>40.2 m grading 1.8% TREO</b> (60.4 – 100.7 m) including <b>20.0 m grading 2.4% TREO</b> (60.4 – 80.4 m). Inclined hole (60 degrees west).
<b>PX077</b>	<b>51.9 m<sup>3</sup> grading 1.7% TREO</b> (26.2 – 78.0 m). Inclined hole (60 degrees west).
<b>PX081</b>	<b>53.3m<sup>4</sup> grading 2.2% TREO</b> (3.7 – 57.0 m) including <b>26.8 m grading 3.1% TREO</b> (3.7 – 30.5 m). Inclined hole (60 degrees east).
<b>PX086</b>	<b>73.3 m grading 1.9% TREO</b> (21.5 – 94.8 m). Inclined hole (60 degrees west).
<b>PX087</b>	<b>74.4 m<sup>5</sup> grading 2.1% TREO</b> (16.2 – 90.6 m). Inclined hole (60 degrees west).
<b>PX090</b>	<b>25.7 m<sup>6</sup> grading 3.9% TREO</b> (39.5 – 65.2 m). Inclined hole (60 degrees west).
<b>PX092</b>	<b>74.9 m grading 1.9% TREO</b> (10.1 – 84.9 m) and <b>51.9 m grading 1.5% TREO</b> (97.6 – 149.5 m EoH). Inclined hole (60 degrees south).
<b>PX093</b>	<b>83.9 m grading 1.9% TREO</b> (1.5 – 85.4 m) including <b>18.0 m grading 3.0% TREO</b> (21.0 – 39.0 m). Inclined hole (60 degrees west).
<b>PX098</b>	<b>65.0 m<sup>7</sup> grading 1.7% TREO</b> (1.1 – 66.0 m) and <b>13.1 m grading 1.2% TREO</b> (115.0 – 128.1 m). Inclined hole (60 degrees south).
<b>PX103</b>	<b>165.2 m grading 1.6% TREO</b> (2.6 – 167.8 m). Inclined hole (60 degrees east).
<b>PX107</b>	<b>91.3 m<sup>8</sup> grading 1.3% TREO</b> (23.0 – 114.2 m) including <b>32.2 m<sup>9</sup> grading 1.9% TREO</b> (82.0 – 114.2 m). Inclined hole (60 degrees east).
<b>PX108</b>	<b>45.8 m grading 1.4% TREO</b> (8.2 – 54.0 m) and <b>57.3 m grading 1.7% TREO</b> (76.9 – 134.2 m). Inclined hole (60 degrees east).
<b>PX109</b>	<b>53.0 m grading 2.1% TREO</b> (22.0 – 75.0 m) including <b>22.0 m grading 3.0% TREO</b> (24.0 – 46.0 m). Inclined hole (60 degrees east).
<b>PX113</b>	<b>51.1 m<sup>10</sup> grading 2.2% TREO</b> (4.7 – 55.8 m). Inclined hole (50 degrees north).
<b>PX112</b>	<b>100.9 m grading 3.3% TREO</b> (5.9 – 106.8 m EoH) including <b>20.5 m grading 4.2% TREO</b> (5.9 – 26.4 m) and <b>22.2 m grading 4.1% TREO</b> (36.0 – 58.2 m). Inclined hole (60 degrees south).
<b>PX125</b>	<b>104.5 m grading 1.5% TREO</b> (3.5 – 108.0 m) including <b>51.5 m grading 1.9% TREO</b> (3.5 – 55.0 m). Inclined hole (60 degrees south).

<sup>1</sup> Includes two cavities totaling 5.9m not sampled. <sup>2</sup> Includes a 2.5m cavity not sampled. <sup>3</sup> Includes a 2.7m cavity not sampled. <sup>4</sup> Includes a 3.8m cavity not sampled. <sup>5</sup> Includes a 2.7m cavity not sampled. <sup>6</sup> Includes a 6.3m cavity not sampled. Due to the size of the cavity, the significance of this intersection is uncertain. <sup>7</sup> Includes a 2.3m cavity not sampled. <sup>8</sup> Includes two cavities totaling 2.3m not sampled. <sup>9</sup> Includes a 0.9m cavity not sampled. <sup>10</sup> Includes two cavities totaling 10.0m not sampled. Due to the size of the cavities, the significance of this intersection is uncertain. TREO: total rare earth oxides based on total La<sub>2</sub>O<sub>3</sub>, Ce<sub>2</sub>O<sub>3</sub>, Pr<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>2</sub>O<sub>3</sub>, Dy<sub>2</sub>O<sub>3</sub>.

Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>. These intersections are reported as down hole widths and do not necessarily represent true thicknesses and attitude of the mineralized zones, the estimation of which will require further refining of the geological model.

Drill holes PX072, PX073, PX078, PX079, PX080, PX083, PX084, PX085, PX088, PX089, PX090, PX091, PX093, PX094, PX095, PX109, PX114, PX118, PX119, PX120, PX121, PX122, PX123 and PX124 were step-out holes focused on testing north and north-west extensions of the mineralisation. Of these 24 drill holes, 19 intersected broad zones of mineralisation. The mineralised intersection in PX113 indicates the extension of the higher grade carbonatite zone located in the north-east as indicated on the accompanying geological map on the Company's website, to the north under cover. Drill holes PX038, PX039, PX040 and PX041 were step-out drill holes, focused on testing extensions of mineralisation to the south. The intersections in PX039 and PX040 further indicate that mineralisation may extend to the south. The remaining drill holes were focused on infill zones in the previous exploration/resource area defined by drill holes PX001 to PX035. Intersections of broad zones of mineralisation, as opposed to narrow veins or dykes, continue to support the concept of a bulk tonnage, open pit mining operation with low mining costs.

The full set of the above results and breakdown of TREO values can be found in Appendix A of this report.

Laboratory assay data was used to produce a 3D model based on geochemical coding that is reflective of the main mineralization, and that is objective, repeatable, and provides a consistent and meaningful illustration of the distribution of rare earth mineralization in the context of the geological setting.

The principal geochemical discriminators of the lithological variation were found to be aluminium, silicon, potassium, and calcium. Calcium was used as the final indicator, which gave a good separation with the same accuracy and resolution as if all four discriminators had been used.

The geological model constructed from the geochemistry provides a good framework within which to interpret the geology of the deposit. This is a heterogeneous geological environment that is not easily interpreted from lithological observations of drill hole core and outcrop samples alone. The model provides an estimate of the shape and extent of the carbonatite and is considered a useful tool to describe the shape of the main ore body. The model was also applied to validate the indicator approach that was used to estimate the carbonatite proportion in each cell of the resource block model.

On February 4, 2019, Mkango announced an updated mineral resource estimate for Songwe Hill: 8 Mt grading 1.50% TREO in the Measured category, 12.2 Mt grading 1.35% TREO in the Indicated category and 27.5 Mt grading 1.33% TREO in the Inferred category, applying a base case cut-off grade of 1.0% TREO.

The updated base case Mineral Resource Estimate equates to a 60% increase in the Measured and Indicated Resource tonnage and a 48% increase in the Inferred Resource tonnage versus the base case 2012 Mineral Resource Estimate, which formed the basis for the 2015 Pre-Feasibility study. The Mineral Resource is open at depth. The combined Measured and Indicated Mineral Resource Estimate, totalling 21 Mt grading 1.41% TREO, will form the basis of the updated mine plan for the ongoing feasibility study, which will evaluate a bulk tonnage, open pit mining operation focused on broad zones of near surface and outcropping rare earths mineralisation. The updated resource supersedes the 2012 Mineral Resource Estimate, and therefore renders the mining and economic information in the 2015 Pre-Feasibility study obsolete. Updated mining and economic information will be generated as part of the ongoing Feasibility Study based on the new resource.

The Measured Mineral Resource Estimate comprises 42% of the combined Measured and Indicated Mineral Resource Estimate, indicating a substantial increase in geological confidence to support the completion of the Feasibility Study.

The majority of the previously delineated near surface Inferred Mineral Resource Estimate has been upgraded to either the Measured or Indicated categories, achieving a key objective of the 2018 drill programme. Approximately 95% of the Measured and Indicated Mineral Resource Blocks are at a depth of less than 160 m below the surface of the hill, indicating that the majority will be accessible by open pit mining.

Scientific and technical information in relation to these results and related disclosure, including sampling, analytical, and test data underlying the information, has been approved and verified by Dr. Scott Swinden of Swinden Geoscience Consultants Ltd, who is a "Qualified Person" in accordance with National Instrument 43-101, Standards of Disclosure for Mineral Projects.

Sample preparation and analytical work for the drilling and channel sampling programmes are being provided by Intertek-Genalysis Laboratories (Perth, Australia) employing ICP-MS techniques suitable for rare earth analyses and following strict internal Quality Assurance/Quality Control (“QAQC”) procedures inserting duplicates, blanks and standards. Internal Laboratory QAQC was also completed to include blanks, standards and duplicates.

In terms of other aspects of the Feasibility Study, Mkango has shipped a 60 tonne bulk sample to Australia and the bulk sample has been prepared for future metallurgical pilot test work. The work programme was scaled up following receipt of the most recent Talaxis funding and is focused on flotation and hydrometallurgy. The pilot plant facility has been reviewed through a detailed tender process and a site in Australia has now been chosen. Metallurgical optimisation continues at laboratories in Australia to provide an optimal sample for flotation and hydrometallurgical piloting work.

The ESHIA studies are currently being completed in accordance with World Bank Standards and Equator Principles.

Following a review of the various ongoing work streams, the Company is now targeting completion of the Feasibility Study in the second half of 2021, in line with an anticipated more stable market environment and favourable backdrop to advance project development.

### **Other targets in the Phalombe Licence**

On August 9, 2016, Mkango announced the results of an airborne geophysical survey (the “Survey”) covering approximately two thirds of the Phalombe Licence. The Survey was part of a \$25 million World Bank funded nationwide airborne geophysical programme. The airborne radiometric survey highlights a number of exploration targets within the Phalombe Licence. Songwe Hill was not covered by the Survey.

Apart from Songwe Hill, there are two other identified hypabyssal systems in the Phalombe Licence, namely Nkalonje and Namangale. In both cases, the Survey indicates strong thorium radiometric anomalies coincident with the intrusive rocks, which, similar to Songwe Hill, are expressed as steep hills rising above the surrounding plain. Thorium radiometrics are known as a highly effective tool for rare earths exploration and the carbonatite at Songwe Hill is also characterized by a thorium radiometric anomaly, identified through previous geophysical surveys. Unlike Songwe Hill, the Nkalonje and Namangale hypabyssal systems do not feature large areas of outcropping carbonatite, the host rock for rare earths at Songwe Hill. However, both contain outcrops of carbonatite veins and dykes suggesting that there is potential for identifying a carbonatite body below surface. Other prospects within the Phalombe Licence include the Mantrap and Knoll prospects.

A map showing the thorium radiometric anomalies superimposed on a topographic map, indicating local infrastructure, and the locations of Nkalonje and Namangale can be accessed via the following link: [http://www.mkango.ca/i/maps/Results-of-Airborne-Radiometric-Survey-\(Th\)-on-Topo-Aug.jpg](http://www.mkango.ca/i/maps/Results-of-Airborne-Radiometric-Survey-(Th)-on-Topo-Aug.jpg).

In 2016, Songwe Hill and the Nkalonje, Mantrap and Knoll prospects were visited by a large delegation of international and Malawian geology and geophysics experts in connection with the €5.4 million HiTech AlkCarb research program led by the Camborne School of Mines, the University of Exeter and funded under the European Union's Horizon 2020 Research and Innovation program in which the Company (through Lancaster BVI) is an industry partner. The scope of the research project encompasses building exploration expertise in hi-tech raw materials as well as improving and developing interpretation of geophysical and down hole data. Of particular relevance to Mkango is the opportunity to better understand the potential for large but unexposed mineralised bodies of carbonatite (the host rock for rare earth mineralisation) on either a prospect or regional scale.

Based on work to date, the highest priority of such targets within the Phalombe Licence is the abovementioned Nkalonje hypabyssal system, where outcrop is largely fenite (altered country rock) with occasional carbonatite but where there may also be potential for underlying and larger zones of mineralised carbonatite.

Mkango retains, through its holding in Lancaster BVI, a 51% interest in the Phalombe Licence.

### **MCHINJI, MCHINJI DISTRICT**

On July 4, 2019, MKA Exploration BVI was granted the Mchinji Licence by the Malawi Minister of Natural Resources, Energy and Environment in respect of an area of 868.69 sq km in the Mchinji district, Malawi, which is adjacent to licences with known mineral potential including the Company's Chimimbe Hill nickel-cobalt licence to the south.

The Mchinji Licence runs for a three-year term, after which it can be renewed twice for a further two-year period with a 50% reduction in the licence area required with each renewal.

Mkango is evaluating the Mchinji deposit in the context of geophysical data produced by the recent World Bank airborne geophysical survey of Malawi completed in 2016. Exploration is focusing on rutile, gold, base metals, nickel-cobalt and graphite.

Mkango retains a 100% interest in the Mchinji Licence.

## **RUTILE AND ILMENITE DISCOVERY IN MALAWI**

On September 15, 2020 the Company announced the results of a reconnaissance shallow soil sampling and auger programme in its 869 square kilometre (“sq km”) Mchinji licence (EPL 0544/19) in Mchinji district, Malawi, held by Mkango’s 100% owned subsidiary MKA Exploration Ltd. The results demonstrate the presence of interesting grades of rutile plus anatase (both naturally occurring mineral forms of titanium dioxide: TiO<sub>2</sub>) mineralisation of up to 1.07%, with overall TiO<sub>2</sub> grades in the range 0.51 to 4.10% in auger samples and 0.14–2.38% in soil samples; also ilmenite grades of 1.30 to 3.40% (average 1.85%) – see table below. The grade of the TiO<sub>2</sub>-bearing minerals in the highest-grading auger hole are in the range of 0.63 to 1.07% rutile plus anatase (average 0.73%) and 1.30 to 3.40% ilmenite (average 1.85%), hosted in free-dig saprolite material from surface.

Twelve vertical auger holes were drilled to depths of 0.45 to 9.40m, for a total of 35.8m, from which 41 samples were collected. Available equipment was not able to penetrate beneath a shallow ferricrete horizon in the Ludzi river channel to test the assumed river sands beneath, and eight holes failed to reach more than 2m depth; new auger exploration equipment with improved ground cutting capability has been purchased and is currently being shipped to Malawi. The other four holes were drilled in saprolite on higher ground between the Ludzi’s tributaries.

Soil sampling was carried out in pits dug to 50cm (‘B horizon’) on a 500m staggered grid in four areas of the licence, producing 134 samples.

Sample preparation and analysis was provided by Scientific Services laboratory in Cape Town, employing two-acid microwave digestion and ICP-OES techniques suitable for multi-element determination and following strict internal QAQC procedures inserting blanks and standards. Internal laboratory QAQC was also completed to include blanks, standards and duplicates.

The highest TiO<sub>2</sub> grades were returned by nine consecutive samples in a single auger hole (A6), drilled to a depth of 8.9m, that contain between 4.10 and 9.01% total heavy minerals (specific gravity > 2.95) and grade between 3.17 and 4.09% TiO<sub>2</sub>. These samples were processed by heavy mineral separation and magnetic separation and the separated fractions were sent to XRD Analytical and Consulting CC in Pretoria for quantitative determination of the heavy minerals by X-ray diffraction (“XRD”). Results are given in the table below for vertical auger hole A6 positioned at co-ordinates 507971E 8482591N in UTM Zone 36S:

Auger Hole A6	Total Heavy minerals %	TiO <sub>2</sub> %	Rutile + Anatase %	Ilmenite %
0 – 1 m	5.32	4.09	0.66	3.40
1 – 2 m	4.95	3.74	0.66	2.87
2 – 3 m	7.12	3.29	0.69	1.71
3 – 4 m	8.04	3.21	0.66	1.31
4 – 5 m	7.78	3.17	0.63	1.30
5 – 6 m	9.01	3.24	0.74	1.41
6 – 7 m	5.79	3.56	0.65	1.44
7 – 8 m	4.10	3.89	0.85	1.58
8 – 8.9 m	4.18	3.81	1.07	1.62
Weighted average	6.28	3.55	0.73	1.85

Geochemistry of the soil samples reveals anomalous TiO<sub>2</sub> values around auger holes A6 and A11, suggesting potential for follow-up and indicating that soil geochemistry may be a useful regional exploration tool.

These early-stage results show geological similarities to saprolite-hosted rutile mineralisation recently discovered on the adjoining Sovereign Metals Ltd licence to the east. This suggests potential for discovering high-grade rutile deposits within Mkango's large licence area, which is adjacent to an area that Sovereign Metals believes could potentially be a new province of rutile mineralisation.

As a result, subsequent to the end of the quarter, the Company announced the commencement of an exploration programme of more extensive soil sampling, additional auger drilling, and mineralogical test work to further identify rutile prospects within the Mchinji licence. The exploration programme will be funded from the Company's existing working capital.

Rutile, anatase and ilmenite are naturally occurring TiO<sub>2</sub> minerals, whose main uses are 90% for pigments, 5% production of titanium metal and 5% welding. Sierra Rutile owned by Iluka is the only high grade, large scale operating primary source natural rutile mine globally.

Scientific and technical information contained in this release has been approved and verified by Dr. Scott Swinden of Swinden Geoscience Consultants Ltd, who is a "Qualified Person" in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects.

## **CHIMIMBE HILL, MCHINJI DISTRICT**

On November 14, 2017, Lancaster BVI was granted the Chimimbe Licence by the Malawi Minister of Natural Resources, Energy and Environment in respect of an area of 98.48 sq km around Chimimbe Hill, Mchinji district, Malawi. Exploration has identified a number of areas with potential for laterite and saprolite hosted nickel, cobalt, chrome, rutile, gold & base metals and other mineralization.

The Chimimbe Licence runs for a period of three years and is renewable for further periods of two years thereafter if the terms and conditions of the licence have been met.

Mkango is evaluating the Chimimbe Hill deposit in the context of geophysical data produced by the recent World Bank airborne geophysical survey of Malawi, recent infrastructure developments in the region, potential synergies with Songwe Hill and the Thambani uranium-tantalum-niobium project, options relating to sulphuric acid and/or alternative reagents supply and potential by-products, as well as opportunities to produce nickel and cobalt products for the battery electric vehicle market. The licence is also being explored for gold, rutile and base metals

Mkango retains a 100% interest in the Chimimbe Licence.

## **THAMBANI, MWANZA DISTRICT**

### **Background**

Lancaster BVI was granted the Thambani Licence by the Malawi Minister of Natural Resources, Energy and Environment on September 10, 2010 in respect of an area, which was originally 468 sq km in Thambani, Mwanza District, Malawi. Exploration has identified a number of areas with potential for uranium ("U"), tantalum ("Ta"), niobium ("Nb"), zircon ("Zr") and mineral corundum.

The licence was originally issued by the Malawi Government on a three-year basis and was subsequently renewed on September 10, 2015 for an additional two-year term when the Company requested a reduction in the licence area to the current 136.9 sq km. The licence was renewed for a further 2 years to September 10, 2019 and was subsequently renewed for an additional 2 years to September 10 2021.

The exploration activities conducted during 2011 and 2012 included acquisition of Landsat7 and ASTER satellite imagery for the licence area, systematic ground radiometric surveys to confirm and detail previously-known airborne anomalies, reconnaissance geological mapping and litho-geochemical sampling programs. The work has identified a number of potential uranium targets over the Thambani Massif, which is mainly composed of nepheline syenite gneiss, forming two prominent ridges known as Thambani East Ridge and West Ridge. Historical airborne radiometric surveys and ground radiometric survey programs carried out by Mkango have revealed two distinct

uranium anomalies occurring along the two ridges. A strong uranium anomaly, measuring approximately 3 km by 1.5 km, occurs along the length of the Thambani East Ridge with a north-south trend and a second uranium anomaly, measuring approximately 1.5 km by 0.4 km along the western foot of the West Ridge possibly coincident with the contact between the nepheline syenite body and the biotite-hornblende gneisses to the west.

Initial results from follow up reconnaissance geochemical sampling conducted in 2013 returned locally anomalous uranium values, ranging up to 1,545 ppm U<sub>3</sub>O<sub>8</sub>, on both Thambani East Ridge and West Ridge. During the year ended December 31, 2014, the Company continued to progress the geological exploration studies on the Thambani project area, data analysis and geological modeling.

Mkango completed a trenching program across the Thambani Massif primarily focused on two sites of historical uranium exploration, known as the Chikoleka and Little Ngona targets. An initial set of nine trenches, selected on the basis of anomalous ground radiometric results, have been re-examined and geochemically sampled across profiles from soil/overburden into bedrock.

The first set of assay results of 142 soil and rock chip samples returned variably anomalous U, Nb and Ta values in most trenches, ranging up to 4.70 % U<sub>3</sub>O<sub>8</sub>, 3.25 % Nb<sub>2</sub>O<sub>5</sub> in soil and up to 0.42 % U<sub>3</sub>O<sub>8</sub>, 0.78 % Nb<sub>2</sub>O<sub>5</sub> and 972 ppm Ta<sub>2</sub>O<sub>5</sub> in rock chips, notably higher than results from the 2013 reconnaissance surface geochemical sampling program. Results associated with the 10 best U<sub>3</sub>O<sub>8</sub> assays are summarized in the table below.

Preliminary mineralogical studies carried out on six rock samples from the Little Ngona River and Chikoleka targets, using Scanning Electron Microscopy (“SEM”) at the Natural History Museum (NHM) London, indicate that pyrochlore group minerals, mainly betafite, are the principal carriers of U, Nb and Ta for these samples.

**Assays from the 10 highest- U<sub>3</sub>O<sub>8</sub> samples from the Thambani trenching program**

Trench No.	Profile	Sample No	From (m)	To (m)	Rock type	U308 Ppm	Nb2O5 ppm	Ta2O5 ppm
C3	A	U3622	0.5	1	Soil	47,094	32,462	45
C3	A	U3623	1	1.5	Soil	1,057	735	59
T11	C	U3508	0.5	1	Decomposed Feldspathic	4,231	7,805	743
T11	C	U3509	1	1.5	Decomposed Feldspathic	2,539	6,619	911
T11	B	U3505	0.5	1	Decomposed Feldspathic	2,369	5,424	972
T15	A	U3554	1	1.5	Feldspathic rock	1,657	4,346	67
T15	A	U3553	0.5	1	Feldspathic rock	1,616	3,754	431
T15	E	U3565	0.5	1	Feldspathic rock	1,553	3,525	41
T14	D	U3549	1.5	2	Feldspathic rock	1,432	3,034	434
T19	C	U3604	1	1.5	Feldspathic rock	1,367	5,525	675

### Airborne Geophysical Survey

On July 12, 2016, Mkango announced results of an airborne geophysical survey covering approximately two thirds of its Thambani Licence. As with the Phalombe Licence, the survey was part of a \$25 million World Bank funded nationwide airborne geophysical programme flown at 250 metre spacings.

The airborne survey confirms the presence of the previously identified uranium radiometric anomaly referred to above along the western flank of the Thambani East Ridge. The Little Ngona prospect, which previously yielded very encouraging uranium, niobium and tantalum values from geochemical sampling, is located at the northern end of this anomaly.

Further discrete uranium anomalies orientated approximately east-west, is located to the south of these anomalies and has yet to be investigated in detail. The previously identified uranium radiometric anomalies on the West Ridge and Chikoleka prospect in the north-west of the licence area, which also yielded very encouraging results from previous geochemical sampling, were not covered by this Survey.

A map showing the uranium radiometric anomalies superimposed on a topographic map, indicating local infrastructure, and a digital elevation model can be accessed via the following link:

[http://www.mkango.ca/i/maps/Results\\_of\\_Airborne\\_radiometric\\_survey\\_on\\_topo\\_U\\_July.jpg](http://www.mkango.ca/i/maps/Results_of_Airborne_radiometric_survey_on_topo_U_July.jpg)

The airborne survey also highlighted a number of magnetic anomalies not previously identified, including a 2.3 kilometer (“**km**”) linear magnetic high anomaly along the Thambani East Ridge, a further 1 km by 0.5 km magnetic high anomaly located to the north along the Thambani East Ridge, a magnetic low anomaly approximately co-incident with the abovementioned east–west orientated uranium anomaly and anomalies in a number of other locations. These areas require further investigation to determine the significance of the magnetic anomalies and whether they are related to mineralisation or geological features.

A map showing the magnetic anomalies superimposed on a topographic map, indicating local infrastructure, and a digital elevation model can be accessed via the following link:

[http://www.mkango.ca/i/maps/Results\\_of\\_Airborne\\_magnetic\\_survey\\_on\\_topo\\_July\\_2016.jpg](http://www.mkango.ca/i/maps/Results_of_Airborne_magnetic_survey_on_topo_July_2016.jpg)

During 2019, Mkango commenced a subsequent exploration programme focused on further definition of uranium, tantalum and niobium mineralisation in the licence area. Results were as follows:

Assay results from 128 rock samples collected during the 2019 exploration programme returned uranium, tantalum and niobium values ranging up to 0.74% U<sub>3</sub>O<sub>8</sub>, 0.41% Ta<sub>2</sub>O<sub>5</sub> and 3.24% Nb<sub>2</sub>O<sub>5</sub>. Of the total, 43 graded above 500ppm U<sub>3</sub>O<sub>8</sub>, of which 13 graded above 1,000ppm U<sub>3</sub>O<sub>8</sub>; all but one of these 43 samples were in-situ rock samples. Results associated with the ten best U<sub>3</sub>O<sub>8</sub> assays are summarised in the table below, nine of which are grab samples from outcrop (prefixed G-) and one a hand-auger sample of highly weathered rock in a trench (prefixed T-).

The objective of the programme was to identify new areas of outcropping mineralisation through further geological reconnaissance and sampling, guided by handheld spectrometer. Sampling was focussed on the uranium anomalies identified by previous airborne and ground radiometric surveys, including areas where previous sampling gave encouraging results. The aims of the sampling were to better delineate the mineralised zones and to localise future drill sites to test the downdip extension of surface mineralisation. Field observations and sampling results suggest that mineralisation occurs in zones that are conformable with gneissic banding.

Assays from the 10 highest grade U<sub>3</sub>O<sub>8</sub> samples from the 2019 Thambani sampling programme

Sample ID.	U <sub>3</sub> O <sub>8</sub> ppm	Ta <sub>2</sub> O <sub>5</sub> ppm	Nb <sub>2</sub> O <sub>5</sub> ppm
T0567	7,369	3,849	12,933
G1902	2,755	4,057	32,401
G1951	2,254	2,152	14,713
G1928	2,028	2,450	17,516
G1962	1,880	1,561	8,634
G1938	1,483	29	305
G1903	1,409	2,305	19,451
G1929	1,333	1,886	14,764
G1946	1,275	855	3,126
G1961	1,239	1,698	12,823

The 2019 sampling programme was focused on radiometric uranium anomalies associated with the Thambani Massif, a body of nepheline-bearing syenite gneiss which dominates the north-eastern part of the licence. Previous work has shown the uranium anomalies to be associated with niobium and tantalum mineralisation.

Two suites of samples were collected: 1) in-situ grab samples from outcrop; and 2) extremely friable, highly weathered rock from trenches that were manually excavated to approximately 10 metres (“m”) long, 1.5m wide and

2m deep, and oriented west to east across the regional strike of the gneissic foliation. Grab samples are selective and are not necessarily representative of the mineralisation on the property.

A location map and sampling maps can be found at <https://mkango.ca/projects/thambani>

A total of 58 surface grab samples were collected, 54 of which were from outcrop associated with the prominent radiometric anomaly along the western slope of the East Ridge, and four from outcrop in the Supe River.

Ten trenches were excavated by hand over radiometric anomalies. Three of these (the Western Trenches) were spaced 25m apart, immediately adjacent to a pit where the highest grades were encountered in 2017. The seven other trenches were excavated over radiometric anomalies at widely separated locations on the lower slope of the East Ridge. In all of the trenches, highly weathered nepheline syenite gneiss was encountered below a bouldery soil horizon approximately 0.5m thick. The westward dip of the banded gneiss observed in outcrop on the ridges was recognisable in the trenches despite strong weathering.

In the Western Trenches, 70 samples were collected, 61 of which were horizontal channel samples of 2m length collected along each wall in all of the three trenches. Five similar samples were collected in one trench at the foot of the East Ridge.

Assays summarised in the table below show that grades in the fresh rock tended to be higher, suggesting extensive secondary remobilisation of the elements of interest.

Summary of assay results (grades in ppm) from the 2019 Thambani sampling programme

	Rock grab samples			Trench samples		
	U <sub>3</sub> O <sub>8</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>
Average	777	761	5,267	221	161	881
Median	659	542	3,340	93	87	654
Minimum	6	7	63	14	15	222
Maximum	2,755	4,057	32,401	7,369	3,849	12,933

This programme provides new information on the nature, disposition and grade ranges of mineralisation in the Thambani Massif. Sampling of mainly fresh samples on the East Ridge indicates that the U-Ta-Nb mineralisation occurs within the gneissic bands, and surface observations indicate that it may occur in conformable zones. This provides a target for shallow drilling on the down-dip extension of the surface showings.

Mkango is currently evaluating strategic options for Thambani, including opportunities for joint venture and other potential avenues to create value.

Mkango currently retains a 100% interest in the Thambani Licence.

## MAGINITO

Maginito was incorporated on January 3, 2018 in the BVI and is focused on downstream opportunities in the rare earths supply chain, in particular rare earth alloy, magnet and other technologies geared to accelerating growth in the electric vehicle market.

### Metalysis Agreement and Maginito Joint Venture

In March 2017, Mkango entered into a Memorandum of Understanding ("MOU") with Metalysis to jointly research, develop and commercialise novel rare earth metal alloys for use in permanent magnets. In September 2017, Mkango and Metalysis signed a joint venture principles and exclusivity agreement (the "**Metalysis Agreement**") for the development of advanced alloys using neodymium or praseodymium with other elements for use in permanent magnets. This included joint venture principles for a joint venture (the "**Metalysis Joint Venture**") to commercialise intellectual property rights for the production of neodymium or praseodymium alloy powders. Under the Metalysis Agreement, Maginito will hold an 85% interest in the Metalysis Joint Venture and Metalysis will receive a 15% free carried interest.



On January 24, 2018, Talaxis invested £1 million (\$1.3 million) in Maginito to acquire a 24.5% interest in Maginito to fund the research and development programme with Metalysis and other complementary downstream opportunities in the rare earths supply chain. Payment of an additional £1 million was conditional on completion of a definitive Investment Agreement in respect of Maginito and successful completion of the second phase of the research and development programme with Metalysis, upon which Talaxis would hold a 49% interest in Maginito.

Following the acquisition of the trade and assets of Metalysis by Power Resources Group (“PRG”) in July 2019 the Company continues to determine if there is a mutually beneficial way forward for the collaboration. However, there is no guarantee that a new agreement, superceding the Metalysis Joint Venture, can be arranged. The Company is also discussing with Talaxis restructuring the agreement in relation to the additional £1m investment into Maginito.

### **HyProMag Limited**

On September 23, 2019, the Company announced that Maginito had signed an investment term sheet and one year exclusivity agreement with HyProMag Limited, a private company focused on rare earth magnet recycling. Consistent with Maginito's strategy, the rationale for the transaction includes potential synergies, such as blending of primary production originating from Songwe Hill with recycled production from HyProMag, as well as enhanced marketing flexibility and access to downstream markets for rare earth permanent magnets, which are critical materials for electric vehicles, wind turbines, consumer electronics and other technology applications.

HyProMag has licenced a patented process for extracting and demagnetising neodymium iron boron (“NdFeB”) alloy powders from magnets embedded in scrap and redundant equipment named HPMS (Hydrogen Processing of Magnet Scrap, the “Technology”). This was originally developed within the Magnetic Materials Group (“MMG”) at the University of Birmingham (“UoB”).

On January 9, 2020 the Company announced that Maginito had completed the acquisition of an initial 25% interest in HyProMag. Maginito has invested an initial £300,000 for a 25% interest in HyProMag, with an option to invest a further £1 million to increase its interest up to 49% and the first right to supply any primary rare earth raw materials for blending with recycled materials, if required, as well as product offtake and marketing rights.

On May 1, 2020 the Company advanced \$261,106 (£200,000) to HyProMag Limited under a convertible loan facility agreement dated January 9, 2020. The convertible loan has a maturity date of January 8, 2023, carries interest at 5% per annum and is unsecured.

On May 28, 2020, the Company announced the launch and provided further details of the Innovate UK grant funded project, “Rare-Earth Recycling for E-Machines” (“RaRE” or the “Project”) in which HyProMag is a partner. RaRE will for the first time establish an end to end supply chain to incorporate recycled rare earth magnets into electric vehicles, whereby recycled magnets will be built into an ancillary electric motor to ultimately support the development of a commercial ancillary motor suite. In addition to HyProMag and University of Birmingham, the Project features a strong set of partners with complementary expertise, comprising Advanced Electric Machines Research Limited, Bentley Motors Limited, Intelligent Lifecycle Solutions Limited and Unipart Powertrain Applications Limited. The total budget for RaRE is £2.6 million, of which Innovate UK will fund £1.9 million, with Project partners funding the £0.7 million balance. HyProMag’s contribution will be fully funded from the £300,000 investment made by Maginito in January 2020.

The founding directors of HyProMag, comprising Professor Emeritus Rex Harris, former Head of the MMG, Professor Allan Walton, current Head of the MMG, and two Honorary Fellows, Dr John Speight and Mr David Kennedy, are leading world experts in the field of rare earth magnetic materials, alloys and hydrogen technology, and have significant industry experience.

Maginito is continuing to evaluate new downstream opportunities relating to the rare earths supply chain. Mkango retains a 75.5% interest in Maginito.

On November 16, 2020 the Company announced the launch of a new website for Maginito ([www.maginito.com](http://www.maginito.com)), together with a new Maginito company presentation, available for download from the website via the following link: [https://maginito.com/site/assets/files/1/20201103\\_maginito\\_presentation-1.pdf](https://maginito.com/site/assets/files/1/20201103_maginito_presentation-1.pdf)

## SELECTED CONSOLIDATED FINANCIAL INFORMATION

Information discussed herein reflects the Company as a consolidated entity.

### Financial Position

The following financial data is derived from the Company's consolidated statements of financial position as at December 31, 2019, 2018 and 2017:

As at December 31,	2019	2018	2017
Total assets	9,830,234	2,685,561	997,869
Total non-current liabilities	-	-	1,505,561
Shareholders' equity of parent	12,225,788	3,348,605	(1,253,363)

#### Total assets

Total assets were \$9,830,234 as at December 31, 2019 as compared to \$2,685,561 as at December 31, 2018. Total assets increased by \$7,144,673, primarily due to a \$7,129,315 increase in the amount of cash held.

At January 1, 2019, the Company had an opening cash position of \$2,400,702. Cash received during the year ended December 31, 2019 was \$10,829,931. This was received from three sources. First, on March 28, 2019, \$9,067,027 was received from Talaxis (net of share issue expenses of \$188,826) representing the third tranche of investment in Lancaster BVI. Second, \$1,687,093 was received when warrants of the Company were exercised. Third, \$75,811 was received when stock options were exercised. Cash used in operations was \$3,571,152 and the effect of exchange rate changes on cash was a reduction of \$79,114 during the year for a closing cash position of \$9,530,017.

In comparison, at January 1, 2018, the Company had an opening cash position of \$691,276. Cash received during the year ended December 31, 2018 was \$9,058,863. This was comprised from two sources. First, during January 2018, net cash of \$8,139,497 was received from Talaxis for its investments in Lancaster BVI and Maginito. Second, \$919,366 was received from the exercise of warrants. Cash used in operations was \$7,272,167, use of funds to purchase assets was \$83,908 and the effect of exchange rate changes on cash was an increase of \$6,638 during the year for a closing cash position of \$2,400,702.

Total assets were \$2,685,561 as at December 31, 2018 as compared to \$997,689 as at December 31, 2017. Total assets increased by \$1,687,872, primarily due to a \$1,709,426 increase in the amount of cash held.

In comparison, at January 1, 2017, the Company had an opening cash position of \$388,678. Cash received during the year ended December 31, 2017 was \$609,448 for a share placement, which closed on December 30, 2016. Cash used in operations was \$786,542 and the effect of exchange rate changes on cash was an increase of \$108 during the year for a closing cash position of \$691,276.

#### Total shareholders' equity (deficit) of parent

Total shareholders' equity was \$12,225,788 as at December 31, 2019 compared to \$3,348,605 as at December 31, 2018. The shareholder' equity at December 31, 2018 has been restated from \$5,038,140, a reduction of \$1,689,535 to reflect the proportion of equity retained by Talaxis on investment directly in shares in Lancaster BVI and Maginito Limited of \$1,372,910 and \$316,625 respectively. The increase of \$8,877,183 is due to the recognition of a gain on recognition of non-controlling interests of \$8,406,447 following further investment by Talaxis in Lancaster BVI, and the issue of \$1,921,800 in equity following the exercise of warrants and share options during the year, offset by the loss attributable to common shareholders of \$1,668,652.

Total shareholders' equity was \$3,348,605 as at December 31, 2018 compared to a deficit of \$1,253,363 as at December 31, 2017. The increase of \$4,601,968 is due to the recognition of a gain on recognition of non-controlling interests of \$8,893,437 following the initial investment by Talaxis in Lancaster BVI and Maginito, and the issue of \$1,297,752 in equity following the exercise of warrants during the year, offset by the loss attributable to the common shareholders of \$5,721,889.

## Summary Results of Operations

The following financial data is derived from the Company's consolidated financial statements as at December 31, 2019, 2018 and 2017:

	Year ended December 31,		
	2019	2018	2017
Mineral project and research and development	1,747,499	4,949,232	243,329
Other expenditures*	1,992,205	2,549,353	2,285,861
Other items**	(700,468)	(322,457)	
Total net loss	3,039,236	7,176,128	2,529,181
Total net loss attributable to non-controlling interest	1,370,584	1,454,239	-
Total net loss attributable to the common shareholders	1,668,652	5,721,889	2,529,181
Basic and diluted loss per share***	\$ (0.013)	\$ (0.053)	\$ (0.029)
Weighted average number of common shares (basic and diluted)	124,173,150	108,903,807	86,996,808
Distributions or Dividends	\$ Nil	\$ Nil	\$ Nil

\* Other expenditures represent all other expenditures, other than mineral project and research and development expenditure, disclosed in the statement of comprehensive loss and includes non-cash items.

\*\* Other items are gains on the revaluation of warrants and interest income.

\*\*\* Loss per share for 2018 has been restated to reflect the correct calculation using the net loss attributable to the common shareholders rather than the total net loss.

The net loss for the year ended December 31, 2019 was \$3,039,236 compared to the net loss reported for the year ended December 31, 2018 of \$7,176,128. The net loss decreased by \$4,136,892 for the comparable periods. The significant items contributing to the change include:

1. The Maginito research and development expenses decreased by \$384,423 as no significant payments were required during the period to advance the collaborative research programme with Metalysis.
2. A \$378,927 decrease in warrant revaluation expense for the year ended December 31, 2019 because all outstanding warrants expired or were exercised during the year.
3. A \$415,627 decrease in foreign exchange loss, which resulted from the revaluation of cash balances held in currencies other than the US dollar at the end of the period.
4. A \$2,817,310 decrease in exploration expenses resulting from the significant costs incurred during the year ended December 31, 2018 when the Songwe Hill project drilling program was underway. The Company incurred \$546,732 in expenses for the Technical Studies during the year ended December 31, 2019
5. General and administrative expenses decreased by \$247,209 for the year ended December 31, 2019 mainly as a result of lower legal costs related to the Talaxis investment agreement signed in 2018 and a reduction in Director and Officer compensation as no retirement payments were made in 2019.

The net loss for the year ended December 31, 2018 was \$7,176,128 compared to the net loss reported for the year ended December 31, 2017 of \$2,529,181. Net loss increased by \$4,646,947 for the comparable periods. The significant items contributing to the change include:

1. General and administrative expenses were \$1,024,011 higher for the year ended December 31, 2018 as a result of an increase to salaries and activities related to negotiating and preparing the Talaxis definitive agreements.
2. Mineral project expenditures were \$4,295,730 higher for the year ended December 31, 2018 as the Company undertook the drilling program for the Songwe Hill project during that period.
3. \$410,173 was spent to advance the collaborative research and development programme with Metalysis.

## RESULTS OF OPERATIONS

The selected period information and summary of financial results below is derived from and should be read in conjunction with the Company's consolidated financial statements for the year ended December 31, 2019.

## SUMMARY OF QUARTERLY FINANCIAL RESULTS

The following is selected financial data from the company's quarterly financial statements for the last eight quarters ending with the most recently completed quarter, being the quarter ended September 30, 2020:

Total Operations Attributable to common shareholders	2020				2019				2018
	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	
Expenses	505,742	596,350	505,213	632,417	356,632	425,946	662,267	1,447,454	
Other items	(108,894)	(54,189)	377,792	(187,311)	192,129	171,823	115,118	(197,969)	
Warrant fair value loss (gain)	-	-	-	17,337	3,038	(450,299)	(270,446)	(452,955)	
Net income (loss) for period	(396,848)	(542,161)	(883,003)	(462,443)	(551,799)	(147,470)	(506,939)	(796,655)	
Loss per share - basic and diluted	\$(0.003)	\$(0.004)	\$(0.007)	\$(0.003)	\$(0.004)	\$(0.001)	\$(0.005)	\$(0.021)	

The financial data for the eight periods reported have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations issued by the International Financial Reporting Interpretations Committee ("IFRIC"), in effect on September 30, 2020. The financial data does not include the non-controlling interest ("NCI") share of net loss for the period. The Company's principal activities require expenditures which include both exploration and general and administrative expenses.

### THIRD QUARTER 2020 COMPARED TO THIRD QUARTER 2019

The Company recognized a net loss attributable to common shareholders of \$396,848 and \$551,799 for the three months ended September 30, 2020 and 2019, respectively. The decrease of \$154,951 in net loss attributable to common shareholders for the three months ended September 30, 2020 compared to the same period in 2019 is comprised mainly of a \$131,754 increase in mineral project expenses due to increased spend on metallurgy and technical studies offset by a \$35,463 decrease in general and administrative expenses mainly due to a reduction in the share based payment expense and a reduction in exchange losses of \$237,223. The increase in mineral project expenses is mainly due to increased expenditure on flotation optimization. The reduction in unrealized foreign exchange loss was due to unrealized exchange gains on cash held to meet payment obligations in foreign currencies other than the US Dollar which were revalued for reporting purposes as at the end of each reporting period.

### SECOND QUARTER 2020 COMPARED TO SECOND QUARTER 2019

The Company recognized a net loss attributable to common shareholders of \$524,161 and \$147,470 for the three months ended June 30, 2020 and 2019, respectively. The increase of \$376,691 in net loss attributable to common shareholders for the three months ended June 30, 2020 compared to the same period in 2019 is comprised mainly of a \$132,914 increase in mineral project expenses due to increased spend on metallurgy and technical studies, a \$14,031 increase in general and administrative expenses mainly due to increased legal fees, primarily for the development agreement also for the HyProMag agreement and a \$450,299 decrease in warrant revaluation credit offset by a decrease of \$212,437 in foreign exchange losses. The decrease in the warrant revaluation credit is as a result of all the warrants being exercised or expiring in the previous fiscal year. The increase in mineral project expenses is mainly due to increased expenditure on flotation optimization. The reduction in unrealized foreign exchange loss was due to unrealized exchange gains on cash held to meet payment obligations in foreign currencies other than the US Dollar which were revalued for reporting purposes as at the end of each reporting period.

### FIRST QUARTER 2020 COMPARED TO FIRST QUARTER 2019

The Company recognized a net loss attributable to common shareholders of \$883,003 and \$506,939 for the three months ended March 31, 2020 and 2019, respectively. The increase of \$376,064 in net loss attributable to common shareholders for the three months ended March 31, 2020 compared to the same period in 2019 is comprised mainly of a \$69,993 decrease in mineral project expenses and a \$48,764 decrease in general and administrative expenses offset by an increase of \$227,778 in foreign exchange losses and a \$270,446 decrease in warrant revaluation credit. The decrease in the warrant revaluation credit is as a result of all the warrants being exercised or expiring in the

previous fiscal year. The decrease in mineral project expenses and general and administrative expenses is mainly due to a larger proportion of the expenses attributable to the non-controlling interest in Consolidated Lancaster increasing from 25% to 49%. The increase in unrealized foreign exchange loss was due to unrealized exchange losses on cash held to meet payment obligations in foreign currencies other than the US Dollar which were revalued for reporting purposes as at the end of each reporting period.

#### **FOURTH QUARTER 2019 COMPARED TO FOURTH QUARTER 2018**

The Company recognized a net loss attributable to common shareholders of \$462,443 and \$796,655 for the three months ended December 31, 2019 and 2018, respectively. The decrease of \$334,212 in net loss attributable to common shareholders for the three months ended December 31, 2019 compared to the same period in 2018 reflects the increase in the non-controlling interest in Consolidated Lancaster from 20% to 49% and is comprised of a decrease of \$151,185 in general and administrative expenses, a decrease of \$271,027 in foreign exchange losses, a decrease of \$385,526 in mineral project expenses and an increase of \$464,053 from the revaluation of warrants. The decrease in mineral project expenses is due to exploration activities and the ESHIA which were undertaken in Malawi and work in relation to the feasibility study for the three months ended December 31, 2018. In comparison, the Company focused on technical studies in connection with the Feasibility Study in the three months ended December 31, 2019. The increase in unrealized foreign exchange loss was due to the Company's holdings of foreign denominated currencies in bank accounts, which were revalued for reporting purposes as at the end of each reporting period.

#### **RELATED PARTY TRANSACTIONS AND BALANCES**

- a) Leo Mining Exploration Ltd. ("Leo Mining") is considered related by virtue of common directors and officers who have an ownership in, and exercise significant influence over, both companies. The Company and Leo Mining have formalized their relationship with respect to services provided by Leo Mining. A written agreement sets out the types of services, which may be provided, and the costs associated with such services. The Company repays the disbursements made by Leo Mining on its behalf. During the nine months ended September 30, 2020, the Company had incurred costs of \$56,400 (September 30, 2019 - \$45,843) for reimbursed exploration and administrative expenses. As of September 30, 2020, the Company has an outstanding payable to Leo Mining in the amount of \$(355) (September 30, 2019 - \$7,328). The amount is unsecured and due on demand.
- b) Talaxis is considered an insider as it holds more than 10% of the shares of the Company. Transactions and balances with Talaxis are disclosed throughout the Condensed Interim Consolidated Financial Statements.
- c) Zenith Advisory Services Pty Ltd. ("Zenith") is considered a related party because a director of the Company is a principal of Zenith. During the nine months ended September 30, 2020, the Company has incurred costs of \$nil (September 30, 2019 - \$182,801) for advisory services related to the Talaxis investments and director's fees of \$12,000 (September 30, 2019 - \$8,000). As of September 30, 2020, the Company has an outstanding payable of \$4,000 to Zenith (September 30, 2019 - \$nil). Outstanding liabilities due are unsecured, due on demand and non-interest bearing.
- d) The Company incurred costs of \$508,572 (September 30, 2019 - \$591,648) for key management fees and director fees for the nine months ended September 30, 2020. The non-executive Directors of the Company are each entitled to a fee of \$16,000 per year and the Chairman of the Board is entitled to a fee of \$40,000 per year. As of September 30, 2020, the Company has an outstanding payable due to directors and officers of \$37,232 (September 30, 2019 - \$23,977). The current liabilities due to key management and directors are unsecured, due on demand and non-interest bearing.

September 30,	2020	2019
Consulting fees	\$ 329,239	\$ 332,214
Director fees	72,798	78,000
Share-based payments	106,535	181,434
Total key management compensation	\$ 508,572	\$ 508,572

The amounts due to related party at September 30, 2020 were as follows:

September 30,	2020	2019
Due to related parties with common directors	3,645	7,328
Due to key management and directors	37,232	23,977
<b>Total due to related parties</b>	<b>\$ 40,877</b>	<b>\$ 31,305</b>

## EXPENDITURES

Total expenses attributable to common shareholders and NCI	For the nine months ended September 30,			For the three months ended September 30,		
	2020	2019	Change	2020	2019	Change
<b>General and administrative</b>						
Audit and tax management	54,057	28,259	25,798	27,874	2,414	25,460
Legal fees	144,853	108,850	36,003	12,794	39,376	(26,582)
Director and Officer salaries	402,037	410,214	(8,177)	136,164	128,536	7,628
Salaries and consulting fees	147,156	119,651	27,505	34,384	31,764	2,620
Rent, storage, telephone and insurance	148,518	90,270	58,248	49,038	43,667	5,371
Travel	103,345	49,752	53,593	8,084	12,370	(4,286)
Investor relations and marketing	96,708	167,553	(70,845)	27,346	72,207	(44,861)
<b>Sub total - General and administrative</b>	<b>1,096,674</b>	<b>974,549</b>	<b>122,125</b>	<b>295,684</b>	<b>330,334</b>	<b>(34,650)</b>
<b>Mineral project expenditures</b>						
<b>Songwe Hill Project</b>						
Metallurgy expenses	984,279	342,070	642,209	355,623	155,777	199,846
Government fees	9,423	52,147	(42,724)	100	(215)	315
ESHIA	46,306	152,637	(106,331)	10,098	40,630	(30,532)
Grant refund accrued	(53,703)	(56,228)	2,525	(25,305)	-	(25,305)
Drilling programme	-	35,907	(35,907)	-	-	-
Technical studies	500,719	250,442	250,277	179,349	97,916	81,433
Consulting fees	148,409	188,122	(39,713)	27,024	3,840	23,184
Malawi office and camp expenses	50,728	97,540	(46,812)	17,528	23,052	(5,524)
Thambani, Mchinji and Chimimbe projects	102,094	105,692	(3,598)	45,859	91,158	(45,299)
<b>Sub total - Mineral projects</b>	<b>1,788,255</b>	<b>1,168,329</b>	<b>619,926</b>	<b>610,276</b>	<b>412,158</b>	<b>198,118</b>
<b>Research and development</b>						
Maginito research and development	-	25,464	(25,464)	-	20,805	(20,805)
<b>Sub total - Research and development</b>	<b>-</b>	<b>25,464</b>	<b>(25,464)</b>	<b>-</b>	<b>20,805</b>	<b>(20,805)</b>
<b>Other Expenses</b>						
Share-based payments	109,682	174,175	(64,493)	3,208	76,832	(73,624)
Depreciation	23,583	18,840	4,743	7,762	6,280	1,482
<b>Sub total</b>	<b>3,018,194</b>	<b>2,361,357</b>	<b>656,837</b>	<b>916,930</b>	<b>846,409</b>	<b>70,521</b>
Interest income	(20)	(93)	73	(8)	(6)	(2)
Share of associated company's losses	29,076	-	29,076	13,012	-	13,012
AIM listing expense	71,176	72,391	(1,215)	23,443	23,774	(331)
Foreign exchange (gain) loss	111,422	455,891	(344,469)	(159,984)	235,306	(395,290)
Warrant revaluation	-	(711,468)	711,468	-	9,277	9,277
<b>Sub total</b>	<b>211,654</b>	<b>(183,279)</b>	<b>394,933</b>	<b>(123,537)</b>	<b>268,351</b>	<b>(391,888)</b>
<b>Total Expenses net of interest income</b>	<b>\$3,229,848</b>	<b>\$2,178,078</b>	<b>\$1,051,770</b>	<b>\$793,393</b>	<b>\$1,114,760</b>	<b>\$(321,367)</b>

### Nine months ended September 30, 2020 compared to the nine months ended September 30, 2019

Total expenses include those attributable to both the common shareholders and to the NCI. Total expenses increased by \$1,051,770 from \$2,178,078 for the three months ended September 30, 2019 to \$3,229,848 for the nine months ended September 30, 2020, as a result of the following:

- a) General and administrative: General and administrative expenses were \$122,125 higher for the nine months ended September 30, 2020 compared to the nine months ended September 30, 2019. There was a \$36,003 increase in legal expenses reflecting legal costs incurred on the mining development agreement and the HyProMag transaction. Salaries and consulting fees were \$27,505 higher due to a reclassification of fees paid to the former CFO. Travel expenses were \$53,593 higher for the nine months ended September 30, 2020 as a result of attending several conferences and site visits undertaken during the first quarter. Rent, telephone, storage and insurance costs were £58,248 higher due to increased UK storage costs and investor relations and marketing costs were £70,845 lower due to reduced exhibition activity during the nine months ended September 30, 2020.
- b) Mineral Projects: Mineral project expenses were \$619,926 higher for the nine months ended September 30, 2020 compared to the nine months ended September 30, 2019. Metallurgy costs were \$642,209 higher as the work on flotation optimization progresses. ESHIA expenses were \$106,331 lower and costs for the Malawi office and camp were \$46,812 lower due to the completion of ESHIA projects in previous periods and camp activity related to the decommissioning of the drilling program incurred in the early part of 2019. The company incurred \$210,564 of additional expenses on technical studies and consulting fees as it continues its work on the Feasibility Study.
- c) Warrant Revaluation: The warrant revaluation credit decreased by \$720,745 for the nine months ended September 30, 2020 compared to the nine months ended September 30, 2019 following the exercise or expiry of the warrants in the first half of 2019.
- d) Foreign Exchange Loss: The foreign exchange loss for the nine months ended September 30, 2020 was \$344,469 lower than the expense recognized for the nine months ended September 30, 2019 due to unrealized exchange gains on cash held to meet payment obligations in foreign currencies other than the US Dollar.

### **Three months ended September 30, 2020 compared to the three months ended September 30, 2019**

Total expenses include those attributable to both the common shareholders and to the NCI. Total expenses reduced by \$321,367 from \$1,114,760 for the three months ended September 30, 2019 to \$793,393 for the three months ended September 30, 2020, as a result of the following:

- a) General and administrative: General and administrative expenses were \$34,650 lower for the three months ended September 30, 2020 compared to the three months ended September 30, 2019. There was a \$25,460 increase in audit and tax management expenses reflecting increased audit and taxation fees accrued for the period. Investor relations and marketing costs were £44,861 lower due to reduced exhibition activity during the three months ended September 30, 2020.
- b) Mineral Projects: Mineral project expenses were \$198,118 higher for the three months ended September 30, 2020 compared to the three months ended September 30, 2019. Mineral extraction development costs were \$199,846 higher due to increased metallurgy costs. ESHIA expenses were \$30,532 lower due to the completion of ESHIA projects in previous periods. The company incurred \$104,617 of additional expenses on technical studies and consulting fees as it continues its work on the Feasibility Study. The Company recognized \$25,305 of grant funds as a result of a final claim related to the HiTech AlkCarb program, credited against mineral project expenses for the three months ended September 30, 2020.
- c) Foreign Exchange Loss: The foreign exchange gain for the three months ended September 30, 2020 was \$159,984 compared to a loss of \$235,306 for the three months ended September 30, 2019 due to a partial reversal of unrealized exchange losses on cash held to meet payment obligations in foreign currencies other than the US Dollar.

## **DISCLOSURE CONTROLS AND PROCEDURES**

In connection with National Instrument 52-109 (Certificate of Disclosure in Issuer's Annual and Interim Filings) ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company have filed a Venture Issuer Basic Certificate with respect to the financial information contained in the condensed interim consolidated financial statements for the three and nine months ended September 30, 2020 and this accompanying MD&A (together, the "Interim Filings").

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information the reader should refer to the Venture Issuer Basic Certificates filed by the Company with the Interim Filings on SEDAR at [www.sedar.com](http://www.sedar.com).

## **COMMITMENTS**

The Company holds four licenses in Malawi with commitments to pay annual licensing fees and to meet spending commitments for exploration expenses throughout the life of the licence. As of the date of this report, all licenses were in good standing with the Malawi government.

The Company is continuing to meet the terms and conditions of its four exploration licences and provides updates to Malawi's Ministry of Mining on a regular basis regarding progress of its work programs.

## **ISSUED AND OUTSTANDING SHARE INFORMATION**

As at the date of this report, the Company has 133,000,721 Common Shares, 13,200,000 warrants and 11,820,000 stock options in issue.

## **OFF BALANCE SHEET ARRANGEMENTS**

The Company is not party to any off balance sheet arrangements or transactions.

## **ACCOUNTING POLICIES AND ESTIMATES**

Management is required to make judgments, assumptions and estimates in the application of IFRS that have a significant impact on the financial results of the Company. Details outlining Mkango's accounting policies are contained in the notes to the consolidated audited financial statements for the year ended December 31, 2019. In addition, the Company has adopted the following accounting policy in respect of investments in associates during the nine months ended September 30, 2020:

### **Investment in associates**

Where the company has significant influence to participate in the financial and operating policy of an investee but does not have control or joint control of the investee then the Company accounts for its interest in the investee under the equity method of accounting. Under the equity method the Company recognizes its initial investment at cost and the carrying amount is increased or decreased to recognize the Company's share of the profit or loss and other comprehensive income after the date of acquisition.

## **RISK FACTORS**

### **Environmental Risk**

The Company is subject to substantial environmental requirements. The current and anticipated future operations and exploration activities of the Company in Malawi require permits from various governmental authorities and such operations and exploration activities are and will be governed by local laws and regulations governing various elements of the mining industry including, without limitation, land use, the protection of the environment, prospecting, development, production, exports, taxes, labour standards, occupational health, waste disposal, toxic substances, and other matters. Globally, environmental legislation is evolving towards stricter standards and enforcement, more stringent environmental impact assessments of new mining projects and increasing liability exposure for companies and their directors and officers. There is no assurance that future environmental regulations will not adversely affect the Company's operations.

### **Exploration and Commercial Viability Risk**

The Company does not currently produce rare earth elements from Songwe Hill where it is currently engaged in a Feasibility Study. While the Company has produced a Pre-feasibility Study, there is no assurance that the Feasibility Study will demonstrate the commercial viability of the project. Some of the factors that affect the financial viability of a given mineral deposit include its size, grade and proximity to infrastructure and the realizable value of the minerals extracted. These factors include, but are not limited to, government approval for mining licences and exploration licence extensions applications, government regulations, taxes, royalties, land tenure, land



use, environmental protection and reclamation and closure obligations. All or some of these factors may have an impact on the economic viability of Songwe Hill.

### **Macroeconomic Risk**

From a macroeconomic perspective, ongoing global market uncertainty has led to a significant reduction in risk appetite with respect to funding investment into mining companies. The ability for mining companies to access capital through traditional means may be significantly diminished, with the possible long-term result that projects may take longer to develop or may not be developed at all.

### **Foreign Countries and Political Policy Risk**

The Company has interests in properties that are located in the developing country of Malawi. The Company's mineral exploration may be affected in varying degrees by political instability and government regulations relating to foreign investment and the mining industry. Changes, if any, in mining or investment policies or shifts in political attitude in Malawi may adversely affect the Company's operations. Operations may be affected in varying degrees by government regulations with respect to, but not limited to, restrictions on production, price controls, export controls, currency remittance, direct and indirect taxes, tax assessments, royalties, expropriation of property, foreign investment, maintenance of claims, environmental legislation, land use, land claims of local people, water use and mine safety. Failure to comply with applicable laws, regulations, and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions.

### **Resource and Reserve Risk**

Estimates of reserves and resources are inherently uncertain. There is a degree of uncertainty attributable to the calculation of reserves, resources and corresponding grades being mined or dedicated to future production. Until reserves or resources are actually mined and processed, the quantity of reserves or resources and grades must be considered as estimates only. In addition, the quantity of reserves or resources may vary depending on rare earth prices, operating costs and mining efficiency. Any material change in the quantity of reserves, resources or grade may affect the economic viability of Songwe Hill.

### **Mining Risks**

The mining industry has been subject to considerable price volatility, over which companies have little control, and a material decline in the price of rare earth elements could result in a significant decrease in the Company's future anticipated revenues. The mining industry has inherent business risks and there is no assurance that products can continue to be produced at economical rates or that produced reserves will be replaced.

### **Coronavirus Risk**

The global outbreak of COVID-19 (coronavirus) has had a significant impact on businesses through the restrictions put in place by the governments of countries in which the Company operates regarding travel, business operations and isolation/quarantine orders.

Whilst the Feasibility Study is continuing with work underway in Malawi, Australia, South Africa and the UK, the Company believes it is inevitable that some work streams will be impacted, however the degree of impact is currently uncertain. Following a review of the various ongoing work streams, the Company is now targeting completion of the Feasibility Study in the second half of 2021, in line with an anticipated more stable market environment and favourable backdrop to advance project development. We note, however, that extended periods of COVID-19 disruption may further impact this timing.

Operations at HyProMag are continuing where possible, in line with current UK government guidelines. At this time, it is unknown the extent of the impact the COVID-19 outbreak may have on the Company as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the disease, and the duration of the outbreak, including the duration of travel restrictions, business closures or disruptions, and quarantine/isolation measures that are currently, or may be put, in place by countries to fight the virus.

Readers are cautioned that the foregoing is a summary only of certain risk factors and is not exhaustive and is qualified in its entirety by reference to, and must be read in conjunction with the additional information on these and other factors that could affect Mkango's operations and financial results that are included in reports on file with Canadian securities regulatory authorities and may be accessed through the SEDAR website ([www.sedar.com](http://www.sedar.com)).

## **FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

All financial instruments are initially recognized at fair value on initial recognition of the instrument. Measurement in subsequent periods depends on whether the financial instrument has been classified as fair value through profit or loss ("FVTPL"), held for trading, loans and receivables, financial assets available-for-sale, financial assets held-to-maturity, and other financial liabilities.

Financial assets and financial liabilities classified as FVTPL are measured at fair value with changes in fair value recognized in net earnings or loss. Financial assets, available-for-sale, are measured at fair value, with changes in fair value recognized in other comprehensive income. Financial assets held-to-maturity, loans and receivables and other financial liabilities are measured at amortized cost using the effective interest method of amortization.

Cash is designated as FVTPL and is measured at carrying value, which approximates fair value due to the short-term nature of these instruments. Accounts receivable is designated as loans and receivables. Accounts payable and accrued liabilities and due to related parties are designated as other financial liabilities.

The fair value of cash, accounts receivable, accounts payable and amounts due to related party approximates the carrying value. Financial instruments and share-based payment transactions are measured at fair value. The main financial risks affecting the Company are discussed below:

### Fair values

Financial assets and liabilities have been classified into categories that determine their basis of measurement and for items measured at fair value, whether changes in fair value are recognized in the consolidated statement of comprehensive loss. Those categories are fair value through profit or loss; loans and receivables; and, for most liabilities, other financial liabilities.

In establishing fair value, the Company used a fair value hierarchy based on levels defined below:

- Level 1 - quoted prices in active markets for identical assets or liabilities;
- Level 2 - inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3 - inputs for the asset or liability that are not based on observable market data.

Cash are measured at level 1; warrant derivative financial instruments are measured at level 2.

The carrying value of accounts receivable, subscriptions receivable, accounts payable and accrued liabilities and current liabilities due to related parties, approximates the fair value due to their short-term nature and maturity. Warrants with an exercise price in a currency other than the functional currency are recorded as a derivative liability and carried at fair value.

### Credit risk

Credit risk is the risk of loss associated with counterparty's inability to fulfill its payment obligations. The Company's credit risk is primarily attributable to cash, receivables and the receipt of the remainder of the grant funding from the University of Exeter.

### Concentration risk

The majority of the Company's cash is held by one major international bank. Deposits held with this bank may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and bear minimal risk.

### Foreign currency rate risk

The functional and reporting currency of the Company is the United States dollar. The Company enters into transactions denominated in Canadian dollars, the United States dollar, the British sterling, the Australian dollar,

South African rand and Malawian kwacha. The Company raises its equity in British sterling and Canadian dollars and then purchases Euros, British sterling, United States dollars, Australian dollar, South African Rand and Malawi Kwacha funds to settle liabilities. The Company minimizes exposure to foreign exchange loss by converting funds to the appropriate currencies upon receipt of funding based on the expected use of the various foreign currencies.

The Company's exposure to foreign currency risk as at September 30, 2020 and 2019, is most significantly influenced by the following cash amounts held in foreign currencies (amounts shown in US dollars):

	September 30, 2020	September 30, 2019
Cash:		
Canadian dollars	\$ 75,268	\$ 77,464
United States dollars	1,506,098	2,783,069
Pound Sterling	2,178,685	4,243,363
Euro	294,436	544,276
Malawi Kwacha	7,952	9,412
Australian dollar	1,717,772	2,418,081
Due to related parties	(40,877)	(31,305)
	<b>\$ 5,739,334</b>	<b>\$ 10,044,360</b>

The value of cash held by the Company has been adjusted for amounts due to related parties.

A 5% reduction in the value of the CAD, Euro, GBP and Australian Dollar in comparison to the US Dollar would cause a change in net loss of approximately \$213,000 (2019: \$364,000). A 5% change in the value of the Malawian Kwacha in relation to the US Dollar would not cause a material change in net loss.

The Company had foreign exchange gains of \$159,984 in the three months ended September 30, 2020 and incurred foreign exchange losses of \$271,406 for the six months ended June 30, 2020 giving an overall loss of \$111,422 for the nine months ended September 30, 2020. This is due to unrealized exchange losses movements on cash held to meet payment obligations in foreign currencies other than the US Dollar.

#### Liquidity Risk

Liquidity risk includes the risk that, as a result of the Company's operational liquidity requirements:

- The Company will not have sufficient funds to settle a transaction on the due date;
- The Company will be forced to sell financial assets at a value which is less than what they are worth; or
- The Company may be unable to settle or recover a financial asset at all.

The Company's operating cash requirements, including amounts projected to complete the Company's existing capital expenditure program and the Feasibility Study are continuously monitored and adjusted as input variables change. As these variables change, liquidity risks may require the Company to conduct equity issues or obtain project debt financing.

The Company has in the past relied on equity financings to fund its activities. However, given the Definitive Agreements, the Company does not anticipate the need to raise additional equity capital in the short term. Should it, however, need to raise additional funds and while it has been successful in raising funds in the past, there is no guarantee that adequate funds will be available in the future.

The following table outlines the maturities of the Company's financial liabilities as at September 30, 2020:

	Contractual Cash Flows	Less than 1 Year	Greater than 1 Year
Accounts payable and accrued liabilities	\$ 430,067	\$ 430,067	\$ -
Due to related parties	\$ 40,877	\$ 40,877	\$ -

#### Capital Risk

The Company's objective when managing capital is to maintain a flexible capital structure which will allow it to execute its capital expenditure program, which includes expenditures in mining activities which may or may not be successful. The Company has no externally imposed capital requirements. Prior to the Talaxis transaction, the

Company depended on equity placements to remain solvent. Should it need to do so again in the future, cash from these placements may or may not be available depending on market or other conditions.

## **LIQUIDITY AND CAPITAL RESOURCES**

As of September 30, 2020, the Company had a working capital surplus of \$5,472,358 (December 31, 2019 – \$9,217,893) and retained earnings deficit attributable to the shareholders of the Company of \$6,235,130 (December 31, 2019 - \$4,413,119).

The operations of the Company are currently being funded by cash previously received from the following sources:

1. \$9,067,027 in net investment proceeds received from Talaxis by Lancaster BVI, on March 28, 2019.
2. The exercise of 1,620,000 stock options during January 2019 for total cash consideration of \$75,811.
3. Proceeds received upon the exercise of warrants, for total cash consideration of \$1,687,093.

There are 13,200,000 advisory warrants held by Talaxis and Zenith, which remain outstanding as of the date of this report.

While investments by Talaxis are in subsidiaries of Mkango, the Company has agreed with Talaxis that certain expenses of Mkango will be reimbursed by funds held by Lancaster BVI and Maginito in return for Mkango's management of the subsidiaries.

Therefore, the Company expects that funding received from Talaxis, funds received from the exercise of warrants, funds received from the exercise of stock options will be sufficient to fund Mkango's operations in the near term.

The Company's consolidated cash balance at September 30, 2020 was \$5,780,211 (December 31, 2019 - \$9,530,017).

Other than as disclosed herein, the Company is not aware of any trends, uncertainties, demands, commitments or events, which are reasonably likely to have a material effect on the Company's business, financial condition or results of operations.

## **DIRECTORS AND OFFICERS**

William Dawes, Director and Chief Executive Officer

Alexander Lemon, Director and President

Derek Linfield, Chairman of the Board of Directors

Shaun Treacy, Director (Audit Committee Chairman)

Susan Muir, Director (Audit Committee, Remuneration Committee Chairman and Corporate Secretary)

Adrian Reynolds, Director (Audit Committee, Remuneration Committee)

Tim Slater, Interim Chief Financial Officer

## APPENDIX A

The full set of TREO results for the Songwe Hill exploration program are as follows:

Drill Hole	From m	To m	Interval m	La <sub>2</sub> O <sub>3</sub> ppm	Ce <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	
PX039	122.9	142.0	19.2	4,394	7,467	756	2,432	323	82	188	22	96	15	35	5	29	5	440	1.6%	
PX040	28.0	43.0	15.0	5,020	7,061	645	2,006	303	90	239	33	164	28	67	9	47	6	844	1.7%	
PX045a	9.8	30.9	21.1	2,006	4,148	495	1,833	309	89	217	27	127	20	47	6	33	5	547	1.0%	
PX050	8.0	161.0	153.0	2,790	5,578	643	2,353	344	87	214	26	128	21	51	7	40	5	607	1.3%	
including	96.0	126.0	30.0	4,370	8,097	890	3,132	430	108	267	32	149	24	57	8	53	7	654	1.8%	
including	137.9	161.0	23.2	3,687	7,162	808	2,899	415	105	254	31	145	24	55	7	42	5	651	1.6%	
PX053	25.0	61.0	36.0	3,461	6,442	683	2,309	365	98	236	27	117	18	39	4	22	3	492	1.4%	
	74.4	94.6	20.2	(i)	2,920	5,507	585	1,972	288	72	169	20	95	15	38	5	24	3	469	1.2%
(i) Includes 2.1m cavity not sampled.																				
PX054	23.4	182.0	158.7	2,733	5,233	582	2,097	322	86	205	24	113	18	44	6	34	5	521	1.2%	
including	45.8	102.3	56.6	3,315	6,337	703	2,489	355	95	226	28	133	22	51	6	36	5	611	1.4%	
PX055	21.4	47.5	26.2	3,921	6,592	676	2,282	332	85	193	21	92	15	35	5	28	4	425	1.5%	
	67.7	103.2	35.5	2,627	5,470	626	2,258	328	89	214	26	119	19	44	5	30	4	520	1.2%	
PX056	60.7	175.5	114.8	3,951	7,339	799	2,784	404	105	243	28	124	20	47	6	32	4	570	1.6%	
including	135.0	165.0	30.0	5,463	9,096	920	3,003	392	101	232	26	116	18	43	5	29	4	516	2.0%	
PX057	9.0	39.7	30.7	3,696	6,496	714	2,334	327	82	188	21	93	15	36	4	23	3	407	1.4%	
PX058	29.5	71.0	41.6	2,885	5,784	636	2,208	311	83	190	21	97	15	36	4	23	3	421	1.3%	
PX059	6.0	69.0	63.0	(i)	3,980	7,314	785	2,617	392	112	279	36	173	29	76	10	57	8	879	1.7%
including	7.0	30.0	23.0	(ii)	5,890	9,922	1,012	3,237	469	138	358	47	227	38	100	13	76	10	1,171	2.3%
	128.0	143.4	15.4	4,122	7,352	778	2,645	370	94	212	25	121	20	49	6	36	5	604	1.6%	
(i) Includes 5.9m cavity not sampled.																				
(ii) Includes 2.5m cavity not sampled.																				
PX063	4.4	21.4	17.0	2,951	6,117	698	2,540	359	100	239	32	168	29	71	8	51	7	838	1.4%	
	96.4	109.8	13.4	(i)	3,908	8,548	1,000	3,703	558	135	292	29	126	20	46	5	33	5	616	1.9%
(i) Includes 5.5m cavity not sampled.																				
PX066	61.8	134.2	72.4	3,122	5,703	620	2,110	301	81	196	23	112	18	44	5	33	4	510	1.3%	
including	99.0	122.6	23.6	4,147	7,328	776	2,530	337	90	219	26	127	20	50	6	40	5	576	1.6%	
PX067	6.0	128.8	122.8	3,237	5,661	598	2,105	312	85	197	22	99	15	37	5	29	4	452	1.3%	
including	44.0	70.8	26.8	4,119	7,791	858	3,039	429	112	250	27	120	19	46	6	39	6	564	1.7%	

PX070	5.0	51.6	46.6		5,228	8,218	785	2,502	318	83	192	21	93	14	30	3	19	3	364	1.8%
	78.4	201.3	123.0		5,186	8,463	824	2,587	305	77	173	19	82	12	27	3	18	2	330	1.8%
including	78.4	122.0	43.7		8,194	12,954	1,212	3,596	350	81	173	17	75	11	25	3	18	2	303	2.7%
PX072	12.6	28.4	15.8		3,364	6,889	773	2,693	405	104	247	28	121	18	41	5	25	3	532	1.5%
	93.9	147.8	53.9		2,358	4,684	525	1,886	301	77	179	20	94	16	39	5	27	4	486	1.1%
PX073	8.8	75.9	67.1		4,024	7,255	790	2,740	401	103	232	25	114	19	43	5	28	4	507	1.6%
including	45.0	70.2	25.2		5,278	8,924	948	3,159	439	110	241	24	108	17	36	4	21	3	438	2.0%
PX076	60.4	100.7	40.2		5,618	8,453	789	2,458	311	80	183	22	98	15	33	4	24	3	404	1.8%
including	60.4	80.4	20.0		7,432	11,021	1,020	3,106	372	93	209	24	108	16	36	4	25	3	434	2.4%
PX077	27.8	78.0	50.2		5,081	7,864	733	2,266	284	75	178	22	99	16	34	4	22	3	415	1.7%
PX078	6.0	28.3	22.3		3,214	5,866	621	2,144	332	86	207	24	117	19	44	5	29	4	517	1.3%
	76.2	144.4	68.3		5,114	8,386	832	2,745	366	90	205	22	103	17	39	5	27	3	482	1.8%
including	125.1	144.4	19.4		9,581	14,066	1,306	4,063	500	119	250	24	98	14	32	4	20	3	403	3.0%
PX080	5.7	109.8	104.1	(i)	3,118	5,426	578	2,018	316	82	189	21	94	15	34	4	25	3	406	1.2%
including	33.6	87.6	54.1	(i)	3,854	6,669	709	2,453	377	96	217	24	102	16	37	5	28	4	438	1.5%
(i) Includes 2.1m of core loss not sampled.																				
PX081	3.7	57.0	53.3	(i)	6,530	10,274	979	3,058	377	97	243	29	137	22	52	6	36	4	638	2.2%
including	3.7	30.5	26.8		9,531	14,108	1,290	3,863	440	108	269	32	144	24	56	7	39	5	684	3.1%
(i) Includes 3.8m cavity not sampled.																				
PX083	31.0	73.2	42.2		2,338	4,551	521	1,961	330	92	228	28	134	21	49	6	31	4	619	1.1%
PX086	21.5	94.8	73.3		4,503	8,452	903	3,098	431	115	272	32	158	26	61	7	43	5	731	1.9%
PX087	16.2	90.6	74.4	(i)	5,731	9,603	981	3,234	410	107	247	30	143	23	53	6	36	4	630	2.1%
(i) Includes 2.7m cavity not sampled.																				
PX088	47.0	100.7	53.7		1,894	3,988	486	1,919	355	94	225	27	132	22	53	6	35	4	639	1.0%
PX089	54.3	88.5	34.2		2,215	4,270	465	1,694	285	80	195	23	110	18	42	5	29	4	491	1.0%
PX090	39.5	65.2	25.7	(i)	12,424	18,649	1,670	4,792	512	138	324	39	167	25	56	7	41	6	631	3.9%
(i) Includes 6.3m cavity not sampled. Due to size of cavity, the significance of this intersection is uncertain.																				
PX092	10.1	84.9	74.9		5,133	8,693	859	2,749	374	97	229	26	116	17	39	5	28	4	482	1.9%
	97.6	149.5	51.9		3,376	6,493	708	2,472	375	99	232	26	120	19	49	7	46	6	576	1.5%
PX093	1.5	85.4	83.9		5,070	8,720	892	2,948	394	104	243	29	132	21	51	7	40	5	592	1.9%
including	21.0	39.0	18.0		8,914	14,033	1,348	4,171	472	115	255	28	118	18	41	5	33	5	474	3.0%
PX094	25.0	100.7	75.7	(i)	3,363	5,652	567	1,876	284	81	204	24	112	18	43	5	32	4	482	1.3%
including	67.0	79.0	12.0		6,336	9,822	928	2,828	385	112	282	33	147	23	52	6	38	5	593	2.2%
(i) Includes 8.5m cavity not sampled.																				

PX095	60.0	82.9	22.9	(i)	2,116	4,470	510	1,880	273	73	175	21	108	19	47	6	34	4	539	1.0%
(i) Includes 2.0m cavity not sampled.																				
PX098	1.1	66.0	65.0	(i)	3,682	7,400	836	2,942	428	112	278	35	168	29	73	10	55	8	872	1.7%
	115.0	128.1	13.1		3,013	5,409	579	1,974	306	84	213	27	124	20	46	6	29	4	568	1.2%
(i) Includes 2.3m cavity not sampled.																				
PX100	94.6	100.7	6.1		10,223	17,450	1,815	6,064	765	172	360	35	140	20	45	6	30	4	616	3.8%
PX101	36.6	42.3	5.7		2,981	6,306	746	2,771	493	131	322	36	148	21	43	5	29	4	560	1.5%
PX102	8.7	36.0	27.3		2,730	6,487	789	2,869	342	78	163	17	78	11	25	3	14	2	335	1.4%
	75.0	110.3	35.3		2,096	5,170	671	2,623	381	96	217	26	130	22	51	6	28	3	658	1.2%
PX103	2.6	167.8	165.2		3,512	6,903	788	2,809	412	111	263	31	144	23	55	7	45	6	658	1.6%
PX104	1.9	47.0	45.1	(i)	2,562	5,388	617	2,273	338	96	230	28	139	22	52	7	38	5	618	1.2%
	95.6	135.0	39.4		3,122	5,206	527	1,794	277	80	189	21	99	15	35	4	25	4	433	1.2%
(i) Includes 5.0m cavity not sampled.																				
PX105	3.8	79.5	75.7		2,711	5,036	550	1,963	312	86	199	24	112	18	43	5	27	4	523	1.2%
PX106	51.9	67.5	15.7		2,579	5,090	562	1,968	294	81	192	23	108	17	40	5	25	3	478	1.1%
	79.7	109.0	29.3		2,036	4,451	527	1,952	317	87	209	25	121	21	51	7	39	5	604	1.0%
PX107	23.0	114.2	91.3	(i)	3,041	5,727	632	2,258	336	95	232	29	140	23	60	8	48	6	700	1.3%
	82.0	114.2	32.2	(ii)	4,624	8,375	911	3,176	457	125	300	37	168	27	70	10	53	7	827	1.9%
(i) Includes 2.3m cavity not sampled.																				
(ii) Includes 0.9m cavity not sampled.																				
PX108	8.2	54.0	45.8		3,553	6,243	656	2,234	360	106	261	32	149	24	58	7	45	7	705	1.4%
	76.9	134.2	57.3		4,774	7,740	761	2,417	333	90	205	23	102	15	34	4	24	3	418	1.7%
PX109	22.0	75.0	53.0		6,078	9,518	896	2,790	348	88	204	23	97	15	33	4	22	3	391	2.1%
including	24.0	46.0	22.0		8,845	13,770	1,285	3,962	477	121	280	31	130	19	41	5	27	3	512	3.0%
PX110	9.2	22.4	13.2		6,648	9,822	965	2,852	348	88	204	24	109	18	39	4	22	3	451	2.2%
	85.0	100.7	15.7		4,927	9,588	1,102	3,601	475	117	270	31	148	25	58	7	41	5	676	2.1%
PX111	7.0	42.0	35.0		2,893	6,042	683	2,504	443	128	312	38	169	25	53	6	30	4	657	1.4%
	69.5	115.9	46.4		3,666	6,542	670	2,313	357	97	232	26	111	17	40	5	33	4	476	1.5%
PX112	5.9	106.8	100.9		10,530	15,038	1,357	4,067	455	114	279	32	137	22	49	6	35	4	606	3.3%
including	5.9	26.4	20.5		14,172	19,387	1,698	4,949	518	131	323	37	160	25	58	7	39	5	719	4.2%
including	36.0	58.2	22.2		13,856	19,053	1,655	4,776	495	121	289	31	128	19	41	5	28	4	522	4.1%
PX113	4.7	55.8	51.1	(i)	5,458	9,720	993	3,572	474	124	289	34	165	26	64	8	44	6	772	2.2%
(i) Includes 10.0m cavity not sampled.																				
PX114	56.0	100.7	44.7	(i)	3,762	6,498	663	2,194	319	80	186	21	98	15	34	4	22	3	409	1.4%
(i) Includes two cavities totaling 9.3m not sampled.																				

<b>PX115</b>	<b>2.7</b>	<b>17.7</b>	<b>15.0</b>		2,365	4,945	564	2,107	316	84	195	23	107	18	42	5	31	4	522	<b>1.1%</b>
	<b>46.3</b>	<b>61.0</b>	<b>14.8</b>		2,468	5,132	583	2,180	350	96	221	26	116	18	42	5	29	4	493	<b>1.2%</b>
<b>PX116</b>	<b>57.3</b>	<b>66.0</b>	<b>8.7</b>		4,426	9,933	1,205	4,615	752	189	397	40	166	24	52	6	33	5	720	<b>2.3%</b>
<b>PX118</b>	<b>4.4</b>	<b>91.0</b>	<b>86.6</b>		3,236	5,889	595	1,919	304	81	192	23	107	18	42	5	31	4	509	<b>1.3%</b>
<b>including</b>	<b>46.0</b>	<b>91.0</b>	<b>45.0</b>		3,715	6,777	681	2,170	328	86	200	23	108	18	41	5	30	4	497	<b>1.5%</b>
	<b>120.9</b>	<b>151.6</b>	<b>30.7</b>	(i)	2,248	4,667	497	1,842	346	95	228	27	133	22	52	6	33	4	640	<b>1.1%</b>
(i) Includes 2.2m cavity not sampled.																				
<b>PX119</b>	<b>14.8</b>	<b>64.8</b>	<b>50.0</b>		3,389	6,119	640	2,135	292	76	178	20	95	16	39	5	28	4	422	<b>1.3%</b>
<b>including</b>	<b>14.8</b>	<b>24.6</b>	<b>9.8</b>		8,483	12,932	1,184	3,347	334	84	193	22	98	15	34	4	23	3	380	<b>2.7%</b>
<b>PX120</b>	<b>3.1</b>	<b>42.7</b>	<b>39.6</b>		2,631	5,272	572	2,010	284	75	175	20	90	14	34	4	25	3	380	<b>1.2%</b>
<b>PX121</b>	<b>60.0</b>	<b>95.5</b>	<b>35.5</b>		3,598	6,143	655	2,218	336	89	212	24	113	17	40	5	28	4	487	<b>1.4%</b>
<b>PX122</b>	<b>84.0</b>	<b>106.8</b>	<b>22.8</b>	(i)	3,639	5,899	586	1,934	273	74	172	21	100	16	37	5	27	3	431	<b>1.3%</b>
(i) Includes two cavities totaling 4.2m not sampled.																				
<b>PX123</b>	<b>75.9</b>	<b>100.8</b>	<b>24.9</b>		2,304	4,657	513	1,807	248	61	135	15	67	11	28	4	19	3	331	<b>1.0%</b>
<b>PX124</b>	<b>24.7</b>	<b>58.8</b>	<b>34.1</b>		2,748	5,520	604	2,120	279	73	166	21	107	19	51	7	40	5	556	<b>1.2%</b>
<b>PX125</b>	<b>3.5</b>	<b>108.0</b>	<b>104.5</b>		4,244	6,599	630	1,989	272	77	187	24	113	18	40	5	26	3	475	<b>1.5%</b>
<b>including</b>	<b>3.5</b>	<b>55.0</b>	<b>51.5</b>		5,416	8,469	807	2,505	313	85	205	27	135	22	51	6	34	4	609	<b>1.9%</b>
Drill holes PX038, PX041, PX044, PX051, PX084, PX085 and PX091 did not intersect significant zones of mineralisation grading above 1% TREO																				

*These intervals are reported as down hole widths and do not necessarily represent true thicknesses and attitude of the mineralised zones, the estimation of which requires further refining of the geological model.*