

ASX: LPD

QUARTERLY ACTIVITIES REPORT

for the period ending 31 December 2019

(All figures are unaudited and in A\$ unless stated otherwise)

Key Points

Operations

- Infill drilling at Rubicon and Helikon 1 completed in November 2019 to support a predominantly Measured and Indicated category Mineral Resource estimated in January 2020. Global Mineral Resources at Karibib are 11.24 million tonnes grading 0.43% Li₂O.
- Pit optimisations identify 4 million tonnes of predominantly lepidolite mineralisation grading 0.56% Li₂O to be prioritised for mining over the first 10 years of the Phase 1 Project, with an average strip ratio estimate of just 1.4 to 1.
- High specification lithium carbonate grading 99.95% produced from L-Max[®] Pilot Plant trial and LOH-Max[™] batch trial produced lithium hydroxide monohydrate with >99.0% purity.
- Letter of Intent with BASF for the purchase of lithium hydroxide formally novated to Lepidico and extended to 31 December 2020.
- High specification caesium-rubidium chemicals produced for the first time under a standalone provisional patent application, allowing a process design to be developed.
- Phase 1 Plant design optimised for the findings from Pilot Plant Campaign 1, LOH-Max[™] batch trials and a new caesium-rubidium capability. Final engineering commenced in January 2020.
- Inaugural Ore Reserves to be estimated for both Karibib and Alvarrões in May 2020, paving the way for the key results of the integrated Phase 1 Plant Feasibility Study to be generated.
- Regional exploration work started in January 2020 to evaluate the lithium and gold potential of the 1,054km² of prospective Karibib Pegmatite Belt held under Exclusive Prospecting Licenses.

Corporate

- Cash and cash equivalents as at 31 December 2019 (including R&D tax credit receivable) of \$4.7 million.
 - Controlled Placement Agreement for up to \$7.5 million of equity capital secured and undrawn
 - United States L-Max[®] patent issued.
 - Social and environmental assessments based on IFC standards advanced to support project debt funding requirements.
-

OVERVIEW & OUTLOOK

Lepidico continues to have a zero-harm track record since health, safety and environmental incident reporting began in September 2016. Lycopodium Minerals Pty Ltd (“Lycopodium”) completed a revised engineering assessment for the Phase 1 Plant location in Abu Dhabi. A revised design criteria that incorporates a LOH-Max™ circuit and caesium-rubidium capability as well as the findings from Pilot Plant Campaign 1 was completed by Strategic Metallurgy in January 2020. This design will allow Lycopodium to complete the final engineering for the Phase 1 chemical conversion plant in April 2020. Designed output capacity has risen modestly to approximately 5,600 tonnes per annum (tpa) lithium hydroxide as a result of recovery optimisation initiatives. Work continued to integrate the Karibib Project (KP) into the Phase 1 Plant Feasibility Study, the maiden Ore Reserve for which is scheduled for May 2020 once all cost data is available, with key study results due shortly thereafter.

The Letter of Intent with BASF SE (“BASF”), whereby BASF would be able to purchase lithium hydroxide monohydrate sourced from the integrated Phase 1 Chemical Project was formally novated to Lepidico in December 2019 and extended to 31 December 2020.

Infill drilling of the Rubicon and Helikon 1 deposits completed in the quarter and a revised Mineral Resource estimate was released in late January 2020, which for the first time included caesium and rubidium grades. Work has now commenced on the inaugural Karibib Project Ore Reserve estimate. Completion of the phase 1 metallurgical testwork and process design for the Karibib concentrator allowed Lycopodium to start the engineering for the concentrator in early January. This work is also scheduled to be complete in May.

The Alvarrões underground mining study for the extraction of Sill P completed in the quarter. The inaugural Alvarrões Ore Reserve estimate only awaits confirmation of the cost data for the downstream chemical conversion plant.

Research and development activities were focussed on: 1) production of the first high purity samples of lithium hydroxide employing the LOH-Max™ process; 2) generating a range of caesium and rubidium compounds; and 3) testing the amorphous silica leach residue for various applications as a cement substitute. Lithium sulphate intermediate liquor from pilot plant Campaign 1 was used as feed to produce a crude lithium hydroxide which was subsequently refined to a high purity product. This batch trial culminated in January 2020 with a high specification lithium hydroxide monohydrate grading greater than 56.5% (>99.0% LiOH) being produced. Following on from the caesium product work undertaken in the September 2019 quarter a rubidium rich formate brine was produced with good clarity, low impurities and a specific gravity of 2.1, making it a potential substitute for caesium formate in oil and gas applications. A high purity rubidium brine was also produced for testing as a potential source of chemical rubidium.

A land application has been submitted for the preferred site location for the lithium chemical plant at the Industrial City of Abu Dhabi 2 (ICAD 2) and a consultant has been appointed to manage the associated permitting requirements.

A study into potential uses for the L-Max® residues in the United Arab Emirates was completed in the quarter, which identified an opportunity to utilise this gypsum rich material in the cement industry to replace imported natural gypsum.

Initial assessment of the carbon dioxide footprint for the integrated Phase 1 Chemical Project suggests that it will be competitive with the lowest emission producers in the lithium industry by virtue of L-Max® being less energy intensive than spodumene roasting and the process benefiting from by-products that allow significant carbon credits.

DEVELOPMENT

Karibib Project (80%), Namibia, Feasibility Study

The main phase of the infill drill program at Karibib was completed in October with 51 holes drilled at Rubicon and 35 holes at Helikon 1, by six rigs. Four additional sub-horizontal holes, targeting the lepidolite-rich Rubicon footwall zone needed to be redrilled with an 'underground rig' with capability to drill low-angle holes. These holes were completed in December with final assays received in early January.

Sample pulps from previous drill programs that returned over-limit caesium and rubidium were re-assayed to allow these two metals to be included in the new Mineral Resource estimate for the first time.

An updated JORC Code (2012)-compliant Mineral Resource estimate ("MRE") for the larger Rubicon and Helikon 1 deposits within the Karibib Project ("KP") was completed by Snowden Mining Industry Consultants Pty Ltd ("Snowden") in January 2020, upgrading the predominantly Inferred Mineral Resources into the Measured and Indicated categories. Global Mineral Resources at Karibib now total 11.24 million tonnes grading 0.43% Li₂O (0.15% Li₂O cut-off; Table 1) of which 78% of the tonnes are in Measured and Indicated categories versus 34% previously (0.20% Li₂O cut-off).

Measured and Indicated Resources at Rubicon and Helikon 1 total 8.87 million tonnes grading 0.43% Li₂O (Tables 1 and 2). For the first time the estimate also includes grades for the accessory metals caesium (Cs), rubidium (Rb) and potassium (K), which are being evaluated as important by-products in Lepidico's Phase 1 Project Feasibility Study.

The updated MREs for Rubicon and Helikon 1 are based on a reinterpretation of the lithium mineralisation into three distinct types: high-grade massive lepidolite zone (Lep Zone), disseminated lepidolite zone (Lep Zone B) and a zone dominated by dark lithium-bearing mica (Mica Zone). Data generated from the new drilling greatly assisted with the understanding of the distribution of the lithium minerals within the pegmatites, and the subsequent interpretation of mineralised domains, which has led to a greater level of confidence in classifying these Resources.

Importantly, almost all of the lithium, caesium and rubidium at Helikon 1 and Rubicon is contained within lepidolite and other lithium minerals that are amenable to processing using the Company's proprietary technologies L-Max[®] and LOH-Max[™]. Only minor lithium concentrations of between 1-3% on average are noted in other mineral species (predominantly petalite), that are not able to be leached by L Max[®].

Pit optimisations were undertaken for Helikon 1 and Rubicon that demonstrate these Mineral Resources to be potentially economic at a cut-off grade of 0.15% Li₂O.

Mining studies for the Phase 1 Project Feasibility Study have already commenced. The pit optimisations used for the MRE (that excluded Inferred material) indicate that mining should start at Rubicon where the first 0.6 million tonnes of lepidolite rich (Lep Zone and Lep Zone B) mineralisation grading approximately 0.7% Li₂O should have an associated waste to ore ratio of just 0.3 to 1. Over the first 10 years, 4.0 million tonnes of mineralisation should be prioritised from both Rubicon and Helikon 1 with an average grade estimate of 0.55% Li₂O and associated strip ratio of 1.4 to 1, to supply concentrate feed to the planned Phase 1 chemical plant in Abu Dhabi.

It is envisaged that Karibib concentrator capacity will need to increase by around 65% in production year 5 to maintain 60,000tpa of concentrate output from a greater proportion of Mica Zone feed, grading 0.45% Li₂O. The strip ratio associated with this material is currently estimated to be around 6 to 1. Mineral Resources are estimated to support concentrate production for around 14 years.

Table 1: Karibib Project Mineral Resource Estimates

Deposit	Resource Category	Tonnes (M)	Li ₂ O (%)	Rb (%)	Cs (ppm)	Ta (ppm)	K (%)	Cut-off (% Li ₂ O)	Effective Date
Rubicon	Measured	1.56	0.53	0.28	335	47	2.24	0.15	28.01.2020
	Indicated	5.72	0.36	0.20	232	37	2.11	0.15	28.01.2020
	Total	7.29	0.40	0.22	254	39	2.13	0.15	28.01.2020
Helikon1	Measured	0.64	0.65	0.25	520	61	1.90	0.15	28.01.2020
	Indicated	0.94	0.50	0.22	531	74	1.81	0.15	28.01.2020
	Inferred	0.17	0.70	0.29	1100	150	2.18	0.15	28.01.2020
	Total	1.75	0.58	0.24	584	77	1.88	0.15	28.01.2020
Rubicon + Helikon 1	Measured	2.20	0.57	0.27	389	51	2.14	0.15	28.01.2020
	Indicated	6.66	0.38	0.22	274	42	2.06	0.15	28.01.2020
	Total	9.04	0.43	0.23	318	46	2.08	0.15	28.01.2020
Helikon2 [#]	Inferred	0.216	0.56					0.20	18.10.2018
Helikon3 [#]	Inferred	0.295	0.48					0.20	18.10.2018
Helikon4 [#]	Inferred	1.510	0.38					0.20	18.10.2018
Helikon5 [#]	Inferred	0.179	0.31					0.20	18.10.2018
Global	Measured	2.20	0.57	0.27	389	51	2.14		28.01.2020
	Indicated	6.66	0.38	0.22	274	42	2.06		28.01.2020
	Inferred	2.37	0.43						28.01.2020
	Total	11.24	0.43						28.01.2020

Notes: [#]ASX Announcement dated 16 July 2019: Drilling starts at the Karibib Project

Table 2: Rubicon and Helikon 1 Measured and Indicated Resources^{1,2} by mineralised domain

Deposit	Resource Category	Tonnes (M)	Li ₂ O (%)	Rb (%)	Cs (ppm)	Ta (ppm)	K (%)	
Rubicon	Measured	Mass Lep	0.20	1.01	0.51	658	83	3.11
		Diss Lep	0.55	0.67	0.33	478	70	2.35
		Mica Zone	0.54	0.39	0.21	177	25	1.91
		Other Peg	0.27	0.18	0.12	126	17	2.05
	Indicated	Mass Lep	0.00	0.85	0.48	580	70	6.14
		Diss Lep	1.32	0.55	0.25	500	85	1.95
		Mica Zone	3.09	0.36	0.20	156	24	2.04
		Other Peg	1.28	0.19	0.15	137	19	2.47
		Quartz core	0.03	0.19	0.04	204	53	0.17
	Rubicon Total		7.29	0.40	0.21	254	39	2.13
Helikon1	Measured	Mass Lep	0.11	1.79	0.60	1768	119	3.99
		Diss Lep	0.13	0.68	0.24	368	139	1.63
		Mica Zone	0.21	0.45	0.21	365	25	1.77
		Other Peg	0.19	0.20	0.10	88	15	1.03
	Indicated	Mass Lep	0.01	2.19	0.75	2593	119	4.72
		Diss Lep	0.21	0.53	0.20	489	114	1.41
		Mica Zone	0.56	0.54	0.25	625	73	2.11
		Other Peg	0.15	0.18	0.10	79	19	0.99
	Helikon 1 Total		1.58	0.56	0.23	527	69	1.84
	Rubicon + Helikon 1 combined		8.87	0.43	0.22	302	44	2.08

Notes: ¹Effective date 28.01.2020; ²cut-off 0.15% Li₂O

The inaugural KP Ore Reserve estimate based on Mineral Resources at Rubicon and Helikon 1 is scheduled to be completed in May 2020 once cost data is available for the integrated development.

The phase 1 flotation testwork program was completed on 15 samples, which included comminution, desliming, rougher/cleaner flotation, and dewatering tests. A second batch of mineralisation variability samples were selected for flotation testwork that is close to completion. Analysis of the phase 1 testwork was completed and process design criteria developed. This design was issued to Lycopodium for the engineering study, which started in early January 2020 and is scheduled to be completed in April.

Site geotechnical evaluation continued with two further drill holes planned for late January. A conceptual design for the mine and concentrator waste management area was completed. The final design is scheduled for completion in May 2020.

A grid power solution for the planned mine and concentrator has been confirmed, with power supplied from the existing Karibib sub-station. Options for increasing the quantum of renewable power supplied to the project are also being evaluated, with opportunities for an 80% renewable power supply within the first five years of operation.

The Karibib Project Environmental Management Plan (EMP) advanced and will be prepared in accordance with International Finance Corporation (IFC) standards. The updated EMP will provide the basis for renewal of the Environmental Compliance Certificate (ECC) due September 2020. The ECC is due for renewal every three years with the Mining Licence in place for 10 years from 2018. All environmental workstreams are scheduled to conclude mid-2020 and are not on the project critical path.

Phase 1 Chemical Plant Feasibility Study

A nominal battery grade purity lithium hydroxide monohydrate was produced from a batch pilot trial using the proprietary LOH-Max™ process (see Research & Development Section below).

A Phase 1 Plant design and risk review was undertaken in November and the plant layout updated. A revised process design model, criteria and flowsheets was completed by Strategic Metallurgy in late January 2020. These updates incorporated amendments to the leach circuit and a design for the new caesium and rubidium circuits, along with crystalliser and dewatering equipment revisions following Pilot Plant Campaign 1. This revised process design criteria is expected to lead to enhanced recoveries and lower operating costs. Lycopodium are scheduled to complete the Phase 1 Plant engineering work in April 2020.

A land application for the Phase 1 Plant was submitted to the ICAD 2 administrator in Abu Dhabi. The site is adjacent to the Gulf Fluor LLC sulphuric acid plant.

The residue uses study was completed in December which identified an opportunity for placement of the L-Max® residue into the cement industry to replace imported natural gypsum. This alternative is now being pursued in favour of using the material as a landfill remediation product. The objective of this work continues to be for the Phase 1 Plant to ultimately become a zero-waste facility.

Completion of the Karibib Ore Reserve estimate planned for the May 2020 will allow key results for the integrated Phase 1 Plant Feasibility Study to be finalised. This will integrate the mine schedule and concentrator design for the Karibib Project outlined above with the re-engineered Phase 1 lithium hydroxide chemical plant designs for construction at ICAD 2. The Alvarrões Lepidolite Mine in Portugal (see below) continues to be considered as a potential second concentrate feed source, either for the Phase 1 Project or a potential subsequent chemical plant development.

Alvarrões Lepidolite Mine (Gonçalo), Portugal¹, Feasibility Study

Mine design work for a hybrid open pit and underground mine was completed in November and a preliminary Ore Reserve estimated. This is scheduled to be finalised May 2020 when economic inputs for the downstream Phase 1 chemical plant are available.

Further Environmental Impact Study (EIS) work is pending finalising of the Ore Reserve estimate and formalisation of a definitive arrangement for the development of Alvarrões with Mota Ceramic Solutions.

¹ Lepidico announced on 9 March 2017 that it had signed a term sheet for ore off-take from the Alvarrões Lepidolite Mine with Grupo Mota, the 66% owner and operator of Alvarrões.

Phase 2 L-Max[®] Plant Scoping Study

Plant design work is planned to recommence once the Phase 1 Plant engineering is complete, with the objective of developing scoping study level capital and operating cost figures for a hybrid LOH-Max[™]/L-Max[®] plant, with configurations ranging from 10,000tpa to 20,000tpa lithium hydroxide monohydrate. Various locations continue to be evaluated for a Phase 2 Plant, including Walvis Bay in Namibia, which will benefit from lower logistics costs so long as local markets exist for the SOP and amorphous silica by-products.

RESEARCH & DEVELOPMENT

Pilot Plant Product Development, Perth, Western Australia

Product development work was undertaken during the quarter on samples generated for Pilot Plant Campaign 1, which ended in the September 2019 quarter.

Lithium hydroxide Monohydrate (LiOH.H₂O): with a purity of >99.0% was produced from the batch pilot trial in early January 2020. This is consistent with a nominal battery grade reference purity (56.5% LiOH) for many existing producers (Table 3). Importantly, impurity levels of most deleterious elements for battery grade specifications were below detection limits. These results confirm the viability of LOH-Max[™] at pilot scale as a new process for the production of high purity lithium hydroxide from a lithium sulphate intermediate, importantly without the production of potentially problematic sodium sulphate as a by-product.

Stockpiled lithium sulphate liquor from Campaign 1 of the continuous L-Max[®] pilot plant were used as feed to the LOH-Max[™] pilot. The LOH-Max[™] trial was conducted in a series of large-scale batch operations, performed in sequence to match the process flowsheet. Key recycle streams were introduced back into the LOH-Max[™] process in order to properly account for any build-up of impurities. Given the relatively benign nature of the materials in the process, no exotic materials of construction were required and the major equipment employed was sourced from the existing L-Max[®] pilot plant.

The process involves generation of an initial crude lithium hydroxide followed by refining into a high purity lithium hydroxide monohydrate product. Optimisation testing, conducted in parallel to the LOH-Max[™] pilot identified a number of improvements to the process that have led to modifications to the previous design for the Phase 1 Plant.

Carbon dioxide represents a challenge in the refining and sampling of high purity lithium hydroxide monohydrate due to its affinity to absorb CO₂ from the air. A method for sampling the LiOH.H₂O immediately after production was developed by Strategic Metallurgy and successfully trialled in early January 2020.

Table 3: Lithium hydroxide monohydrate assay results from pilot trial versus industry benchmarks

Product	Lepidico Pilot Plant	Livent	Albemarle	Tianqi
LiOH (% min)	>56.5	56.5	56.5	56.5 (99.0% LiOH.H ₂ O)
Impurity				
SO ₄ (wt%)	<0.005	0.010	0.05	0.01
CO ₂ (wt%)	0.25	0.35	0.30	0.30
Na + K (wppm)	22	30	70	80
Ca (wppm)	<15	15	30 (CaO)	20
Fe (wppm)	<5	5	10 (Fe ₂ O ₃)	7
Chloride (wt%)	<0.01	0.002	0.03	0.002

Source: company websites, Lepidico

Work has now started on refining a larger sample of high purity lithium hydroxide monohydrate, which is planned to be used to start the product qualification process with prospective customers.

On 20 December 2019, Lepidico confirmed that the Letter of Intent with BASF SE (“BASF”), whereby BASF would be able to purchase lithium hydroxide sourced from the Karibib Project in Namibia was formally novated to Lepidico for its integrated Phase 1 Lithium Chemical Project and extended to 31 December 2020.

The novation and extension agreement follows a visit by BASF to Lepidico’s Pilot Plant in Perth and provides BASF and Lepidico sufficient time to work towards completion of a definitive qualification and offtake agreement.

Sulphate of potash (SOP): prospective customers for this product are being identified, with marketing due to start in the current quarter.

Amorphous silica: further testwork was undertaken on the leach residue from Pilot Plant Campaign 1 to identify potential application of this product stream as a supplementary cementitious material. This work involved grinding the leach residue to target particle sizes of P_{80} 25 μ m, P_{80} 10 μ m and P_{80} 5 μ m. Sub-samples of the milled products have been dispatched for compressive strength testing and specific surface area determination. Results are due in February.

Caesium & Rubidium (Cs & Rb): naturally occur in lepidolite, which, when processed using Lepidico’s L-Max[®] technology, report through to one of two non-lithium streams; a brine liquor or an alum-residue. Approximately 100 litres of rubidium-caesium brine was collected during Pilot Plant Campaign 1. This brine was concentrated using another Lepidico proprietary process technology to produce intermediate crystallisation products and a brine containing rubidium and caesium sulphates, which was subsequently converted to two discrete formates.

The process technology for producing rubidium and caesium compounds is owned by Lepidico and subject to a stand-alone international patent application filed in February 2017. The ultimate objective of this testwork is to develop marketable high-value rubidium and caesium compounds as co-products from Lepidico’s Phase 1 Chemical Plant Project. Marketing for these compounds has commenced.

The latest Mineral Resource estimate for the Karibib Project includes caesium and rubidium grades for the first time. It is envisaged that the inaugural Ore Reserve estimate will be the first (JORC Code (2012)) compliant estimate of its kind to include rubidium and caesium co-products, and allow the production of these metals from the Phase 1 Project to be quantified.

Caesium chemical

Following the encouraging results reported in the September 2019 quarterly activities have focused on marketing this mixed caesium-rubidium material, as either a formate for application in the oil and gas industry or as a sulphate for sale into the chemicals industry. Furthermore, as outlined above, the final design for the Phase 1 Plant now includes both caesium chemical and rubidium chemical circuits, the engineering for which is being undertaken by Lycopodium.

Rubidium chemical

A high specification sample of rubidium rich formate brine with a specific gravity (SG) of 2.1 was produced from the Pilot Plant potassium circuit liquor[#] (Table 4). A rubidium-rich sulphate was also produced, containing 95% rubidium sulphate, 4% caesium sulphate and 0.7% potassium sulphate.

Marketing activities for rubidium chemicals have also commenced.

Table 4: Heavy rubidium formate specification from Pilot Plant

Criteria	Lepidico Pilot Plant
Rubidium + Caesium (g/l)	875 + 187
SO ₄ (ppm)	350
Chlorides (ppm)	60
Divalent cations (ppm)	<100
Specific gravity	2.1
Turbidity/clarity (NTU)	<10
pH	10.0

Background*

Caesium and rubidium compounds have a variety of applications albeit in relatively small quantities. Consumption, import, export and price data for caesium and rubidium are not available as they are not traded in commercial quantities.

In May 2018, the U.S. Department of the Interior published a list of 35 critical minerals (83 FR 23295) which included caesium, rubidium and lithium minerals. The list was developed to serve as an initial focus for “A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals”. Lepidolite[#] is the only known mineral that contains all three of these metals in potentially economic concentrations.

*Source: U.S. Geological Survey

[#]The Pilot Plant Campaign 1 feed was sourced from Alvarrões, Portugal. Note: lepidolites have similar major metal components (Li, K, Rb, Cs) albeit in varying concentrations between deposits

EXPLORATION

Lepidico’s exploration strategy is to identify and secure lithium mica deposits that are capable of providing material quantities of quality L-Max[®] concentrate feed. Lepidico continues to undertake due diligence on other lithium mineral opportunities.

Karibib Project (80%)

Evaluation of the drill results from the infill program completed in the December 2019 quarter has identified a number of opportunities for near mine resource extensions. The lepidolite mineralisation at Rubicon pinches out to the northwest and southeast. However the pegmatite has been identified further along strike to the northwest where it is currently untested, making this a priority exploration target.

The Helikon 1 lithium pegmatite is truncated at a depth of approximately 60 meters by a low-angle fault, at which point the pegmatite is up to 50 meters wide. Work is planned to determine the movement associated with this fault and thereby the location of any fault offset extension to the deposit.

High grade lepidolite mineralisation is observed in old mine workings at Helikon 2, 3 and 4. These three deposits represent excellent targets for promoting Inferred Mineral Resources into Measured and Indicated categories and expanding the mineral inventory.

A regional exploration program to evaluate the lithium pegmatite and gold potential within the 1,054km² exclusive prospecting licence areas started in January 2020.

CORPORATE

As at 31 December 2019, Lepidico had cash and cash equivalents of \$4.7 million (including R&D tax credit receivable).

Controlled Placement Facility of \$7.5 million Secured

During the quarter, the Company entered into a Controlled Placement Agreement (CPA) with Acuity Capital to provide Lepidico with up to \$7.5 million of standby equity capital over the coming 26 month period which may be used by the Company to fund future product research and development work, new process technology development and working capital.

Under the CPA Lepidico retains full control of all aspects of the placement process: having sole discretion as to whether or not to utilise the CPA, the quantum of issued shares, the minimum issue price of shares and the timing of each placement tranche (if any). There are no requirements on Lepidico to utilise the CPA and Lepidico may terminate the CPA at any time, without cost or penalty.

Acuity Capital and the CPA do not place any restrictions on Lepidico raising capital through other methods. If Lepidico utilises the CPA, it is able to set a floor price (at its sole discretion) and the final issue price will be calculated as the greater of that floor price set by Lepidico and a 10% discount to a Volume Weighted Average Price (VWAP) over a period of Lepidico's choosing.

As collateral for the CPA, Lepidico issued 230,000,000 ordinary shares, at nil consideration to Acuity Capital ("Collateral Shares") but may, at any time, cancel the CPA and buy back the Collateral Shares for no consideration (subject to shareholder approval).

Patents

Lepidico currently holds International Patent Application PCT/AU2015/000608 and a granted Australian Innovation Patent (2016101526) in relation to the L-Max[®] Process.

In 2017, the Company proceeded with the national and regional phase of patent applications in the main jurisdictions in which L-Max[®] may operate in the future.

On 22 October 2019, a United States Patent was issued to Lepidico for its 100% owned L-Max[®] process technology. National and regional phase patent applications are well advanced in other key jurisdictions and these processes are expected to continue into calendar year 2020.

On 25 September 2019, the Company filed International Patent Application, PCT/AU2019/051024 in relation to the production of caesium, rubidium and potassium brines and other formates.

Earlier in 2019, the Provisional Patent Application (2019900356) was filed in relation to the LOH-Max[™] Process.

Exploration and Resources

The information in this report that relates to Exploration Results is based on information compiled by Mr Tom Dukovcic, who is an employee of the Company and a member of the Australian Institute of Geoscientists and who has sufficient experience relevant to the styles of mineralisation and the types of deposit under consideration, and to the activity that has been undertaken, to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Dukovcic consents to the inclusion in this report of information compiled by him in the form and context in which it appears.

The information in this report that relates to the Alvarrões Mineral Resource estimate is based on information compiled by John Graindorge who is a Chartered Professional (Geology) and a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". John Graindorge is a full-time employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Helikon 1 and Rubicon MRE is based on information compiled by Vanessa O'Toole who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Vanessa O'Toole is an employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at the Helikon 2 - Helikon 5 deposits within the Karibib Project is based on information compiled by Mr Jeremy Witley, who is a fellow of The Geological Society of South Africa (GSSA) and is registered professional with the South African Council for Natural Scientific Professions (SACNSAP). Mr Witley is the Head of Mineral Resources at The MSA Group (Pty) Ltd (an independent consulting company). Mr Witley has sufficient experience relevant to the style of mineralisation and the types of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Witley consents to the inclusion in this report of information compiled by him in the form and context in which it appears.

Forward-looking Statements

All statements other than statements of historical fact included in this release including, without limitation, statements regarding future plans and objectives of Lepidico, are forward-looking statements. Forward-looking statements can be identified by words such as "anticipate", "believe", "could", "estimate", "expect", "future", "intend", "may", "opportunity", "plan", "potential", "project", "seek", "will" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, its directors and management of Lepidico that could cause Lepidico's actual results to differ materially from the results expressed or anticipated in these statements.

The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this release will actually occur and investors are cautioned not to place any reliance on these forward-looking statements. Lepidico does not undertake to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this release, except where required by applicable law and stock exchange listing requirements.

CORPORATE INFORMATION

Board & Management

Gary Johnson	Non-Executive Chairman
Joe Walsh	Managing Director
Mark Rodda	Non-Executive Director
Cynthia Thomas	Non-Executive Director
Brian Talbot	Non-Executive Director
Tom Dukovcic	GM Geology
Peter Walker	GM Projects
Shontel Norgate	CFO & Joint Company Secretary
Alex Neuling	Joint Company Secretary

Registered & Principal Offices

23 Belmont Avenue, Belmont, WA 6104, Australia
Suite 200, 55 University Avenue, Toronto, Ontario, M5J 2H7, Canada

Stock Exchange Listings

Australian Securities Exchange (Ticker LPD)
Frankfurt Stock Exchange (Ticker AUB)

Forward Shareholder Enquiries to

Automic Pty Ltd
Level 2, 267 St Georges Terrace
Perth WA 6000

All correspondence to:
GPO Box 5193
Sydney NSW 2001

Telephone: 1300 288 664 (within Australia)
+61 (0) 2 9698 5414

Email: hello@automicgroup.com.au

Website: www.automicgroup.com.au

Issued Share Capital

As at 31 December 2019, issued capital was 4,633,668,407.

As at 31 January 2020, issued capital was 4,633,668,407.

Quarterly Share Price Activity

	High	Low	Close
October – December 2019	2.1c	1.5c	1.5c

Further Information

For further information, please contact

Joe Walsh
Managing Director
Lepidico Ltd
Tel: +1 647 272 5347

David Waterhouse
Waterhouse IR
Tel: +61(0)3 9670 5008

Email: info@lepidico.com
Website: www.lepidico.com

TENEMENT INFORMATION (Provided in accordance with ASX Listing Rule 5.3.3)

NAMIBIAN OPERATIONS, Karibib Project

Karibib Project Tenement Schedule

Tenement ID	Registered Holder	Lepidico Interest	Expiry Date	Area
ML 204	Desert Lion Energy (Pty) Ltd	80%	18/06/2028	69 km ²
EPL 5439	Desert Lion Energy (Pty) Ltd	80%	27/10/2021	301 km ²
EPL 5555	Desert Lion Energy (Pty) Ltd	80%	03/04/2021	539 km ²
EPL 5718	Desert Lion Energy (Pty) Ltd	80%	26/10/2019 ¹	200 km ²

Note:

¹ Two-year extension approved, awaiting endorsed title document.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Lepidico Ltd

ABN

99 008 894 442

Quarter ended ("current quarter")

31 December 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(2,208)	(5,315)
(b) development	(455)	(1,276)
(c) production	-	-
(d) staff costs	(457)	(1,116)
(e) administration and corporate costs	(1,359)	(2,193)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	3	15
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other	-	-
1.9 Net cash from / (used in) operating activities	(4,476)	(9,885)

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	(1)	(2)
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other (cash acquired from Desert Lion)	-	416
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Acquisition costs associated with Desert Lion Business Combination	(277)	(1,185)
2.6 Net cash from / (used in) investing activities	(278)	(771)

3. Cash flows from financing activities		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	75	75
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
3.10 Net cash from / (used in) financing activities	75	75

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	6,541	13,660
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(4,476)	(9,885)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(278)	(771)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	75	75
4.5	Effect of movement in exchange rates on cash held	1,802	585
4.6	Cash and cash equivalents at end of period	3,664	3,664

As a result of the business combination, and the international nature of the Lepidico business, the Company has intercompany loans denominated in different currencies which are calculated in Australian dollars at the end of each reporting period. As a result the Company will record unrealised foreign exchange gains and losses each reporting period depending on the prevailing exchange rates. These gains and losses will not be realised until such time as the intercompany loans are repaid.

5.	Reconciliation of cash and cash equivalents	Current quarter \$A'000	Previous quarter \$A'000
	at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		
5.1	Bank balances	3,664	6,541
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,664	6,541

6. Payments to directors of the entity and their associates

**Current quarter
\$A'000**

6.1	Aggregate amount of payments to these parties included in item 1.2	472
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

	\$A'000
Salaries	123
Directors Fees	85
Payments to Director Related Entities (Development)	264

7. Payments to related entities of the entity and their associates

**Current quarter
\$A'000**

7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

--	--

8. Financing facilities available

Add notes as necessary for an understanding of the position

	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	-	-
8.2	7,500	-
8.3	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

On 23 December 2019 the Company executed a Controlled Placement Agreement (CPA) with Acuity Capital to provide Lepidico with up to \$7.5 million of standby equity capital over a 26 month period. Under the CPA Lepidico sets a floor price and the final issue price will be calculated as the greater of that floor price and a 10% discount to a Volume Weighted Average Price (VWAP) over a period nominated by Lepidico.

As collateral for the CPA, Lepidico issued 230,000,000 ordinary shares from its LR7.1 capacity, at nil consideration to Acuity Capital ("Collateral Shares") but may, at any time, cancel the CPA and buy back the Collateral Shares for no consideration (subject to shareholder approval).

9. Estimated cash outflows for next quarter		\$A'000
9.1	Exploration and evaluation	272
9.2	Development (net of R&D Tax Credit)	350
9.3	Production	-
9.4	Staff costs (includes exploration and evaluation)	432
9.5	Administration and corporate costs	520
9.6	Other	-
9.7	Total estimated cash outflows	1,574

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	Nil			
10.2 Interests in mining tenements and petroleum tenements acquired or increased	Nil			

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: 
 (Director/Company secretary)

Date: 31 January 2020

Print name: Shontel Norgate

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.