

ASX Announcement 9 July 2018

#### **BROOKING DIAMOND PROJECT EXPLORATION UPDATE**

- First lamproite core samples from Little Spring Creek drilling program sent to specialist Canadian laboratory for micro-diamond analysis
- Helicopter-borne TDEM survey completed over entire 118km<sup>2</sup> Brooking project to identify additional lamproite drilling targets
- Micro-diamond and TDEM survey results will be announced as soon as they come to hand

Lucapa Diamond Company Limited (ASX: **LOM**) ("Lucapa" or "the Company") is pleased to provide a further update on the follow-up exploration program underway at the 80% owned Brooking diamond project in Western Australia's West Kimberley region.

Brooking is located within 50km of the Ellendale mine which, until its recent closure, produced more than 50% of the world's fancy yellow diamonds.

The ongoing Brooking exploration program, which includes drilling and extensive geophysics, is designed to follow up on the LSC-01 diamond discovery hole, from which 119 micro and macro diamonds were recovered from an 86.8kg sample of lamproite core from a single drill hole (Refer ASX announcement 11 January 2018).

#### Core samples from first follow-up drill hole sent for micro-diamond analysis

Further to the ASX update of 14 June 2018, core from the first PQ (85mm) drill hole completed in the Little Spring Creek follow-up program (DH-002) has been logged and ~200kg of core samples airfreighted to a specialist laboratory in Canada for micro-diamond analysis.

As previously advised, this laboratory process takes approximately four weeks to complete and Lucapa will announce the results as soon as they come to hand.

DH-002 was drilled approximately 30 metres north of the LSC-01 discovery hole within the Little Spring Creek lamproite target defined following Lucapa's ground-based geophysical surveys (Refer ASX announcement 23 May 2018).

DH-002 intersected the targeted lamproite body from near surface to a vertical depth of approximately 70m. Thereafter, it intersected possible limestone/lamproite breccia to a depth of approximately 102m, when drilling was stopped due to difficult drilling conditions.

Drilling continues at Little Spring Creek, in line with the program set out in the ASX announcement of 23 May 2018.



Figure 1: Inspecting the drill core from the first hole drilled at Little Spring Creek in the follow-up program

#### Airborne TDEM survey completed over entire 118km<sup>2</sup> Brooking project

In parallel with the Little Spring Creek drilling program, Lucapa engaged New Resolution Geophysics ("NRG") to fly a helicopter-borne Xcite Time Domain Electromagnetic ("TDEM") survey over the entire 118km<sup>2</sup> Brooking project area.

As set out in the ASX announcement of 14 June 2018, the TDEM survey was designed to identify additional drilling targets within the Brooking project where diamonds and lamproite indicator minerals were recovered from previous surface sampling programs. These additional target areas included Cameron's Bore, Katie's Bore, East-West Creek, Homestead Creek, Santa Fe Dam and North East Creek (Figure 2).

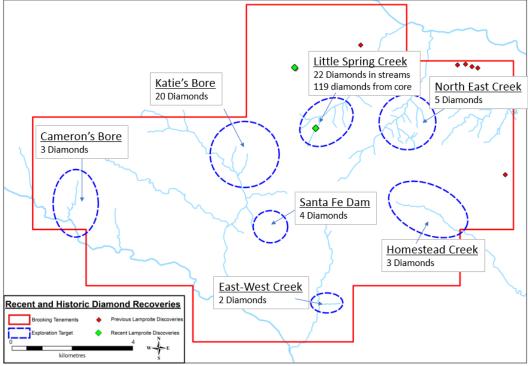


Figure 2: Brooking project showing Little Spring Creek and other target areas



Figure 3: The Xcite TDEM survey being flown at Brooking

NRG has completed flying the Xcite TDEM survey on schedule. The interpretation and modelling of the TDEM survey data is expected to take approximately four weeks to process and Lucapa will announce the results as soon as they come to hand.

For and on behalf of the Lucapa Board.

## STEPHEN WETHERALL MANAGING DIRECTOR

#### **ABOUT LUCAPA**

Lucapa is a growing diamond company with a portfolio of high-quality production, development and exploration assets in Angola, Lesotho, Australia and Botswana. The Company's focus on high-value diamond production is designed to protect cash flows in a sector of the diamond market where demand remains robust.

Lucapa's flagship asset is the Lulo Diamond Project in Angola, which is a prolific producer of large and premium-value alluvial diamonds. Lulo has produced 10 +100ct diamonds to date and is the highest US\$ per carat alluvial diamond production in the world. Lucapa and its Lulo partners continue to advance their search for the primary kimberlite sources of these exceptional alluvial gems, with three drill rigs available in the ongoing kimberlite exploration program.

In keeping with the Company's growth strategy, Lucapa has acquired a 70% interest in the advanced Mothae kimberlite project in diamond-rich Lesotho. The Mothae kimberlite pipe is a high-quality diamond resource located within 5km of Letšeng, the highest US\$ per carat kimberlite diamond mine in the world. Lucapa is constructing a 150 tonne per hour (90,000 tonnes per month) diamond treatment plant, complete with XRT recovery technology, under its Phase 1 development program and is scheduled to commence high-value production at Mothae in H2 2018. A bulk sampling plant has also been refurbished and Lucapa has commenced testing areas of the kimberlite pipe either not included in the JORC resource or where additional sampling is required. Large diamonds including two yellows weighing 89 carats and 25 carats have already been recovered from these areas in the bulk sampling program.

Lucapa is also furthering two exploration projects in known diamond provinces. This includes an extensive exploration program launched at Brooking in the West Kimberley lamproite province in Western Australia to follow up on the discovery of lamproite with high concentrations of micro and macro diamonds. Lucapa is also scheduled to drill its kimberlite targets at the Orapa Area F project in Botswana's Orapa diamond field in H2 2018.

Lucapa's Board and management team have extensive diamond industry experience across the globe with companies including De Beers, Rio Tinto and Gem Diamonds.

#### **Competent Person's Statement**

Information included in this announcement that relates to exploration results and resource estimates is based on and fairly represents information and supporting documentation prepared and compiled by Richard Price MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Price is an employee of Lucapa Diamond Company Limited. Mr Price has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

#### No New Information

To the extent that announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### **Forward-Looking Statements**

This announcement has been prepared by the Company. This document contains background information about the Company and its related entities current at the date of this announcement. This is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement. This announcement is for information purposes only. Neither this document nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction.

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# Appendix 1 Brooking Diamond Project Exploration Update - JORC Code (2012) requirements Sampling Techniques and Data

Criteria	JORC Code Explanation	Lucapa Commentary		
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.) These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drilling was undertaken using a Sandvik DT712 drill rig, drilling PQ diameter core.</li> <li>Core was preliminary logged at the base camp, before sections of representative whole core were selected at intervals throughout the lamproite intersection.</li> <li>The selected core has now been submitted for micro-diamond analysis at Saskatchewan Research Council Laboratories.</li> </ul>		
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The drilling to date has consisted of wireline diamond core drilling.		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core is recovered from the core barrel and stored in core boxes, before being transported by light vehicle to the base camp, where it is visually logged.</li> <li>Core recovery is generally high.</li> </ul>		

Criteria	JORC Code Explanation	Lucapa Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The core is visually logged.</li> <li>No quantitative analysis of the core is reported.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Selected representative sections of whole core have been submitted for microdiamond analysis.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	The rock types seen in the core are extremely altered, but this is not believed to be material to the quality of the microdiamond analysis to be performed.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	No verification of samples has been undertaken.

Criteria	JORC Code Explanation	Lucapa Commentary			
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sample sites were located using a hand held GPS with a nominal accuracy of about 5m.</li> <li>The grid system is MGA (GDA 1994).</li> </ul>			
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill spacing is variable and dependent on the size of the target being investigated.</li> <li>No sample compositing is applied.</li> </ul>			
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The samples are considered spot samples within a kimberlitic body.</li> <li>Insufficient data exists to determine whether sample bias is present but given the nature of the bodies, bias is considered unlikely.</li> </ul>			
Sample security	• The measures taken to ensure sample security.	<ul> <li>Security of the drilling and core storage area, processing and diamond recovery is monitored by on site staff,</li> <li>Core was stored and transported in a locked container.</li> </ul>			
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>The sampling techniques are industry standard and no audits or reviews have been undertaken to validate the information presented at this stage.</li> </ul>			

### **Reporting of Exploration Results**

Criteria	JORC Code Explanation	Lucapa Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Brooking Diamond Project comprises Exploration Licences E04/1936 and E04/2317.</li> <li>The Project area is located approximately 55km NNW of Fitzroy Crossing in the West Kimberley region of Western Australia on the Lennard River 1:250,000 (SE51-08) and Leopold Downs 1:100,000 (3692) mapsheets. The Project area straddles the boundary between the Brooking Springs and Leopold Downs pastoral leases. The Exploration Licences E04/1936 and</li> </ul>

#### E04/2317 are 100% owned and operated by Leopold Diamond Company Pty Ltd. • On 13 October 2016, Lucapa (ASX: LOM) announced that it had agreed to acquire 80% of the project. • On 6 June 2017 Brooking Diamonds Pty Ltd Company was granted E04/2471 for a period of 5 years. • On 11 June 2018 Brooking Diamonds Pty Ltd were awarded exploration license E04/2502. **Exploration** • The project area has been continuously Acknowledgment and appraisal done by other exploration by other parties. explored for diamonds since 1976; parties following the discovery by the Ashton Joint Venture, of the Big Spring Cluster of subeconomic, variably diamondiferous, dykes, pipes and sills of Miocene-aged olivine lamproite and leucite-lamproite at Big Spring, 5 km NNE of the Brooking Project area. The Ashton Joint Venture also recovered diamonds and fresh to freshworn kimberlitic indicator minerals suggestive of derivation from at least one local provenance; from stream-sediment and soil samples collected from the tributaries of the Brooking, Homestead and Cajuput Creeks which drain the blacksoil covered Devonian limestone reef complexes forming the Oscar Plateau. • These positive results provided the stimulus for persistent exploration between 1976 and 2002 by Stockdale Prospecting, Metana Minerals NL, Mr Manning, Moonstone Diamond Corporation, Diamond Rose NL, Thundelarra Exploration Ltd/Resource Exploration and Diamond Exploration Consultants/Alcaston Mining. Historic exploration programmes have involved the acquisition of aerial photography and Landsat/Spot imagery, airborne magnetic, resistivity and radiometric surveys, ground magnetic traverses, regional streamsediment, soil and loam sampling and associated geochemistry, kimberlitic indicator mineral observation and associated mineral geochemistry and shallow percussion drilling. In 2002, following a regional HEM survey, Rio Tinto Exploration Pty Ltd discovered Leopold 1; a Miocene-aged poly-phase dyke of olivinephlogopite lamproite and olivine-leucite lamproite, approximately 1.5km east of the eastern boundary of the Brooking Project Area. This discovery, although barren of diamonds, provided impetus for

continuing exploration for similar

#### lamproites concealed under the transported Quaternary black-soils developed over the Devonian limestone karst topography forming the Oscar Plateau. Geology • Deposit type, geological setting and style of • The targets for this exploration program mineralisation. are diamondiferous lamproites similar to the nearby Big Springs pipes or the Ellendale hodies to the WNW. • Like kimberlite, lamproite magma originates at upper mantle depths of 150 -200km, and may entrain diamonds and other minerals from the upper mantle during its rapid ascent to the earth's surface. • The interaction of the hot magma with groundwater results in a highly explosive eruption that, in the case of the Ellendale Lamproite Field, has generally resulted in large flared champagne glass shaped pipes near surface with a narrow pipe stem extending to depth. • Minerals commonly present within lamproites include olivine, clinopyroxene, phlogopite, leucite and amphibole. Xenoliths and xenocrysts, including pyrope garnets and rare diamonds (of upper mantle origin) may also be present. The presence of these xenocrysts is dictated by the mantle lithologies sampled by the lamproite magma on its ascent to surface. • Lamproites can only be diamondiferous if the lamproite magma intersects and samples diamondiferous mantle lithologies during its ascent, and if the conditions within the lamproite magma are such that the entrained diamonds are preserved once emplaced near or on the earth's surface (by rapid cooling of the lamproite to limit diamond resorption). • The subcrop geology of the area consists of Devonian limestones and related rocks. Drill hole • Drill hole collar information is tabulated A summary of all information material to Information the understanding of the exploration below. results including a tabulation of the Intercept information is currently following information for all Material drill unverified and is not presented here. holes: o easting and northing of the drill hole collar o elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth hole length.

Data	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> <li>In reporting Exploration Results, weighting</li> </ul>	<ul> <li>No weighting, averaging, grade truncations</li> </ul>
aggregation methods	<ul> <li>averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	or cut-off grades have been used.  No short or long length aggregation applicable.  No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	The deposits may be regarded as massive deposits so drill hole orientation is not relevant.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No map or sections of the drill hole location have been included with this announcement.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Results reported are complete.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Stream and loam sampling have been undertaken in some of the areas surrounding the drill sites.</li> <li>Diamonds and chrome spinels have been recovered from these samples and are reported in an announcement on 23 November 2016.</li> </ul>

#### **BROOKING DIAMOND PROJECT EXPLORATION UPDATE**

#### Further work

- The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).
- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.
- Analysis of the core will continue. This will include petrographic analysis and microdiamond analysis.
- An Excite Airborne Time Domain Electromagnetic survey is underway. The data from this survey will be used to identify additional lamproite targets which will be drilled later in the year.
- A follow-up drilling program will be planned if justified by these survey results.

HOLE-ID	Drilling type	Easting	Northing	Azi	Dip	Total Depth
LSC/DH002	Core	749,682	8,033,730	0	-90	102.6

Table 2: Brooking Drilling Project - Drill Collar Details