LUCAPA
DIAMOND COMPANY

ASX Announcement 23 May 2018

BROOKING EXPLORATION UPDATE

- **Recent ground geophysical surveys have successfully defined a lamproite body at the Little Spring Creek diamond discovery at Brooking in the West Kimberley**
- **Drilling contractor engaged for follow-up program on the Little Spring Creek discovery hole, which produced 119 micro and macro diamonds, including whites and yellows**
- **Airborne geophysics contractor engaged to fly high-resolution Time Domain EM (TDEM) survey over the entire 118km^2 Brooking project to identify further lamproite drilling targets**

Lucapa Diamond Company Limited (ASX: **LOM**) ("Lucapa" or "the Company") is pleased to provide an 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.

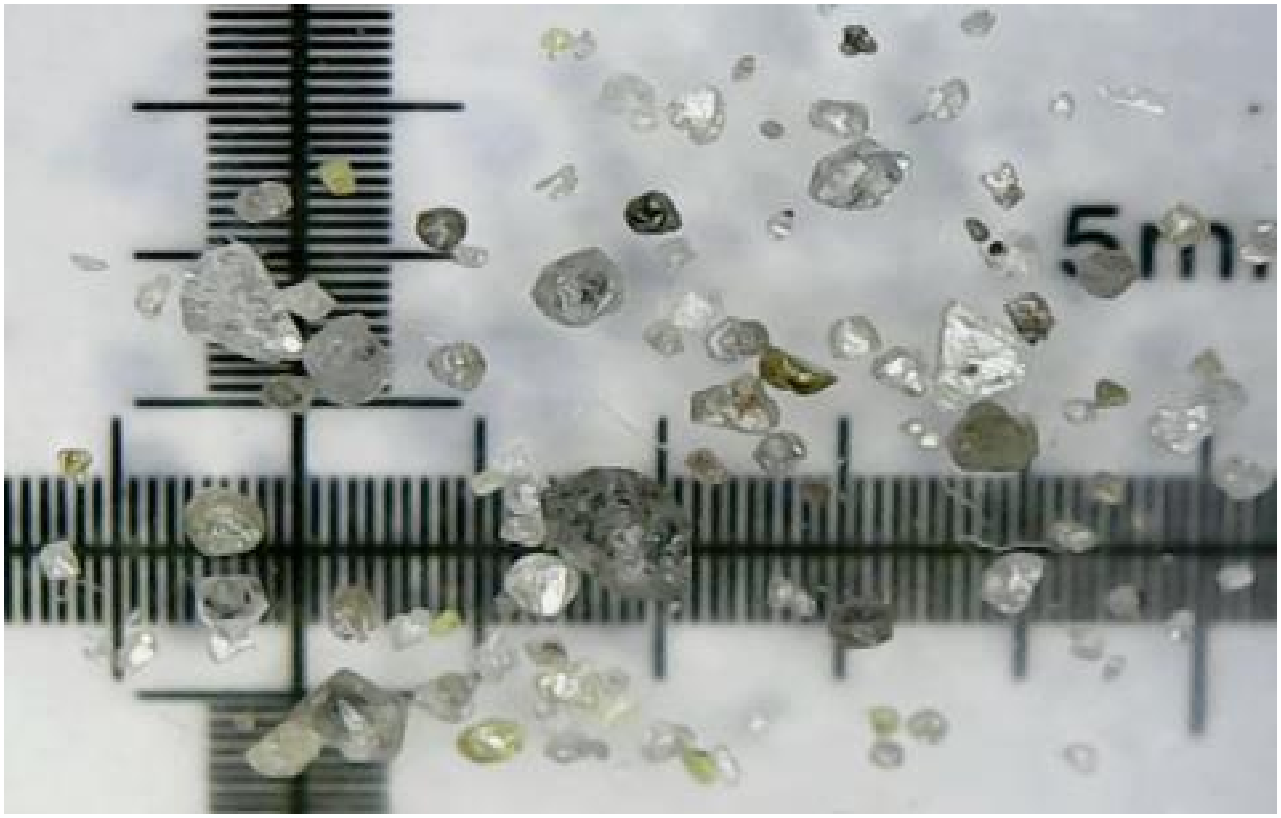

Figure 1: Diamonds recovered from the drill core of the Little Spring Creek discovery hole at Brooking, including white and yellow diamonds

Lucapa Diamond Company Limited abn 44 111 501 663 | 34 Bagot Road | Subiaco 6008 | Western Australia
PO Box 1091 | West Perth WA 6872 | T +61 8 9381 5995 | F +61 8 9489 9201 | general@lucapa.com.au

Ground geophysics define Little Spring Creek lamproite body for follow-up drilling

Further to the 9 April 2018 ASX announcement, Lucapa has completed further ground geophysical surveys at Little Spring Creek, including electromagnetics (EM) and ground penetrating radar (GPR) (Figures 2 and 3).

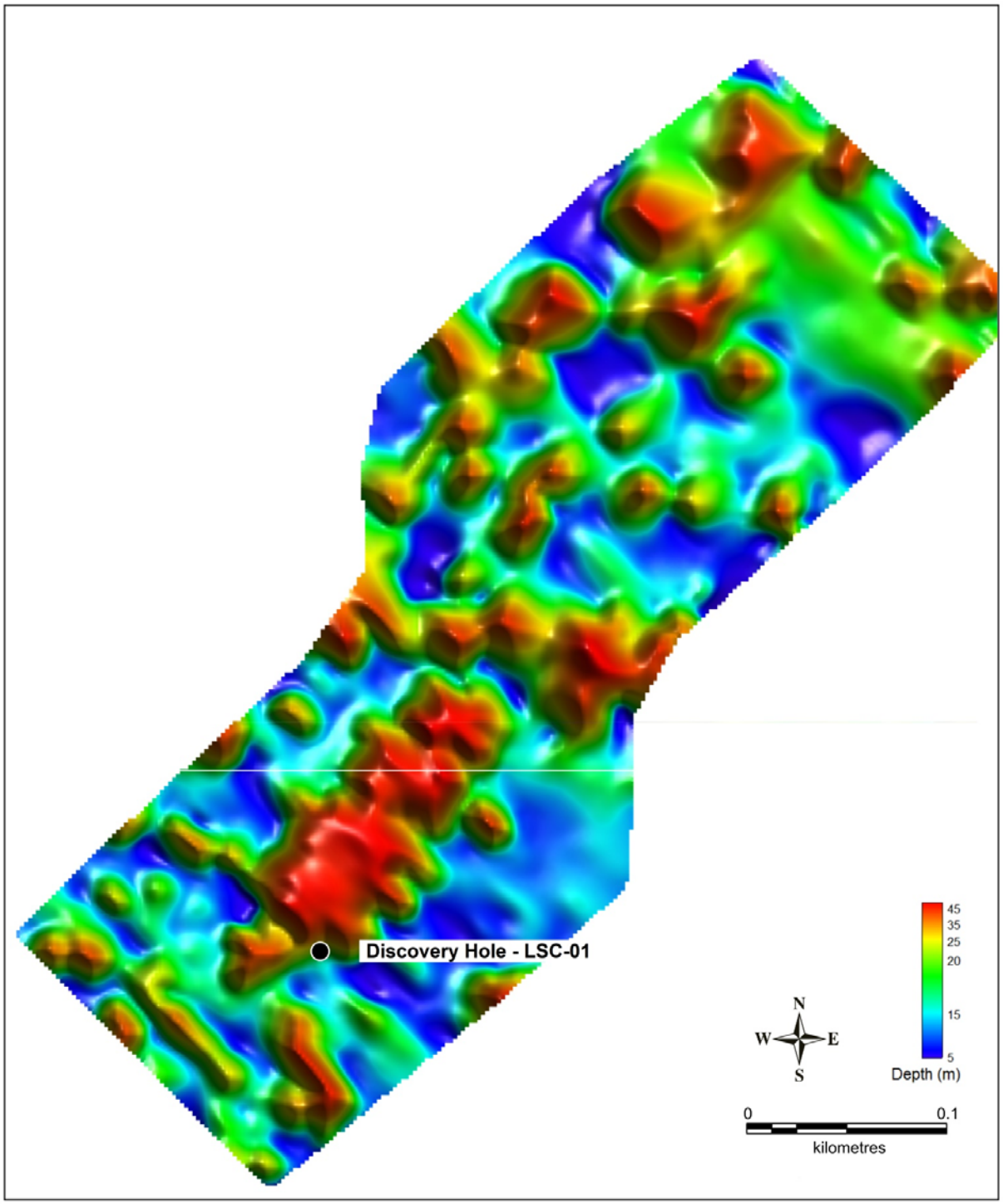

Figure 2: Ground Penetrating Radar image of the Little Spring Creek lamproite body at Brooking, including the location of the discovery hole

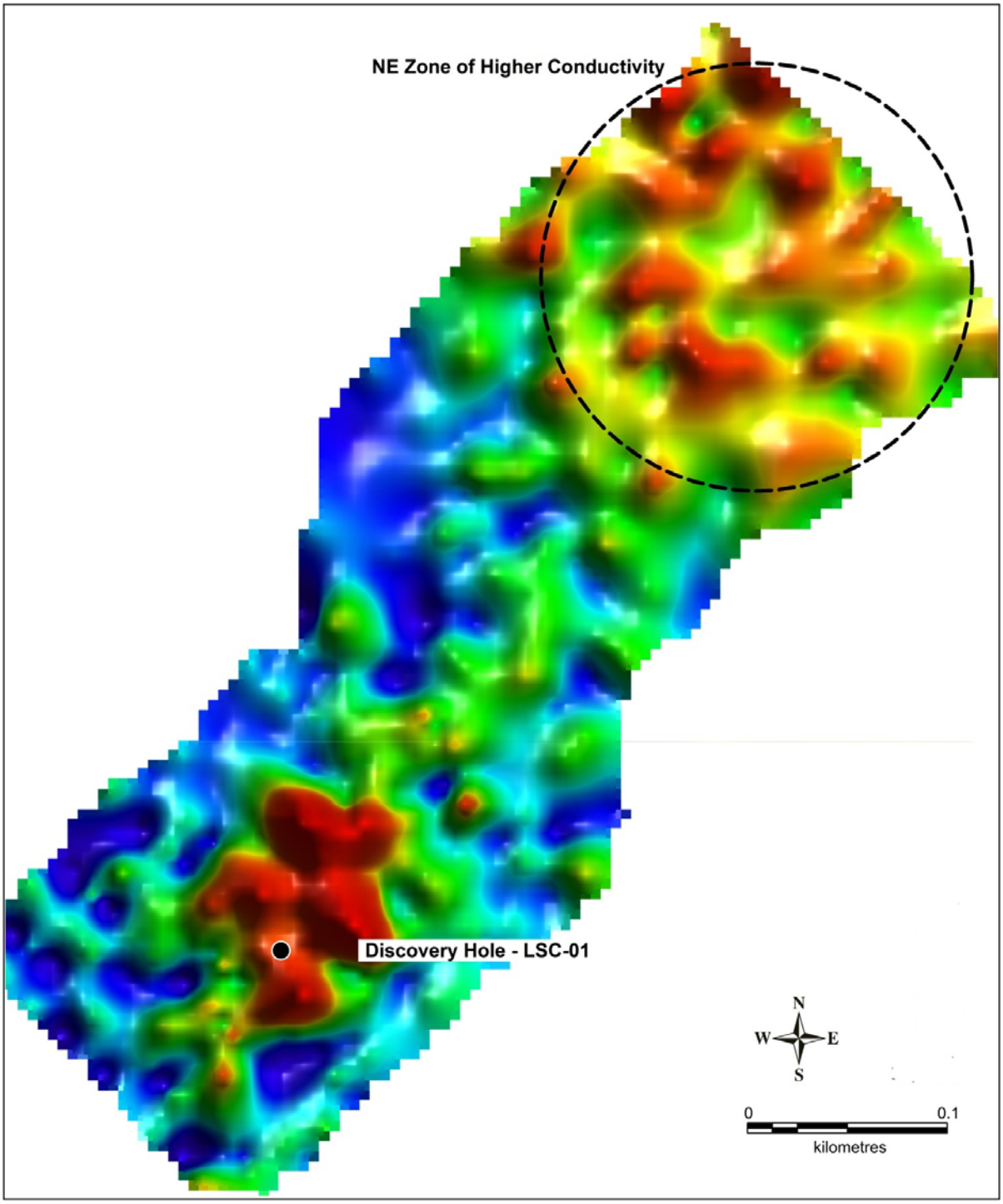

Figure 3: Ground EM image of the Little Spring Creek lamproite body at Brooking, including the location of the discovery hole and the area of higher conductivity to the north-east, where a drill hole is also planned

These ground surveys have been successful in providing better definition of the Little Spring Creek lamproite body to help position co-ordinates for the follow-up drilling program.

The geophysical survey data (Figures 2 and 3) indicates the LSC-01 discovery hole – which intersected ~70m of diamond-bearing lamproite material from near surface – was drilled towards the south-east edge of the main geophysical signature. As set out in the ASX announcement of 11 January 2018, 119 micro and macro diamonds were recovered from an 86.8kg sample of core from the LSC-01 discovery hole.

Follow-up drilling set to commence

With the ground geophysical survey work completed at Little Spring Creek, Lucapa has engaged a drilling contractor for an initial ~10-hole follow-up drilling program (PQ and NQ core to a depth of ~100m to 150m) to define the lamproite body.

Drilling is scheduled to commence in early June 2018 and will include a hole to test the increased geophysical conductivity detected north-east of the Little Spring Creek target (Figure 3).

This follow-up drilling program is expected to take approximately three weeks to complete. Once logged, the core from this drilling program will be sent for micro-diamond analysis.

If the drilling campaign and micro-diamond analysis provide positive results, the next stage of exploration at Little Spring Creek would encompass trenching to assist with definition of near surface geology and provide material for bulk sampling to determine commercial diamond content and grade.

Identifying additional priority targets at Brooking

As set out in the ASX announcement of 9 April 2018, Lucapa is also planning an airborne geophysical survey across the broader Brooking project tenement to define additional drilling targets at the other prospective areas where diamonds and lamproite indicator minerals were recovered from previous surface sampling programs (Figure 4).

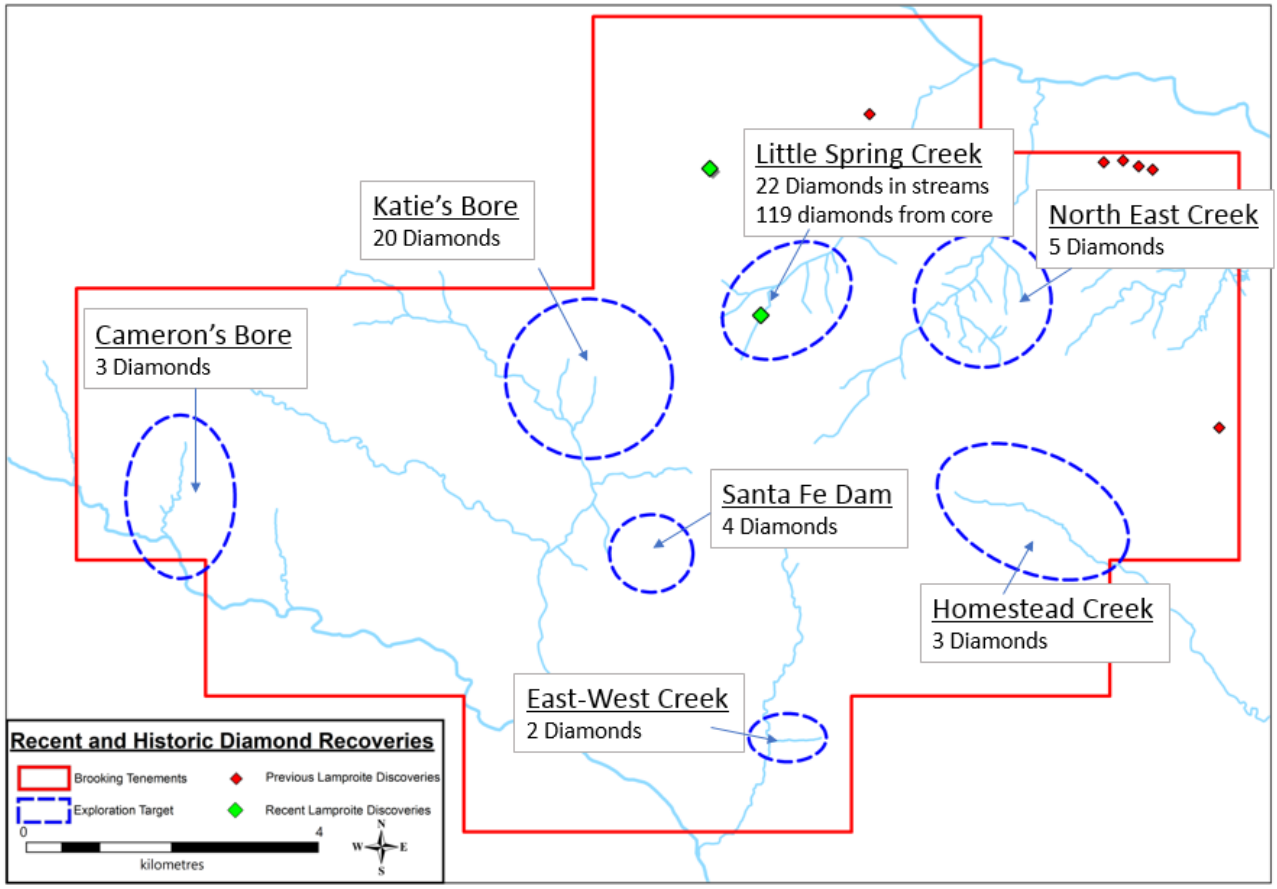

Figure 4: Brooking project area including priority target areas to be flown on 50m line spacings in the airborne TDEM survey

These additional target areas include Cameron's Bore, Katie's Bore, East-West Creek, Homestead Creek, Santa Fe Dam and North East Creek (Figure 4).

Lucapa has engaged New Resolution Geophysics to complete an Xcite helicopter-borne TDEM survey (Figure 5) over the entire 118km^2 Brooking project area on at least 100m line spacings. The priority target areas will be flown on 50m line spacings. This survey is scheduled to commence later in June 2018.

Figure 5: Picture of the Xcite TDEM technology scheduled to be flown over the entire 118km^2 Brooking project later in June 2018

Once the results of the airborne TDEM survey are received and processed, ground geophysics will also be undertaken to better define additional drilling targets.

Lucapa's follow-up work programs at the Brooking project will also include reviewing the historic work completed on previously identified lamproites within the tenement, including the Big Spring Creek cluster.

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 been refurbished and the Company will soon commence testing the Neck Zone of the kimberlite pipe not included in the JORC resource due to no historic bulk sampling and other areas that are included in the JORC resource but could be upgraded by additional sampling.

Lucapa is also furthering two earlier stage exploration assets - commencing with an extensive follow up program at Brooking in the West Kimberley lamproite province in Western Australia, where the Company has recently discovered lamproite with high concentrations of micro and macro diamonds. The Company is also scheduled to drill its targets at the Orapa Area F project in Botswana's Orapa diamond field in 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.

This announcement may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

This document does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this representation are not intended to represent recommendations of particular investments to particular investments to particular persons.

Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

No responsibility for any errors or omissions from this document arising out of negligence or otherwise is accepted. This document does include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of the Company. Actual values, results, outcomes or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements.

Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, the Company does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

Appendix 1

Brooking Diamond Project – Exploration Update
Reporting of Exploration Results

Criteria	JORC Code Explanation	Lucapa Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• The Brooking Diamond Project comprises Exploration Licences E04/1936 and E04/2317. • 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) map-sheets. The Project area straddles the boundary between the Brooking Springs and Leopold Downs pastoral leases. The Exploration Licences E04/1936 and 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 Diamond Company was granted E04/2471 for a period of 5 years. • On 8 November 2017 Brooking Diamond Company applied for exploration license E04/2502.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The project area has been continuously explored for diamonds since 1976; following the discovery by the Ashton Joint Venture, of the Big Spring Cluster of sub-economic, 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 fresh-worn 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 black-soil 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 stream-sediment, 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 olivine-phlogopite 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 mineralisation.*	• The targets for this exploration program are diamondiferous lamproites similar to the nearby Big Springs pipes or the Ellendale bodies 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 Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill 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.* o *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.*	• No drilling information is presented here.
Data aggregation methods	• *In reporting Exploration Results, weighting 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.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of*	• No drilling information is presented here.

	low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• No drilling information is presented here.
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.*	• Appropriate map and plans for the reported data with scale and north points are included with the text of the report.
Balanced reporting	• *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.*	• Results reported are complete.
Other substantive exploration data	• *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.*	• Stream and loam sampling have been undertaken in some of the areas surrounding the geophysical surveys. • Diamonds and chrome spinels have been recovered from these samples and are reported in an announcement on 23 November 2016 • Drilling of selected airborne targets was undertaken in 2017 with lamproite recovered from one hole at the Little Spring Creek target and reported in an announcement on 18 December 2017

		• 119 diamonds were recovered from micro-diamond analysis of the lamproite core at Little Spring Creek and reported on 11 January 2018. • A ground based EM survey was undertaken over LSC-01 using a CMD-DUO2 Electromagnetic Conductivity Meter at a 20m line spacing and 10m station spacing. • A ground penetrating radar survey was undertaken over LSC-01 using a ULTRAGPR system on a 20m line spacing. A conductivity depth image was produced down to 50m below surface using estimated parameters. Further optimisation of parameters used is required to improve the depth modelling.
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.*	• Delineation drilling of the Little Spring Creek lamproite occurrence will be undertaken. • Further microdiamond sampling will be undertaken. • A helicopter-borne Xcite Time Domain Electromagnetic (TDEM) survey will be completed over the entire 118km^2 project area on 100m line spacings. Priority target areas will be flown on 50m line spacings. • Trenching and bulk sampling will be undertaken to improve geological definition and test for macro diamonds.