# Lucapa Diamond Company Ltd (ASX:LOM)

Listed shares	324.910 million (LOM)
Listed 20¢ options	46.461 million expiring 30 Sep 2017 (LOMOA). Could raise \$9.3m.
Unlisted 30¢ options	7.000 million, being 3.75m/3.25m expiring 24 Apr/28 May 2017
IRP 53¢ options	2.925 million expiring 2 Jun 2019 <sup>1</sup>
IRP performance rights	2.450 million
Total securities	383.750 million
Securities prices	LOM 42.5¢, LOMOA 30¢, as at 11 November
Market cap	\$152m on listed securities, \$163m fully diluted

## **Diamonds are forever**

- It's been a long hard road for Lucapa since 2007 when the 40%-owned Lulo diamond concession in Angola became its major asset. Since then many millions have been spent on exploration and development and now the company is reaping the rewards.
- An alluvial mining operation commenced in 2015. Increasing quantities of fabulous large high value diamonds are being recovered in fact, they are the best of any mine in the world. The mine is now generating substantial profits. By itself, this would justify buying the shares.
- However, most of the proceeds are being used to explore for the ultimate prize, a top quality kimberlite pipe such as the highly prized Cotoca kimberlite being mined 150km to the northeast. As such, it is arguably the potential for a kimberlite pipe operation which is the most important factor to take into account when valuing the shares.
- The alluvial diamonds at Lulo are angular which indicates that they have not travelled far. A number of kimberlite pipes have been found on the concession area, several of them underlying the alluvial deposits and some of them diamond bearing.
- A drill program to derive core samples has commenced on the prime targets but it may take considerable time to actually find macro diamonds. In the short to medium term share price upside could be dictated more by favourable developments at the alluvial operations.
- Angola was embroiled in a long standing civil war that ended in 2002 and the wounds still run deep. In the opinion of many it is riddled with corruption from top to bottom and riven with political rivalries. Most companies have steered clear although having said that, the two biggest diamond miners in the world either operate in Angola (Alrosa) or are attempting to secure exploration licences (De Beers).
- The long term upside is ten-fold or more, the downside is you could lose all your investment.

<sup>&</sup>lt;sup>1</sup> Incentive and Retention Plan (IRP) options and performance shares will vest to directors on conditions to be decided by the directors.

## **Background to Angola**

Angola gained its independence from Portugal in 1975 and this was immediately followed by a bloody 27 year civil war between rival forces MPLA (socialists, backed by USSR) and UNITA (originally socialists then became capitalists, backed by USA and South Africa), which ended in 2002 after UNITA's then leader Jonas Savimbi was killed in an ambush.

MPLA's leader Jose Eduardo Dos Santos anointed himself president of Angola in 1979. In 2010 he pushed through a new constitution which provides for elections every five years. The leader of the political party receiving the most votes becomes the president and is both chief of state and head of government. The Council of Minsters is appointed by the president. The first election was held in August 2012 and saw Dos Santos reinstalled as president. MPLA (now apparently a social democratic party) received 72% of the vote and UNITA (now apparently a conservative party) 19%. Deep political conflict between these two parties remains entrenched. The President will be recontesting the next election in 2017 but has indicated that if re-elected he will step down in 2018. No prizes for guessing he will be re-elected and no prizes for guessing who will replace him.

Angola's economy is overwhelmingly driven by its oil sector. In 2015 it accounted for about 50% of GDP, more than 70% of government revenue and more than 90% of exports. Diamonds contribute an additional 5% of exports. Subsistence farming provides the main livelihood for most of the people but half the country's food is still imported.

Some general statistics:

Capital:	Luanda	
Official language:	Portuguese	•
Population:	25.8 million	
GDP per capita:	\$7,300	
Population below pove	erty line:	41% (2006)
2015 GDP based on pu	rchasing power parity:	US\$184bn
2015 GDP at official exe	change rate:	US\$103bn
2015 government reve	nues	US\$35.4bn
2015 government expe	nditures:	US\$41.8bn

In relation to taxes and regulations:

- Angola has no double taxation treaties with other countries.
- Corporate income tax for mining companies is currently set at 25%.
- The government has a negotiable free carried interest, through Endiama, in any diamond mining.
- Mining royalties are negotiable for each concession area. The Lulo royalty rate is 5%.
- A withholding tax of 10% is applied to all remittances including dividends.
- Foreign exchange is strictly controlled, especially for the mining sector.

Corruption, especially in the extractive sectors, is a major long term challenge. One small indication is that the president's oldest daughter Isabel dos Santos is the richest woman in all of Africa with a finger in almost every pie. I would think that taxes and indeed all aspects of commercial life in

Angola can be changed at whim by the president. One recent example is that in June this year the President removed the entire board of Sonangol, the State owned company which holds Angola's oil interests, with his daughter Isobel "to ensure transparency and apply global corporate governance standards." What a joke!

#### The Lulo concession area and exploration joint venture arrangements

During August 2007 Lucapa<sup>2</sup> signed a joint venture agreement with Endiama, the national diamond company of Angola and exclusive concessionary for Angolan diamond mining rights, to develop a 3,000 km<sup>2</sup> area (the Lulo Diamond Concession) known from small scale artisanal activities to contain alluvial and kimberlite diamonds. Since then the Lulo project has been the company's main interest.

# CONGO DEMOCRATIC REPUBLIC OF THE CONGO ANGOL LUCAPA DIAMOND Co. Lulo Project LUANDA Lucapa CATO MINE Malanje Saurimo Atlantic Ocean uena Kuito Menonque ZAMBIA Namibe Ondjiva , NAMIBIA

#### Figure 1: Location Map

Source: Company reports

<sup>&</sup>lt;sup>2</sup> Lucapa was then known as Lonrho Mining Ltd (hence the ticker code LOM). The current name was adopted in October 2012.

The Lulo concession area in the Lunda Norte province is located about 650km inland from Luanda and about 150km SW from the highly valuable Cotoca diamond mine within the Lucapa Graben.

On primary (kimberlite) exploration and development Lucapa's participating interest is 39% of the joint venture, decreasing to 30% after investment of its investment in the project. On secondary (alluvial) exploration and development Lucapa's interest is 40%.

Lucapa is operator and is sole funding any expenditure on the concession area. In the event of a commercial diamond mining operation being established, all such expenditures are to be reimbursed to Lucapa from each of the respective mining operations (alluvial and kimberlite) when commercialised.

The exploration licences expired in May 2016 and application was made at that point for their extension for a further three years. There has been no announcement of any approval at this time but the participants are pressing on with exploration for kimberlite regardless, clearly confident that the licences will be granted.

Lucapa has stated it is exploring options to increase its holding in the Lulo project. Presumably that could involve buying out Rosa & Petalas which has a 28% holding.

## Alluvial diamond mining licence

An alluvial diamond mining licence was granted by the Angolan government in July 2015. Originally for an area of 218km<sup>2</sup> it was extended to 1,500km<sup>2</sup> in August 2015, representing 50% of the entire Lulo Concession. The original licence area included more than 50km of the Cacuilo River, its valleys and terraces, but the area was expanded northwards to also encompass the Lulo River and its tributaries which drain both the southern and the northern kimberlite provinces.

The alluvial mining licence is now held by Sociedade Mineira do Lulo Limitada<sup>3</sup> (shortened to SML, translates to Lulo Mining Company Ltd). Shareholders of SML comprise:

- Lucapa 40%, sole operator.
- Endiama<sup>4</sup> 32%, the diamond mining arm of the Angolan government.
- Rosa & Petalas 28%, an entity owned or controlled by Angolan lawyer Celso Rosa.

The main provisions of the alluvial mining licence are:

- The term is for an initial 10 years with rolling 10 year extensions beyond that.
- Royalty 5%, corporate tax rate 25%.
- Lucapa is allowed to repatriate its share of dividends and capital gains.
- Free cash flow is to be distributed:
  - $\circ~~$  50% to SML shareholders in the form of dividends
  - 50% to Lucapa to reimburse it for all past and future alluvial exploration and development expenditure.

<sup>&</sup>lt;sup>3</sup> The company was formed in May 2016. Prior to that, the participants' interests in the Lulo concession were held within an unincorporated joint venture.

<sup>&</sup>lt;sup>4</sup> Empresa Nacional de Diamantes E.P.

As at 30 June 2016 Lucapa's expenditure on alluvial exploration, development and equipment totalled US\$40.2m. It was shown in the accounts as a *non-current receivable*, but adjusted downwards by US\$5.0m (since the amount can be refunded over time) to derive a fair value of US\$35.2m using a discount rate of 6.1%.

All diamond sales are handled by SODIAM, the Angolan government's diamond marketing company owned 99% by Endiama. According to a Bloomberg article the standard deal in Angola is that SODIAM sells at a discount to specified Chinese and Dubai traders (with theAngolan elites raking it off the top?). But no doubt special arrangements apply for Lulo. Incidentally I have seen on the internet a claim that Jose Eduardo dos Santos and his daughter Isabel control Endiama and SODIAM (that part is indisputable) and that Isabel ended up with that huge 404 ct diamond discovered in February.

## The Lulo alluvial mining operation

## Production and sales

Mining operations commenced in January 2015 and since then to 30 September 2016 it has generated revenue of US\$44.1m from sale of some 20,000 carats, an average price of US\$2,230 per carat.

Operations are being conducted in four distinct areas of unconsolidated gravel beds (Mining Blocks 31, 8, 6 and E46) deposited in beds of up to 1m in thickness within alluvial terraces along a 20km stretch of the Cacuilo River. The alluvial mining licence covers a further 31km upstream, which is yet to be explored, not to mention the terraces along the Lulo River and its tributaries.

There is a seasonal bias to throughput rates because of the wet season which generally falls between September and May. Some effort has been made to reduce its impact on operations by stockpiling gravels at the treatment plant ahead of the wet and by accessing alluvial terraces on higher ground during the wet. Mine capacity has been steadily increased since inception and currently stands at more than 20,000 bcm per month (dry season) and 12,000 bcm per month (wet season).

The treatment plant is currently rated at 150tph after installation of a new wet front-end module during July.

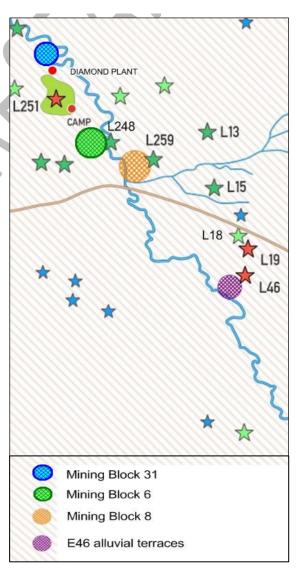


Figure 2: Area of alluvial mining operations

Some months ago Lucapa stated that it intends to double the mining rate to 40,000 bcm per month and increase the capacity of the treatment plant accordingly. There has been no repeat of this statement and there is as yet no indication of timing or cost.

#### Figure 3: Mining in progress



Figure 4: Front end of treatment plant



Special stones (>10.8 carats) account for more than 90% of revenues and it is this that is driving profitability and cash flow. The most valuable diamonds are individually announced when found, such is their importance. Since January 2016 they have comprised:

- 22 Jan a 133.4 ct gem of lessor quality.
- 3 Feb a colour D type IIa gem of 120.4 ct and a colour E type IIa gem of 88.2 ct.
- 15 Feb a colour D type IIa gem of 404 ct (sold for US\$16m).
- 29 Mar a colour D type IIa gem of 68.1 ct.
- 26 Apr two high-colour white type IIa gems, one of 88 ct, the other of 30 ct.
- 8 Sep a light pink gem of 38.6 ct.
- 21 Sep a colour D type IIa gem of 104ct.
- 26 Sep a colour D type IIa gem of 172.7ct.
- 27 Oct two gems of 77 ct and 71 ct, of quality undisclosed.

The 404 carat diamond found in February was a major surprise. It was only able to be recovered because of its elongate shape, which meant it slipped through the 32mm aperture of the then largest screen. Since then the oversize material (>32mm) has been stockpiled pending installation of a new screen with a 55mm aperture size, enabling recovery of diamonds up to 1,100 carats in size.

Commissioning of the new screening circuit, together with a new state of the art XRT diamond recovery unit (better suited to the recovery of Type IIa diamonds that are poorly luminescent) commenced in late October. Moreover, a deep boiling facility to clean the diamonds prior to sale is expected to be installed in the sort-house during the current quarter.

The stockpiled oversize material totalled approximately 19,000 bcm as at 26 October. This will be treated through the plant in a number of separate campaigns over time, presumably commencing in the current quarter. All other things being equal the recovery of very large diamonds should increase further from this point, but of course it does depend on the nature of the feed material. It would be nice to get one or two diamonds of over 1,000 ct but that would be unlikely. But the recovery of several diamonds of over 400 ct is certainly possible given one was found back in February.

Up until February, the oversize material had been used to build roadways. If the recovery of very large diamonds increases sufficiently over the next few months, implying a fair occurrence of the diamonds, then perhaps at some point this material could be reprocessed.

Sales are generally held two or three times per quarter. The first sale for the current quarter was announced on 7 November and realised USS\$8.3m from sale of 1,864ct, being an average price of US\$4,453 per ct. Two more sales are currently anticipated during the quarter.

A summary of production and sales data in recent quarters, and my projections to the end of the current year, can be seen in Figure 5Figure 5 below.

The high stone price and revenue in the March Quarter 2016 included that 404 carat stone which sold for US\$16m or almost US\$40,000 per carat. Excluding that, revenue for the quarter was US\$7.1m or just over US\$4,600 per carat or US\$388 per bcm.

#### Figure 5: Lulo Quarterly production and sales data

		Sep Q 2015 act	Dec Q 2015 act	Mar Q 2016 act	Jun Q 2016 act	Sep Q 2016 act	Dec Q 2016 est
Material treated	000 bcm	44.009	38.402	37.208	36.753	64.779	60.000
Carats recovered	000 ct	3.479	2.151	3.088	2.581	8.853	7.200
Yield	cphm	7.91	5.60	8.30	7.02	13.67	10.00
Stones recovered	000	2.896	1.594	2.260	2.051	4.561	4.235
Stone size	ct/stone	1.20	1.35	1.37	1.26	1.94	1.50
Carats sold	000 ct	2.559	3.778	1.931	2.670	7.837	8.000
Price	US\$/ct	280	1,538	11,983	1,132	1,319	3,500
Revenue	US\$m	0.717	5.811	23.139	3.022	10.340	28.000
Revenue per bcm	US\$/m <sup>3</sup>	22	86	994	79	180	350

Red numbers are actuals, blue numbers are projections, black numbers are calculated. Revenue per bcm is an approximation derived from the product of yield of stones produced and price of stones sold. Source: Company reports (historical), my estimates (projections)

#### Alluvial financials

Outside of sales revenue, proper financial data (costs, EBITDA, cash flows, etc.) on the alluvial operation has not been released by Lucapa, which is unfortunate. The company should at least disclose the reason for this policy.

Instead, Lucapa has disclosed just a few financial snippets regarding the Lulo operations:

- To 30 June 2016 Lucapa's expenditure on alluvial exploration, development and equipment totalled US\$40.2m. Presumably this represents the total for the project, with the other participants not contributing, but this has not been made clear.
- The corresponding figure for 31 December 2015 was US\$28.5m, implying that Lucapa tipped in US\$11.7m<sup>5</sup> during the June Half Year.
- Lucapa received a special distribution of some US\$6.6m cash (or US\$5.9m net of the 10% withholding tax) from the Lulo JV during the June Quarter, which implies the JV paid out US\$16.4m. This approximates the US\$16m received from the sale of that 404ct diamond<sup>6</sup>.
- SML finished September with a cash position of US\$6.7m, up US\$4.7m from the US\$2.0m held on 30 June.
- Operating costs are running at US\$1.3m per month (i.e. some US\$65/bcm).

I have put together some rough financial data for the same time scale as in Figure 6. The September Quarter 2016 is the only period for which we given opening and closing cash positions, so the figures are more accurate than the previous quarters. For simplicity I assume that exploration and development outlays are matched exactly by monies provided by Lucapa. Note that operating costs appeared to be US\$5.1m in the September Quarter (or US\$79/bcm) which equates to US\$1.7m per month. Perhaps that stated operating cost (of US\$1.3m per month) does not capture all costs.

<sup>&</sup>lt;sup>5</sup> But that does not fit well with the A\$10.15m spent in the period based on the quarterly reports.

<sup>&</sup>lt;sup>6</sup> The question remains over why the other participants received a pro-rata share when it should all have gone to Lucapa to part reimburse it for past expenditure.

Lucapa anticipates there will be another cash distribution in the current quarter, and on my assumptions it would be in the US\$14-18m range. Under the agreed formula, the company would receive half as a reimbursement and 40% of the balance as a dividend.

		Sep Q	Dec Q	Mar Q	Jun Q	Sep Q	Dec Q
		2015	2015	2016	2016	2016	2016
		est	est	est	est	est	est
Sales	US\$m	0.717	5.811	23.139	3.022	10.340	28.000
Operating costs	US\$m	3.500	3.500	3.500	5.426	5.124	6.000
Royalty	US\$m	0.036	0.291	1.157	0.151	0.517	1.000
Cashflow from ops	US\$m	-2.819	2.020	18.482	-2.555	4.699	20.600
Cash distribution	US\$m			<mark>-16.400</mark>			<mark>-16.000</mark>
Capital expense	US\$m	-2.500	-2.000	-1.000	-5.100	-1.749	-1.600
Cash from Lucapa	US\$m	2.500	2.000	1.000	5.100	1.749	1.600
Closing cash	US\$m	0.453	2.474	4.556	2.001	6.700	11.300
ACTUALS	US\$m				2.001	6.700	

Figure 6: Indicative quarterly cash flow for SML on alluvial operations

Red numbers are actuals, blue numbers are projections, black numbers are calculated Source: Graeme Newing

It can be seen that, taking into account my assumptions for the December quarter, cash flow from operations for 2016 is projected at US\$41.2m.

For what it's worth I have made a projection for 2017 based on some crude assumptions, being treatment of 250,000 bcm yielding 10 cphm to recover 24,000 ct, and operating costs of US\$19.2m or US\$80 per bcm. Two pricing scenarios are:

- A price of US\$2000/ct would result in revenues of US\$48m and EBITDA of US\$26m.
- A price of US\$3000/ct would result in revenues of US\$72m and EBITDA of US\$49m.

Presumably the expansion to say 500,000 bcm annually will eventuate (perhaps in 2018) although perhaps the participants are holding off until the resource base has been increased. It would appear that such an expansion would not be expensive. Anyway, please have a think about doubling the EBITDA estimates shown above and what that might do to the share price.

As I said on the front page, much of the monies being derived from the alluvial operations will be spent on exploration on kimberlite pipes. The more is made on alluvials, the more will be spent on kimberlites. But surely if they doubled alluvial output some cash would flow to Lucapa shareholders?

#### Alluvial resources

In December 2015 Lucapa announced a maiden JORC-compliant inferred<sup>7</sup> diamond bearing gravel resource, as at 31 October 2015. A resource of 550,000 bcm – independently validated by ZStar Mineral Resource Consultants of Cape Town –.was estimated for six sector areas covering less than 10% of the alluvial mining licence area(but presumably the areas explored were considered to have the most potential). The resource outlined would be sufficient to support operations at 20,000 bcm per month for four years.

It is important to note that exploration activities tend to miss the larger stones which are relatively few and far between<sup>8</sup>, leading to modelled values being under-estimated.

Work on extending the resource base is ongoing. Presumably there will be an update issued by the end of the year and it is likely to show a substantial increase.

Sector	Depth m	Area 000 m <sup>2</sup>	Volume 000 m <sup>3</sup>	Stones st/m <sup>3</sup>	Stone size ct	Grade cphm <sup>3</sup>	Value* US\$/ct	Value US\$/m <sup>3</sup>
5	0.44	96.2	10.4	0.11	0.95	10.58	781	83
4	0.33	60.0	17.7	0.05	1.04	9.09	781	71
5N	0.6	80.0	51.2	0.06	1.13	6.64	781	52
4 MBO8	0.57	255.6	120.0	0.06	1.48	8.23	931	62
46	0.40	331.8	132.7	0.18	0.97	17.63	781	138
1	0.60	363.7	218.2	0.07	0.82	5.36	781	42
Total		1,187.3	550.2	0.09	1.02	9.27	806	75

#### Figure 7: Alluvial diamond resources as at 31 October 2015

It would appear that the estimate of stone value is rudimentary, being based on prices of \$781/ct and \$931/ct Source: Company reports except for last column (value per bcm).

<sup>&</sup>lt;sup>7</sup> It was actually described as an inferred, depleted and reconciled resource, which presumably means it includes material already mined. An explanation would be useful.

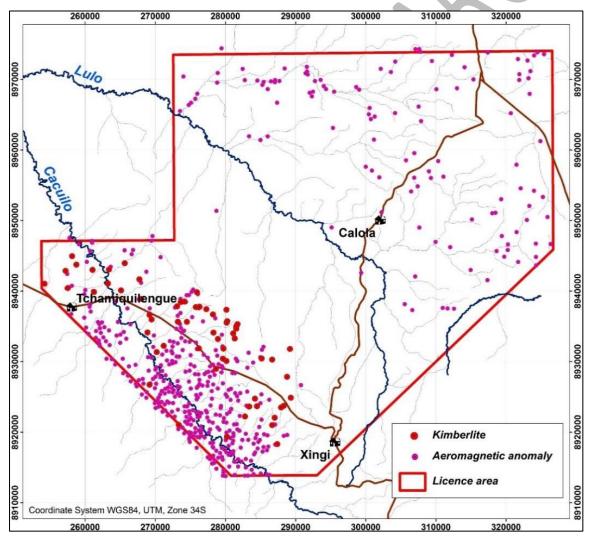
<sup>&</sup>lt;sup>8</sup> For example it can be seen that on average, there is 1 stone per 10-11 bcm (being 0.09 stones per bcm) and only 1 in 50 or 1 in 100 stones might be specials.

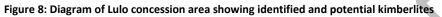
## The Lulo kimberlite exploration program

Exploration for kimberlites has been proceeding every year in parallel to the exploration and development of alluvial diamonds, with pleasing results.

To date more than 300 kimberlite targets have been identified by aeromagnetic surveys in two provinces within the Lulo concession, of which about 100 have been classified as proven or probable kimberlites. Five of the 13 kimberlite bodies tested by pitting have been confirmed as diamond bearing through recovery of macro and micro diamonds. These comprise L46, L257, L251, L19 and L170.

The location of these targets is shown in Figure 8 below. One can observe the high concentration of targets along the southwestern boundary of the concession area, and wonder who owns the adjoining area.

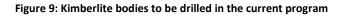


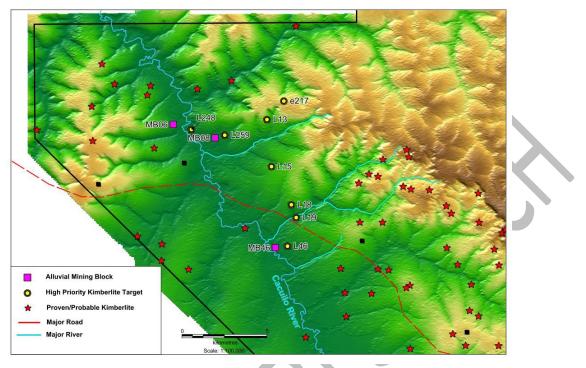


The area around mining blacks 8 and 6 is the priority focus after geophysical and electromagnetic surveys conducted at the L259 target during the June half year defined an 80-110ha body consistent with the near-surface expression of a kimberlite pipe, or its crater. L259 is located below Mining

Source: Company reports

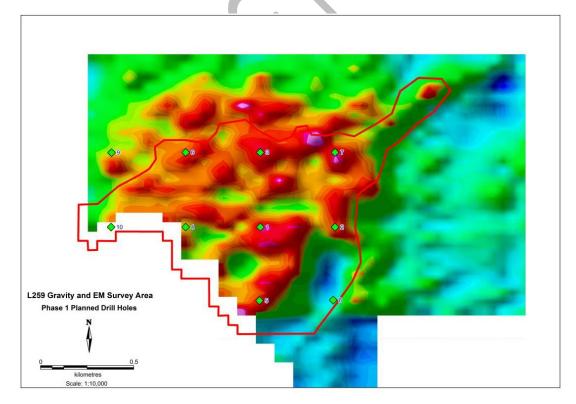
Block 8 and close to Mining Block 6, both of which have been regular sources of large premium-value alluvial diamonds. These diamonds are angular which indicates that they have not travelled far.





Source: Company reports

#### Figure 10: Drilling target L259



Source: Company reports

More evidence that the diamonds have not travelled far includes the following: indicator minerals such as garnets and ilmenites, present in much higher frequencies than diamonds, are also somewhat angular; the diamonds are poorly sorted; and some have been found in compound form, with several diamonds stuck together.

Importantly, it would appear from the distribution and nature of the alluvial diamonds that there is more than one kimberlite source.

At the end of June 2016 an expanded drilling program commenced. The program aims to:

- define pyroclastic kimberlite material suitable for bulk sampling (using an excavator) and processing through the Lulo diamond plant;
- enable petrographic analysis and recovery of indicator minerals as well as possible geochemical analysis, and
- help define the internal structure and geology of the bodies.

It is important to note that the drilling program is unlikely to recover any diamonds because the sample sizes will be too small.

Prior exploration on L259, in the form of geological pitting within its central area, recovered sandy re-sedimented volcaniclastic kimberlite (SRVK) or crator lake sediments in the few pits that were able to go deep enough beneath the surficial alluvial cover of some 6-9m, but no micro or macro diamonds were found at that time.

Ten holes are scheduled at L259 in the initial phase. During the September Quarter shallow drilling on L259 intersected SRVK but as yet no pyroclastic kimberlite (PK) material. The number of holes drilled was not disclosed but presumably it was just one or two.

Seven other targets located will also be drilled in the current program and they comprise:

- L248, proximal and downstream from L259.
- L13 and L15 to the east, near an upstream tributary.
- L19, L18 and L46 further upstream.
- L217.

The drilling program to-date has been conducted using a mobile Sedidrill rig mounted on the back of a ute. The unit can drill 61mm (2ft) holes to extract core from a depth of up to 70m. Quite frankly, that is of limited use.

A second rig has been purchased and is being shipped from Korea. It is a track mounted Hanjin D&B35 with a deeper (up to 2,000m) and wider capacity to accelerate and enhance the program. It could be some weeks before this rig is operating on site.





In the interim the Sedidrill rig will be supplemented by a rig owned and operated by a local company and as at 28 October this rig was being transported from the nearby town of Saurimo.

No doubt the drilling program will be further expanded as cash flow permits.

As at 30 June 2016 Lucapa's expenditure on kimberlite exploration and related exploration equipment totalled US\$8.4m. This included exploration in Botswana but presumably most of it relates to Lulo. It was shown in the accounts as *deferred exploration and evaluation costs*.

In the September Quarter 2016 payments for exploration and evaluation were US\$358,000, bringing the nine month year-to-date figure to US\$576,000.

## Background briefing on the Cotoca diamond mine

The Cotaco mine is owned by Catoca Mining Society Lda which in turn is owned by Endiama (Angola) 32.8%, Alrosa (Russia) 32.8%, China Sonagol (a JV between Diamond Finance of China, and Sonagol, Angola's national oil company) 18.0% and Odebrecht (Brazil) 16.4%. Alrosa is the largest diamond producer in the world with 2013 sales of 36.9 million carats. It provides technical assistance to Cotoca and presumably handles all diamond output.

Detailed production and financial data for Cotaco is not available; however, the following information has been derived from a variety of sources.

The kimberlite pipe has a surface area of about 64ha. Proven and probable reserves (when?) total 130 million carats down to a depth of 600m, making it the fourth largest diamond resource in the world. The current working depth (when?) of the opencut exceeds 200m.

Treatment plant capacity is 10 Mtpa ore and in 2012 the mine produced 6.7 million carats of rough diamonds for revenue of US\$579m. These figures imply an average sales price of US\$86 per carat, an average grade of 67 cpht and an average ore value of US\$58 per tonne (both the latter figures assume the plant operated at capacity). If one assumes an all-up cost of \$20/t treated (probably overstated) the mine would have enjoyed an EBITDA of US\$380m.

## Other diamond exploration interests

#### Overview

In the last 14 months Lucapa has acquired interests in Botswana and in Western Australia. The company continues to assess other opportunities in the diamond sector focussed primarily on Angola and Botswana.

#### Botswana

In September 2015 Lucapa was awarded a 75% interest in a 16.2km<sup>2</sup> kimberlite prospecting licence named Orapa Area F located 40km east of the Orapa diamond mine in Botswana and within 4km of the BK02 kimberlite being bulk sampled by TXS-listed Lucara Diamond Corp. Presumably the Botswana government retains a 25% free-carried interest.

Area F contains two known kimberlites and a larger magnetic anomaly. During the September Quarter 2016 an initial work program was completed and consisted of ground magnetic, EM and gravity geophysical surveys and MMI geochemical soil sampling. Results are awaited.

## Brookings prospect, WA

In October 2016 Lucapa announced provisional agreement to acquire 80% of the Brookings diamond prospect in the West Kimberley lamproite province, WA. Consideration is to be \$140,000 cash, 250,000 shares and 500,000 two year 53¢ options.

The prospect is located within 40km of the (closed) Ellendale diamond field, which was formerly the world's leading producer of rare, fancy yellow diamonds, and immediately south of the Big Spring kimberlite cluster.

Preliminary geological due diligence has indicated "significant exploration potential."

## Corporate

#### Financial

Quarterly cash flow data to 30 June 2016 is shown below, in Australian dollars.

Figure 12: Lucapa quarterly financials to 30 June 2016

		Mar Q	Jun Q	Sep Q	Dec Q	Mar Q	Jun Q
		2015	2015	2015	2015	2016	2016
Exploration	A\$m	-2.781	-1.245	-3.460	-2.759	-0.173	-0.117
Development	A\$m	-	-	-	-	-1.525	-8.625
Administration	A\$m	-0.643	-0.818	-0.726	-0.615	-1.430	-1.513
Distrib. from Lulo	A\$m	-	-	-	-	8.300	-
Net interest	A\$m	0.001	-	-0.001	-0.002	-0.002	0.033
Other fixed assets	A\$m	-	-	-0.225	-1.229		-0.001
Other	A\$m	-	-	-	0.004	0.010	-
Subtotal changes	A\$m	-3.423	-2.063	-4.410	-4.601	5.180	-10.223
Equity	A\$m	4.801	_	4.456	5.218	4.787	14.536
Debt	A\$m			0.250		Ŭ.	
Cost of new equity	A\$m	-0.336	-0.012	-0.274	-0.297	-0.079	-0.293
Total change	A\$m	1.042	-2.075	0.022	0.320	9.888	4.020
Closing cash	A\$m	2.614	0.539	0.561	0.881	10.769	14.353
Exploration and development are largely monies provided to Lulo							

Exploration and development are largely monies provided to Lulo. Source: Company reports

The quarterly financials subsequent to 30 June 2016 are not directly comparable because: all financial data is now expressed in US\$; equity accounting is now applied to the 40% interest in SML; and alluvial exploration and development is recognised under investing activities.

#### Figure 13: September Quarter cash flow statement

		Sep Q	YTD
		2016	9 mths
Exploration	US\$m	-0.358	-0.576
Development	US\$m	-	-6.631
Employee costs	US\$m	-0.406	-2.066
Administration	US\$m	-0.532	-1.412
Div. from Lulo	US\$m	-	5.907
Net interest	US\$m	-0.016	0.013
Other fixed assets	US\$m	-	-0.001
Alluvial expln/devt	US\$m	-1.745	-2.482
Subtotal changes	US\$m	-3.649	6,276
Equity	US\$m	_	14.387
Debt		-0.588	-0.588
	US\$m	-0.588	
Transaction costs	US\$m	-	-0.275
Forex adjustment	US\$m	-0.008	0.132
Closing cash	US\$m	7.030	7.030

Source: Company reports

During the June Quarter 2016 some 48.3 million listed 30¢ options (LOMOB) were converted on or before their 29 April 2016 expiry date, generating cash of \$14.5m.

The existing 46.5 million listed 20¢ options would raise \$9.3m if all were exercised but they do not expire until 30 September 2017. In any case, given the anticipated cash reimbursements and dividends to be received from the Lulo project via SML, it seems that Lucapa will not need any additional funds from shareholders. Not until a kimberlite pipe mining project eventuates, anyway.

The cash outflow projected by Lucapa for the current Quarter is US\$2.9m (prior to receipt of cash distributed by SML) and includes exploration and evaluation US\$0.8m, and development US\$1.4m. My estimate of cash distribution from SML for the quarter is \$15m, which would result in US\$7.5m in reimbursements and US\$3.0m in dividends to Lucapa. No doubt there will be further disbursements in 2017.

Tax losses were stated at \$10.9m (say US\$8m) at 31 December 2015. Lucapa made a profit of US\$3.3m in the June Half 2016, and could make a similar profit in the current half year, noting that dividends from SML are counted in profit but reimbursements are payments of a receivable.

## Directors

There are four directors, all living in Perth:

- Miles Kennedy, non-executive chairman, was appointed in September 2008. He well known with 30 years of experience in acting as a director of Australiana resources companies including Kimberley Diamond Company NL and Blina Diamonds NL.
- Stephen Wetherall, CEO and managing director, was appointed in October 2014. He was a South African chartered accountant who has held senior positions with De Beers and London-based Gem Diamonds, and was a director of the Letseng Diamond Company.
- Gordon Gilchrist (MSc Business, MA Physics), non-executive director, was appointed in March 2012. He was managing director of Argyle Diamond Mines in WA until 2002 then managing director of Rio Tinto Diamonds in Antwerp until 2005.
- Albert Thamm(MSc geology), non-executive director, was appointed in May 2014. Originally South African, he has had 28 years of experience in diamond exploration in Russia, Angola, South Africa and Australia, including being chief geologist and alternate registered manager at the Ellendale diamond mine in WA prior to the takeover by Gem Diamonds in 2007.

## Directors' shareholdings

Directors have relatively small shareholdings. They all received 53¢ options and also performance rights in June 2016 following approval at the AGM. Subsequently, in September Miles Kennedy bought an additional 200,000 shares at 36¢ and in November Gordon Gilchrist converted half his performance rights to fully paid shares.

#### Figure 14: Director's shareholdings in Lucapa

Shares	30¢ options	53¢ options	Perf rights
000	000	000	000
1,275	1,000	500	500
65	1,250	500	1,000
624	500	250	125
75	500	250	250
	1,275 65 624	1,2751,000651,250624500	1,2751,000500651,250500624500250

Source: Company reports

## Shareholders

The Perth-based Carrington Corporate group, being Carrington Corporate P/L, Jitarning Nominees P/L, Harraden Pty Ltd and Sined Unit Trust, is disclosed as the only "substantial shareholder" with 19.6 million shares or 6.1%. They are also the largest holder of the listed 20¢ options with 22.9 million options or 40.6%. If exercised they would own 11.0% of the fully diluted company.

The Carrington Corporate group became a substantial shareholder in October 2015. I assume they were among the high net-worth, long-term investors who participated in the placement of 19.4 million shares at 18¢ (issued together with a 1:1 20¢ option) in September 2015. Between November 2015 and April 2016 the group increased their holdings by buying a net 1.4 million shares on market at an average of 41¢.

I find it interesting that the next two largest holders (as at March 2016) were:

- Twynam Agricultural Group Pty Ltd (associated with the wealthy John Kahlbetzer family) with 12.3 million shares (3.8%) and nil listed options.
- Gregorach Pty Ltd (associated with Warwick Grigor) with 6.6 million shares (2.0%) and 2.5 million listed 20¢ options.

No other shareholder had more than 4 million shares at that time.

## **Technical analysis**

For your information I provide below weekly and daily charts for LOM as at 11 November 2016.





#### Disclaimer

This analysis is cursory in nature and is not intended to be relied upon by third parties, who should make their own enquiries. The report does not does not contain investment advice.

Apart from pointing out some errors in past financials, Lucapa management provided no help to me whatsoever in compiling this report, in part because they said they did not agree with my views on Angola. I have not visited Angola and I have not spoken with any expert on Angola. Nor have I spoken to any technically qualified person on the subject of diamond exploration in general and on the Lulo project in particular. Any views expressed in this report are purely my own unless otherwise indicated.

#### Disclosure

I own a very small parcel of shares in Lucapa Diamond Company Ltd at the time of writing.

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