LUCAPA DIAMOND COMPANY

ASX Announcement 15 November 2017

COMPETENT PERSON'S REPORT ON LULO AND ORAPA DIAMOND PROJECTS

Lucapa Diamond Company Limited (ASX: **LOM**) ("Lucapa" or "the Company") is pleased to provide the attached Competent Person's Report ("CPR") on the Company's diamond mining and exploration assets in Angola (Lulo) and Botswana (Orapa Area F).

The CPR report was prepared by independent consultants Venymn Deloitte as part of Lucapa's considerations to list on the AIM market in London. As announced on 7 November 2017, the Lucapa Board has decided not to pursue an AIM admission at this time following the completion of a US$15 million finance facility for the Stage 1 development of the Mothae kimberlite project in Lesotho.

A CPR on the Mothae project prepared by independent consultants MSA Group was released to the ASX on 23 October 2017.

For and on behalf of the Lucapa Board.

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Venmyn Deloitte.

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Independent Competent Persons Report on the Angolan and Botswanan diamond assets of Lucapa Diamond Company Limited

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Independent Competent Persons Report on the Angolan and Botswanan diamond assets of Lucapa Diamond Company Limited

Synopsis

Venmyn Deloitte (Pty) Limited (Venmyn Deloitte) was appointed by Lucapa Diamond Company Limited (LOM or the company) to compile a Competent Persons Report (CPR) on its diamond assets located in the Republic of Angola (Angola) and the Republic of Botswana (Botswana) only, in compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

LOM's diamond assets situated in Angola comprise an operating alluvial diamond mine, Sociedade Mineira do Lulo, Lda (SML) and a kimberlite exploration project (Lulo Kimberlite Project), both located in northeastern Angola. The mining operation was developed following positive alluvial exploration results. LOM also has the rights to a kimberlite exploration project, Orapa Area F Kimberlite Project (Area F Project), situated in the Central District of Botswana. LOM also holds a 70% share in the Mothae Project located in the Kingdom of Lesotho (Lesotho). The Mothae Project is not included in this CPR. The location of the LOM diamond assets in Africa is presented below and shown graphically overleaf. The Angolan and Botswana diamond assets are reported on within this CPR.

Summary table of assets

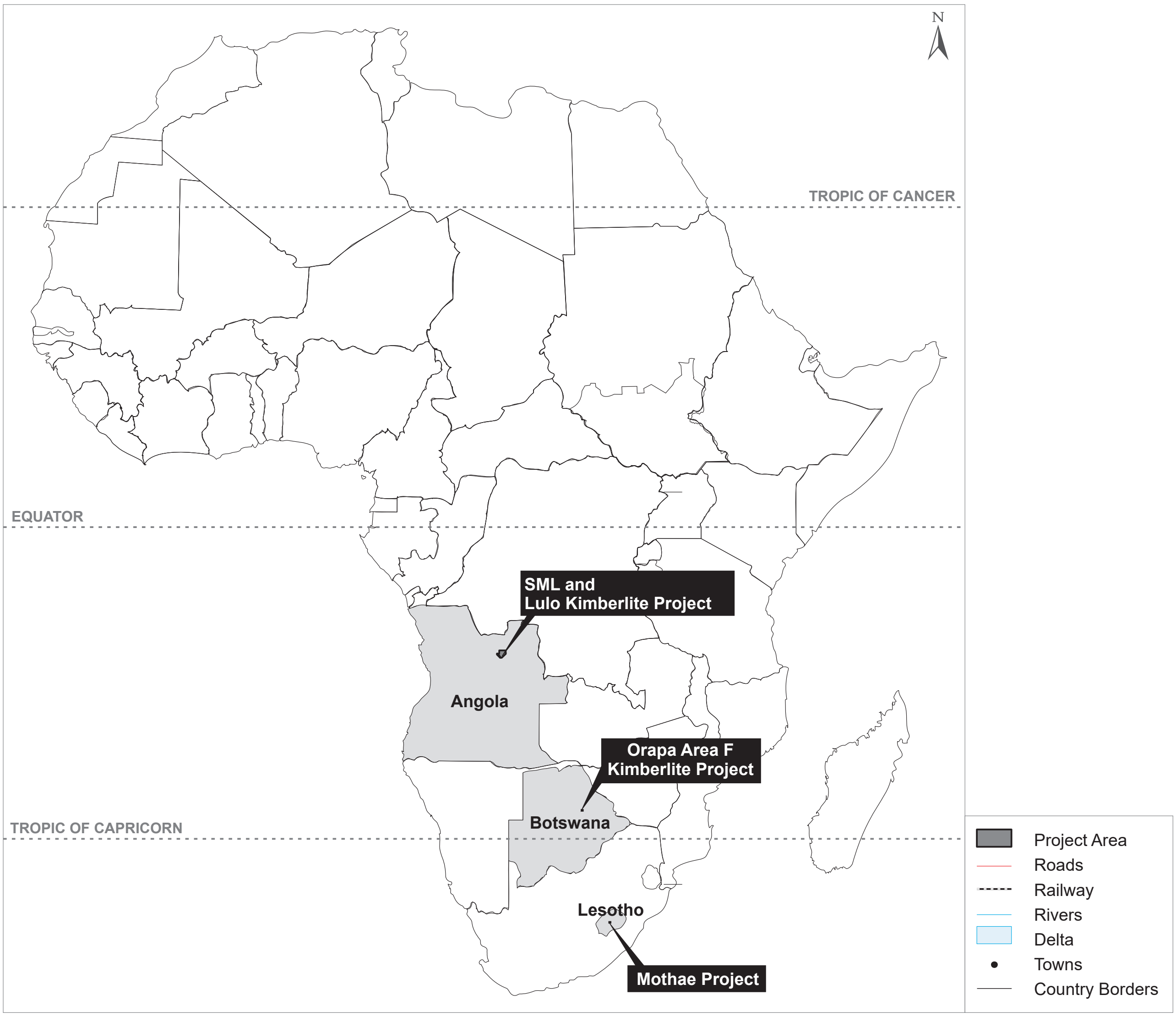
COUNTRY	ASSET	HOLDER	INTEREST (%)	STATUS	LICENSE EXPIRY DATE	LICENSE AREA (km²)	COMMENTS
Angola	Sociedade Mineira Do Lulo Lda (SML)	Lucapa Diamond Company Ltd (LOM)	40%	Production	21 July 2025	1,500.0	Current annual production of ~22,000cts (Jun 16 – May 17).
	Lulo Kimberlite Project		39%/30%*	Exploration	In process	3,000.0	Ongoing drilling of kimberlite anomalies.
Botswana	Orapa Area F Kimberlite Project		100%	Exploration	30 September 2018	16.2	Three kimberlite targets identified. Delineation drilling planned at two kimberlite targets, to be completed in 2017.
Lesotho	Mothae Diamond Project		70%	Development	08 January 2027	46.8	Open cast kimberlite mine in development.
Australia	Brooking Diamond Project		80%	Exploration	2 December 2020	121.0	Early stage lamproite exploration program.
					11 March 2019	29.4	
					5 June 2022	13.1	
					TOTAL	**4,726.5**	

Notes:-
* Post LOM recoupment for investment under prospecting and mining development phase.

In October 2016 LOM announced the acquisition of a fifth asset in Australia, the Brooking Diamond Project in the West Kimberley Lamproite Province of Australia. Due to the early stage exploration classification of the Brooking Diamond Project, it has been excluded from this CPR as it has not been deemed as a material asset by the company. Details of the Brooking Diamond Project may be released by LOM in a separate report, at a later date.

LOM is a mining and exploration entity currently listed on the Australian Securities Exchange (ASX: LOM) whose securities are listed and traded on the ASX and held by approximately 6,000 holders. The company also has a secondary listing on the Frankfurt Stock Exchange (FSE).

Location of LOM's diamond assets in Africa



The company is growing rapidly through its alluvial mining activities and associated diamond production, to advance its kimberlite exploration (in Angola and Botswana), its lamproite exploration (in Australia) and its mine development (in Lesotho) projects. The company is in the process of evaluating a significant number of geophysical anomalies and known kimberlites with the intention of identifying new economically viable diamondiferous kimberlites in Angola and Botswana going forward. To date, LOM's alluvial diamond production has yielded the largest single stone ever reported in Angola at 404.23cts, and continues to regularly deliver a significant portion of special stones and Type IIa diamonds.

Venmyn Deloitte has compiled the CPR based upon the principle of reviewing and interrogating both the work of LOM and its specialist experts who have contributed to the technical information available for the assets. This CPR has been compiled as a factual summary of the work conducted up to 31 May 2017 and the current status of LOM's diamond assets, based on information supplied to Venmyn Deloitte by LOM and its advisors, to the extent required by the JORC Code. It is an accurate reflection of the data and studies that have been made available on LOM's diamond assets as at the effective date of the report.

The company holds its Angolan assets as follows; the alluvial diamond mining asset through a 40% interest in an Angolan registered company, SML, and its separate Lulo Kimberlite exploration project through an unincorporated joint venture. LOM's Botswanan Orapa Area F Kimberlite Project is held through the locally registered a Botswanan company, Lucapa Diamonds (Botswana) (Pty) Limited. LOM owns 100% of the Area F Project through its 100% ownership of Lucapa Diamonds (Botswana) (Pty) Limited

SML Mine (Angola)

The SML Mine is located in the Capenda Municipality, Lunda Norte Province in northeastern Angola. It is located 724km east of Luanda, the capital city of Angola, and 254km west of the city of Saurimo. SML is an Angolan registered company, with LOM holding a 40% share in SML. The Angolan State-owned diamond company, Empresa Nacional de Diamantes de Angola (Endiama) holds a 32% share in SML and the remaining 28% is held by a private Angolan registered company, Rosas & Pétalas, SA (Rosas & Pétalas).

The SML mining right is secured via a 1,500km^2 mining title located completely within the 3,000km^2 Lulo Kimberlite exploration concession, as indicated on the figure overleaf. The location of the concessions and diamond tenure is presented in the figure overleaf. The mining title was formally gazetted on 21 July 2015 and is valid for a 10 year period to 21 July 2025. SML is entitled to renew the mining title for two further ten year periods and a five year period thereafter. The SML mining license was awarded after an alluvial exploration license over the 3,000km^2 area expired in May 2016.

SML currently employs approximately 300 staff and accommodates 60 personnel in its mine camp, located adjacent to the Cacuilo River, 2km north of the village of Namuluri. SML operates owned and leased mining equipment and a 150 tonne per hour (tph) plant with a 50tph dense medium separation (DMS).

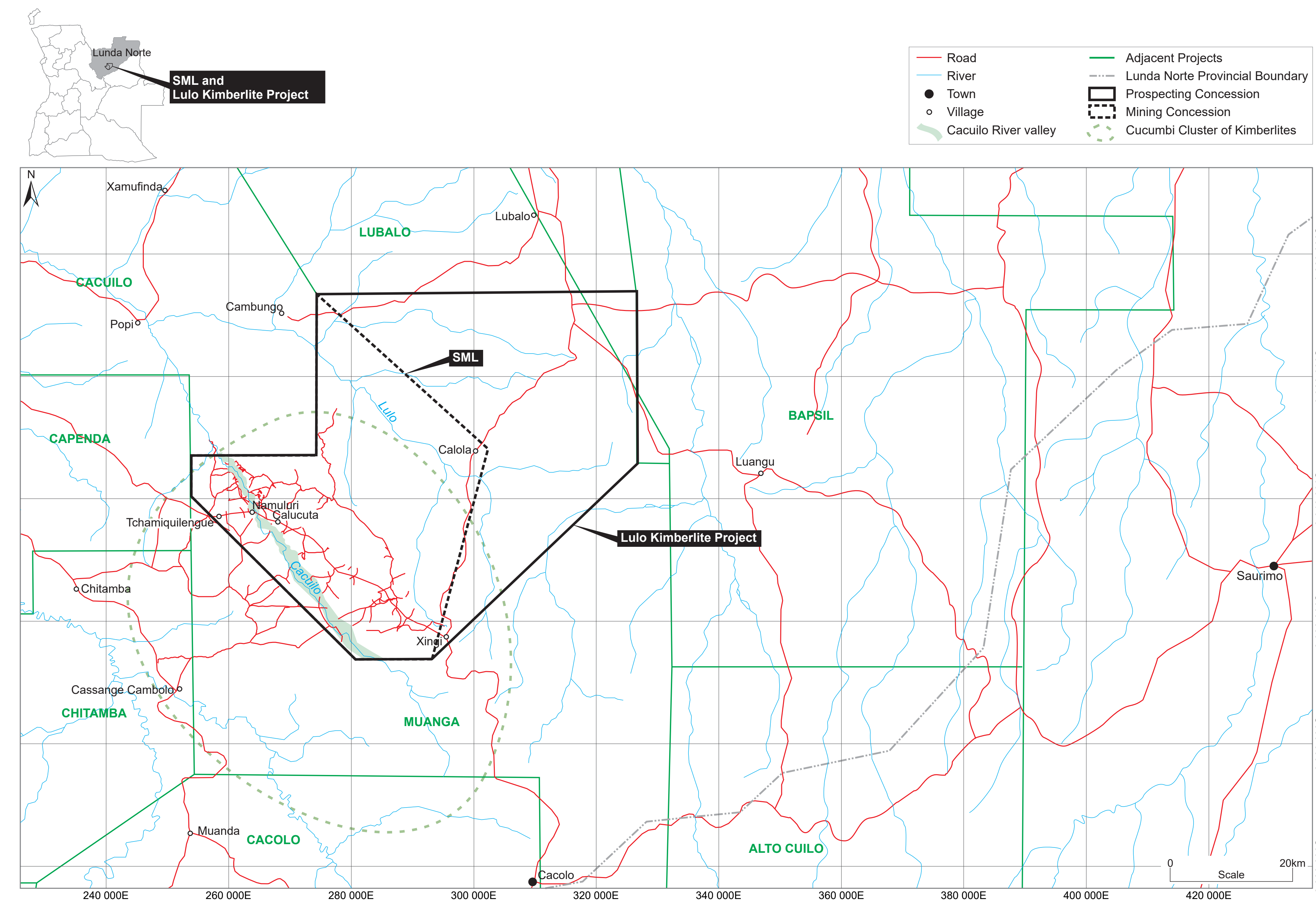
The regional geology of northeastern Angola is comprised of the Kasai Craton basement which is overlain by Proterozoic to recent sediments. During the Mesozoic, the Kasai Craton was intruded by kimberlites which are the primary source of diamonds on the Kasai Craton. The craton is host to at least 700 known kimberlites, the greatest known concentration of kimberlite bodies world-wide. Many of these are associated with southwest-northeast striking tectonic lineaments of the Lucapa Graben.

Unconformably overlying the basement and the kimberlite intrusions are the Calonda Formation sediments. These comprise a sedimentary sequence of conglomerates, sandstones and shales. Diamonds eroded from the kimberlites were deposited by fluvial processes in the conglomerates of the lower Calonda.

Deposition of the Calonda Formation was followed by a period of stable uplift and arid climatic conditions, resulting in the deposition of the Kalahari Formation. Aeolian and other sediments of this formation cover most of the interfluve ridges between drainage systems. At the base of the Kalahari is the "grés polymorphe", which is diamondiferous.

The recent alluvial deposits are the results of reworking of the surrounding regional geology, containing diamondiferous lithologies, such as intrusive kimberlites, the Calonda Formation and grés polymorphe. These deposits typically form in the flood plains and terraces of the stream and river systems that flow towards the North of Angola.

Location of SML in relation to regional infrastructure



Source: LOM

Extensive prospecting of both kimberlite and alluvial deposits was initially conducted in northeastern Angola by Companhia de Diamantes de Angola (Diamang) and by a joint-venture between Diamang and De Beers Consolidated (Condiama) prior to Angola's independence in 1975. The sampling programmes were comprehensive and typically used a consistent method of exploration across extensive areas. Historical exploration in the greater Lulo Project area covering 3,000km^2 was undertaken by both Diamang between 1971 and 1974 (in the southwest, in and around the Cacuilo River) and by Condiama (in the northeast). Exploration for both alluvial and kimberlite deposits was completed in both of these areas. In addition, historical alluvial gravel mining by artisanal diggers has occurred along the entire length of the Cacuilo River within the concession boundary, most notably toward the northwest.

Nare Diamonds Limited (Nare), the first registered name of LOM, was awarded the original alluvial and kimberlite exploration licences over the Lulo exploration concession in 2007. LOM commenced exploration in 2008. Between 2008 and 2010, the exploration focused on reconnaissance techniques designed to cover larger areas and to identify target areas for future detailed exploration programmes. Exploration specifically included completing an airborne geophysical survey and geological mapping of the Cacuilo River.

The company's name was changed in 2007 from Nare to Lonrho Mining Limited (Lonrho), and then in 2010 to LOM. Nare, Lonrho and LOM are the same legal entity, and as such all references with regard to exploration and mining has been stated as LOM.

Between 2010 and 2014, LOM carried out exploration under the previous 3,000km^2 alluvial exploration license moving the project to an advanced level of exploration. The exploration during this period focused on evaluating the alluvials in the Cacuilo River valley, which ultimately led to the development of Inferred Diamond Resources and SML, and its associated mining license covering 1,500km^2. The exploration activities were divided into a series of exploration sectors which formed the focus of work over the next four years.

Exploration included additional airborne geophysical surveys, pitting and bulk sampling. The pitting was used to identify the stratigraphy of the sediments and measure the thickness of the overburden and the gravels. The bulk sampling was aimed at testing the grade and value of the alluvial gravels.

A total of 14 bulk samples were collected during this period with the gravels being processed through a 15tph DMS sampling plant. A total of 380 diamonds (referred to as stones) were recovered with a combined weight of 581.45 carats (cts). The average stone size recorded was 1.53ct/stone, and included a 131.40ct stone and four other special (+10.8ct) stones. The average in situ grade was estimated at 19.46ct/100m^3 from 2,988.58m^3 of in situ gravel.

The diamonds (495.70cts) from the first eight bulk samples extracted from the alluvial gravels were valued in 2012 by a recognised valuator, Mr R Ferraris of QTS Kristal Dinamika (QTS), at USD7,904/ct. Disregarding the special stones, a valuation result of USD413/ct was estimated. The valuator noted the potential for the occurrence of the rare Type IIa diamonds in the parcel. The diamonds extracted from the bulk sampling of the alluvial gravels in the area of the E46 kimberlite were also valued. The valuation result was USD533/ct. However, this parcel was relatively small (52.45cts) and did not include any special sized stones at that time. Subsequently 22 specials have been recovered from mining at Block 46.

In 2014, new management was engaged with the aim of developing the alluvial exploration operation into a scalable alluvial mining operation. Alluvial mining commenced in January 2015. The Cacuilo River was divided into a series of mining blocks (MB) for ease of reference for mine planning purposes. Exploration over the next three years has primarily been to identify economic mining blocks and identifying additional gravels for resource delineation. Exploration techniques included pitting, drilling with a Sedidrill auger rig and bulk sampling.

Bulk sampling of the alluvial gravels resulted in the extraction of 20,914.46m^3 of in situ gravel. The gravel was processed through the newly constructed 50tph DMS plant and associated 150tph front end scrubbing section (front end). A total of 1,694 stones were extracted weighing 1,796.24cts, with an average stone size of 1.06ct/stone. The average in situ grade of the bulk sampling was estimated at 8.59ct/100m^3.

An interim valuation was carried out in 2014 on 385.40cts recovered from the bulk sampling to that date. The valuation was undertaken by QTS and resulted in an average price of USD1,239/ct. The valuator noted that 37% of this parcel contained diamonds classified as Type IIa stones.

Two diamond parcels were sold during 2013 and 2014, comprising diamonds recovered from the alluvial exploration bulk sampling programme. The sales result was exceptional with an average price of USD6,429/ct being achieved. The high value was directly attributable to the large special stones and high percentage of Type IIa stones in the parcels.

Exploration work has focused on the Cacuilo River valley. In October 2013, a reconnaissance visit was made to the Lulo River by Lulo geologists. Activities in this area commenced in November 2016 with the construction of an access road to the Lulo River valley. In April 2017, exploration commenced on the Lulo River and its associated valley. Exploration included the excavation of four pits, which returned negative results for gravel. A total of 36 auger drillholes were drilled using the Sedidrill rig, totalling 428.10m. The drilling was carried out along four drill lines positioned at approximately right angles to the river flow direction. Five of the 36 auger drillholes intersected gravel.

During 2015, the extensive volume of exploration information was collated into a geographic information system (GIS) and Microsoft Access™ database. All subsequent exploration has been included in these systems.

SML commenced mining in January 2015, following the granting and awarding of the secondary source Mineral Investment Contract (MIC) in late November 2014. Mining areas were selected based on the results of the exploration pitting and bulk sampling programme that had commenced in June 2010. The bulk sample areas with the most positive results were selected by SML as initial mining sites. The higher lying areas were initially targeted, as mining had commenced during the Angolan wet season.

SML completed a trenching exercise on MB28 North in October 2016. Three trenches were excavated approximately 50m apart at right angles to the river valley. The trenches were planned to be at least 100m long. The purpose of the trenching was to obtain a continuous gravel profile between known points which were positive for gravel; obtain a representative sample across the area in question; and excavate enough gravel to constitute a bulk sample.

Mining blocks were initially concentrated in the area north of the village of Namuluri, where the majority of the bulk samples were located, and progressed south along the Cacuilo River towards MB46. Between January 2015 and May 2017, a total of 20 mining blocks had been identified in the Cacuilo River valley.

The mining method involves stripping the sandy overburden using mechanical excavators, to expose the alluvial gravel bed. This overburden is then placed in the proximity of the excavated pit and the exposed gravels are extracted to the underlying bedrock. The gravels are loaded onto trucks and transported to the plant for processing. Approximately 10cm to 20cm of the underlying bedrock is scraped and loaded together with the diamondiferous gravels in order to ensure the recovery of any diamonds that may be trapped in the cracks and crevices of the bedrock. As mining progresses along the deposit, the overburden is back-filled into the mined area of the pit where the gravel had been extracted.

Between January 2015 and May 2017, mining had been undertaken in various mining blocks, mainly as a result of access constraints during the wet season. The majority of the mining has been sourced from MB08, MB28, MB06 and MB31. Lulo has an average production target of 20,000m^3, i.e. approximately 240,000m^3 per annum.

The monthly average overburden and gravel volumes mined over the last 12 month mining period under review have been 137,070m^3 and 18,159m^3, respectively. The average stripping ratio (defined as overburden volume removed over diamondiferous gravel volume removed) has been 7.55:1.

SML Mine utilises the services of a qualified surveyor for all exploration and mining surveying requirements and uses drone technology to monitor and map mining areas.

The SML Mine currently operates a 50tph DMS plant with a 150tph front end. Due to the high clay content of the feed material, LOM has installed a wet front end which was commissioned in July 2016. The existing front end will remain operational and will be utilised if the feed material has a moisture content of <5% and a clay content of <40%. The new wet front end will operate ahead of the existing scrubber.

SML operates a containerised X-ray Flowsort for final recovery in four size fractions. With the regular recovery of large (+100ct) diamonds, LOM purchased and installed a new X-ray transmissive (XRT) recovery which, together with the larger screens, will allow for the processing of coarser gravels. The XRT receives the coarse or oversize +18mm -55mm material from the primary screen, post the primary and XRT scrubbers. The XRT has been incorporated into a new larger and more secure sorthouse and has its own final recovery section.

Post final recovery, the diamonds are cleaned in the deep boiling acid plant, before being sieved and weighed. Each stone is weighed and recorded separately into a Microsoft Excel database. As the number of stones is increasing with the mining, LOM has commissioned and funded the installation of a new acidisation plant at SML which exposes the diamonds to a deep boiling process.

This process cleans dirt out of deep cracks in the diamonds and ensures the diamonds are being properly presented for sale via the Sociedade de Comercialização de Diamantes de Angola (Sodiam) structures (a subsidiary of Endiama). Standard Diamond Trading Company (DTC) sieves are used to sieve the diamonds into their size fractions for sale.

All high security areas where product is stored requires the presence of SML independent security, Corpo de Seguranza dos Diamantes (CSD) and the recovery plant manager to be present with their keys for opening. These areas are all fenced and locked.

Although the plant is constructed to treat higher volumes, throughput has been limited to the supply of mined gravels. Up until 31 May 2017, the plant has treated an average of 14,160m^3 of gravel (bulked) per month and recovered an average of 1,200cts per month.

The bulked average recovered grade is 8.51ct/100m^3 with an average stone size of 1.39ct/stone. The grade varies according to the block selected for mining, which is dependent on seasonal access, and has ranged from a minimum of 4.40ct/100m^3 in December 2015 to a maximum of 14.99ct/100m^3 in July 2016

In February 2016, a 404.23ct stone was recovered from MB08. This stone represents the largest single stone ever reported in Angola, since organised mining commenced in the country. In February 2017, the second largest stone, a 227.71ct diamond, was recovered from MB28.

Between January 2015 and the end of May 2017, SML had recovered 424 special stones (+10.8ct) weighing a total of 10,962.15cts. Thus 31% of the mining production, by carats, has reported to the +10.8ct fraction. A significant portion of these special stones were classified as high value Type IIa.

All diamond parcels are delivered to Sodiam for government valuation and sale preparation. A total of 19 parcels have been sold between January 2015 and May 2017 totalling 34,332cts. The 404ct stone was sold in February 2016 for a record USD39,580/ct. The average sales price to 31 May 2017, including the 404ct stone was USD2,159/ct and excluding it was USD1,718/ct.

The first official JORC Code compliant Diamond Resource estimate was estimated by Z Star Mineral Resource Consultants (Pty) Limited (Z Star) in October 2015. Z Star based its estimates on the previous pitting, bulk sampling and mining results in the various mining blocks. The gravel resource excluded areas previously mined or disturbed by artisanal mining. This Diamond Resource estimate was then updated as at 31 May 2017 to take into account all further exploration, bulk sampling and mining results to this date. The Diamond Resource estimate was depleted to take into account the mined out areas. The latest Diamond Resource estimate is tabled below, with the LOM's attributable figures tabled overleaf.

Z Star Diamond Resource Statement for SML – 31 May 2017

		GROSS			
DIAMOND RESOURCE CATEGORY	**RESOURCE BLOCK NO.**	**GRAVEL VOLUME (m^3)**	**GRADE (ct/ 100m^3)**	**CONTAINED DIAMONDS**	**AVE VALUE (USD/ct)**
Inferred	Block23	37,700	6.72	2,530	846
	Block31_21	29,400	8.59	2,530	846
	Block01_04_26	270,100	3.97	10,730	846
	Block06	27,800	8.81	2,440	1,215
	Block24	17,000	4.48	760	1,880
	Block08	86,200	12.51	10,790	1,880
	Block28	25,800	7.08	1,820	845
	Block46	109,100	9.67	10,550	1,103
	TOTAL / AVE	**603,100**	**6.99**	**42,150**	**1,215**

Source: Z Star data, Venmyn Deloitte rounded figures
Rounding down of gravel volumes to hundreds and stones and carats to tens.
Rounding down may result in computational differences compared to the Z Star compiled and LOM issued resource estimates which employ a different rounding convention. These differences are immaterial.

Net attributable Diamond Resource Statement for SML – 31 May 2017

DIAMOND RESOURCE CATEGORY	RESOURCE BLOCK NO.	NET ATTRIBUTABLE GRAVEL VOLUME (m^3)	NET ATTRIBUTABLE CONTAINED DIAMONDS	NET ATTRIBUTABLE CONTAINED VALUE (USD)	OPERATOR
Inferred	Block23	15,080	1,012	856,152	Sociedade Mineira Do Lulo Lda (SML)
	Block31_21	11,760	1,012	856,152	
	Block01_04_26	108,040	4,292	3,631,032	
	Block06	11,120	976	1,185,840	
	Block24	6,800	304	571,520	
	Block08	34,480	4,316	8,114,080	
	Block28	10,320	728	615,160	
	Block46	43,640	4,220	4,654,660	
	TOTAL / AVE	**241,240**	**16,860**	**20,484,596**	

Source: Compiled by Venmyn Deloitte

Z Star's competent persons, Mr SP Duggan (Reg. No. 400035/01) and Mr DE Bush (Reg. No. 400071/00) have subsequently estimated the current Diamond Resource using all information to 31 May 2017. This comprises the most recent Diamond Resource estimate for the deposit. The information provided to Z Star by SML included monthly reports, excel spreadsheets, GIS shape and point files and diamond valuation and sales reports.

Z Star verified the data on an exception basis and found no major errors or inconsistencies. Z Star classified all Diamond Resources as Inferred Diamond Resources according to the JORC Code. Venmyn Deloitte compiled the net attributable Inferred Resources table presented above.

The alluvial exploration within SML is ongoing and pitting, auger drilling and bulk sampling programmes will be used to identify additional economic gravel resources on both sides of the Cacuilo River including, but not limited to, the following locations:-

- north of the current mining area at MB28 which is known to host large Type IIa diamonds;
- east bank of the Cacuilo River between MB28 and MB46 which has the potential to increase the Diamond Resource base considerably and, along with MB28 and MB46, warrants consideration of building an additional screening plant to reduce hauling distances;
- western bank of the Cacuilo River between MB28 and MB41 which has high economic potential since the discovery of the 227ct stone in MB28. In addition, this area covers the yet untested e212 anomaly; and
- the western bank of the Cacuilo River between MB28 (227ct stone) and MB08 (404ct stone) near the Zavige tributary. This area is considered a high priority due to the discovery of the large stones in the surrounding mining blocks. Satellite imagery suggests that the palaeochannel of the Cacuilo River meandered towards the Zavige tributary.

In conclusion:-

- the extensive amount of exploration, bulk sampling and mining within SML has led Z Star to estimate an Inferred Diamond Resource (31 May 2017) of 0.60Mm^3 of gravel in the Cacuilo River area, at an estimated diamond grade of 6.99ct/100m^3 and an average diamond price of USD1,215/ct;
- mining commenced in January 2015 and the mining rate has been steadily increasing to the planned average rate of 20,000m^3 per month. Gravel has been mined at an average rate of approximately 18,159m^3 per month during the last 12 months and at an average overburden to gravel stripping ratio of 7.55:1;
- the gravel is processed through a 150tph front end and 50tph DMS. Plant modifications have been completed to implement a wet front end to address the high clay content of the feed and to install a new XRT module to process the coarse fraction. The XRT plant was considered by LOM as necessary to optimally recover the large diamonds which have regularly been recovered since mining commenced;

- the plant has treated an average of 14,160m³ of gravel (bulked) per month and recovered an average of 1,200ct per month. The bulked average recovered grade is 8.51ct/100m³ with an average stone size of 1.39ct/stone. The grade varies according to the block selected for mining, which is dependent on seasonal access;
- between January 2015 and the end of May 2017, SML recovered 424 special stones (+10.8ct) weighing a total of 10,962.15cts. Thus 31% of the mining production, by carats, has reported to the +10.8ct fraction. Of these special stones, a significant percentage has been classified as high value Type IIa; and
- the additional exploration, bulk sampling and mining results has enabled the modelling of gravel thickness, stone density and stone sizes for the first time in the 31 May 2017 Diamond Resource estimate. This has provided greater confidence in the estimate of the Inferred Resources.

Lulo Kimberlite Project (Angola)

The Lulo Kimberlite Project relates to the specific kimberlite exploration activities that are focussed on identifying the primary source of the alluvial diamonds and a potential future kimberlite mine. The exploration status for this project may be considered as advanced exploration. The Lulo Kimberlite Project and associated kimberlite exploration licence covers the entire 3,000km² Lulo concession area.

LOM holds a 39% interest in the unincorporated joint venture responsible for the Lulo Kimberlite Project. The other shareholders in the joint venture are Endiama, who hold a 51% interest with the remaining 10% held by Rosas & Pétalas. After LOM has recouped its full investment under the prospecting and mine development phases for kimberlites, the joint venture interests may change to LOM holding 30%, Endiama 51% and Rosas & Pétalas 19%.

On 26 May 2014 the kimberlite exploration licence (004/05/02/T.P/ANG-MGM/2014) was renewed over the 3,000km² Lulo concession by the Ministry of Mines and Geology for a further two years, until 25 May 2016. Lulo has requested a renewal of an additional three years of kimberlite exploration over the entire project area of 3,000km², or for a new licence to be issued.

On 28 November 2016, the company announced that the Ministry of Mines had awarded a new kimberlite exploration license for five years covering the same 3,000km² area. The project partners are currently finalising a MIC for the new license which will include an exploration programme covering the five year period.

The regional geology is described above under SML.

With respect to the local geology, the Lulo kimberlites were intruded on the edge of the Angolan shield centred on Saurimo, and are situated within the Lucapa Graben. The Lulo kimberlites form the northern part of the Cucumbi Cluster of kimberlites. The kimberlites that have been drilled exhibit rock types typical of the upper reaches of a kimberlite pipe. The main types of kimberlite facies present in the Lulo kimberlites are sedimentary reworked volcaniclastic kimberlite (SRVK), volcaniclastic kimberlite (VK) and pyroclastic kimberlite (PK), from the top to the base.

Prospecting for kimberlites was historically undertaken by Diamang between 1971 and 1974 in the eastern tributaries of the Cacuilo River. During this time, a total of 27 kimberlite pipes were identified in this area by Diamang.

Between 1972 and 1973, Condiama undertook a reconnaissance stream sampling programme directed at identifying kimberlite indicator minerals (KIM) in the northeast of the project area. Also during this period, the company conducted a loam sediment sampling programme to the east of the Cacuilo River, also directed at identifying KIMs. The KIM sampling programme resulted in the discovery of five additional kimberlite pipes.

Modern exploration in the Lulo Kimberlite Project commenced with an airborne geophysical survey carried out by LOM in 2008, which was extended in 2013. A total of 296 anomalies were identified, 258 in the southwest of the Lulo Project and 38 in the northeast. The majority of the anomalies occur in the southern portion of the survey area and tend to occur parallel to the Lucapa Graben. The anomalies were ranked and then targeted for exploration.

Exploration techniques included ground truthing of previously identified Diamang kimberlites, stream and soil sediment sampling, heavy mineral extraction and electron micro-probe analysis, pitting, core drilling, reverse circulation (RC) and large diameter drilling (LDD) and surface bulk sampling.

The focus of exploration activities was on testing selected anomalies to determine whether they were in fact kimberlites. This was typically undertaken using stream and soil sampling followed by KIM and micro-probe analysis. Thereafter the joint venture investigated the confirmed or probable kimberlites through pitting, drilling and bulk sampling.

A total of 37 vertical diamond drillholes were drilled with a Bauer rig into seven targets between October 2012 and November 2013, amounting to 2,353m being drilled.

A total of 17 vertical RC drillholes were drilled with the Bauer rig into four target kimberlites between September 2012 and December 2013. The 440mm diameter drillholes were drilled to a maximum depth of 140m, for a total of 1,372m. The drill samples were processed through the 15tph sampling plant, until the production plant was commissioned in November 2013. No diamonds were recovered from these RC drillholes.

Surface bulk sampling of the kimberlites commenced in May 2012. The purpose of the bulk sampling was to obtain a sufficiently large sample for treatment to determine if the kimberlites are diamondiferous. A total of 23 surface bulk samples were collected from 14 sites on nine kimberlite targets between 2012 and 2014. Diamonds were recovered from four of the bulk samples. A total of 16 stones were recovered weighing 9.04ct. The grade was estimated at between 0.03ct/100m^3 and 0.63ct/100m^3. These results confirmed that four of the kimberlite pipes, namely L19, L46, L251 and L257, are diamondiferous.

The diamonds recovered from two of the kimberlites were valued by a QTS in 2014. The diamond value was estimated on just 5cts at USD211/ct, and as such LOM did not consider it a reliable estimate. The valuator noted that there was a high percentage of Type IIa stones and the characteristics of the stones were similar to those recovered from the alluvial bulk samples.

The recent work carried out by LOM between 2014 and 2017 was initially focussed on the collation and review of the extensive amount of data collected on the project over the previous six years. This collation and review enabled the re-prioritisation of the extensive number of anomalies present in the Lulo Kimberlite Project area. The exploration plan from 2014 onwards has been directed at testing the high priority anomalies within the Cacuilo River catchment area, with the focus on identifying the kimberlite sources of the large stones being extracted in SML's alluvial mining activities.

The previously used methods of exploration pitting have continued. In addition, three drill rigs were mobilised during 2016 and 2017 to test the anomalies and kimberlites at greater depths than could be achieved with the original pitting. To date, a total of 38 vertical Sedidrill rig drillholes have been drilled into four target kimberlites and a single anomaly, totalling 1,138m of drilling. A Kamaz manufactured drill rig was sourced from Rosanstroi drilling contractors. Between November 2016 and May 2017, 31 vertical diamond core drillholes were drilled into four kimberlites and four anomalies, totalling 1,673m of drilling.

LOM purchased a Hanjin D&B-Multi drill rig which arrived on site in April 2017. This is a crawler mounted rig which is able to drill vertical and angled drillholes. This rig was purchased for defining kimberlite pipe outlines or dimensions using angled drillholes with double pierce points. To date, a total of 10 drillholes have been drilled into two anomalies and two kimberlite pipes, totalling 552m of drilling.

The Mantle Mapper^{TM} technique and mineral chemistry assessment was also undertaken on 14 samples taken during April 2015.

Between 2015 and 2017 an additional four surface bulk samples were processed from L15, L46, K220 and L41, with low diamond recoveries.

A ground based geophysical survey was also conducted in 2016 over L251, L259 and three other aeromagnetic targets further eastwards.

LOM appointed SkyTEM Surveys App in October 2016 to perform a SkyTEM304 helicopter-borne geophysical survey over the Namaluri Block at SML. The survey was carried out between March 2017 and April 2017 using a total intensity magnetometer mounted on a rigid carrier frame. The purpose of the survey was to obtain additional geophysical data to interpret with the aim of identifying the source(s) of the large diamonds being extracted by the SML mining operations in MB08. A total of 62 targets were identified, 51 of which had already been identified in previous geophysical surveys. The remaining 11 were new electromagnetic (EM) targets with no magnetic signature.

All the results of the various exploration techniques have been compiled into a GIS and Microsoft Access™ database by LOM.

The future exploration plan for the Lulo Kimberlite Project entails a multi-faceted approach over the next three years. The main objectives of the exploration are to identify and locate the source(s) of the high value alluvial diamonds being recovered by SML.

The future exploration will include airborne geophysical surveys in the northeastern areas of the project, core drilling using the Sedidrill, Hanjin D&B35 and contractor rigs, river bulk sampling to identify the sources of the large stones being recovered in MB06 and MB08, as well as surface and LDD bulk sampling. LOM and SML may consider refurbishing or replacing the original 15tph DMS sampling plant for use in exploration sample processing.

In conclusion:-

- significant exploration has been conducted within the Lulo Kimberlite Project over the last six years, primarily focusing on the western sector of the kimberlite exploration licence area;
- various geophysical surveys and subsequent reviews of the results have identified a total of 586 anomalies. Of these anomalies, 38 were located in the east of the exploration licence area;
- of the identified anomalies, 202 (34%) have been explored using one or more exploration methods. Exploration methods implemented have included soil sampling, stream sampling, pitting, RC drilling, core drilling and bulk sampling;
- the results of the exploration to date have confirmed that 52 (9%) of the initial anomalies are kimberlites, 48 (8%) are probable kimberlites and seven anomalies have been confirmed as not being kimberlites;
- five (9%) of the confirmed kimberlites have been demonstrated to be diamondiferous; and
- exploration over the next three years is planned to focus on identifying the source of the large percentage of Type IIa and +10.8ct stones being recovered by SML in the Cacuilo River mining operation. The exploration will include airborne geophysical surveys, core drilling and surface bulk sampling.

Orapa Area F Kimberlite Project (Botswana)

LOM is the holder of a prospecting licence in the Boteti Sub-district of the Central District of Botswana which forms the basis of the 16.2km² Area F Project (Area F Project). The Area F Project is located approximately 40km due east of the town of Orapa, approximately 20km southwest of Sua Pan of the Makgadikgadi salt pans, in northeastern Botswana.

LOM is the current holder of Prospecting Licence No. 265/2015 awarded by the Ministry of Minerals, Energy and Water Resources. Application was made under a public tender process for available tenements in the area, which was awarded on 22 September 2015. It is valid for a period of three years commencing on 1 October 2015 and ending on 30 September 2018. Transfer of the amended prospecting license from Lucapa Diamond Company (Pty) Limited was made effective into the name of locally registered Lucapa Diamonds (Botswana) (Pty) Limited on 29 March 2017. LOM owns 100% of the Area F Project through its 100% ownership of the locally registered Lucapa Diamonds (Botswana) (Pty) Limited.

The Area F Project itself is currently primarily utilised for communal agricultural land, mainly for grazing with limited arable farming. No significant infrastructure exists onsite.

The greater Orapa Kimberlite Field is situated on the northern edge of the Central Kalahari Karoo Basin in Botswana. The presence of the large kimberlite mines in central and south central Botswana is an indication that the Archaean Zimbabwe Craton underlies Botswana to a major extent, which is the basement of the Orapa Kimberlite Field.

As a result of the Area F Project being located along the northern fringes of the Kalahari Desert, the bedrock of the region has been covered by a layer of wind-blown Kalahari sand. The geology of this Kalahari region is generally poorly understood due to this extensive sand cover of the Kalahari Formation and lack of outcrop exposure.

The known geology of the Area F Project is dominated by Karoo basalts with possible Karoo sandstones occurring to the north of the Area F Project. A large dolerite dyke was identified from aeromagnetic data and trends west-northwest to east-southeast through the northern parts of the Area F Project. The relatively simple stratigraphy is complicated by numerous large faults, which cut through the region. These faults have resulted in horst and graben features which can provide for shallower intersections of the sandstone formations, and create hydraulically isolated or partly isolated compartments. This complex pattern of block faulting has resulted in the juxtaposition of the basalts with the older sedimentary rocks.

Following the discovery of the Orapa Kimberlite Field in the early-1970s by De Beers Consolidated Mines Limited (De Beers), and the opening of the Orapa Diamond Mine in 1971, intensive exploration was undertaken across the greater region.

The majority of this initial exploration was completed by De Beers in partnership with the State through variously formed entities, including Debswana Diamond Company (Pty) Limited (Debswana) and De Beers Prospecting Botswana (Pty) Limited (Debot). This led to the discovery of 83 known kimberlites, including the two known kimberlites occurring within the Area F Project.

The kimberlites of the Orapa Kimberlite Field vary in size from insignificant dykes to the 110ha diamondiferous AK1 kimberlite, today exploited by the Orapa Mine under Debswana. All kimberlites are of post-Karoo age. Of the 83 known kimberlite intrusions, five have been, or are currently being mined, with a further four recognised as being potentially economic deposits. In addition, numerous others are the subject of current investigation, including the two known kimberlites within the Area F Project.

The Area F Project contains three primary targets, two known kimberlites, namely BK38 and BK14, as well as a further anomaly AN01, each of which have been explored by LOM in 2016. Kimberlites, BK38 and BK14, were originally identified following the completion of a heavy mineral sampling campaign by Debswana across the greater area. Electron-microprobe analyses of selected indicator-mineral grains was carried out by Debswana with the targets refined following the completion of an airborne geomagnetic survey.

The BK14 kimberlite was discovered by Debswana during the 1990s through an extensive exploration field campaign across the greater area. The pipe is approximately 4.3ha in surface area which has been described as a blue/green tuffisitic kimberlite breccia. The BK14 kimberlite was delineated by Debswana through an initial limited LDD campaign in April 2005 consisting of four LDD drillholes and three delineation percussion drillholes. These LDD drillholes were drilled to obtain bulk samples for macro diamond sampling after a grade of 10ct/100m^3 had been initially postulated by Debswana in 1999. The objective of the bulk sampling campaign was to recover 100t from the four 12” LDD drillholes. A total of 792m was drilled. The macro diamond recovery results were considered disappointing by Debswana with no diamonds recovered as a consequence. No further work was completed on the BK14 kimberlite.

BK38 is a known kimberlite which was discovered by Debswana during a later phase of exploration in the Orapa area. Upon original target delineation, two inclined drillholes were drilled which intersected the pipe. The results indicated it to potentially be <0.5ha in areal extent and to likely represent a blow of a dyke. No significant heavy mineral anomalies can be observed in the soil sampling data over the BK38 locality with only a weak linear magnetic signature present.

AN01 is a magnetic anomaly which was identified from the 1st vertical derivative (1VD) processed detailed aeromagnetic data flown by De Beers in the late 1990s. It is less clear in the total field data as it has been partially masked by the strongly magnetic dolerite dyke to the north, and hence may have been originally overlooked and not selected as a target by Debswana. No significant heavy mineral anomalies have been identified near to AN01.

The Area F Project has historically been owned and explored by a number of diamond exploration companies. Upon relinquishment of PL2/97, Debswana concluded that the geology of PL2/97 was complex and poorly understood which was exacerbated by the unknown thicknesses of the Karoo basalts, and their impact on the use of geophysical techniques. The widespread occurrence of indicator mineral soil anomalies, and the mineral chemistry of these grains, indicates a high probability for diamondiferous kimberlites to potentially occur in the greater area.

After the relinquishment of PL2/97 by Debswana/De Beers Botswana in 2005, Firestone Diamonds plc (Firestone Diamonds), and later Monak Ventures (Pty) Limited (Monak), a 90% subsidiary of Firestone Diamonds, were awarded prospecting licence PL647/2009 over the Area F Project. No data is available from this period of ownership, nor is it apparent that any significant exploration was conducted during this time. Upon the lapsing of PL647/2009 in June 2012, the Ministry of Minerals, Energy and Water Resources rescinded the licence from Monak Venture and Firestone Diamonds. Following this, a "Call for Application" was opened in June 2015 for Prospecting Licence No. PL 265/2015, which was subsequently awarded to LOM.

Post the issuing of the licence in December 2015, a detailed historical exploration data search and capture campaign was undertaken. This included visiting the Geological Survey of Botswana from which hard copy results of all historical geophysical and sampling data was sourced, with the relevant heavy mineral sampling data captured into a spatial MapInfo database. This data included various processed airborne magnetic and electromagnetic datasets, data which only covered the western portion of the Area F Project.

The data was manually captured by LOM's technical consultants, Foundation Resources (Pty) Limited (Foundation Resources). The resultant geophysical dataset was provided to Geophysics AEGIS (Botswana) Pty Limited (Aegis Geophysics) for plotting and interpretation, the results of which formed the basis of the field exploration campaign completed by LOM in 2016.

This exploration work programme focussed on the three main targets, the known kimberlites BK14 and BK38 along with the magnetic target AN01, whilst also testing for previously undiscovered potential extensions to the kimberlites. The programme included conducting field based ground magnetic, electromagnetic and gravity geophysical surveys followed by a mobile metal ion (MMI) geochemical soil sampling campaign as well as a time-domain electromagnetic (TDEM) sounding across BK14. The planned data spacing, orientation and distribution of the exploration was reportedly sufficient to yield unbiased sampling results which refined and established follow-up exploration drill targets.

Results from the 2016 field exploration campaign successfully delineated the BK14 and BK38 kimberlites, with BK38 indicting potential for a blow on the previously identified dyke. In addition, the geophysics identified a high interest target at AN01 which has some features of an expected kimberlite body. It has a well isolated dipole with a double-lobed gravity high and indications of a moderately conductive EM feature. The results from the geophysics for BK38 and AN01 have warranted a follow-up delineation drilling campaign program over these two target bodies. At BK14, the TDEM sounding successfully delineated the kimberlite, which has already been historically drilled, and as such no further drilling has been planned at BK14. Drilling is planned at BK38 and AN01 during the fourth quarter of 2017.

The conclusions with reference to the Area F Project are summarised as follows:-

- due to the extent of the historical and recent exploration completed over the Area F Project, and the Orapa Kimberlite Field as a whole, the Area F Project can be considered as an advanced exploration project. Various campaigns of heavy mineral sampling, geophysics, electron microprobe analyses, delineation drilling and bulk sampling have historically been completed. This has resulted in the delineation of three kimberlite targets (the known kimberlites BK14 and BK38 along with the magnetic target AN01) which the 2016 field exploration results have refined;
- the widespread occurrence of indicator mineral soil anomalies, and the mineral chemistry of these grains, indicates the potential for additional kimberlites to occur in the area. The use of modern high resolution airborne magnetic data, together with gravimetric surveys (currently being completed) may increase the potential for refining these targets;
- Debswana historically noted that not all heavy mineral clusters had been satisfactorily explained over PLL2/97 (now corresponding with Area F Project) and that the influence of the drainage of the Letlhakane River required consideration. A comparison of indicator mineral halos with high resolution magnetic data could still define additional targets. However, Debswana were unable to determine the true mineral chemistry signature of those grains derived from possible new kimberlites at the time;
- a clearly defined and comprehensive exploration campaign was completed by LOM in 2016, the results of which have warranted a delineation drilling campaign across the BK38 and AN01 kimberlite targets with the intention of eventually evaluating and developing a potential Diamond Resource in the most efficient, beneficial and timely manner; and

- AN01 is considered by LOM to be the current primary target due to it having been historically overlooked by Debswana. This was due to its magnetic anomaly being less clear in the geophysical total field data as it has been partially masked by a strongly magnetic dolerite dyke to the north. In addition, the historical bulk sampling of BK14 had yielded a zero grade whilst the historical delineation drilling of BK38 concluded it to likely be a <0.5ha blow on a dyke.

Disclaimer and risks

Venmyn Deloitte (Pty) Ltd (Venmyn Deloitte) has compiled this Competent Persons' Report (CPR). In the compilation of the report, Venmyn Deloitte has utilised information provided by Lucapa Diamond Company Limited (LOM) and its specialist consultants. This CPR is intended as a factual summary of the work conducted to-date and the current status of LOM's projects. Venmyn Deloitte has where applicable, verified this information making due enquiry of all material issues that are required in order to comply with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Many of the issues that have been reported upon are of a complex nature and Venmyn Deloitte will not be held responsible for any interpretation or inference that may be drawn from this CPR that is not factually in keeping with the outcomes clearly defined and quantified herein.

The authors of this CPR are not qualified to provide extensive commentary on legal issues associated with LOM's right to the diamond properties. Venmyn Deloitte has undertaken a review of the legal aspects of the projects but no warranty or guarantee, be it express or implied, is made by the authors with respect to the completeness or accuracy of the legal aspects of this document.

Operational risks

The businesses of mining and mineral and diamond exploration, development and production by their natures contain significant operational risks. The businesses depend upon, amongst other things, successful prospecting programmes and competent management. Profitability and asset values can be affected by unforeseen changes in operating circumstances and technical issues.

Political and economic risks

Factors such as political and industrial disruption, currency fluctuation, increased competition from other prospecting and mining rights holders and interest rates could have an impact on LOM's future operations, and potential revenue streams can also be affected by these factors. The majority of these factors are, and will be, beyond the control of LOM or any other operating entity.

Forward looking statements

The CPR contains forward-looking statements. These forward-looking statements are based on the estimates of LOM and its specialist consultants at the date the statements were made. The statements are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that could cause such differences include changes in world diamond markets, equity markets, costs and supply of materials relevant to the projects, and changes to regulations affecting them. Although Venmyn Deloitte believes the expectations reflected in its forward-looking statements to be reasonable, Venmyn Deloitte does not guarantee future results, levels of activity, performance or achievements.

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Independent Competent Persons Report on the Angolan and Botswanan diamond assets of Lucapa Diamond Company Limited

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1. Introduction

Venmyn Deloitte (Pty) Limited (Venmyn Deloitte) was appointed by Lucapa Diamond Company Limited (LOM or the company) to compile a Competent Persons Report (CPR) on its diamond assets located in the Republic of Angola (Angola) and the Republic of Botswana (Botswana) (Figure 1), in compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). LOM's diamond assets situated in Angola comprise an operating alluvial diamond mine, Sociedade Mineira do Lulo, Lda (SML) and a kimberlite exploration project (Lulo Kimberlite Project), both located in northeastern Angola. The mining operation was developed following positive alluvial exploration results.

LOM also has the rights to a kimberlite exploration project, Orapa Area F Kimberlite Project (Area F Project), situated in the Central District of Botswana. LOM also holds a 70% share in the Mothae Project located in the Kingdom of Lesotho (Lesotho) (Figure 1). In October 2016, LOM announced the acquisition of a fifth asset in Australia, the Brooking Diamond Project in the West Kimberley Lamproite Province of Australia. Due to the early stage exploration classification of the Brooking Diamond Project, it has been excluded from this CPR as it is deemed to be below the materiality threshold. The Mothae and Brooking Projects are not included in this CPR.

LOM is a mining and exploration entity currently listed on the Australian Securities Exchange (ASX: LOM) whose securities are listed and traded on the ASX and held by approximately 7,500 holders. The company also has a secondary listing on the Frankfurt Stock Exchange (FSE). The company is growing rapidly through its alluvial mining activities (in Angola) and associated diamond production to advance its kimberlite exploration (in Angola and Botswana) and its development (in Lesotho) opportunities. The company is in the process of evaluating a significant number of geophysical anomalies and known kimberlites and lamproites with the intention of identifying new economically viable diamondiferous kimberlites and lamproites in Angola, Botswana, Lesotho and Australia going forward. To date, LOM's alluvial diamond production has yielded the largest single stone ever reported in Angola at 404.23cts, and continues to regularly deliver a significant portion of special stones and high value Type IIa diamonds.

2. Scope of the report and statement of independence

Venmyn Deloitte's primary obligation in preparing mineral asset and diamond reports for the public domain is to describe mineral and diamond projects in compliance with the reporting codes applicable under the jurisdiction in which the company operates. In this case, the JORC Code.

Neither Venmyn Deloitte, nor its staff, have or have had, any interest in any of LOM's projects capable of affecting their independence and, have not and will not, receive any pecuniary or other benefits in connection with this assignment, other than normal consulting fees. Neither Venmyn Deloitte, nor any of the authors of the CPR, hold any interest in LOM.

Venmyn Deloitte has compiled the CPR based upon the principle of reviewing and interrogating both the work of LOM and its specialist experts who have contributed to the technical information available for the diamond assets. This CPR has been compiled as a factual summary of the work conducted to 31 May 2017 and the current status of LOM's projects, based on information supplied to Venmyn Deloitte by LOM and its advisors, to the extent required by the JORC Code. It is an accurate reflection of the data and studies that have been made available on LOM's diamond assets as at the effective date of the CPR.

The CPR has been prepared in accordance with the JORC Code and the ASX Listing Requirements (Chapter 5 and Section 8 of Guidance Note 31). The CPR, as a Public Report in terms of the JORC Code Clause 9, is the responsibility of LOM acting through its Board of Directors. The CPR is based on, and fairly reflects, the provided information and supporting documentation reported by the Competent Person listed as a signatory of this CPR. The CPR is issued with the prior written consent of the Competent Persons as to the form and content in which it appears.

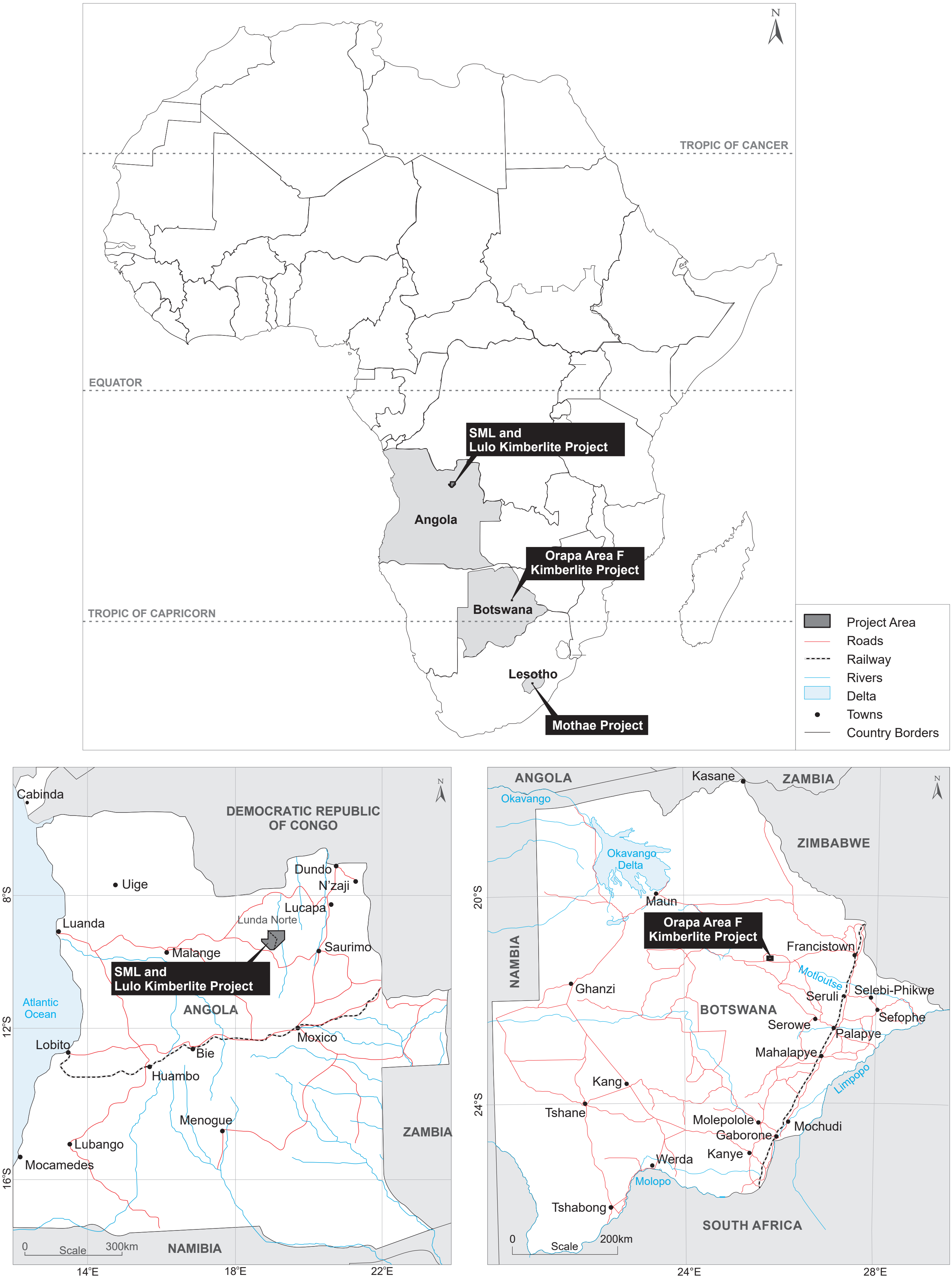
3. Competent Persons declaration and qualifications

Venmyn Deloitte is an independent advisory company. Its advisors have extensive experience in preparing resource and reserve estimates, compliant competent persons' reports, technical advisors' and valuation reports for mining and exploration companies.

Venmyn Deloitte

Lucapa Diamond Company

Location of LOM's diamond assets in Africa



Source: Venmyn Deloitte

Venmyn Deloitte's reports have been accepted by the Johannesburg Securities Exchange (JSE Limited), London Main Board (LSX) and AIM, Toronto Stock Exchange (TSX), New York Stock Exchange (NYSX) and the Australian Securities Exchange (ASX), together with securities regulation authorities in all these jurisdictions.

Venmyn Deloitte's due diligence exercises are founded on the principles of professional best practice as established by the Australasian Institute of Mining and Metallurgy (AusIMM), to which its key personnel dedicated to this CPR, are registered as either Fellows or Members in good standing and have at least five years relevant experience.

The information in this CPR that relates to the Exploration Results and Diamond Resources of SML, Lulo Kimberlite Project and the Area F Project is based upon information provided by LOM and its advisors, and was compiled by Mrs CA Telfer, a Competent Person who is a member of the AusIMM. Mrs CA Telfer is an associate of Venmyn Deloitte. Venmyn Deloitte is a fully independent company that has been commissioned by LOM to compile this CPR.

Mrs CA Telfer has sufficient experience that is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Mrs Telfer consents to the inclusion in the CPR of matter based upon her information in the form and context to which it appears.

The Diamond Resource declared for SML was estimated by Mr SP Duggan and Mr DE Bush in May 2017, both of whom are Competent Persons and who are members of the South African Council for Natural Scientific Professions (SACNASP). They are in the full-time employ of Z Star Mineral Resource Consultants (Pty) Limited (Z Star). Both Mr SP Duggan and Mr DE Bush have provided their consent for the re-publication of the Diamond Resource estimate in this CPR as well as the details concerning the estimate. Z Star is a fully independent company appointed by LOM to compile the company's Diamond Resource estimate for SML.

Mr SP Duggan and Mr DE Bush have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Both Mr SP Duggan and Mr DE Bush consent to the inclusion in the report of matter based upon their information in the form and context to which it appears.

The Competent Persons' Certificate for Venmyn Deloitte including the name, address, qualifications, years of experience, professional affiliations and registration with professional organisations for the Competent Person contributing to the CPR is provided in Appendix 3.

4. Reliance on experts

All information and conclusions within this CPR are based upon information made available to Venmyn Deloitte by LOM and its advisors up to 31 May 2017. LOM has reviewed draft copies of this CPR for factual errors. Venmyn Deloitte has relied upon general information contained within the reports, articles and databases provided by LOM and its advisors as detailed in the reference list in Appendix 1.

The authors of this CPR are not qualified to provide extensive commentary on the legal issues associated with LOM and/or its subsidiaries' right to the diamond properties. Venmyn Deloitte has obtained copies of the relevant mining and prospecting licences/authorisations, and these have been reviewed to the satisfaction of Venmyn Deloitte. No warranty or guarantee, be it express or implied, is made by the authors with respect to the completeness or accuracy of the legal aspects of this document.

Venmyn Deloitte has relied upon the legal opinion of Vieira de Almeida with regards to the status of the Angolan Projects and Collins Newman & Co. with regards to the status of the Botswanan Project.

Venmyn Deloitte has also relied on the Lulo Diamond Resource Estimate prepared by Z Star compiled in May 2017. Venmyn Deloitte has undertaken a high-level review of the estimation and classification methodology in relation to the requirements of the JORC Code. Z Star believes that the resource estimate is a fair reflection of the Diamond Resources present at SML based upon the information available as of 31 May 2017.

Venmyn Deloitte has relied upon the diamond valuation results provided by Mr R Ferraris of QTS Kristal Dinamika (QTS), Mr F Govic of Crodiam Consulting and the results of the sales of the various diamond parcels.

5. Sources of information

Venmyn Deloitte has based its review of LOM's diamond assets on information provided by LOM and its subsidiary companies, along with technical reports by its contractors and associates and other relevant published data. A full list of all sources of information is provided in Appendix 1. Drafts of this CPR have been provided to LOM and its relevant subsidiary companies, to identify and address any factual errors or omissions prior to finalisation.

6. Compliance

This CPR has been prepared in compliance with Table 1 of the JORC Code, more specifically Sections 1, 2, 3 and 5, which specifically deals with the estimation and reporting of diamonds and other gemstones.

Section 4, which refers to the estimation and reporting of Ore Reserves, is not relevant as no Ore Reserves have been estimated for any of LOM's diamond assets. It must be noted that certain items in Section 1 (Sampling technique and data) and Section 2 (Reporting of exploration results) are not specifically relevant to diamond projects and, where this is the case, are not reported upon. Such an example is the use of drilling and the sampling of drill core for laboratory assay work. Diamond project drill cores are not assayed to determine diamond grade (except for micro-diamond analysis which is not applicable in this case).

All other sections, and most especially Section 5 have been complied with on an 'if not, why not' basis, as required by the JORC Code.

Clause 27 of the JORC Code states "In a Public Report of a Mineral Resource for a significant project for the first time, or when those estimates have materially changed from when they were last reported, a brief summary of the information in relevant sections of Table 1 must be provided or, if a particular criterion is not relevant or material, a disclosure that it is not relevant or material and a brief explanation of why this is the case must be provided." The Diamond Resource estimate in this Public Report, dated 31 May 2017, is not materially different to the 31 January 2017 Diamond Resource estimate and associated Table 1 published on the ASX by LOM on 27 March 2017. Therefore, no Table 1 is included as an appendix in this report.

According to Section 8 of Guidance Note 31 of the ASX Listing Rules, production targets based solely on Inferred Mineral Resources are not permitted, and may only be considered by the ASX under exceptional circumstances. Therefore, this CPR, which reports Inferred Resources only, does not include any information on production targets and financial forecasts.

7. Personal inspection

Venmyn Deloitte conducted a site visit to LOM's Angolan mineral assets between 10 and 15 July 2016. During this site visit, all site infrastructure, workings and operations were inspected.

No site visits were undertaken to the Botswana project, as this was not deemed necessary due to the advanced exploration stage of the Area F Project. Nevertheless, Venmyn Deloitte is fully familiar with the general geological and operational setting of the Area F Project having previously worked on and visited similar projects located in the general area.

8. LOM's corporate structure and organogram

LOM is currently listed on the ASX with a secondary listing on the FSE. LOM's corporate structure, along with its board of directors, is presented in Figure 2.

LOM holds an alluvial diamond mining and exploration asset through a 40% interest in an Angolan registered company, SML. The Angolan state-owned diamond company, Empresa Nacional de Diamantes de Angola (Endiama) in turn owns a 32% share in SML with the remaining 28% held by a private Angolan registered company, Rosas & Pétalas, SA (Rosas & Pétalas). LOM holds a kimberlite exploration asset through an unincorporated joint venture (JV).

LOM's Botswanan Orapa Area F Kimberlite Project is held through a locally registered Botswanan company, Lucapa Diamonds (Botswana) (Pty) Limited. LOM owns 100% of the Area F Project through its 100% ownership of Lucapa Diamonds (Botswana) (Pty) Limited.

LOM's Mothae Project is held in Mothae Diamond (Pty) Limited which is 70% owned by LOM, with the remaining 30% held by the Government of Lesotho.

LOM holds an 80% share in the Brooking Diamond Project. The remaining 20% is held by a private company, Leopold Diamond Company Pty Ltd (Leopold).

9. LOM's diamond assets

LOM currently has an interest in four diamond assets located in Africa and one in Australia, each at various stages of exploration and mining (Figure 1). The relative stages of development for each of LOM's African diamond assets are schematically represented in Figure 3. The African and Australian diamond assets are summarised in Table 1. Only the Angolan and Botswanan diamond assets are reported on within this CPR.

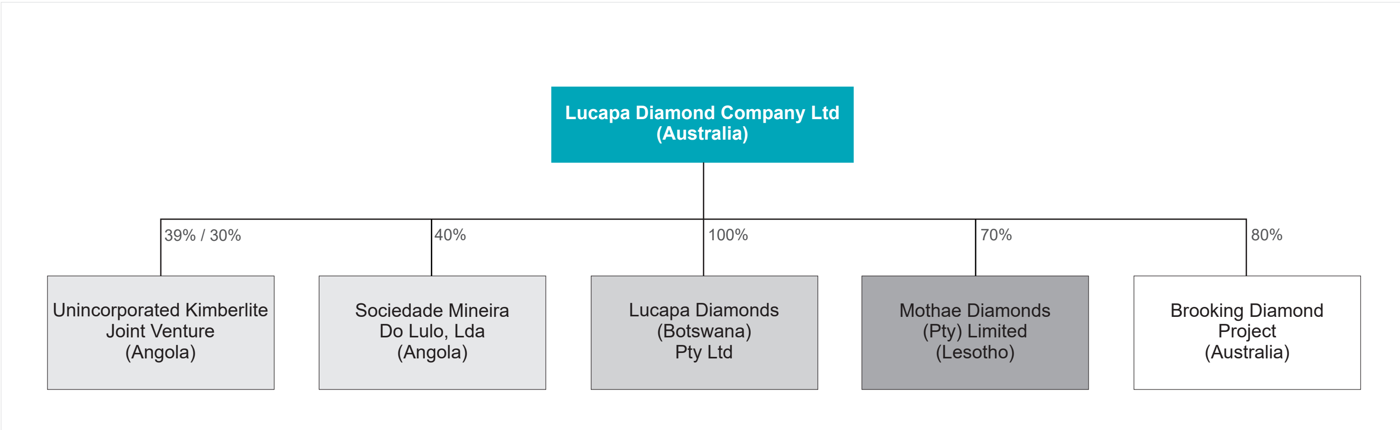
Table 1 : Summary table of assets

COUNTRY	ASSET	HOLDER	INTEREST (%)	STATUS	LICENSE EXPIRY DATE	LICENSE AREA (km²)	COMMENTS
Angola	Sociedade Mineira Do Lulo Lda (SML)	Lucapa Diamond Company Ltd (LOM)	40%	Production	21 July 2025	1,500.0	Current annual production of ~22,000cts (Jun 16 – May 17).
	Lulo Kimberlite Project		39%/30%*	Exploration	In process	3,000.0	Ongoing drilling of kimberlite anomalies.
Botswana	Orapa Area F Kimberlite Project		100%	Exploration	30 September 2018	16.2	Three kimberlite targets identified. Delineation drilling planned at two kimberlite targets, to be completed in 2017.
Lesotho	Mothae Diamond Project		70%	Development	08 January 2027	46.8	Open cast kimberlite mine in development.
Australia	Brooking Diamond Project		80%	Exploration	2 December 2020	121.0	Early stage lamproite exploration program.
					11 March 2019	29.4	
					5 June 2022	13.1	
					TOTAL	**4,726.5**	

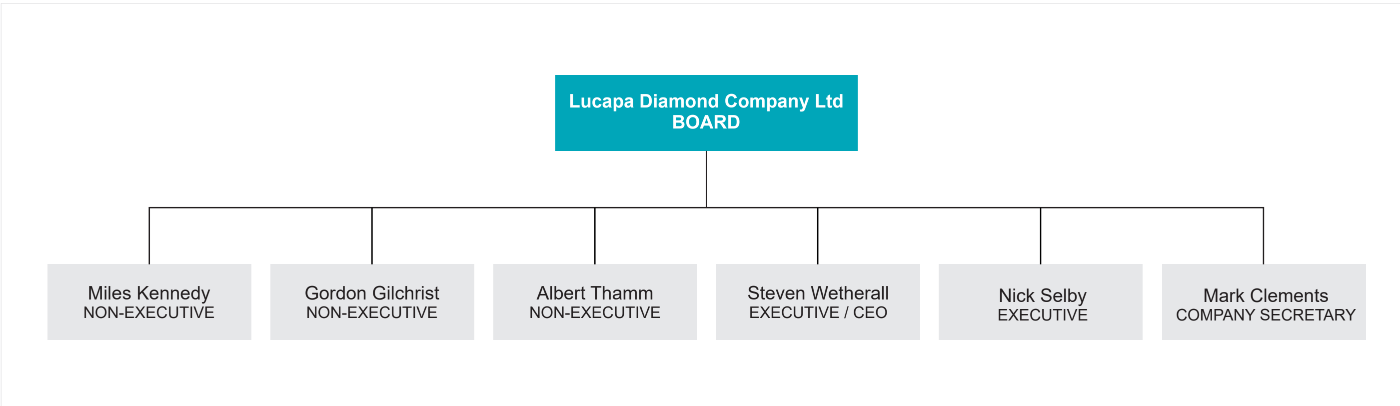
Notes:-
* Post LOM recoupment for investment under prospecting and mining development phase.

LOM corporate structure, board of directors and SML / Lulo Kimberlite Projects organogram

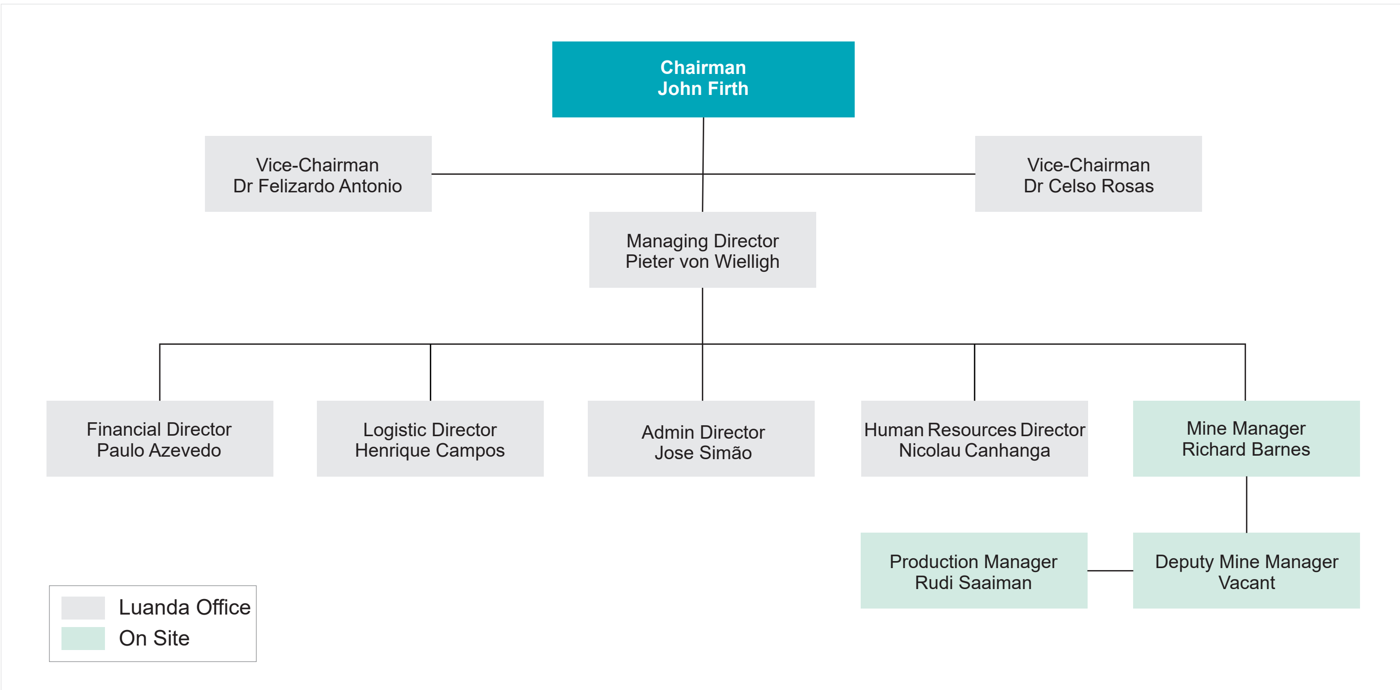
LOM Corporate Structure



LOM Board of Directors



SML/Lulo Project Organogram



Schematic representation of project development stages of LOM's African assets

Project stage Definitions (VALMIN 2005)

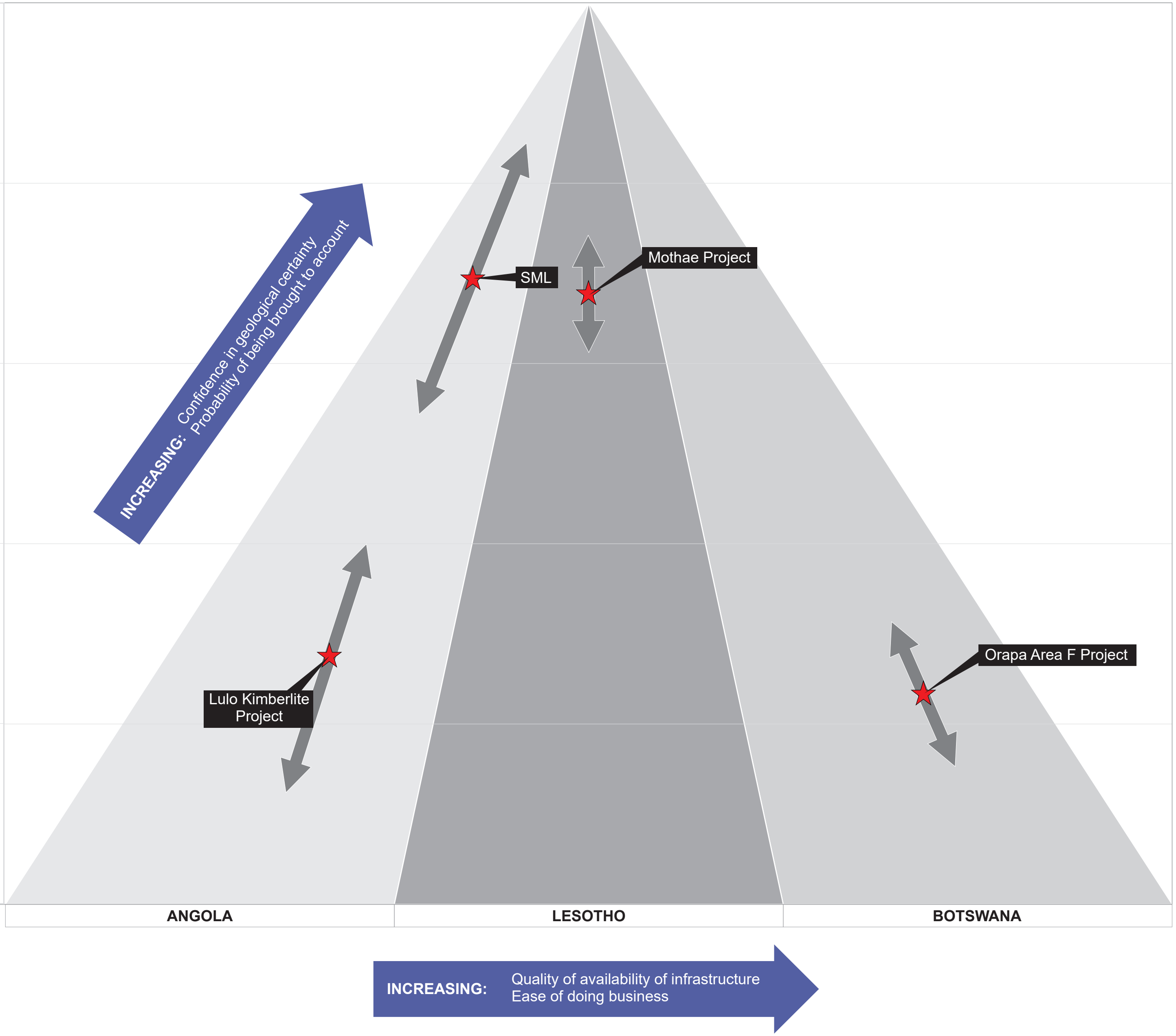
OPERATING MINES – mineral properties, particularly mines and processing plants that have been commissioned and are in production.

DEVELOPMENT PROJECTS – properties for which a decision has been made to proceed with construction and/or production, but which are not yet commissioned or are not yet operating at design levels.

PRE-DEVELOPMENT PROJECTS – properties where Mineral Resources have been identified and their extent estimated (possibly incompletely) but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further valuation, technical assessment, delineation or advanced exploration is being undertaken.

ADVANCED EXPLORATION AREAS – properties where considerable exploration has been undertaken and specific targets have been identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A resource estimate may or may not have been made but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the resource category.

EXPLORATION AREAS – properties where mineralisation may or may not have been identified, but where a Mineral Resource has not been identified.



Source: Venmyn Deloitte

In October 2016 LOM announced the acquisition of a fifth asset in Australia, the Brooking Diamond Project in the West Kimberley Lamproite Province of Australia. This acquisition was completed during the compilation of this report, and as such has not been featured in this report. Details of the Brooking Diamond Project may be released by LOM in a separate report at a later date.

In January 2017, LOM acquired a shareholding in the Mothae Project in Lesotho through an international tender process held by the Government of Lesotho. Mothae (not reported upon herein) is a pre-development kimberlite project which is covered by valid mining license. An Indicated and Inferred Diamond Resource was estimated on the Mothae Project in March 2017 by the MSA Group (Pty) Limited (MSA). Exploration drilling and bulk sampling has been undertaken at the Mothae Project with positive results. Various mining equipment, a bulk sampling dense medium separation (DMS) plant and diamond recovery plant is present on site.

LOM's flagship asset is the Lulo alluvial mine through its 40% shareholding in SML, which is an alluvial diamond mining company producing along the Cacuilo River in the Lunda Norte Province, Angola. SML is situated approximately 254km west of the city of Saurimo. The SML Mine is operating under a mining title covering 1,500km^2 of the southwestern half of the 3,000km^2 Lulo kimberlite exploration concession.

Since alluvial exploration began in 2008, LOM has identified a series of alluvial mining blocks at SML which were subsequently included into its maiden JORC Code compliant Diamond Resource estimate by Z Star in October 2015. The cash returns to LOM from SML's alluvial mining operations are being used to provide capital to reinvest and fund the company's other exploration project in Angola, the Lulo Kimberlite Exploration Project. The alluvial mining operations have continued to yield exceptional stones, including the largest stone ever reported in Angola, a 404ct stone on 4 February 2016.

The Lulo mining license covers the southeastern 1,500km^2 and the Lulo Kimberlite Project covers the entire 3,000km^2 concession area. The previous exploration carried out by LOM on the southwestern portion of the Lulo concession led to the discovery of a Diamond Resource and establishment of the current alluvial mining operations on the Cacuilo River. Additional exploration is planned along the Lulo River going forward.

Exploration on the Lulo Kimberlite Project has identified over 548 geophysical anomalies and known kimberlites, primarily located in the southwestern area of the exploration concession near and/or adjacent to the Cacuilo River. These kimberlites and anomalies are systematically being evaluated in order to identify a potential kimberlite mine in Angola.

The Botswanan diamond asset is considered by LOM as an advanced kimberlite exploration project, with the 16.2km^2 Area F Project located within the Orapa Kimberlite Field of the Central District. Due to the extent of the historical exploration completed over the Area F Project by De Beers Consolidated Mines Limited (De Beers) and Debswana Diamond Company (Pty) Limited (Debswana), three initial kimberlite targets (the known kimberlites BK14 and BK38 along with the magnetic target AN01) have been delineated by LOM. Historical exploration included various campaigns of heavy mineral sampling, geophysics, electron microprobe analyses, delineation drilling and bulk sampling.

The recent 2016 exploration programme completed by LOM included conducting field based ground magnetic, electromagnetic and gravity geophysical surveys followed by a mobile metal ion (MMI) geochemical soil sampling campaign as well as a time-domain electromagnetic (TDEM) sounding across BK14. The planned data spacing, orientation and distribution of the exploration was sufficient to yield unbiased sampling results which refined and established follow-up exploration drill targets.

Results successfully delineated the BK14 and BK38 kimberlites, with BK38 indicating potential for a blow on the previously identified dyke. In addition, the geophysics identified a high interest target at AN01 which has some features of an expected kimberlite body. It has a well isolated dipole with a double-lobed gravity high and indications of a moderately conductive EM feature. The results from the geophysics for BK38 and AN01 have warranted a follow-up delineation drilling campaign program over these two target bodies. At BK14, the TDEM sounding successfully delineated the kimberlite, which has already been historically drilled, and as such no further drilling has been planned at BK14. Drilling is planned at BK38 and AN01 during the fourth quarter of 2017 with five diamond drillholes planned.

10. Diamond market review

The diamond market has been reviewed and summarised using various publicly available sources of information.

10.1. Resources and reserves

There are currently approximately 1,408 reported diamond projects globally at various stages of development, both operational and non-operational. In Africa, there are reportedly 90 active diamond mines at various development stages (SNL, 2017). The top ten diamond mines in the world are shown in Table 2 below.

Angola is the fourth largest diamond producer by value globally (Paul Zimnisky, 2017). 75% of the nation's production comes from Catoca Mine (Paul Zimnisky, 2017). The Luaxe Project in Angola owned by the state company Empresa Nacional de diamantes de Angola (Endiama) and ALROSA is potentially the most significant new diamond discovery in decades. The official figures have not been released for the Kimberlite deposit, however the Luaxe Project is estimated to have approximately 350Mct, which will be exploited at an annual rate of 10Mct. Production is expected to begin by 2020 (Paul Zimnisky, 2017). Lucapa has made headlines with multiple exceptional diamond discoveries, including a 404ct Type IIa colourless diamond, the largest diamond ever reported in Angola, which was sold for USD16m in 2016. Lucapa's Lulo Mine is estimated to produce the highest average-price-per-carat diamonds globally in 2017, with a total of USD2,400/ct (Paul Zimnisky, 2017).

Botswana has the highest diamond carat volumes locked in resources and reserves globally (SNL, 2017). De Beers' two primary mines, Jwaneng and Orapa, represent 92% of the nation's diamond output by value. Lucara's Karowa Mine in Botswana is ranked third in the world in 2017 in terms of value, when excluding alluvial diamonds, with USD700/ct (Paul Zimnisky, 2017). Lucara is expected to continue its operations on the southern lobe of the Karowe orebody, which produced the Lesedi La Rona diamond in 2015, which was the second largest rough gem-diamond ever produced. The Lesedi La Rona diamond is expected to sell for USD 70-85m in 2017 (Paul Zimnisky, 2017).

Table 2 : Global top ten diamond mines by value

RANK	MINE	COUNTRY	LoM	2017 ESTIMATED DIAMOND PRODUCTION	
				VOLUME (Mct)	VALUE (USDm)
1	Jwaneng	Botswana	>20	12.00	2,340
2	Jubilee	Russia	12	9.20	1,426
3	Orapa	Botswana	>15	9.80	882
4	International	Russia	11	4.00	880
5	Diavik	Canada	17	7.40	740
6	Debmarine (A - marine)	Namibia (Offshore)	>20	1.23	656
7	Catoca	Angola	>15	6.50	618
8	Nyurbinskaya	Russia	10	5.00	575
9	Gahcho Kué	Canada	16	4.20	525
10	Mir	Russia	>40	3.20	464

Source: SNL, 2017

In 2016, Botswana had the largest budget allocation towards diamond exploration when compared with other African countries, and third globally (SNL, 2017). Angola is placed second among African countries and fourth globally in terms of exploration expenditure. Botswana's exploration budget constituted 9.97% of the global exploration budget, while Angola's exploration budget constituted 9.21% (SNL, 2017).

There are reportedly 19 diamond operations that are on hold, either temporarily on hold, awaiting financing or awaiting higher diamond prices, on the African continent. In addition, the diamond exploration budget in 2016 for Sub-Saharan Africa constituted 32.6% of the global share (SNL, 2017).

10.2. Production

There are currently 14 reported operating diamond mines in Angola, which include SML, Catoca, Somiluana, Calonda, Camutue, Canvuri, Chimbongo, Chitamba, Chitotolo, Dala, Luremo, Luxinge, Tchengi, and Uari Projects. In addition, the Camafuca exploration project is awaiting financing, and the Cassanguidi and Lapi are temporarily on hold. The companies which own these mines include Lucapa Diamond Company Limited, Endiama EP (the state diamond mining company), Rosas & Pétalas, Gem International Resources Inc., Escom Mining, Trans Hex Group Limited, PJSC Alrosa, China Sonangol International Limited, ITM Mining Limited, Sociedade Mineira Canvuri, Sociedade Mineira de Lumanhe, Sociedade Mineira de Luremo, African Diamond AB and Sociedade Mineira Do Lucapa.

Botswana currently has a reported 21 active diamond exploration projects and mines. These include five operating mines, one development project, four ‘target outline’ projects, eight exploration projects, and three grass roots projects. Mines currently operating in Botswana include Orapa, Jwaneng, Letlhakane and Karowe, as well as Jwaneng tailings. The major companies operating include De Beers SA and Government of Botswana (which together form Debswana Diamond Company (Pty) Limited), Lucara Diamond Corp, Petra Diamonds Limited, Lucapa Diamond Company Limited, Tsodilo Resources Limited, Botswana Diamond Plc, Pangolin Diamonds Corp, Peregrine Diamonds Corp, and PJSC ALROSA.

Together these mines contribute significant diamond production to Africa as well as the global market, solidifying both Angola and Botswana as important sources for the diamond market. The on-going exploration for diamonds in Botswana, as well as the target outline operations in Angola and Botswana will prove to be of importance in ensuring future diamond production. The key focus for diamond producers is to manage production costs as diamond mining operations go deeper.

10.3. Supply

The major economic crisis in 2008 has been a contributing factor to the decline in performance of commodity markets in general. In more recent terms, the performance of the diamond industry has fluctuated from 2014 through to 2016. Uncertainty developed in the latter half of 2014 and into the first half of 2015 was attributed to slower economic growth in China (Bain & Company, Inc. and Antwerp World Diamond Centre (Bain), 2015).

Due to excess stones being accumulated in 2015, the diamond market was negatively affected. The oversupply led to a 23.5% overall drop in year on year diamond prices, leading to a drop in diamond prices in 2016, and consequently a general drop in revenue for major diamond producers (SNL, 2016). In addition, the diamond market was strained by the decrease in diamond sales to diamond buyers who reacted to a decrease in demand for jewellery in China (SNL, 2016). The largest drop in diamond production in 2016 occurred in Africa, due to De Beers cutting their mining output in Botswana several times in 2015, in response to changing market dynamics (De Beers, 2016).

Global diamond production in 2017 is estimated to be 142.3Mcts, indicating an 11.5% increase in diamond carat volume when compared with global production in 2016, and 9.9% increase in total value (Paul Zimnisky, 2017). In the diamond market, 58% of the global diamond production comes from the top 10 largest mines in the world. Jwaneng Mine in Botswana is the largest diamond supplier by Diamond Resource value, independently producing 15% of the value supply globally. The top diamond producing countries by value in 2016 are shown in Table 3 (Paul Zimnisky, 2017).

The outlook of the diamond market in 2017 is positive, according to analysts. The supply of diamonds globally is expected to peak in 2017 (Selected Diamond Traders (Selected Diamonds), 2017). Diamond supply is expected to continue on an upward trajectory in the coming years, following which a decline may be seen in 2020 (Selected Diamonds, 2017). The expectation is that in the coming three years, the rough diamond supply will balance the high demand (Selected Diamonds, 2017). The long-term outlook of the diamond market is positive, despite the expected short-term decrease in 2020 (Selected Diamonds, 2017).

Table 3 : Top diamond producing countries by value (2017)

RANK	COUNTRY	DIAMOND PRODUCTION CONTRIBUTION BY VALUE (%)
1	Russia	35%
2	Botswana	22%
3	Canada	14%
4	Angola	8%
5	South Africa	7%
6	Namibia	5%
7	Australia	3%
	Other	6%

Source: P Zimnisky, 2017

10.4. Demand

In Angola, the market for rough diamonds is controlled by Sociedade de Comercialização de Diamantes de Angola (Sodiam), a subsidiary of Endiama E.P., which was established to formalise the trading of Angolan diamonds. Angolan diamonds are channelled to key international markets, including New York, Belgium, Israel, Dubai and Hong Kong.

From Botswana, the main downstream markets and entry into export markets for diamonds are orientated through Diamond Trading Company Botswana, a JV partnership between the Government of the Republic of Botswana and De Beers, which acts as an agent for the transfer of diamond sales in London to a trading hub in Gaborone.

According to trends in the diamond market, demand is primarily driven by countries such as the United States (US), China, Europe, Japan and India. The US remains the main driver of sales growth globally, while demand from China has slowed down as a positive shift towards Europe and Japan is observed. India experienced trends which have led to an increase in consumption in 2016. The strengthening of the US Dollar has however negated the growth in the various markets (Bain, 2016).

The over-supply of rough diamonds in 2015 led some mining companies to reduce production in response, resulting in a 24% drop in diamond sales in 2015 (Bain, 2016). The rough diamond sales have reportedly started showing positive growth trends, however the performance of the jewellery sector will determine the recovery of the diamond sector going forward (Bain, 2016).

The US, as the largest market for diamonds, has a strong influence on the demand for diamonds. The demand for jewellery in the US is proportionate to households' net worth, and ability of individuals to finance jewellery purchases. A decrease in savings rates in the US is therefore expected to support the demand for jewellery. The slowing of the Chinese economy has been modest, and the effects of the Chinese anti-corruption campaign on jewellery demand are reportedly easing off. In addition, there are improvements in global trade which are expected to filter through to the diamond market. The outlook on diamond demand is therefore generally positive (ABN AMRO, 2016).

In their long term outlook, Bain & Company predicted that the demand and supply in the diamond sector will maintain a tight balance. The demand for rough diamonds is expected to continue to recover from the 2015 downturn, and maintain an average annual growth of 2% to 5%. The growth will be driven by strong fundamentals in the US, and the continued growth of the middle class in China and India (Bain, 2016). The demand for rough diamonds is also expected to recover from the recent downturn that the diamond industry had been faced with (Selected Diamond, 2017).

The graph presented in Figure 4 is based on the diamond market in 2015. The base demand and production are based on existing contracts or mining operations. The low demand considers an anticipated loss of contracts, and stable production includes a certain percentage of unforeseen shut downs.

10.5. Consumption

Generally, and in the medium to long-term, global economic headwinds and tailwinds for industrial growth as well as consumer growth are expected to sway the downstream, and to an extent the upstream diamond market. Growth of the market is predicted to be muted, although demand is anticipated to rise from South-east Asia. In general, markets are expected to maintain stability with support from consumerism and the jewellery sector. China, India and the US are expected to continue to drive jewellery consumption, and therefore rough diamond demand into the long term (Bain, 2015).

The emergence of millennials as consumers in the diamond market is expected to present a new opportunity for the diamond industry (Bain, 2017). Jewellery is considered as a preference for gifts among millennials in the key markets such as China and India. The increase in economic empowerment is expected to result in an increase in demand, especially among women (De Beers Group, 2016). In addition, some millennials have negative views on synthetic diamonds, which drives demand for natural stones. To promote the sales of natural stones, key industry players have formed the Diamond Producers Association, which focuses on marketing efforts to highlight the appeal of natural stones. The diamond industry is at an advantage since it is well equipped to detect and disclose counterfeit synthetics, and there are continued efforts in Research and Development to this regard (Bain, 2017).

The 2017 Hong Kong International Diamond, Gem & Pearl show, which is a professional trade show for loose gems and stones, features a wide variety of diamonds, pearls and both semi-precious and precious stones. Jewellers and traders from across the globe attend the show (Selected Diamond, 2017). The show is gaining popularity, and its collaboration with the HKTDC Hong Kong International Jewellery Show in 2016 resulted in increased participation. In 2016, there were over 80,000 buyers from over 147 countries, which was record breaking. This suggests increased and renewed interest in this sector.

The long term outlook provided by Bain in 2015 was positive (Figure 4), indicating that demand for rough diamonds would outpace supply as from 2019. The updated outlook on the rough diamond market is that demand and supply will maintain a tight balance up to 2020, after which demand is expected to outpace supply (Bain, 2016).

10.6. Diamond prices

Short and long-term factors have the potential to influence price dynamics, such as the offloading of excess mid-market stock at reduced prices, and in turn, due to weaker demand from the mid-market, reduced prices of rough diamonds (Bain, 2015). Consequentially, the prices of rough diamonds are expected to largely follow the trends in price of polished diamonds. The 2015 diamond index and prices for rough diamonds, as well as the diamond index for polished diamonds are shown in Figure 4. The trends for diamond prices and indices as forecasted in 2017 are expected to resemble the 2015 forecasts.

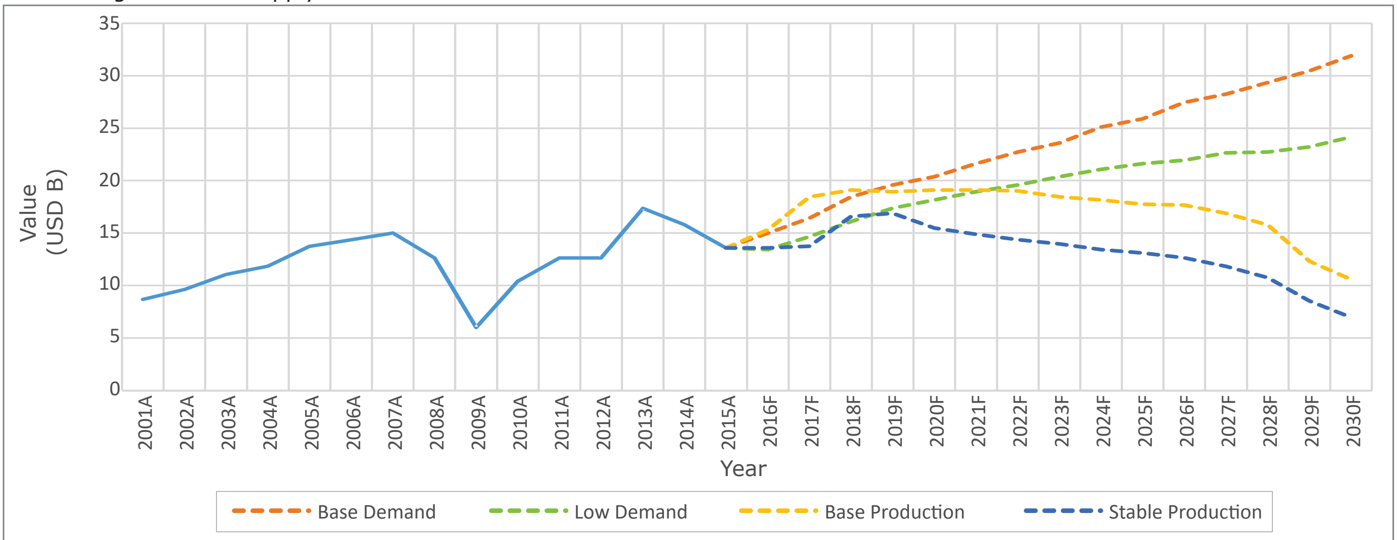
The global average prices per carat of rough diamonds represented in Figure 4 is calculated using the production values from actuals and forecasted figures, using 2015 as a base, divided by the volume. The figures exclude laboratory created diamonds. The figures are derived from scaled estimates, the actual figures may vary slightly.

The IDEX polished price index for diamonds continued to decline in 2017, however the decline was slower than in 2016. The diamond index (Figure 4) shows that in the past year the prices of diamonds have been declining. The diamond price index declined by 4.8% in US Dollar terms over the period. The price of diamonds is driven by demand, and the price is expected to pick up in 2017, owing to an expected increase in the demand for jewellery globally (ABN AMRO, 2016).

Despite the apparent negative picture painted by the diamond price index, analysts generally believe that an increase in diamond demand means that diamond price improvements are expected in 2017, leading to diamond price increases going forward. In the long-term, price movements are expected to be positive due to expected increase in demand. However, macroeconomic factors play a long-term role in both polished and rough diamond prices, and the effects will be determined by increase in demands, as well as ease in credit restrictions in key demand driving countries such as India.

Graphs of global rough diamond supply and demand forecast, rough diamond prices and polished diamond price index

Global rough diamond supply and demand forecast

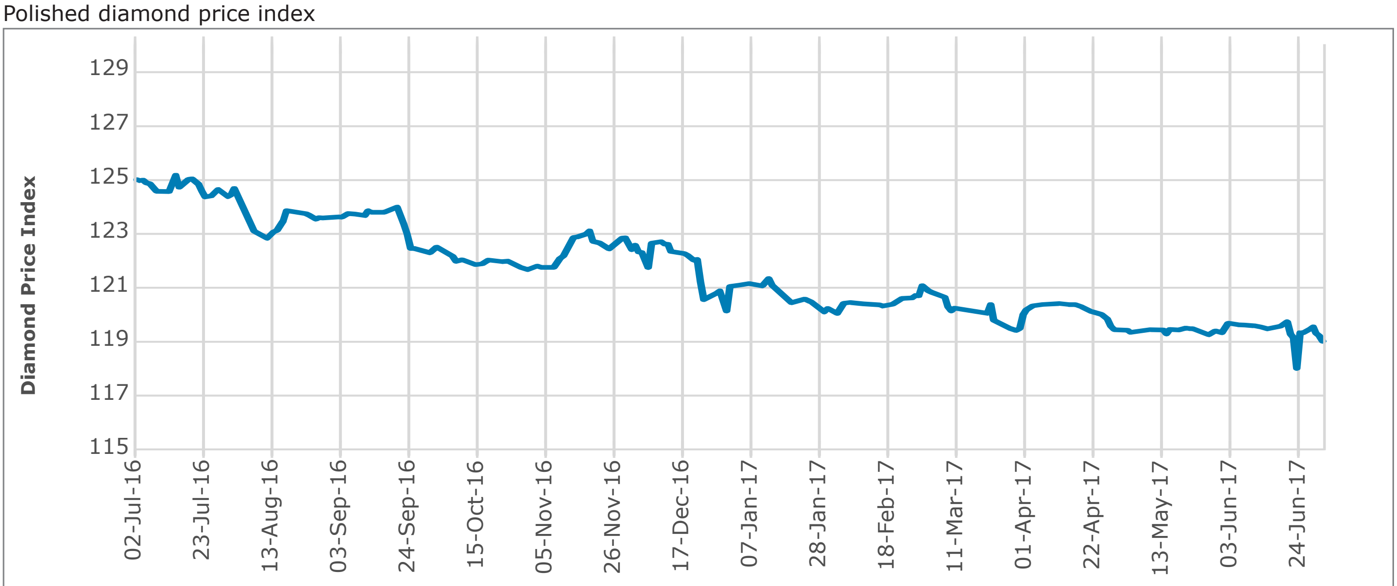


Source: Bain 2015, Deloitte Development LLC 2016

Rough diamond prices

Source: Bain 2015, Paul Zimnisky Diamond Analytics (forecast) 2016, Deloitte Development LLC 2016

Polished diamond price index



Source: IDEX Online 2017

11. Sampling and evaluation of diamond deposits

The primary geological host for diamonds are kimberlites, lamproites and related rocks. The weathering and erosion of these deposits gives rise to secondary deposits. Secondary diamond deposits can be divided into a number of distinct classes, dependent upon the distance of transport from the primary host and the sedimentary environment in which the deposits are laid down. It must be emphasised that sedimentary deposits can, and often do, grade into one another, and the older deposits can supply diamonds to the younger ones, which can concentrate or dilute the diamond grade. This CPR discusses deposits associated with both primary (kimberlite) and secondary (alluvial) deposits.

A number of difficulties are inherent in diamond sampling and evaluation, and any exploration programme should be designed to mitigate these problems:-

- diamonds are present in an economically viable deposit in small quantities, and their distribution tends to be erratic. For a kimberlite, 1 carat per hundred tonnes (cpht) is equivalent to 0.002 parts per million or 2 parts per billion. For alluvial deposits 1 carat per cubic metre (ct/m^3) is equivalent to 0.1 parts per million or 100 parts per billion);
- the size and value of stones is erratic and it is possible that the majority of the value of a parcel of diamonds is attributable to a single diamond or a small number of large stones. The value of a diamond is related to its colour, quality and size; and
- valuation of the better quality diamonds, which normally constitute most of the inherent value of the deposit, tends to be subjective and is dictated by an unpredictable, fashion-controlled market demand.

Multiple intrusions or phases within a single kimberlite pipe can cause the diamond grade to vary from barren in one phase to in excess of 100cpht in an adjacent one. Even in a single gravel unit, the diamond grade may vary from barren to over 1ct/m^3, due to the development of localised trap-sites under favourable bedrock conditions, or hydraulic fractionation within a channel or bar of the river system.

To eliminate the evaluation problems caused by these factors, very large samples are required. The accurate evaluation of a deposit is generally not possible without advancing to the stage of trial mining. In order to estimate a diamond resource, prospects for eventual economic extraction must be determined. In order to determine this, the typical revenues to be expected for a diamond deposit require information on the following:-

- the grade (cpht for kimberlites or ct/m^3 for alluvial deposits). This is the estimated number of carats contained per hundred tonnes of ore or per cubic metre of gravel. Alluvial diamond grades are typically measured in carats per unit of volume due to the problems associated with accurately predicting the bulk density of the gravels. Gravel densities are variable over short distances due to the relative pebble to sand content of the gravel and the pebble rock type;
- the diamond size frequency distribution (SFD) is a cumulative plot of the percentage of stones found in each size fraction of the sample. Confidence in the sampling results is obtained when multiple samples of the same deposit display similar curves. This curve provides information regarding the overall value of the stones. For example, a large percentage of large diamonds will provide a high value to the overall parcel. Alluvial deposits are normally associated with high-value diamonds over those mined from kimberlites, due to the rigors of fluvial transport where lesser quality flawed or included diamonds, are destroyed; and
- the recovered diamond sample should be sold as a parcel in today's market to provide a typical value for the diamonds of the deposit. This value is quoted as USD/ct for the whole parcel and typically varies from USD1,800/ct for gem diamonds recovered from an alluvial deposit, such as at SML in Angola, to USD18/ct for a low value industrial-grade diamonds recovered from a primary deposit such as at Argyle in Australia. For the reasons stated above, alluvial deposits are generally characterised by higher diamond values in comparison to kimberlite deposits.

In order to assess a diamond deposit with respect to the resource available for mining, the principles contained in the international mineral resource classification codes should be applied. This report uses the JORC Code to classify the diamond resources.

There are three parameters that are investigated with respect to their continuity within a deposit. These parameters must be specified in the diamond resource statement and include the following:-

- tonnage, which is the calculated volume of the ore deposit multiplied by its density or specific gravity if relevant;
- diamond grade; and
- diamond value.

12. Exploration of diamond projects

The kimberlite exploration process aims to ultimately identify an economically mineable kimberlite. The kimberlite exploration process is a systematic process of elimination until the economically viable project is discovered and its economic potential has been proved through the delineation of Diamond Resources and Ore Reserves.

Exploration for diamond deposits typically entails a stepwise process in order to provide the information required to identify and quantify the resources. For primary deposits the step by step process would typically entail the following:-

- application of geophysical surveys to identify circular anomalies that may represent a kimberlite;
- identification and ranking of the anomalies to identify targets;
- drilling and/ or pitting programme to confirm whether the anomaly is in fact a kimberlite;
- bulk sampling to test whether the kimberlite is diamondiferous. This bulk sampling should also provide sufficient carats to assess the grade and diamond population;
- drilling the kimberlite to define its volume; and
- assessment of the economic potential of the kimberlite to support a mining operation.

The process to identify an alluvial deposit typically entails the following:-

- identification of a suitable geological environment, e.g. a river system, which would host gravels;
- drilling and/or pitting programme to identify the aerial extent, thickness and depth of the gravel. This information would be used to estimate the volume of gravel available for potential mining;
- bulk sampling or trenching campaign to test whether the gravels are diamondiferous. This bulk sampling should also provide sufficient carats to assess the grade and diamond population; and
- assessment of the economic potential of the alluvial to support a mining operation. This is usually done through trial mining which has the added benefit of providing diamonds to generate revenue.

13. Angola country profile

The Angolan country profile has been reviewed and summarised using various publicly available sources of information.

13.1. Political and economic climate

The Republic of Angola is a resource-rich country in southern Africa, bordering the South Atlantic Ocean in the west, the Democratic Republic of Congo in the north, Zambia in the east and Namibia in the south. Angola gained independence from Portugal in 1975 following victory in the War of Independence (1961 to 1974), whereupon it was plunged into a civil war between the ruling Movimento Popular de Libertação de Angola (MPLA) party and the rebel União Nacional para a Independência Total de Angola (UNITA) party. The Angolan civil war ended in February 2002 (EIU, 2016), from which the country readily looks to improve from this legacy (BBC News, 2016). Elections were held in 2008, in which the MLPA emerged victorious. Angola is a multiparty democracy, in which the head of the largest parliamentary party is elected president (EIU, 2016). The position has been held by José Eduardo dos Santos since 1979, however he will not be leading the party into the next national election which will be held in August 2017 (EIU, 2017).

The likely candidate for presidency is the current defence minister João Manuel Gonçalves Lourenço. It is expected that Mr dos Santos is likely to maintain his influence through his network of family and friends which he has placed strategically (EIU, 2017). Mr Lourenço has expressed his intentions to fight corruption.

Even as some spending cuts have been initiated in light of depressed oil prices, the government remains focused on infrastructure development, and is looking to diversify the economy from oil (EIU, 2016). Initiatives include potentially strengthened ties with South Korea, which would boost the shared market for cars, electronics and marine installations (EIU, 2016). Investment opportunities include projects to develop the country's mineral wealth, particularly of iron, copper and gold deposits, and government contracts will continue to be the mode of operation (EIU, 2016). The implications of this are that prospects will be limited by state finances, and in turn any negative sentiment in the oil market (EIU, 2016). The macroeconomic environment therefore presents a notable risk to the development of business in Angola.

Real Gross Domestic Product (GDP) growth between 2012 and 2016 was 4.1% (EIU, 2016). Angola joined Organization of the Petroleum Exporting Countries (OPEC) in 2006, and growth rates have largely been driven by the relatively high price of oil. This was particularly so between 2004 and 2008 (CIA World Factbook, 2016). In 2016, oil contributed 86% of Angola's exports, while diamonds contributed 9.5% (EIU, 2017). Economic growth is expected to recover in the coming forecast period (2017 to 2021), after an estimated growth of 0.6% in 2016. Angola is largely dependent on oil for income, and in light of the country adjusting to lower oil prices, growth will be lower than previously forecasted figures (EIU, 2017). The expected GDP growth will average at 2.45% for the forecast period (EIU, 2017).

It is believed that foreign direct investment has been promoted given revised legislation, passed in 2015, that has meant greater ministerial involvement and potentially improved project planning, but which also carries a risk of additional bureaucracy (EIU, 2016). Additional changes include the requirement for 35% of any company to be held by Angolan nationals, as well as reduced tax rates in a number of prioritised sectors including transport and logistics and construction among others (EIU, 2016). It is worth noting that foreign investments approved prior to 11 August 2015 will continue to be governed by prior law (2011) and its associated provisions. However, these benefits cannot be extended (King & Spalding LLP, Lexology, 2015).

The Kwanza lost 27% of its value in 2016, but its depreciation is expected to slow down in the first half of the forecast period (EIU, 2017). Oil production is expected to increase, allowing Angola to reduce its deficit from an estimated 7.3% to 5.9% of GDP at the end of the forecast period (EIU, 2017). The central bank of Angola, Banco Nacional de Angola (BNA) has been the key driver in restraining inflation.

The BNA's ability to support the Kwanza through market interventions in 2017 and beyond will be dependent on the level of foreign-exchange reserves (SNL, 2017).

13.2. Minerals industry

Angola's lucrative oil is mainly found in the Cabinda province (BBC News, 2016). Petroleum production from Angola has accounted for around 2.1% of annual global output, and was ranked the second largest producer in Africa (USGS, 2013). While petroleum exports have accounted for around 97% of the country's total exports (USGS, 2013), large metals and mining projects are found throughout the country, and present an opportunity for economic diversification.

Indeed, the Angolan Geology and Mines Minister, Francisco Queiroz, has highlighted the option at the Angola-Canada Investment Seminar held in 2015 (Mining Weekly, 2016).

The country's natural resources include diamonds, iron-ore, phosphates, copper, gold, feldspar, bauxite and uranium (CIA World Factbook, 2016). Among metals and mining properties, almost all of the annual exploration budget in 2015 was spent on diamond targets, although the majority of these properties are primarily for diamond production (SNL, 2016). Angola is considered a significant producer of diamonds.

Angola has produced about 7% of the world rough diamond output which has provided major contributions to government revenue (USGS, 2013). Diamond production is mainly localised in the north-east of the country in the Lunda province. Notably, Angola was the first country to join the Kimberley Process in 2000, and chaired the Kimberley Process in January 2015 (Endiama, 2016).

13.3. Minerals policy

Investments in petroleum assets are largely made with production sharing agreements or JV with parastatal group Soceidade Nacional de Combustiveis de Angola (Sonangol), including Sonangol E.P. and its subsidiaries. In the diamond industry, a similar arrangement has been made with the introduction of the national Endiama Group, engaged in prospecting, research and exploitation of diamonds through its subsidiary Endiama Mining.

Angola's legal system is based on civil law, and is regulated at the state level by the law on Geological and Mining Activities (Mining Law) (Miranda Correia Amendoeira & Associados (MCA), 2011). There are statutory and regulatory acts that are implemented through contractual instruments, and defined by operational and economic terms and conditions in the exploration licence and mining title (MCA, 2011). However, the Mining Law regulates exploration, evaluation, reconnaissance and mining of mineral resources in general (MCA, 2011). Exploration licences and mining titles can be granted to private parties. The Mining Law is considered with a number of decrees that govern customs, tax, foreign exchange, strategic minerals and, importantly, the Law 20/11, of 20 May 2011 or Private Investment Law (MCA, 2011). In addition, a surface fee applies to diamond prospecting (MCA, 2011).

Environmental requirements are defined in the Mining Law as well as in contractual annexures to exploration licences and mining titles (MCA, 2011). Environmental statutes include a General Environmental Law, and those on impact assessment, licencing and audits also governed by the Ministry of Environment (MCA, 2011).

A number of changes have been effected with the provision of a new Mining Code. These include considerations for public tenders, the contract framework, including the provision of a single 'mineral investment contract' with phases of exploration, evaluation and mining, and environment, labour and community issues, marketing and tax (MCA, 2011).

State participation in mining activities is defined whereby a state-owned company gains share capital of the commercial mining company (MCA, 2011).

A key environmental issue identified in the new Code by Miranda Correia and Associates is the need for an investors' obligation to provide a legal reserve for mine closure and rehabilitation in the amount of 5% of the capital investment. Indeed, the duties of the investor include the Environmental Impact Study, among others (Endiama, 2016). The new Mining Code has been effective as of December 2011 (Endiama, 2016).

Further information on the legislative framework of the Mining Code is provided in Section 13.5.

13.4. Institutional and administrative structure

13.4.1. Ministry of Geology and Mines

The Ministry of Geology and Mines (MGM) is the central organisation of state that is responsible for overseeing the country's mining sector. MGM responsibilities include issuing of rights for prospecting and mining activities as well as the administrating Law No.31/11 on Geological and Mining Activities.

13.4.2. Ministry of Environment

The Ministry of Environment (MoE) is responsible for developing and coordinating the country's environmental policy. This Ministry is also responsible for implementing the National Environment Management Programme.

The MoE is the primary authority responsible for the implementation of the Environment Framework Law, No. 5/98, the Environmental Licensing Law, No. 59/07, and all associated Regulations. The MoE is also responsible for reviewing and regulating Environmental Impact Assessment (EIA) processes submitted in accordance for Mining Right applications.

13.4.3. Ministry of Commerce and Customs National Service

The exportation of minerals is subject to licensing and clearance by the relevant body of the Ministry of Commerce and the Customs National Service, as well as notification to MGM (International Comparative Legal Guide (ICLG) to Mining Law, 2017).

13.5. Mineral policy and legislative framework

The MoE is responsible for the environmental licensing of industrial activities related to the use of natural resources impacting on sensitive ecosystems, while MGM is responsible for issuing prospecting and mining rights for projects of this nature.

The specific legal instruments which regulate the environmental aspects which need to be managed for mining projects are:-

- Law No. 31/11, of 23 September 2011, approving the Mining Code;
- General Environmental Law No. 5 of 19/06/1998;
- Executive Decree No. 130 of 2009 on Environmental Licencing fees;
- Law No. 31/11, of 23 September, approving the Mining Code;
- Decree No. 51/04 on Environmental Impact Assessment of 23/07/ 2004;
- Decree No. 59/07 on Environmental Licensing of 13/07/2007;
- Water Law No. 06 of 2002; and
- Presidential Decree No. 194 of 2011 on Liability for Environmental Damage.

13.5.1. Law No. 31/11, of 23 September 2011, approving the Mining Code

Law No. 31 of 2011 approves the implementation of the Mining Code in Angola. This Code regulates any geological and mining activity, and in particular, geological research, investigation, finding and classification of minerals (notably diamonds), characterization, assessment, exploitation, commercialization, and use of existing mineral resources in the soil, underground, internal waters, territorial sea, the continental shelf, Exclusive Economic Zone and in any other terrestrial or maritime area under the jurisdiction of the Republic of Angola. The Code does not apply to activities related to recognition, prospectivity, research, assessment and exploitation of liquid or gas hydrocarbons.

This law consolidates all pre-existing mining legislation and enforces compliance with the applicable laws. Local communities affected by mining projects have the right to negotiate the type and amount of compensation to be paid by title holders to mining concessions.

13.5.2. General Environmental Law No. 5 of 19 June 1998

The General Environmental Law was enacted in accordance with Section 39 of the Angolan Constitutional Law.

The purpose of this law is to define the basic concepts and principles for the protection, preservation and conservation of the Environment, promoting the quality of life and the rational use of natural resources. The law incorporates the main international sustainable development declarations and agendas (for example, Agenda 21), and establishes citizens' rights and responsibilities.

Article 4 contains several guiding principles of the General Environmental Law, one of which relates to accountability, "all persons or organisations which through their actions cause harm to the environment, or the degradation, destruction or depletion of national resources, shall be held accountable for their actions, and shall be required to repair such damage and/or pay compensation for the damage caused."

Article 14 enables the Government to establish environmental protection areas and corresponding management regulations, including the identification of activities that would be prohibited or permitted in protected areas and their surroundings.

Article 16 makes provision for mandatory EIAs which must be undertaken for activities that may have an impact on the balance and wellbeing of the environment and society. An Environmental Licence is issued on the basis that an EIA is approved - this licence is precursory for the issuance of all other licences required (i.e. Mining Right).

13.5.3. Environmental licencing fees

The Executive Decree No. 130 of 2009 sets out the fees which are payable by the proponent for environmental licences, and other administrative costs. Fees for construction and operation environmental licences are based on a percentage of the total project costs.

13.5.4. Environmental Impact Assessment

The General Environmental Law emphasises that a principal instrument for Environmental Management is the EIA process. The process, and resulting EIA report, has the primary objective of determining the effects that proposed public and private activities may have on the environment.

These studies must be carried out in relation to projects which, due to their nature, size or location, may have implications for the environmental and social equilibrium and balance. The EIA therefore serves as an effective instrument for environmental protection and management, facilitating the public consultation process, and serves to inform the final decision made by the public authorities.

Decree 51 of 2004 establishes a set of procedures which must be followed when carrying out an EIA and compiling an Environmental Impact Study (EIS) for the application for approval of the project by the relevant State body.

According to the Decree, an EIS must achieve the following objectives:-

- describe the project, inform on the operations associated with the opening and implementation of the mine and study the environmental and social benefits of the project's implementation;
- provide information on alternatives to prevent, mitigate or reduce potential impacts in sensitive areas, and compare the advantages and disadvantages of each option with reasons for selecting the preferred options;
- identify and describe the most important features of the local population and natural and built environment which may be affected by the project and which may cause negative impacts; and
- propose mitigation measures to reduce pollution, environmental disturbances and other negative impacts caused during the construction, preparation and field work phases.

13.5.5. Environmental licensing

Decree No. 59/07 on Environmental Licensing came into force on 14 October 2007. The decree supplements Decree No. 51/04 on EIAs by providing guidance on matters such as project categorisation, what elements are to be included in an EIS; the nature and extent of public participation; the entity responsible for compliance with these legal requirements; and the EIA monitoring process.

The Decree requires that environmental practitioners be registered in Angola. There are two types of licences required:-

- any installation licence is required for implementation and construction of any activity; and
- any operational licence is issued during the operations phase of the project.

13.5.6. Water Law No. 06 of 2002

Water Law No. 06 of 2002 defines Angola's water resources as public assets and sets out the general principles for governance and water use priorities.

The Water Law establishes the management policy for the water sector and provides for the establishment of a decentralized system to oversee the use and protection of water resources. Objectives include the use and rational utilization by citizens and legal entities, adequate sanitation, and control of wastewater discharge.

The Law declares that all uses of water sources which are adjacent to water springs and wells, sites and areas surrounding drinking water abstraction facilities, banks of artificial lakes and their surrounding areas fall under the protected areas regime, as such, are subject to licensing or concession.

13.5.7. Liability for environmental damage

Presidential Decree No. 194 of 2011 addresses the requirement for provision of financial guarantees for environmental damage, measures and actions required for remediation. The Decree establishes penalties for non-compliance with other pieces of environmental legislation, and the nature of individual liability for damage to the environment.

13.6. Diamond sales procedure

With respect to the diamond mining sector, the Diamonds Act (Law No. 16 of 1994) originally granted the exclusive right to diamonds to Endiama. This parastatal organisation was established in 1981 from the previous State-owned company, Companhia de Diamantes de Angola (Diamang). Diamang, and subsequently Endiama, historically explored for and sampled diamond deposits across the country. The government charges a 5% royalty on the gross value of a parcel sold. While the new Mining Code provides for marketing rights to the investing company, with conditions in the specific mineral investment contract (MIC), Endiama E.P. is a company established with exclusive business rights for Angola's mineral resources.

In 1999 Endiama created the subsidiary Sodiam, which is responsible for the marketing of diamonds in Angola. All diamonds must be sold in Angola, using Sodiam to organise and supervise the trading and marketing process of rough Angolan diamonds in international markets (Endiama, 2016). In return Sodiam charges a valuation tax and marketing commission of 5.0% and an industrial tax of 1.0% on the gross value of all diamonds sold. Sodiam also forms part of a consortium with the Angolan Polishing Diamonds company (Endiama, 2016), allowing for coordination of the sales procedure from mine to market.

The new Mining Code provides detail on the royalty expected of mineral resources. Tax is levied on the value of the minerals extracted at the mine head or the value of the processed concentrates. In the case of small-scale diamond mining, royalties are levied on the value of the batches acquired by the public trading companies. The typical sales procedure entails the following:-

- producer's expert values the parcel;
- transport of the parcel from the producer to Luanda under the guard of the Sodiam's security officials, Corpo Seguranca Diamantes (CSD), together with an Endiama representative, and on a basis and time agreed with mine management. Representatives of the producer are also present during transportation;
- the CSD delivers them to Sodiam's offices for grading, assessment, valuation and sale;
- diamonds are valued by both Sodiam and an independent government valuator;
- the parcel is then made available for purchase by a buyer. The buyer may be Sodiam in some cases;
- a price is then negotiated by the producer and the buyer. In cases where a selling price is not agreed upon, the Government valuator pricing is referred to;
- if the selling price is agreed upon, a deal note is issued following which payment is made to Sodiam and the diamonds are released to the buyer. The selling price is paid to the miner, net of relevant taxes and royalties on the value of the parcel; and
- a Kimberley Process Certificate is issued by Sodiam and presented to the buyer along with the parcel.

14. Sociedade Mineira do Lulo, Lda (SML)

SML represents LOM's alluvial mining asset in Angola. This project was identified by LOM as a result of the alluvial exploration carried out along the Cacuilo River, as part of the greater Lulo Project exploration (historically over the 3,000km^2 Lulo alluvial exploration concession area, since expired and replaced by the mining license). All exploration directly related to the discovery of this project as well as in the Lulo River valley, is discussed in the sections to follow.

14.1. Location and access

SML is located in the Capenda Municipality, Lunda Norte Province in northeastern Angola (Figure 5). It is located 724km east of Luanda, the capital of Angola, and 254km west of the city of Saurimo. The Project camp is situated 2km north of the village of Namuluri, located between Tchamaquilenge and Calucuta, adjacent to the Cacuilo River bridge.

Access to the project area is via reasonably good tarred national roads from Luanda, with a travelling time of approximately 10 hours, to the village of Tchamaquilenge (Figure 6). The project area transects the tarred road between Tchamaquilenge and the village of Calucuta. The project area is accessed by well-maintained gravel roads constructed by SML off the tarred national roads. Alternatively, SML can be accessed from regular internal flights between Luanda and Saurimo. The drive from Saurimo to site takes approximately 3.5 hours on fairly good tarred roads.

14.2. Ownership

SML is an Angolan registered company. LOM holds a 40% share in SML. The Angolan State-owned diamond company, Endiama holds 32% (Figure 2) with the remaining 28% being held by a private Angolan registered company, Rosas & Pétalas. The ownership structure is presented in Figure 7.

A Mineral Investment Contract (MIC) was signed between Endiama, LOM and Rosas & Pétalas in November 2014. The purpose of the contract is to set forth "the terms and conditions for the granting to the Joint Company the mineral rights for Mining and Marketing for the Contract Area including without limitation:-

(a) the Mining of the Secondary Deposits and processing of the mineral ore located within the Contact Area, in accordance with the Mining Plan;
(b) the Marketing of diamonds resulting from the Mining of the Secondary Deposits referred to in Clause (a)."

The MIC also defines the equity interests in the Joint Companies as laid out above.

14.3. Management structure

SML has an office situated in Luanda. This office is responsible for the financial, logistical, human resources and administrative functions of SML (Figure 2). The remainder of the operational SML staff are located on site (Figure 2). The Lulo Alluvial and Lulo Kimberlite Projects are also managed under this structure.

As at 31 May 2017, SML employed eight Angolan nationals (80%) and two expatriate staff (20%) in the Luanda office. There are 255 Angolan nationals (87%) employed on site, 23 of which stay in camp. SML also employs 37 expatriate staff (13%) on site.

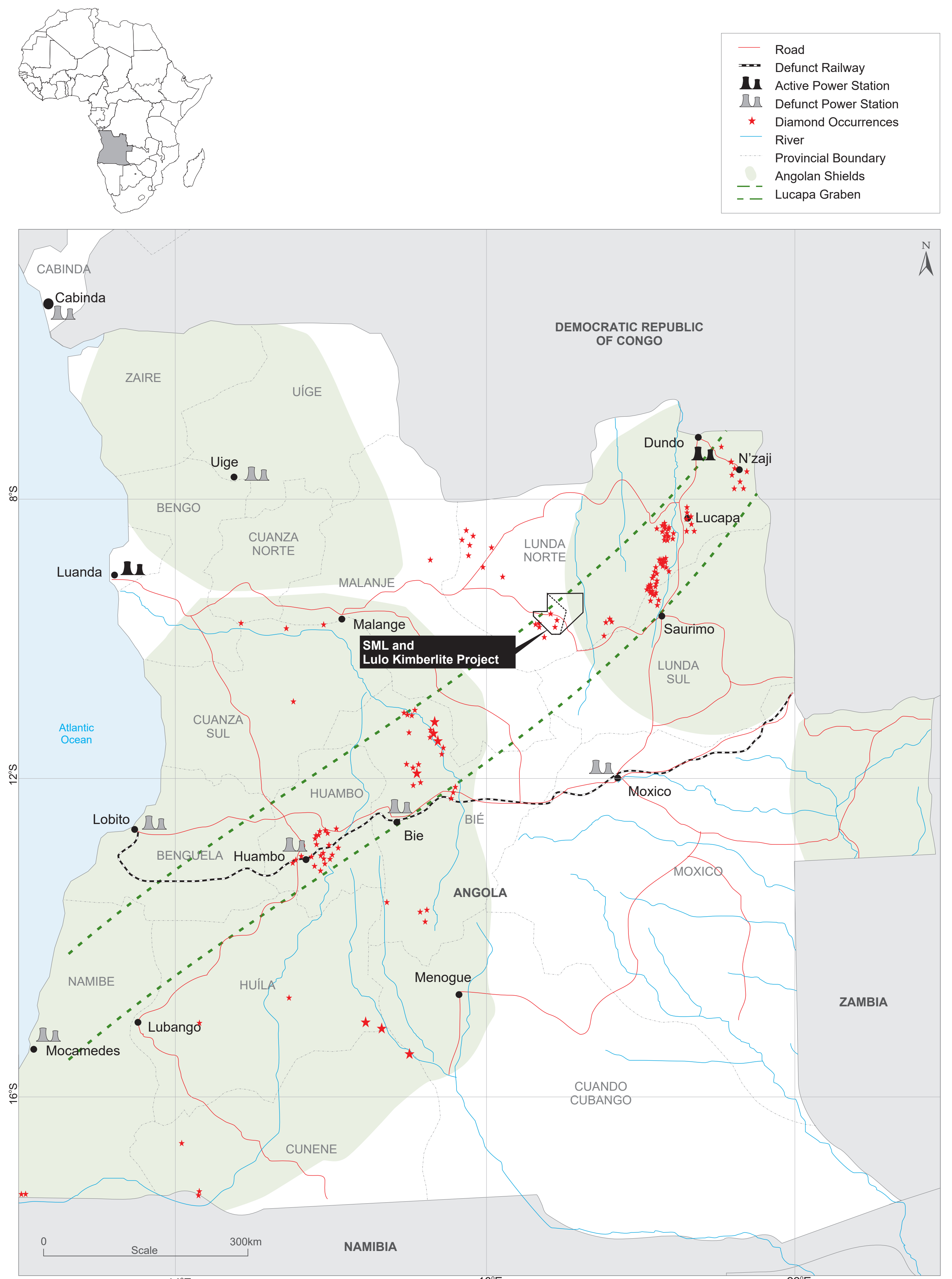
14.4. Mineral tenure

The SML mining rights are secured via a 1,500km^2 mining title located within the 3,000km^2 Lulo Kimberlite exploration concession (Figure 8). The mining title extends along the length of the Cacuilo River, a distance of approximately 51km, and eastwards to include the Lulo River.

Venmyn Deloitte

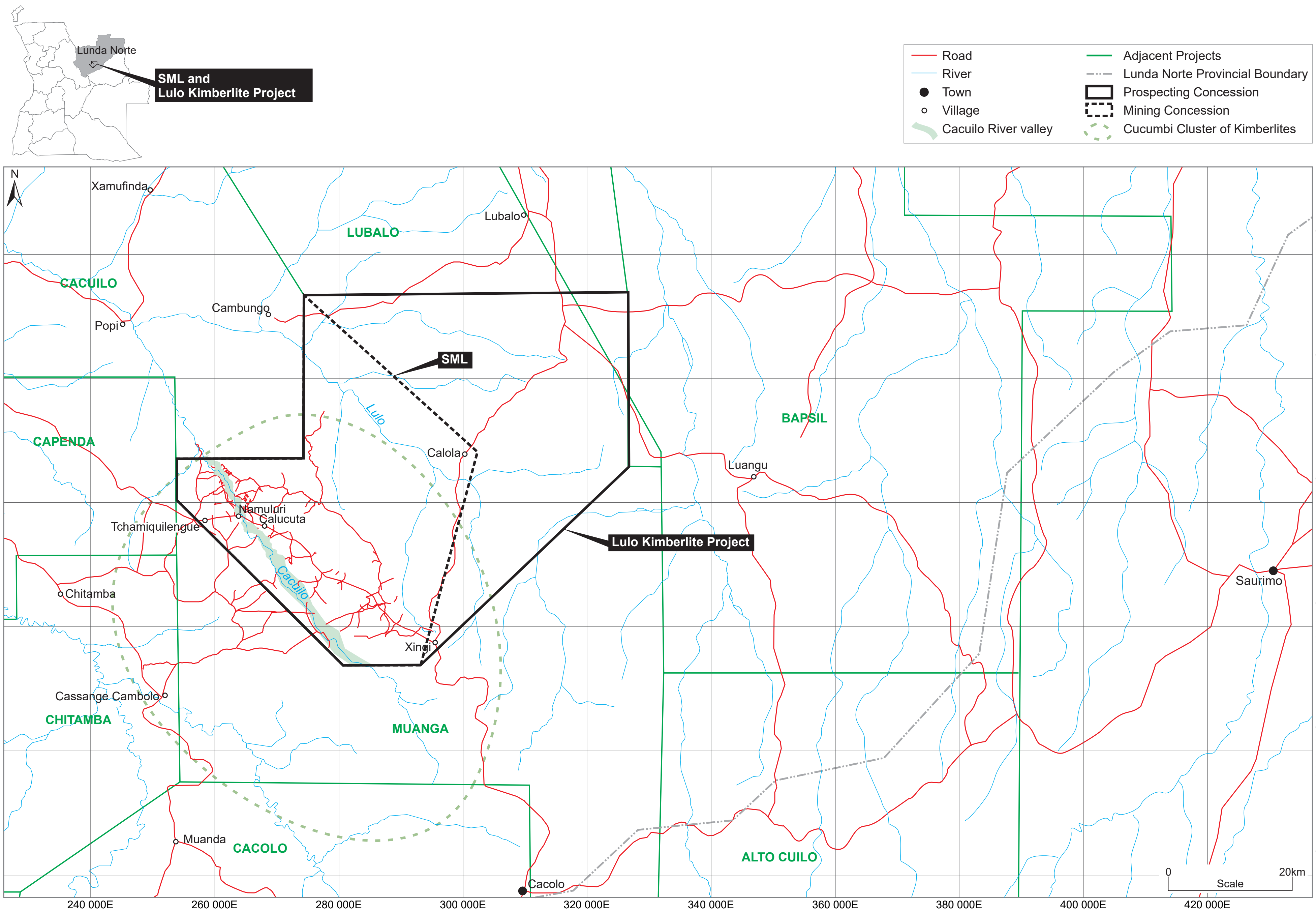
Lucapa Diamond Company

Location of SML in relation to Angola's major infrastructure



Source: Venmyn Deloitte

Location of SML in relation to regional infrastructure



Source: LOM

Lucapa CPR 2017

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Lucapa Diamond Company

Figure 6

Ownership of SML

ENDIAMA — EMPRESA NACIONAL DE DIAMANTES DE ANGOLA, EP — 32%

LUCAPA DIAMOND COMPANY — 40%

Rosas & Petalas, SA — 28%

Sociedade Mineira Do Lulo, Limitada (SML)

Alluvial Mining Licence ($1,500km^2$)

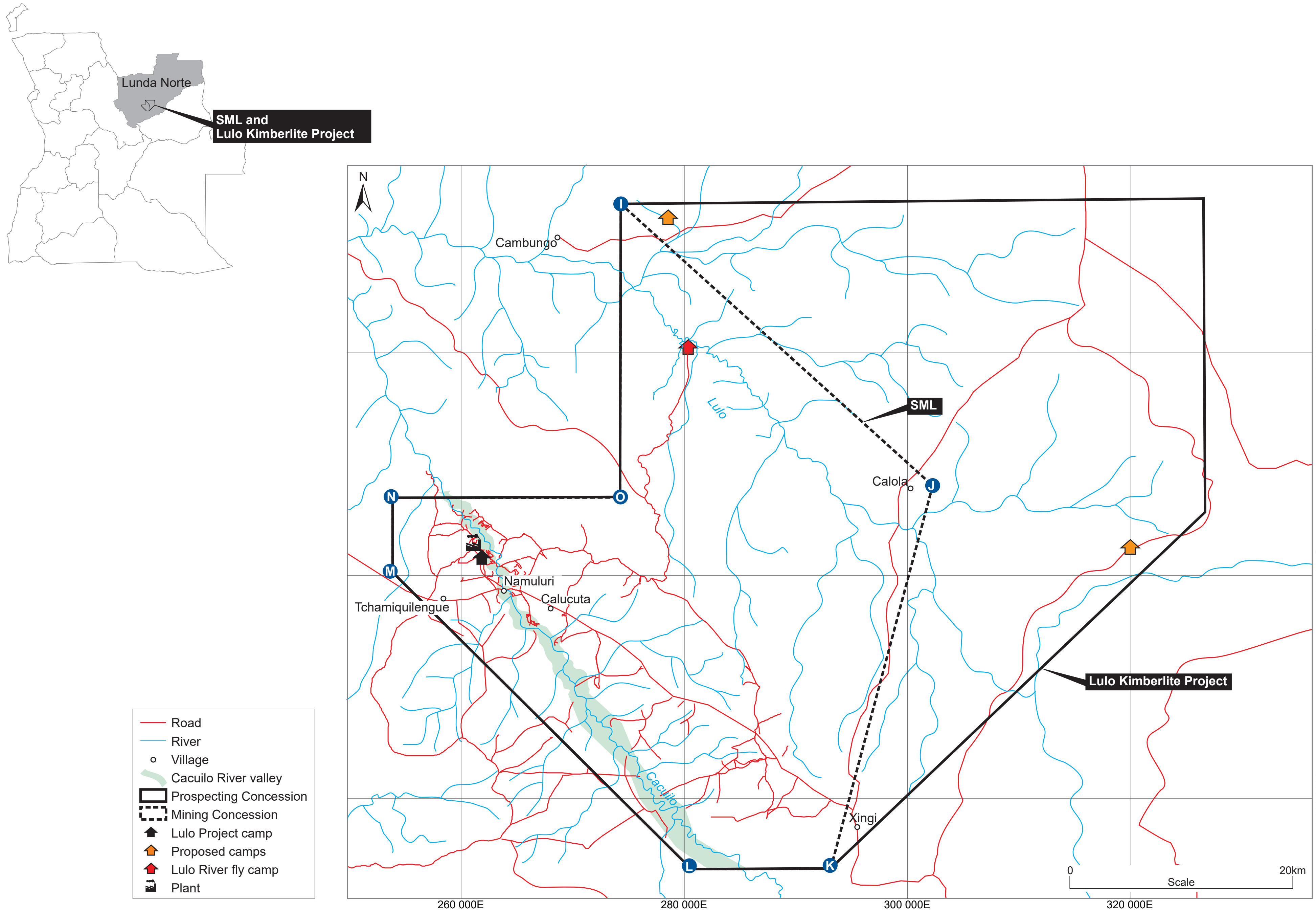
Completed bund wall around three diesel tanks

Gravel loading at MB28

Excavation of yellow gravel at MB-28-B in April 2017

Source: LOM, Venmyn Deloitte

Location and mineral tenure of SML in relation to local infrastructure



Source: LOM

Lucapa CPR 2017

Venmyn Deloitte.

Lucapa Diamond Company

Figure 8

The coordinates of the corner points are tabulated in Table 4 and shown in Figure 8. The mining title on the concession (No. 001/01/06/T.E./ANG-MGM/2015) was issued on 21 July 2015 and will remain valid for a 10-year period to 21 July 2025. SML is entitled to renew the mining title for 10 year periods thereafter.

Table 4 : Point coordinates of SML mining licence

CORNER	GEOGRAPHIC COORDINATES		AREA (km²)
	LATITUDE (S)	LONGITUDE (E)	
I	09°16'44"	18°55'56"	**1,500.0**
J	09°30'35"	19°11'56"	
K	09°49'08"	19°06'57"	
L	09°49'08"	19°00'15"	
M	09°34'38"	18°45'35"	
N	09°31'00"	18°45'35"	
O	09°31'00"	18°55'56"	

Source: LOM

The Joint Company also has an MIC which is valid for a total of 35 years. This comprises an initial ten years followed by two renewals of ten years each and thereafter a final renewal of five years.

14.5. Surface rights

SML does not hold any surface rights.

14.6. Royalties

SML is required to pay the following royalties and taxes according to Angolan laws:-

- 5.0% as a commission to Sodiam on the gross value of a parcel;
- 5.0% royalty on the gross value of a parcel sold; and
- a pre-paid income tax of 2.5% and an industrial tax of 1.0% on the net value of all diamonds sold.

14.7. Material contracts

LOM is a shareholder in, and the operator of SML. As most of the assets are paid for in cash, there are few material third party contracts. The only material contracts relate to the finance lease with Barloworld Limited to acquire earthmoving equipment, a drilling contract with Rosanstroi and an in-field screening contract with Consulmet.

14.8. Other legal issues

There are no other legal issues that Venmyn Deloitte has been made aware of.

14.9. Climate

The climate for the project area is tropical savannah. It is characterised by a wet season which is heaviest from November to March, followed by a relatively dry season from April to October.

Weather statistics measured at Saurimo indicate average monthly temperatures ranging from 20°C in June to 23°C in October. Daily temperature ranges vary between a minimum of 15°C and a maximum of 32°C.

Saurimo receives an average annual rainfall of 1,291mm. Rainfall is typically in the form of late afternoon thunderstorms. Two rainfall maxima are experienced in November/December and March/April. Early morning fog is also prevalent in the low-lying areas.

Climate statistics have been measured at the camp on a regular basis since 2011. The statistics show that the mean annual rainfall has varied between 956mm in 2012 to a high of 1,768mm in 2015. The average annual rainfall for the last four years was 1,349mm.

Mining operations continue during the rainy season but may be temporarily halted during heavy rain storms. Mining operations may also be relocated to higher elevations during this time due to flooding of the rivers. Exploration is typically carried out during the dry season as the river channels and flood plains become impassable during the wet season due to muddy conditions.

14.10. Topography

The majority of the SML area is located within the floodplain of the Cacuilo River and varies in elevation from 950m above mean sea level (amsl) to 1,200mamsl. A detailed digital terrain model (DTM) of the entire exploration area was produced for LOM in 2008. The topography of the area is presented in Figure 9.

The SML mining title area is drained by the Cacuilo River which flows in a northwesterly direction. The river flow direction is controlled by fault bounded blocks within the Lucapa Graben.

14.11. Vegetation and fauna

The vegetation is characterised by savannah grassland interspersed with dense equatorial riverine forests. The Cacuilo River valley is characterised by a combination of Angolan Miombo woodland and savannah matrix. Woodland areas have a canopy height ranging between 5m and 10m.

Local subsistence farming produces crops which include rice, cassava, maize, palm oil and subtropical fruits such as bananas and pineapples.

Naturally occurring fauna include mammals (small antelope), birds, reptiles, amphibians, fish and numerous invertebrates.

14.12. Local resources

The small nearby villages of Namuluri provide labour to the Projects and mining operation (Figure 6). Schools and health clinics are also available in these villages. The small town of Tchamaquilenge also provides labour to the mining operation. Schools, clinics and a police station are present here. Tchamaquilenge provides a local source of provisions. Alternatively, food and goods are obtained from the cities of Saurimo or Malanje.

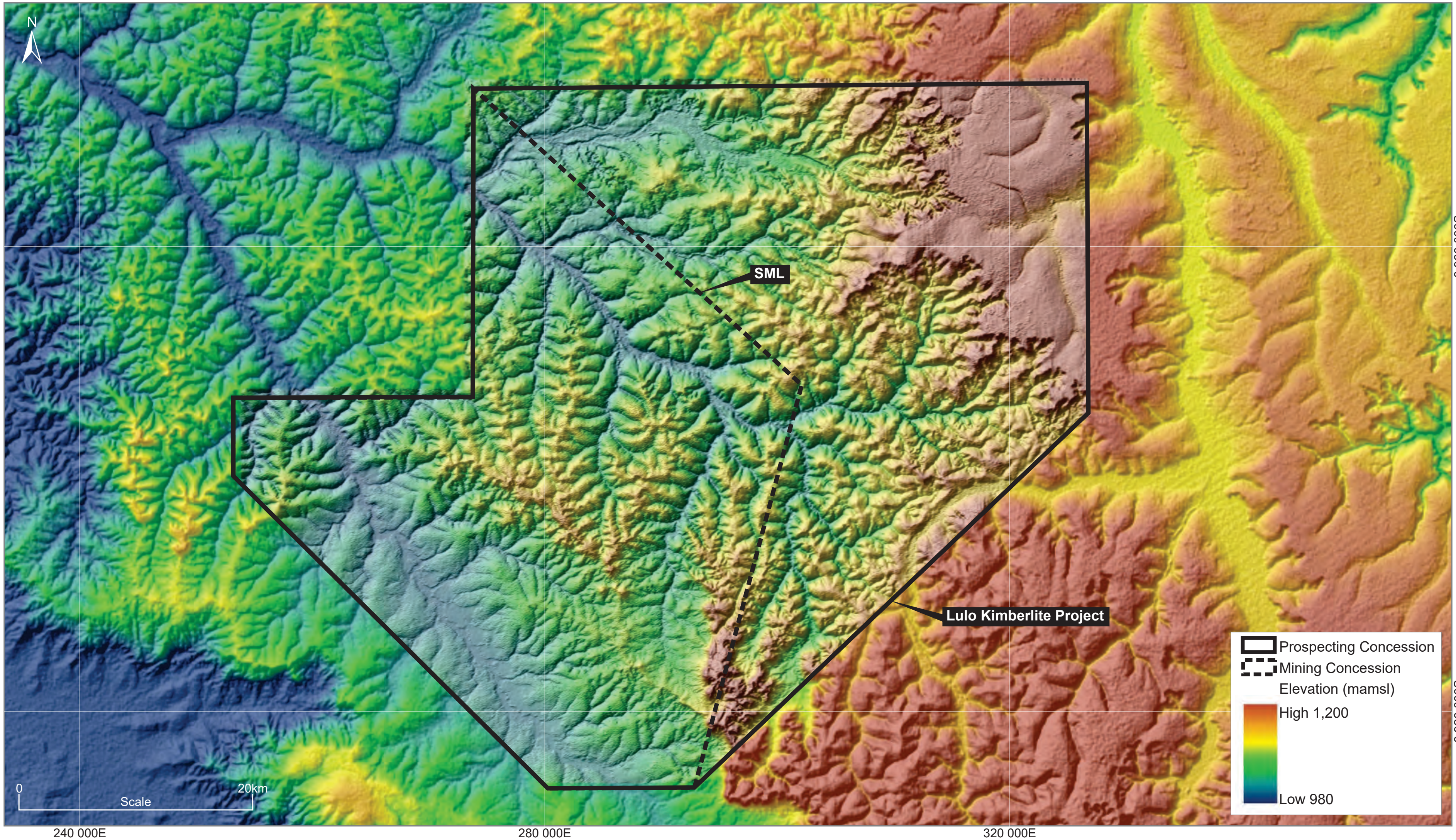
14.13. Site infrastructure

14.13.1. Camp and accommodation

The camp, originally constructed as an exploration camp by LOM in 2008, is located approximately 2km north of Namuluri. It is situated in the Miombo forest, adjacent to the Cacuilo River (Figure 8). This camp has been upgraded into a permanent mining camp. Photographs of the current camp are presented in Figure 10.

Although SML employ over 200 staff, most of the staff return to their villages after their shifts. The camp needs to accommodate approximately 60 personnel, and does so either in tents or specially designed habitat containers. Four ablutions blocks are present, each serviced by a fire heated geyser.

Topography of SML and Lulo Kimberlite Project area



Source: LOM

Figure 9

Photographs of Lulo Camp

Satellite Communication

Camp Transport

Containerised accommodation with completed varanda

Mess hall

Laundry

Clinic

Source: Venmyn Deloitte

The new fully containerised kitchen and associated facilities are now functional. The new dining room, which supplies SML staff with three hot meals per day, was completed in November 2016.

Other facilities in camp include a health clinic, laundry and satellite television.

14.13.2. Offices

A containerised office block is located at the plant site. Additional offices are also present in the camp.

14.13.3. Stores

A double storey containerised central store was completed towards the end of 2016 along with a roofed geological core yard.

14.13.4. Communication

Cellular phone signal is available at camp and in selected areas within the concession. Full internet access and associated email is also available at the camp, plant and offices.

14.13.5. Mining and plant equipment

SML owns a mining fleet comprising the following:-

- 12 x articulated dump trucks (ADT);
- 7 x excavators;
- 4 x front end loaders (FEL);
- 2 x tractor loader backhoes (TLB);
- 3x bulldozer;
- 1 x crane;
- 1 x grader;
- 1 x tractor;
- 1 x compactor;
- 1 x telehandler;
- 2 x drill rigs; and
- 3 x lighting towers.

Detailed information on the mining fleet is provided in Section 14.26.1.

The original 15tph bulk sampling plant remains on site but is not currently used by SML. SML processes the gravel through a larger production plant comprising:-

- 150tph front end with associated screens;
- an alternative wet front end, including water cannons, for pre-treatment of high clay content gravels;
- scrubber and associated conveyors and screens;
- 50tph DMS plant;

- an x-ray transmissive (XRT) plant for the coarse material stream with its associated final recovery plant;
- a final recovery plant comprising two Flowsort x-ray machines; and
- a diamond cleaning or acidisation plant.

Detailed information on the production plant and utilisation is provided in Section 14.28.

14.13.6. Water

Potable water is sourced from a small tributary of the Cacuilo River. Non-potable water is obtained from a dam situated in the camp. SML operates a water purifying plant to supply the camp with potable water.

Plant water is sourced from the Cacuilo River using a $570m^3/hr$ pump.

14.13.7. Power

No grid power is available on site. The power generation units by size and location are presented in Table 5.

Table 5 : SML power generating units

TYPE / DESCRIPTION	SIZE (kVA)	LOCATION	STATUS
CAT P1	1,000	Plant	Operational
Perkins P2	32	Main gate	Operational
Perkins GC1	200	Workshop	Not operational
Himoinsa GC2	200	Main camp	Operational
Perkins GW2	50	Workshop	Not operational
Perkins (Red)	31	Workshop	Not operational
Perkins (White)	13	Plant	Out of hours power - security lights, etc.
Scania	450	Workshop	Not operational
Perkins	20	Security camp	Operational
CAT	160	Workshop & offices	Operational

14.13.8. Roads

Approximately 400km of access roads to the mining and exploration areas have been constructed either as part of the original exploration or by SML primarily using a D6 Caterpillar dozer with the assistance of a Caterpillar 725 ADT and Caterpillar 325 excavator (Figure 8). Access is primarily on the western bank in the northern part of the Cacuilo River and eastern bank in the southern part of the Cacuilo River. Roads are typically constructed in a north/south direction with access into the various exploration, bulk sampling and mining areas branching off these roads.

Access roads around the camp and to the plant have been covered with waste gravels from the plant, which forms an effective road surface.

Where required, bridges have been constructed across the Cacuilo River and its tributaries using old shipping containers. These bridges often require reconstruction or replacement after the river flooding during the rainy season.

14.13.9. Security

The concession boundaries, camp and offices are not fenced. The production plant is in the process of being fenced. The kitchen and dining room are fenced.

The high security areas of the final recovery plant, acid plant and diamond storage facility are fenced and locked. Main and secondary entrance gates and guard houses were completed in late 2016 off the Tchamaquilenge and Namuluri roads, respectively. A separate security personnel camp is under construction.

General site, or industrial security, was previously provided by a local private security company, Mamboji. As at 31 May 2017, 41 Mamboji personnel were stationed on site. From end June 2017, industrial security has been undertaken by a new company, Omega Risk Solutions Angola Lda (Omega). Industrial security is typically responsible for the following:-

- patrolling the concession area;
- protection of equipment in the field, e.g. drill rigs; and
- surveillance of gravel treatment at the plant.

SML also employs full time security officers whose main roles are to:-

- provide security escorts into high risk areas;
- be the SML security key bearer; and
- conduct alcohol testing.

CSD, the national diamond security organisation is responsible for diamond security on site and during transportation. All high security areas are secured using three locks, with the keys held by SML independent security, CSD and the plant manager. As at 31 May 2017, a total of six CSD security personnel were based on site.

Security process audits are carried out from time to time using various independent security consultants.

14.14. Regional geological setting

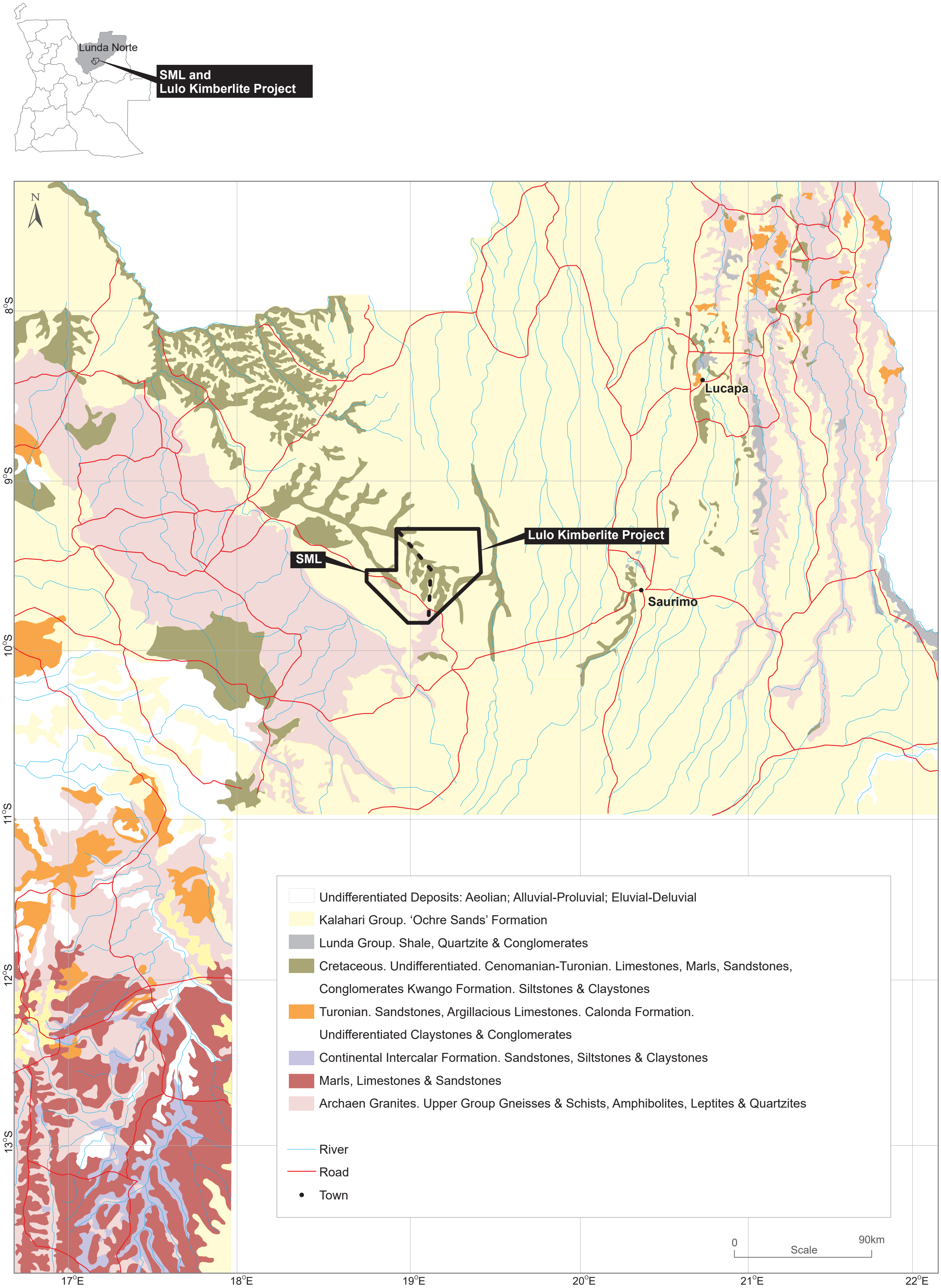
The regional geology of north-eastern Angola is comprised of the Kasai Craton basement which is overlain by Cretaceous to recent sediments (Figure 11). This stratigraphy is composed of the following, from the base upwards:-

- Lower Archaean:- gneisses, granulites, quartzites, eclogites;
- Middle Archaean:- gneisses, with minor schists, amphibolites, quartzites, leptites, intruded by gabbro-norites;
- Upper Archaean:- quartzites, epidotites, amphibolites, gneisses, schists, intruded by biotite granites;
- Lower Proterozoic:- meta-sediments of the Luana and Lunda Groups, intruded by porphyroblastic biotite granites; and
- Permo-Carboniferous (Karoo):- argillites, arenites, conglomerates of the Lutôe Group, intruded by dolerites.

Venmyn Deloitte.

Lucapa Diamond Company

Geological map of northeastern Angola



Source: Venmyn Deloitte

During the Mesozoic (~120 million years (Ma)), the Kasai Craton was intruded by kimberlites (Figure 11). The basement was then covered by sediments associated with the following ages:-

- Cretaceous:- argillites, arenites, and conglomerates of the Calonda Formation;
- Cenozoic (Kalahari Group):- ochre sands, silcrete (grés polymorphe) at the base; and
- Quaternary:- river valley alluvium, etc.

The Lunda Norte area is underlain by upper and lower Archaean sequences comprising granite gneisses, with numerous greenstone remnants, including amphibolites, schists and itabirites, with a generally north-south structural trend. The Archaean is intruded by the biotite-porphyroblastic Quibala Granite. The basement includes the Lower Proterozoic Lunda Group, comprising shales, quartzites and conglomerates.

Sediments of the Karoo Supergroup (Lutôe Group) are conspicuously absent from the region as a whole, either due to non-deposition, or total removal prior to deposition of the Calonda Formation. However, within the SML area, Karoo sediments are present throughout.

Diamonds in northeastern Angola are present in both primary and secondary deposits which are discussed in the sections to follow. These include more detailed description of the geological history and the various diamond deposits of the area. The occurrence of diamonds is schematically represented in Figure 12.

14.14.1. Kimberlites

The primary source of diamonds on the Kasai Craton is the kimberlite intrusions which were emplaced in the middle to late Cretaceous, and are dated at about 120 million years (Ma). The craton is host to at least 700 known kimberlites, the greatest concentration of kimberlite bodies world-wide. Many of these are associated with southwest-northeast striking tectonic lineaments of the so-called Lucapa Graben. They are divided into seven kimberlite districts (Figure 5). Several of these kimberlites are known to be diamondiferous to a greater or lesser degree, although by far the majority have yet to be prospected.

Kimberlites are volatile rich, potassic, ultrabasic igneous rocks of highly variable mineralogical compositions. There are two distinct types of kimberlite, namely:-

- Group I (basaltic kimberlites):- these are olivine-rich, monticellite-serpentine-calcite-ilmenite kimberlites; and
- Group II (micaceous kimberlites, or orangeites):- these kimberlites consist primarily of rounded olivine macrocrysts in a matrix of phlogopite.

The best known model for kimberlites is a funnel or carrot shaped pipe, with three vertical zones usually referred to as the crater, diatreme and root zones (Figure 13).

The crater zone is the uppermost portion of the pipe, and develops as a result of the explosive material settling, slumping and then compacting to form the crater. The crater is surrounded by tuff, lapilli and lumps of kimberlite. The crater zone comprises well-bedded, poorly consolidated sediments with chaotic debris-flow deposits and pyroclastics (PK). Since the crater facies consist predominately of country rock and kimberlitic material, this zone is poorly mineralized in comparison to other zones, i.e. having lower grade. There are, however, zones of enrichment recognized within the sedimentary material in large craters as a result of sedimentary processes such as winnowing and heavy mineral concentration. These are known as re-sedimented volcaniclastic (RVK) rocks.

Schematic representation of the diamond deposits in Angola

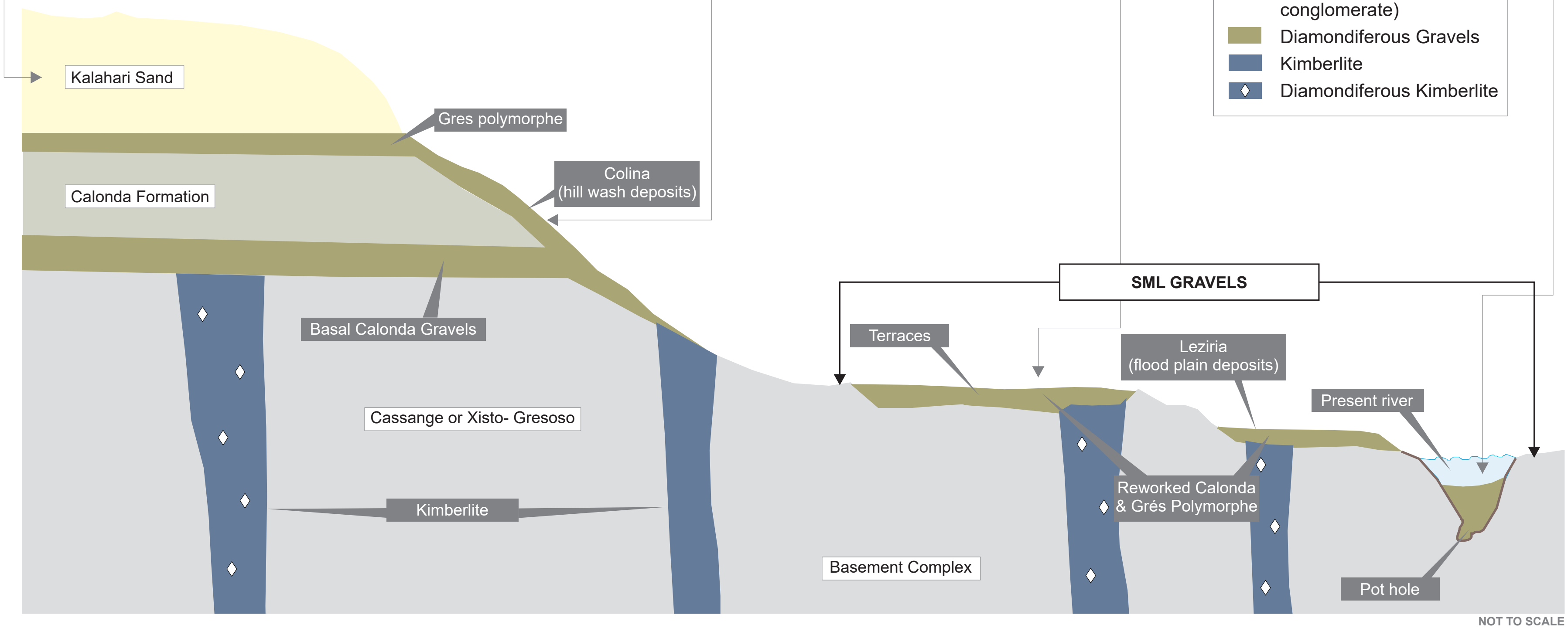
GRES POLYMORPHE

COLINA

TERRACES

RIVER

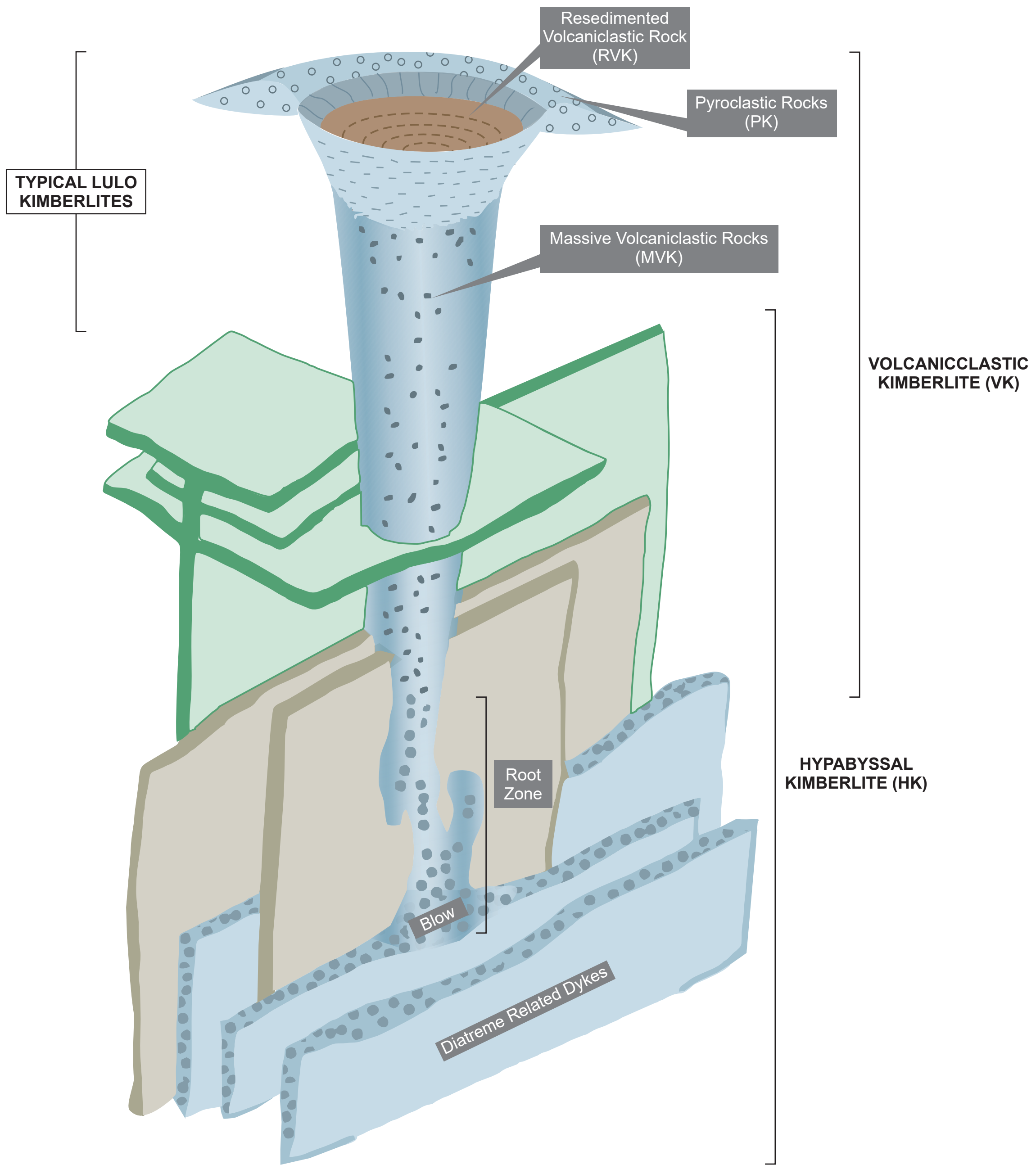
VARIOUS TYPES OF DIAMONDIFEROUS DEPOSITS IN LUNDA NORTE



Source: Venmyn Deloitte

Figure 12

Typical cross section through a kimberlite pipe



Source: Venmyn Deloitte

The diatreme zone contains volcaniclastic kimberlite (VK) facies and is the result of an explosive intrusion which leads to contamination of the kimberlite material by the country rock. This facies comprises a large component of barren country rock (between 10% and 40%, but at times up to 90%) known as xenoliths, which dilute the overall diamond grade of the body proportionally to their abundance. Selective mining is advised in the case of larger xenoliths.

The root zone, also referred to as the hypabyssal facies, is characterised by a series of highly refractory megacrysts and mantle derived xenoliths set in a matrix of low temperature minerals. These are known as hypabyssal kimberlites (HK). The mantle xenoliths often consist of peridotite, eclogite and fragments of earlier kimberlite. The diamond grades are higher in this zone.

Diamonds in a kimberlite are associated with both eclogite and peridotite sources, with higher diamond grades occurring in the eclogite xenoliths. Diamond grades are determined by several factors:-

- the relative abundance and diamond content of the original mantle rocks which contributed to the kimberlite magma. It must be noted that not all kimberlites are diamondiferous;
- the degree of contamination (dilution) by barren country rock fragments in the diatreme; and
- the degree of sedimentary crater-fill material above the diatreme.

In addition, most kimberlites consist of more than one intrusion, each of which will have different grade, diamond value and emplacement characteristics.

14.14.2. Calonda Formation

Unconformably overlying the basement and the kimberlite intrusions is the Calonda Formation (also referred to as the Kwango Formation in the Democratic Republic of Congo), dated at mid- to Late Cretaceous (80-100Ma). This comprises a sedimentary sequence of conglomerates, arkoses, sandstones and shales. Diamonds, weathered and eroded from the kimberlites were deposited by fluvial processes in the conglomerates of the lower Calonda. The provenance of the sediments of the Calonda Formation was to the south of the depositional basin, and a large channel, trending south to north, has been mapped. The sediments in the northern section of the channel are predominantly shales. It is not known if these shales overlie continental deposits, or if they are the result of a facies change in the Calonda towards the north.

The Calonda Formation is characterised by a pervasive violet to reddish-brown colouration, particularly the lower parts, presumed to be ferruginous staining derived from the underlying basement, and white kaolin spotting, from the weathering of feldspar. Towards the base, the Calonda comprises a gravel of angular, sub-angular and rounded boulders, cobbles and pebbles of quartz, quartzite and occasional itabirite, together with weathered gneiss, schist and amphibolite, set in a variegated clayey sand matrix, locally cemented to form a conglomerate. The gravel is in turn overlain by a semi-consolidated to silicified sandstone. The Calonda is a typical upward-fining fluvial sequence.

14.14.3. Kalahari Formation

Deposition of the Calonda Formations was followed by a period of stable uplift and arid climatic conditions, resulting in the deposition of the Kalahari Formation. Aeolian and other sediments of this formation cover most of the interfluve ridges between the drainages.

At the base of the Kalahari is the so-called "grés polymorphe", (literally polymorphic sandstone). The fining-upward gravel comprises angular blocks and nodular boulder silcrete, which may be either amorphous or silicified gravel, and sand.

The gravel unit is generally considered to be part of the Kalahari sequence. However, the presence of nodular and brecciated silcrete within the unit, together with well-rounded pebbles similar to those of the underlying Calonda suggests that it should be regarded as a silicified fluvial/lag deposit overlying the Calonda, being pre-Kalahari rather than part of the Kalahari proper. It is suspected that the unit was formed by the silicification of a lag/fluvial deposit derived from weathering and erosion of the Calonda, silcrete having formed at surface as a discontinuous to nodular layer within and adjacent to the gravel. This layer was subsequently broken up by limited fluvial action and covered by aeolian Kalahari sand.

14.14.4. Recent superficial deposits

The recent deposits are effectively the reworking of all previous diamond deposits as well as recent deposits (Figure 12). These deposits typically form on the edges or within the current or recent river systems draining Angola towards the north.

14.14.4.1. Colinas or hill wash deposits

Down-cutting of the river systems has given rise to extensive hill-wash deposits comprising heterogeneous gravels on hill slopes below the level of the grés polymorphe. At higher levels below the grés polymorphe, but above the sub-outcrop of the Calonda, the colina gravels comprise boulders of silcrete, silicified sandstone, silicified gravel and pebbles derived from the grés polymorphe, admixed with angular blocks of vein quartz derived from the local basement. This deposit is referred to here as upper colina and more than one layer of gravel may be present in this unit.

Below the level of sub-outcrop of the Calonda, the hill-wash comprises either a discrete gravel unit or, more commonly, the gravel is overlain by a pebbly arkosic grit or coarse sand (grés cascalho), both of which are diamondiferous. This deposit is referred to here as the lower colina, as where both units are present the grés polymorphe derived wash invariably overlies the Calonda derived wash.

The quartz veins present in the weathered bedrock, and small pothole-like depressions in the bedrock can give rise to local trap sites with diamond enrichment. Diamond grades for the colina deposits are stated to be generally somewhat higher than those of the source gravels.

14.14.4.2. Terraces and lezirias (flood plain deposits)

Genetically, there is little difference between the terraces and lezirias, a terrace being an old flood plain into which the river has incised, leaving a "perched" terrace.

The leziria can be considered a low-level terrace. These deposits are generally developed in the major river valleys of Lunda Norte, and are important sources of diamonds. Bedrock morphology plays a more important role in diamond concentration in the terraces and flood plains than in the hill wash deposits.

Differences in bedrock composition can lead to the development of potholes, small plunge pools and gullies, in which diamonds can be highly concentrated. Such traps are known locally as "marmitas".

14.14.4.3. Present river bed

The gravels of the present river beds in the area, both main rivers and their tributaries, represent the most transported and reworked deposits. This multiple reworking has led to a general increase in grade over that of their source gravels, and the river deposits have become a major target of artisanal activity, both pitting and diving. A conspicuous feature of the lower level gravels is the presence of a much wider range of clast lithologies than in the colina, pebbles of Proterozoic conglomerate, altered volcanic and ultramafic rocks and bedded cherts having been noted.

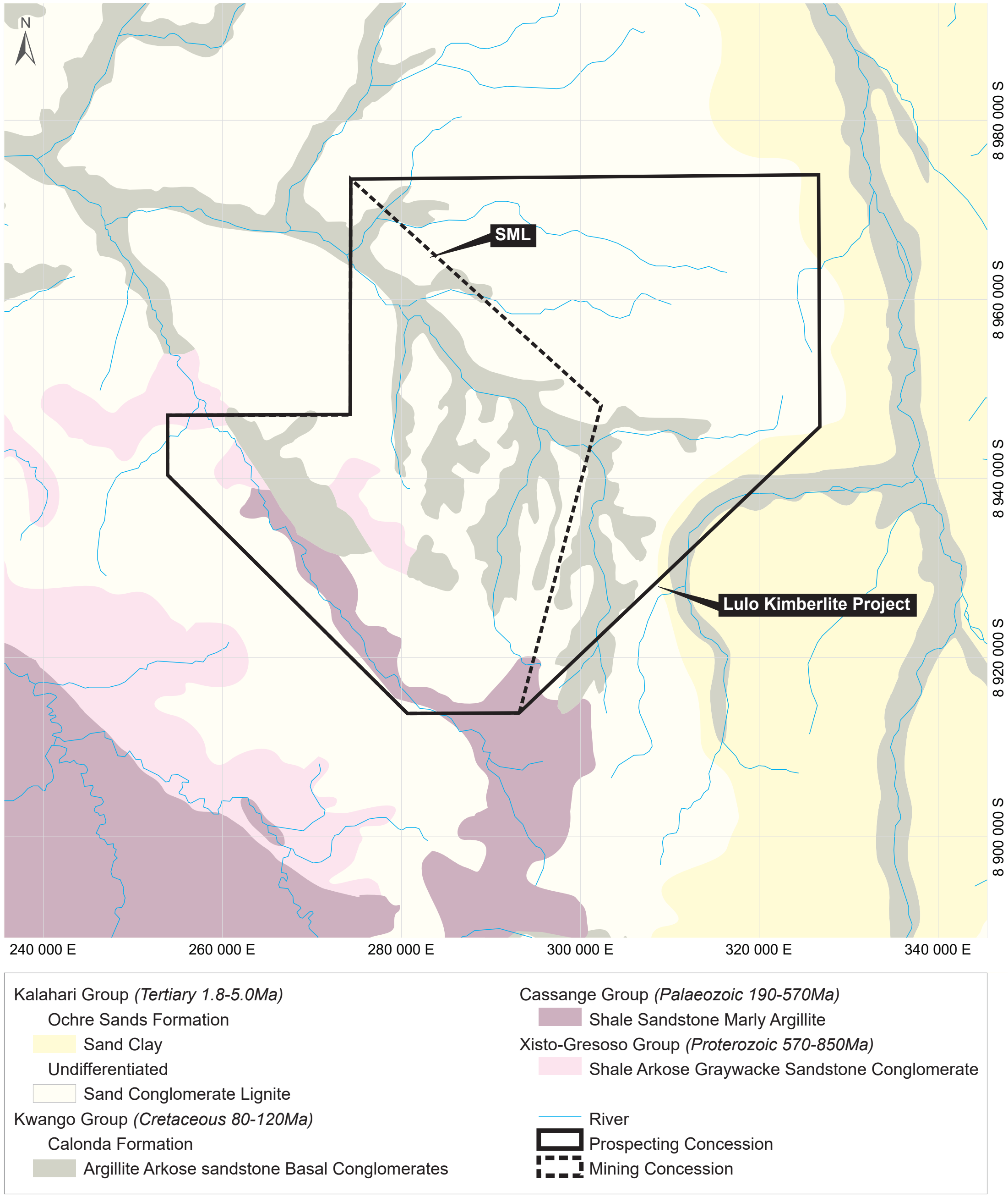
14.15. Local geological setting

Both the SML and the Lulo Exploration Projects lie within the Lucapa Graben (Figure 5), more specifically in an area controlled by a conjugate fault system at right angles to the main graben faulting. The local geology within the SML area (Figure 14) comprises the following, from the base of the sequence upwards:-

- Upper Proterozoic Congo-Occidental Supergroup:- sandstones, conglomerates and meta-sediments, occurring predominantly on the west of the Cacuilo River valley. These are locally named the Xisto-Greseso Group;
- Permo-Triassic Cassange Group (Lower Karoo):- limestones and sandstones unconformably overlying the basement which are located within the Cacuilo River valley. Where these formations are hard they have allowed pothole formation in the river channel;
- Early Cretaceous:- continental intercalary siltstones and sandstones. These are sporadically developed and do not carry diamonds;
- Mid Cretaceous intrusions:- intrusions of kimberlites. A total of 62 known and confirmed kimberlites have been identified within the Lulo Project, a large percentage of which occur in the Cacuilo River valley The location of the Project within a conjugate fault system to the Lucapa Graben is believed to be the controlling mechanism allowing for the intrusion of the large number of intrusives in this particular area;
- Mid-Cretaceous Calonda Formation:- conglomerates and sandstones occurring within and to the east of the Cacuilo River valley. The basal gravel associated with this formation was formed in fans and braided streams developed on fault bounded graben blocks. Reworked Calonda Formation gravels form the primary diamond deposit targeted for mining;
- Tertiary Kalahari Formation:- extensive clay rich sands, typically orange brown in colour, which overly the older sediments and represent an arid climate. These occur outside of the Cacuilo River Valley and form the main geological horizon within the Lulo Exploration Project.

Photographs of the typical lithologies are presented in Figure 15, along with the mining sequence. The stratigraphy of the mining sequence within the Cacuilo River valley includes the following:-

- footwall of Karoo shales (Figure 15). This footwall is soft and, as a result does not form typical pothole diamond trap sites. The soft footwall increases the potential for dilution during the mining process;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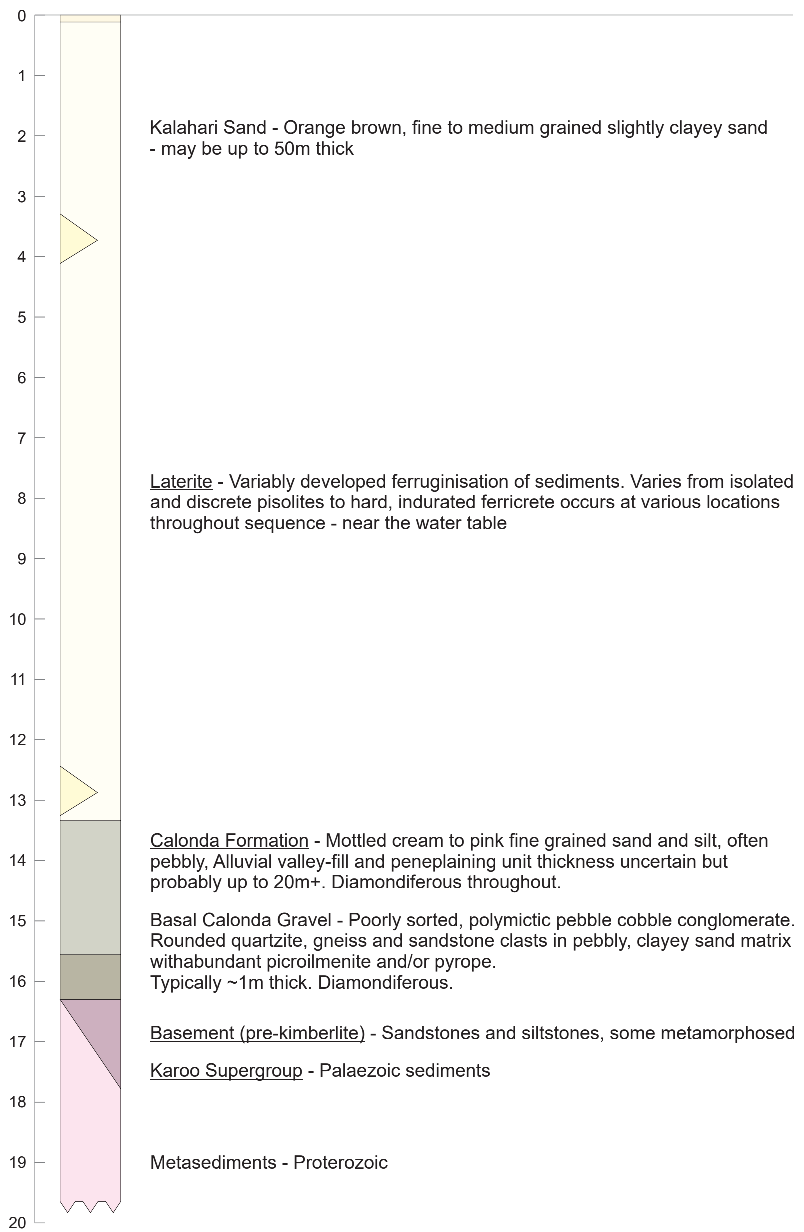
Kalahari Group (Tertiary 1.8-5.0Ma)
Ochre Sands Formation
Sand Clay
Undifferentiated
Sand Conglomerate Lignite
Kwango Group (Cretaceous 80-120Ma)
Calonda Formation
Argillite Arkose sandstone Basal Conglomerates
Cassange Group (Palaeozoic 190-570Ma)
Shale Sandstone Marly Argillite
Xisto-Gresoso Group (Proterozoic 570-850Ma)
Shale Arkose Graywacke Sandstone Conglomerate
River
Prospecting Concession
Mining Concession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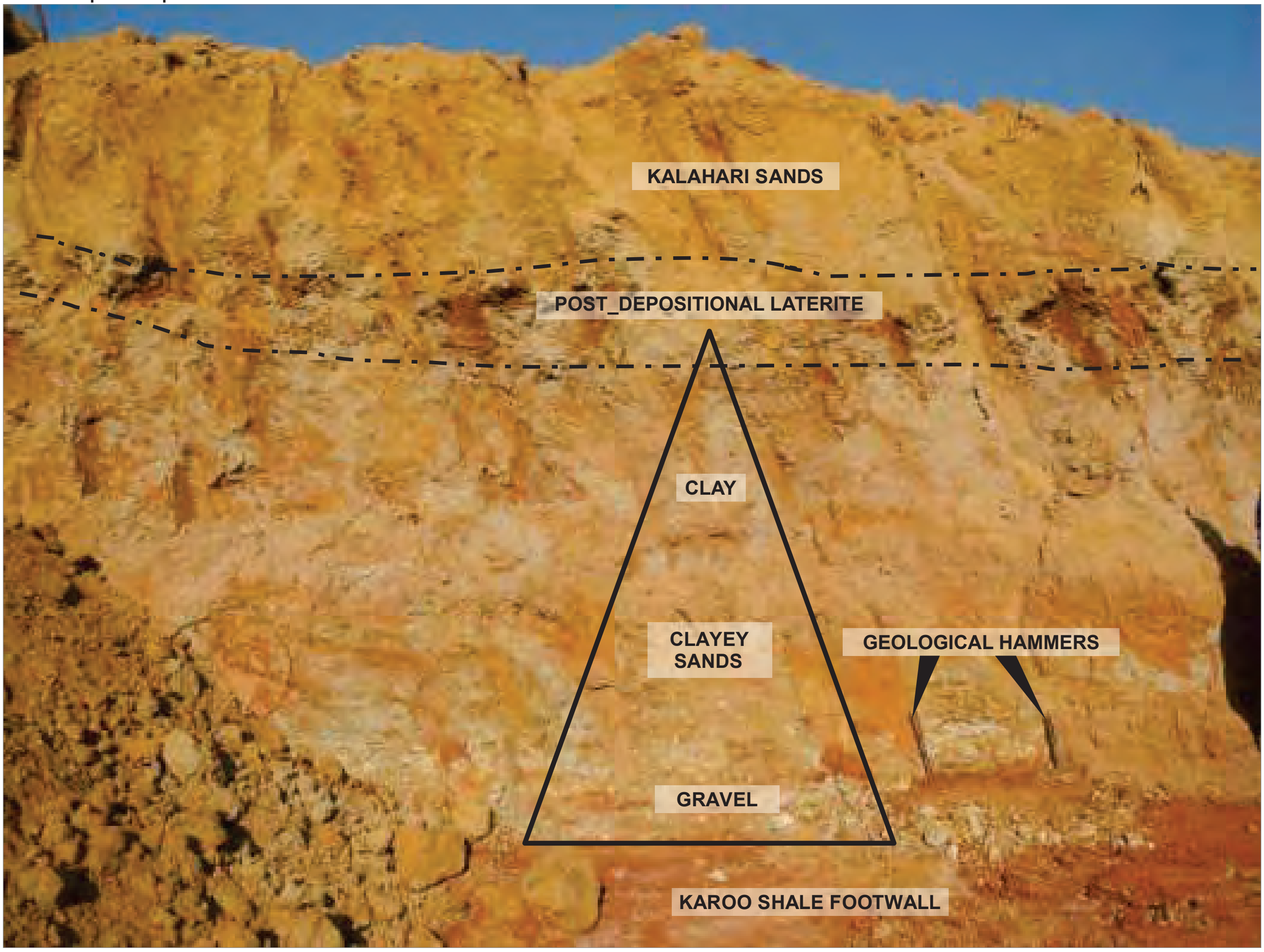
Kalahari Sand - Orange brown, fine to medium grained slightly clayey sand - may be up to 50m thick
Laterite - Variably developed ferruginisation of sediments. Varies from isolated and discrete pisolites to hard, indurated ferricrete occurs at various locations throughout sequence - near the water table
Calonda Formation - Mottled cream to pink fine grained sand and silt, often pebbly, Alluvial valley-fill and peneplaining unit thickness uncertain but probably up to 20m+. Diamondiferous throughout.
Basal Calonda Gravel - Poorly sorted, polymictic pebble cobble conglomerate. Rounded quartzite, gneiss and sandstone clasts in pebbly, clayey sand matrix withabundant picroilmenite and/or pyrope.
Typically ~1m thick. Diamondiferous.
Basement (pre-kimberlite) - Sandstones and siltstones, some metamorphosed
Karoo Supergroup - Palaezoic sediments
Metasediments - Proterozoic

Source: LOM

Photographs of typical alluvial sediments for SML

Terrace Deposit Sequence

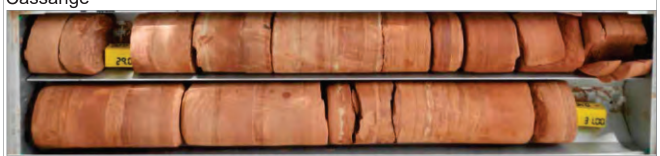


Fining-upward, terrace deposit (ca. 2 m thick) of the Pio-Pleistocene Caculo River at BLK31, lying unconformably on Karoo shales, capped by post-depositional laterite & overlain by Kalahari Sands. Geological hammers (circled) for scale. (Source: J. Ward)

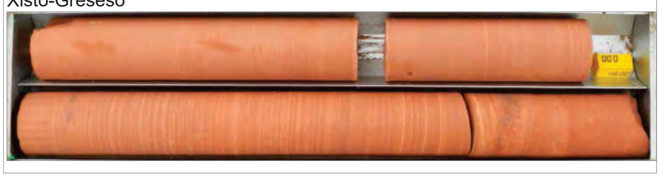
Recent, Kalahari and Calonda Lithologies

Country Rock

Cassange



Xisto-Greseso



- basal gravels (Figure 12 and Figure 15). These gravels are diamondiferous and occur at the base of the river valley. They are essentially palaeo channel deposits;
- terrace gravels (Figure 12 and Figure 15). These diamondiferous gravels are located stratigraphically higher up. The gravels range in thickness from 0.5m to 1.5m, occasionally reaching thicknesses of 2.0m. The gravels comprise greasy agate, chalcedony Calonda pebbles and reworked grés polymorph clasts. Human artefacts including axe heads and skin scrapers which have been found in these terraces indicating an age possibly younger than Pleistocene. These have been termed as Calonda derived gravels in the exploration work, as they are younger gravels containing Calonda pebbles;
- post depositional laterite cap or layer (Figure 15); and
- Kalahari sands (Figure 15) up to 4m in thickness.

All mineralisation associated with the gravel deposits at SML is horizontal. All exploration techniques used by SML were vertical and as a result all widths quoted are true widths.

14.16. Historical ownership and activities

The history of diamonds in Lunda Norte and the historical ownership and activities associated with SML Area and greater Lulo Project, are summarised in Table 6.

Table 6 : History of ownership and activities associated with the SML and Lulo Kimberlite Project

DATE	COMPANY	ACTIVITY
1912	Johnston & MacVey	Discovery of diamonds in Lunda Norte Province.
1917	Diamang	Formed.
1920	Portuguese / Diamang	Commencement of formal diamond mining operations.
1950s	Diamang / Artisanal	Discovery of diamonds in the Calonda Formation in Lunda Norte Province.
1920s - 1974	Diamang	Intensive exploration across the country, primarily for alluvial deposits, through pitting in drainage basins.
1971	Diamang / Condiama	Condiama formed as a JV between De Beers and Diamang. Peak of diamond production from Angola (prior to 2005).
1971 - 1974	Diamang	Prospecting along the Cacuilo River to assess alluvial potential and explore for kimberlites. Prospecting along eastern tributaries of the Cacuilo River.
1975		Angola obtains independence from Portugal.
1978	Endiama	Diamang nationalised to form Endiama along with the rights to all diamonds. Diamang became a subsidiary of Endiama.
1986	Diamang	Dissolved.
1987 - 2002	Various	Limited and intermittent diamond production due to the effects of the civil war.
2006	Unknown	Aerial survey over Cuango Basin.
2007	Project Lulo JV - Alluvials	Formation of JV gazetted for the prospecting of secondary diamond deposits. Shareholding Endiama - 32%, Nare - 40% and Rosas & Pétalas SA - 28%. Nare was responsible for technical and financial input for the project.
	Project Lulo JV - Kimberlites	Formation of JV gazetted for the prospecting of primary diamond deposits. Shareholding Endiama - 51%, Nare - 39% and Rosas & Pétalas SA - 10%. Nare was responsible for technical and financial input for the project.
	Nare Diamonds Ltd (Nare)	Nare Diamonds Ltd (Nare) changed name to Lonrho Mining Limited (Lonrho).
2008		Global financial crisis.
2008 - 2010	Lonrho	Exploring for diamondiferous gravels in Lulo concession.
2008	Fugro Airborne Surveys (Fugro)	Airborne helicopter aeromagnetic and radiometric survey.
2010 - 2013	Lucapa Diamonds Ltd (LOM)	Company changed name from Nare to Lonrho and finally to LOM in 2012.
	LOM	Intensive exploration for alluvial gravels.
		Geological survey and mapping along Cacuilo River.
		Commissioning of sampling plant. Pitting of gravels and bulk sampling.
	Manfred Marx	Report entitled "The economic diamond potential of the Lulo Project, Lunda Norte, Angola".

DATE	COMPANY	ACTIVITY
	Fugro	Fixed wing airborne aeromagnetic survey.
2014	Juspen Lda	Preparation and submission of "Environmental Impact Study of the Lulo Project Mining Concession Area".
	Bond Engineering (Bond)	Construction and commissioning of 150tph DMS production plant.
	LOM	New management spearheaded the upscaling of operations to mining phase.
2015		Application for mining concession on SML Area.
		Granting of SML mining concession until July 2025.
		Mineral Investment Contract defines mining for three ten-year periods and an additional five years totalling 35 years.
	Z Star Mineral Resource Consultants (Pty) Ltd (Z Star)	Issue of maiden Diamond Resource estimate in May 2015.
		Issue of Diamond Resource estimate in October 2015.
2016		Issue of Diamond Resource estimate in May 2016.
	Venmyn Deloitte	Completion of an independent technical report.
	LOM	Commissioning of XRT and new front end on the production plant.
		New kimberlite exploration license awarded for five years.
		SML mining license awarded over 1,500km^2.
2017	Z Star	Issue of Diamond Resource estimate on 31 January 2017.
		Issue of Diamond Resource estimate on 31 May 2017.

Source: LOM, Venmyn Deloitte analysis

14.17. Historical exploration and mining

Extensive prospecting for, and sampling of, both kimberlites and alluvial deposits was conducted in northeastern Angola by Diamang and Condiama prior to Angola's independence. The sampling programmes were comprehensive and typically used a consistent method of exploration across extensive areas.

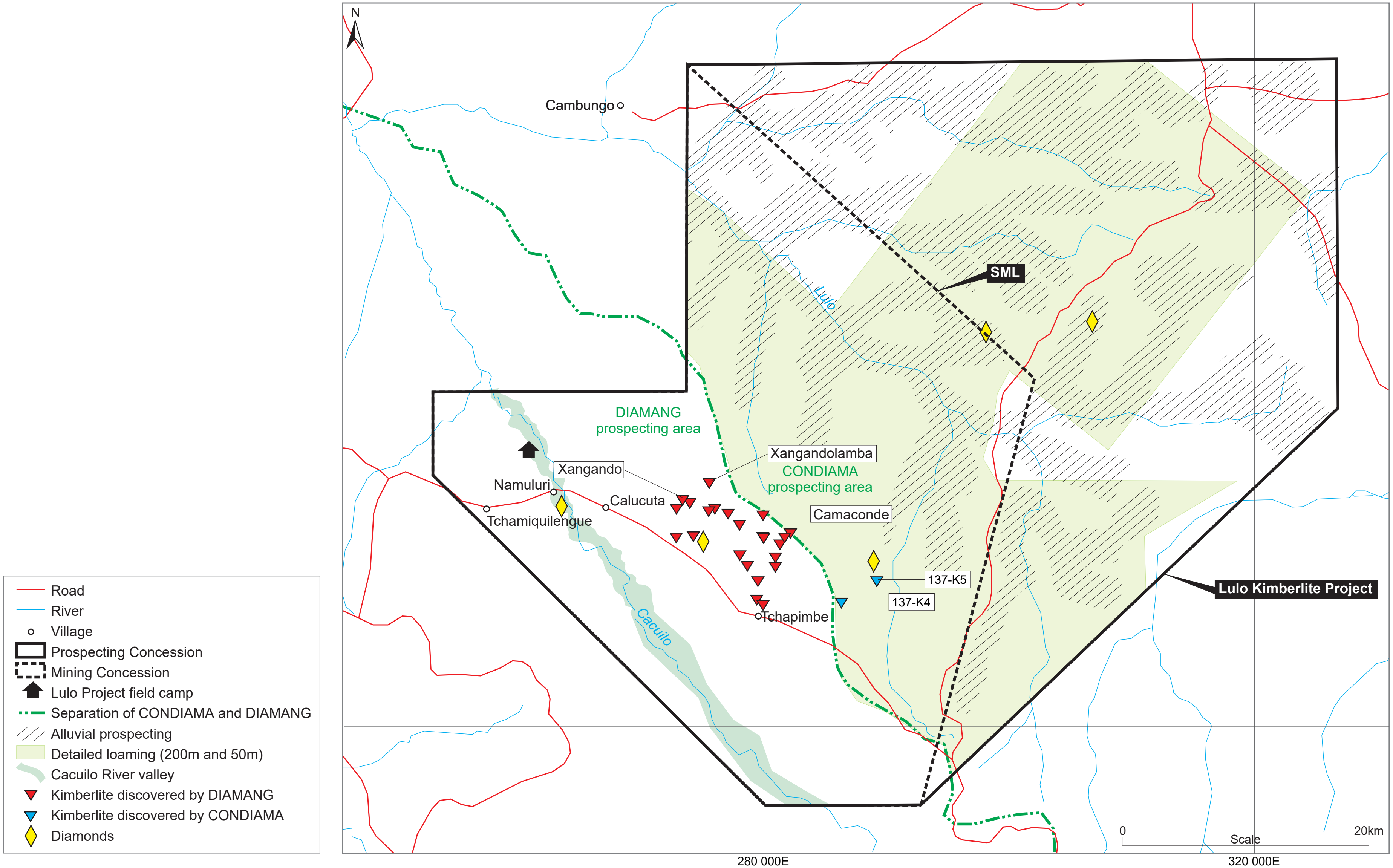
The exploration on the Lulo Project area was divided into exploration in the southwest, in and around the Cacuilo River, which was undertaken by Diamang with a separate programme in the northeast, which was undertaken by Condiama. Exploration for both alluvial and kimberlite deposits was performed in both of these areas (Figure 16). A series of historical reports and maps, referring specifically to the Lulo Project area, were obtained from the Endiama offices.

According to the historical reports, alluvial prospecting was undertaken between 1971 and 1974 by Diamang in the Cacuilo River and its eastern tributaries, namely the Xangando, Conguije and Camaconde Rivers (Figure 8 and Figure 16). The report refers to 300 samples of gravel having been excavated from these rivers. The method used by Diamang may be summarised as followed:-

- pits manually excavated to the basal gravel;
- pits excavated on 200m to 400m lines at right angles to the river bank;
- pits excavated at a spacing of 30m to 90m along these lines;
- a volume of 1m^3 to 2m^3 of basal gravels excavated; and
- gravel processed in a jig to recover diamonds.

A total of 27 samples were taken from the Zavige River (Figure 8 and Figure 16), with a single diamond discovered approximately 1.3km south southwest of the Cacuilo River bridge.

Historical exploration activities and mining



Source: LOM

Figure 16

The alluvial exploration undertaken by Condiama covered an extended area of the project, to the northeast of the Lulo River. The sampling programme was comprehensive and typically used a consistent method of exploration. The alluvial exploration extended over the area indicated in Figure 16. The kimberlite exploration has been reported in the relevant section relating to the Lulo Kimberlite Project (Section 15.17).

Historical alluvial gravel mining by artisanal diggers has occurred along the entire length of the Cacuilo River within the concession boundary. The date of this mining is unknown, but the extent of the most recent activities was identifiable on satellite imagery. Local accounts state that alluvial diggers totalling 10,000 were active prior to LOM establishing their prospecting operation. Although there are no official diamond recovery records, the presence of established diamond buyers in Tchamaquilenge attests to the level of diamond potential and mining in the area.

An aerial survey was flown over the Cuango Basin in November 2006. This survey identified the widespread extent of the artisanal working in the Cacuilo River valley, north of Namuluri. The survey identified only limited activities in the Lulo River. No further results on this survey were available.

The artisanal workings were mapped by LOM in 2010 (Figure 16). The majority of the mining took place along the Cacuilo River north of Namuluri. The artisanal mining focussed on extracting diamonds from the alluvial gravels within the terraces.

14.18. Historical exploration (2008 - 2010)

Historical exploration refers to the modern exploration activities applied to the Lulo concessions by LOM between 2008 and 2010.

The exploration focussed on reconnaissance techniques designed to cover larger areas and to identify target areas for future detailed exploration programmes. Governmental approvals for the project were obtained just before the global financial crisis and, as a result, only limited activities were carried out by LOM immediately thereafter.

14.18.1. Magnetic / radiometric survey / digital terrain survey (2008)

A high resolution aeromagnetic / radiometric survey / digital terrain survey was conducted by a South African company, Fugro, in January and February 2008. The extent of the survey is indicated on Figure 17.

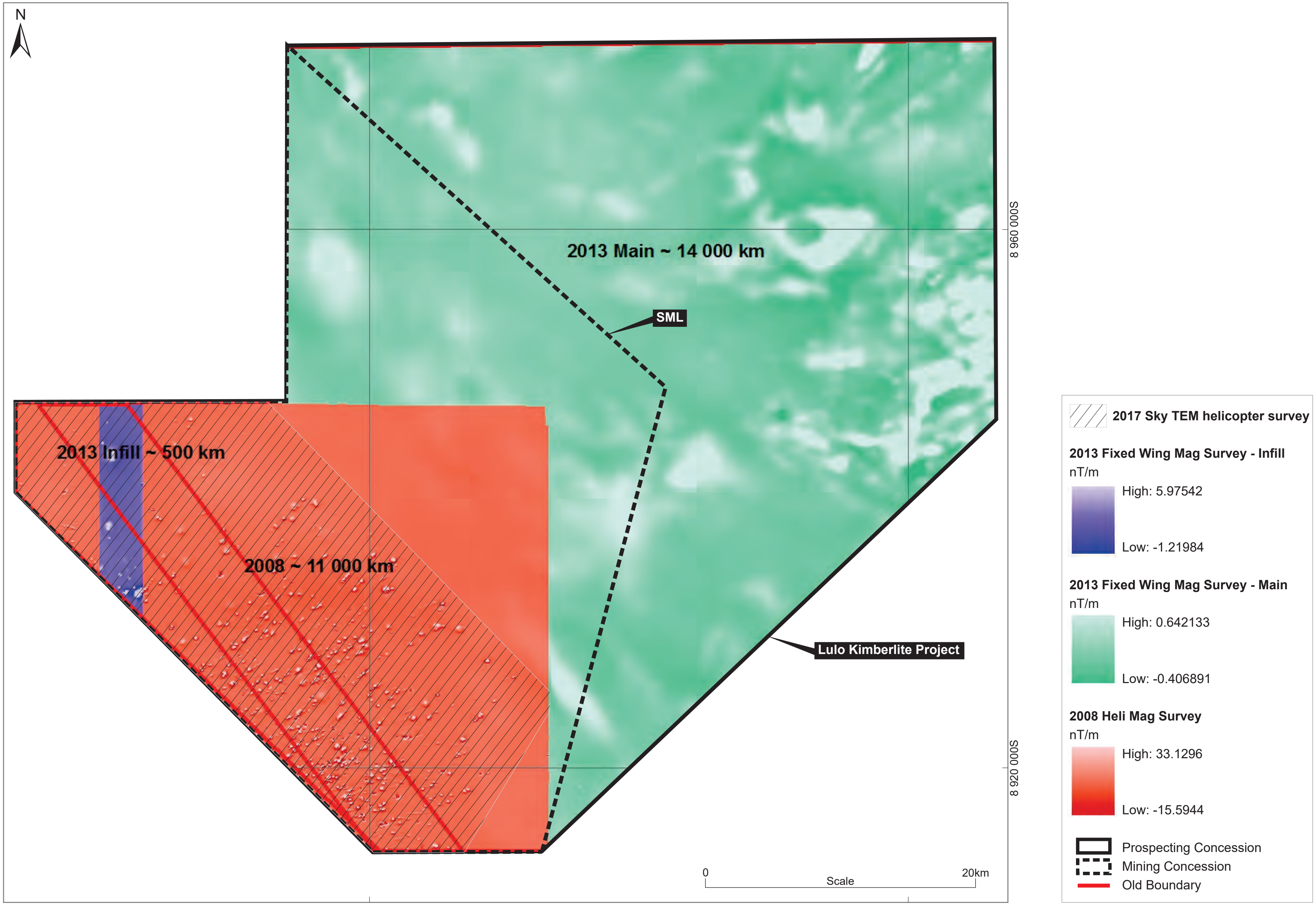
The radiometric results provide a useful tool for geological mapping. Radiometric results typically reflect the surface or very near surface characteristics, typically paleo channels and gravel deposit.

The high uranium and thorium towards the south of the surveyed area in the valleys was used to identify sediments and gravel accumulations in the Cacuilo River. Venmyn Deloitte has not been made aware of any interpretations of radiometric anomalies that have been conducted in the Lulo River valley.

The radiometric data was used to map the Cacuilo River valley for potential gravel deposits. Radiometric anomalies within the valley may either identify palaeo-river channels or higher terrace deposits (Figure 18). This was used as a basis to identify gravel deposits south of Namuluri. Significant radiometric anomalies are located to the south of the E46 block, on the eastern bank of the Cacuilo River.

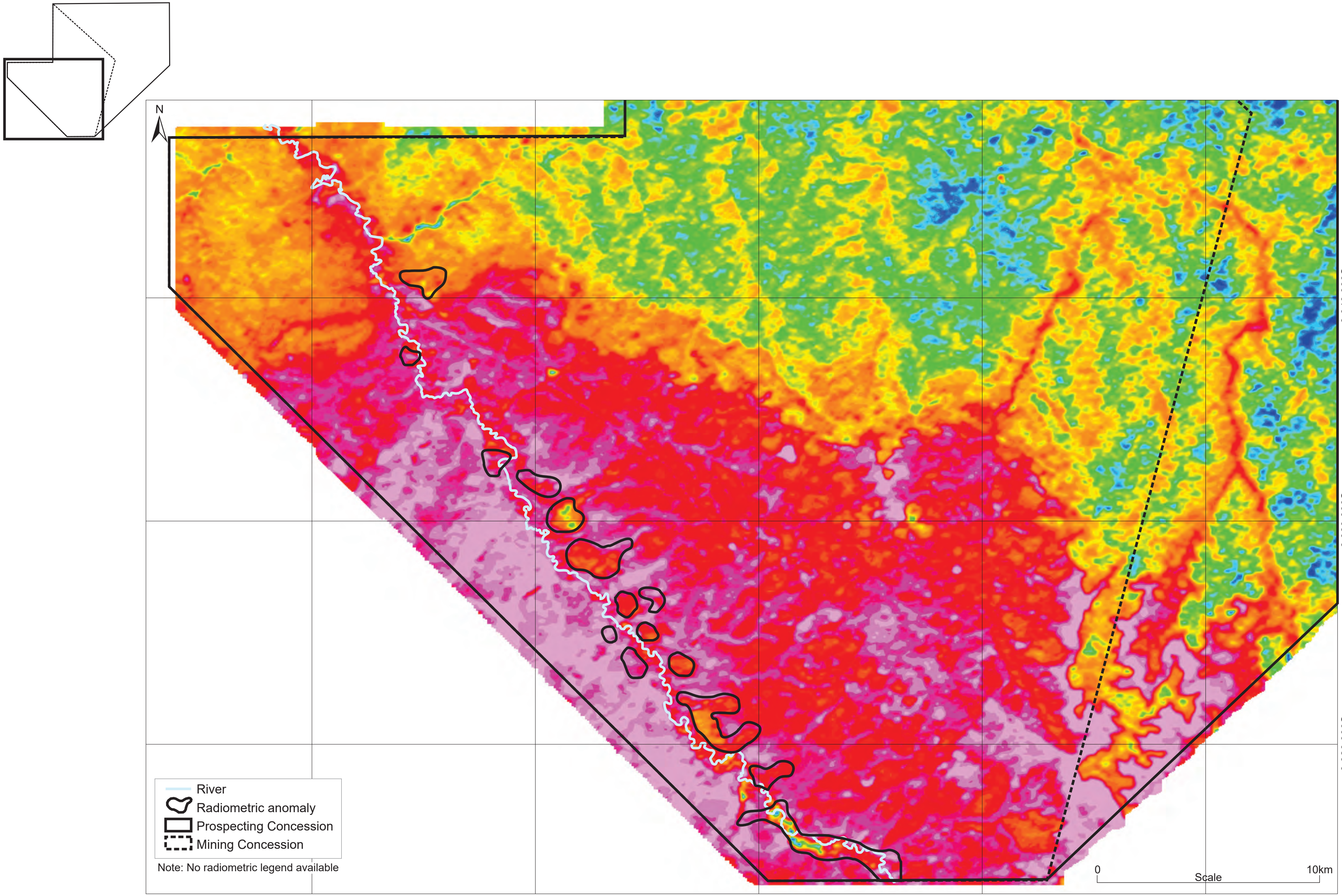
The survey was also used to identify magnetic and radiometric anomalies typically associated with kimberlites. This is discussed under the relevant Lulo Kimberlite Project write-up in Section 15.18.1.

SML extent of geophysical surveys



Source: LOM

Radiometric map indicating anomalies



Source: LOM

Lucapa CPR 2017

Venmyn Deloitte.

Lucapa Diamond Company

Figure 18

The survey also provided detailed DTM data.

14.18.2. Geological mapping

During 2010, a geological mapping exercise was undertaken by LOM geologists along the length of the Cacuilo River, a distance of approximately 50km. The purpose of the exercise was to map the extent of the artisanal workings in detail (Figure 16) and gain information on the gravel and overburden thicknesses where exposed. The exercise was carried out using a series of traverses across the Cacuilo River valley. The artisanal workings were also used to map out the extent of the Calonda derived gravels.

This exercise identified target areas for the next phase of exploration. Three specific target sites were identified near the plant site for future evaluation. These were identified with the naming convention BLK-01 to BLK-03.

14.18.3. Pitting and drilling

No pitting or drilling was carried out during this time, as the focus of activities was on establishing a semi-permanent Lulo Camp.

14.18.4. Bulk sampling

No bulk sampling was carried out during this period.

14.18.5. Processing and diamond recovery

No processing of gravel was carried out during this period. However, a 15tph DMS sampling plant was constructed in South Africa and shipped to site. A containerised Flowsort was also purchased and delivered to site. These were used to test the diamond grade of the gravels in the next phase of exploration.

14.19. Previous exploration (2010 - 2014)

Along with the name change from Lonrho to LOM, additional financial and technical assistance brought about the injection required to take the project to an advanced level of exploration. This section refers to exploration activities carried out by LOM between 2010 and 2014. This exploration focussed on evaluating the Calonda derived channel gravels in the Cacuilo River valley, which ultimately led to the identification of Inferred Diamond Resource areas and the development of the SML mine.

The exploration activities were originally divided into a series of exploration sectors (Figure 21) which formed the focus of work over the next four years. These sectors were comprised of a series of Mining Blocks. The use of these sector names has subsequently been dropped due to the rapid increase in the amount of exploration data. Going forward, all activities will only be referred to according to the Mining Blocks which have been sequentially named e.g. MB28. The resource block estimates are also defined according to the Mining Block nomenclature, e.g. Resource Block08 is located within MB08. The locations of the mining blocks and the mined out areas are presented in Figure 19 and Figure 20.

The recent exploration on the kimberlites is discussed under the Lulo Kimberlite Project in Section 15.18.

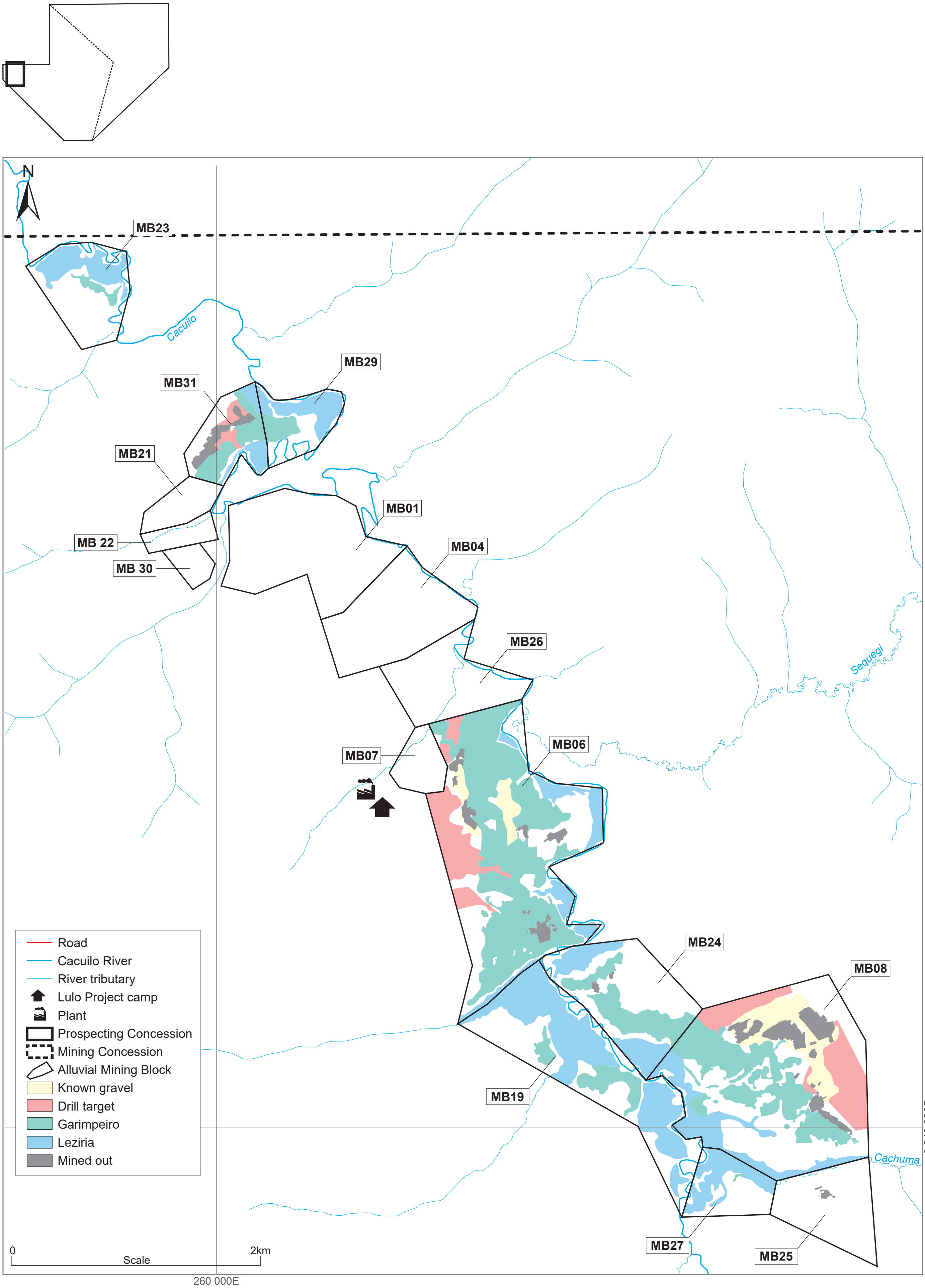
14.19.1. Magnetic / radiometric / DTM survey (2013)

This survey was carried out on the central and eastern sections of the Lulo concession in order to cover the area not previously covered in 2008 (Figure 19). In addition, an infill survey was conducted around the Lulo camp which had previously been omitted. This is discussed in detail under the relevant Lulo Kimberlite Project write-up in Section 15.18.1.

Venmyn Deloitte.

Lucapa Diamond Company

Location of mining blocks and mined out areas - north of the national road



Source: LOM

Venmyn Deloitte.

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Location of mining blocks and mined out areas - south of the national road

Source: LOM

14.19.2. Pitting

The alluvial pitting programme commenced in 2010. This pitting was initially focused within the mining blocks located between Namuluri and the plant on the eastern bank of the Cacuilo River (Figure 21).

The number of pits excavated by year is summarised in Table 7 which indicates the split between the alluvial and kimberlite pits.

Table 7 : Alluvial and kimberlite pitting (2010 – 2017)

YEAR	NO. ALLUVIAL PITS	NO. KIMBERLITE PITS	TOTAL
2010	6	88	94
2011	1	50	51
2012	3	81	84
2013	135	141	276
2014	49	148	197
2015	146	54	200
2016	454	6	460
2017	64	0	64
TOTAL	**858**	**568**	**1,426**

Source: LOM

The aim of the pitting exercise was firstly to identify gravel and, secondly, to measure the thickness of both the overburden and the gravel beds. This enabled LOM to define areas which were available for future bulk sampling. Pitting is an industry standard and effective means of exploration in diamond projects. It is not practical to report the coordinates, depths and results for each pit because of their extensive number. The location of all pits is indicated on Figure 21.

Pitting was carried out using either an excavator (Caterpillar 322), with a reach of 6m, or dug by hand. The pits were typically excavated to reach bedrock, except for swampy areas where water inflows prevented this. Pits were laid out in lines at a regular spacing of 50m apart, where possible, at right angles to the river valley. The lines were laid out at intervals of between 200m and 1,500m (Figure 21). Prior to the final positioning of all bulk samples, the pit intervals were typically reduced to between 10m and 25m.

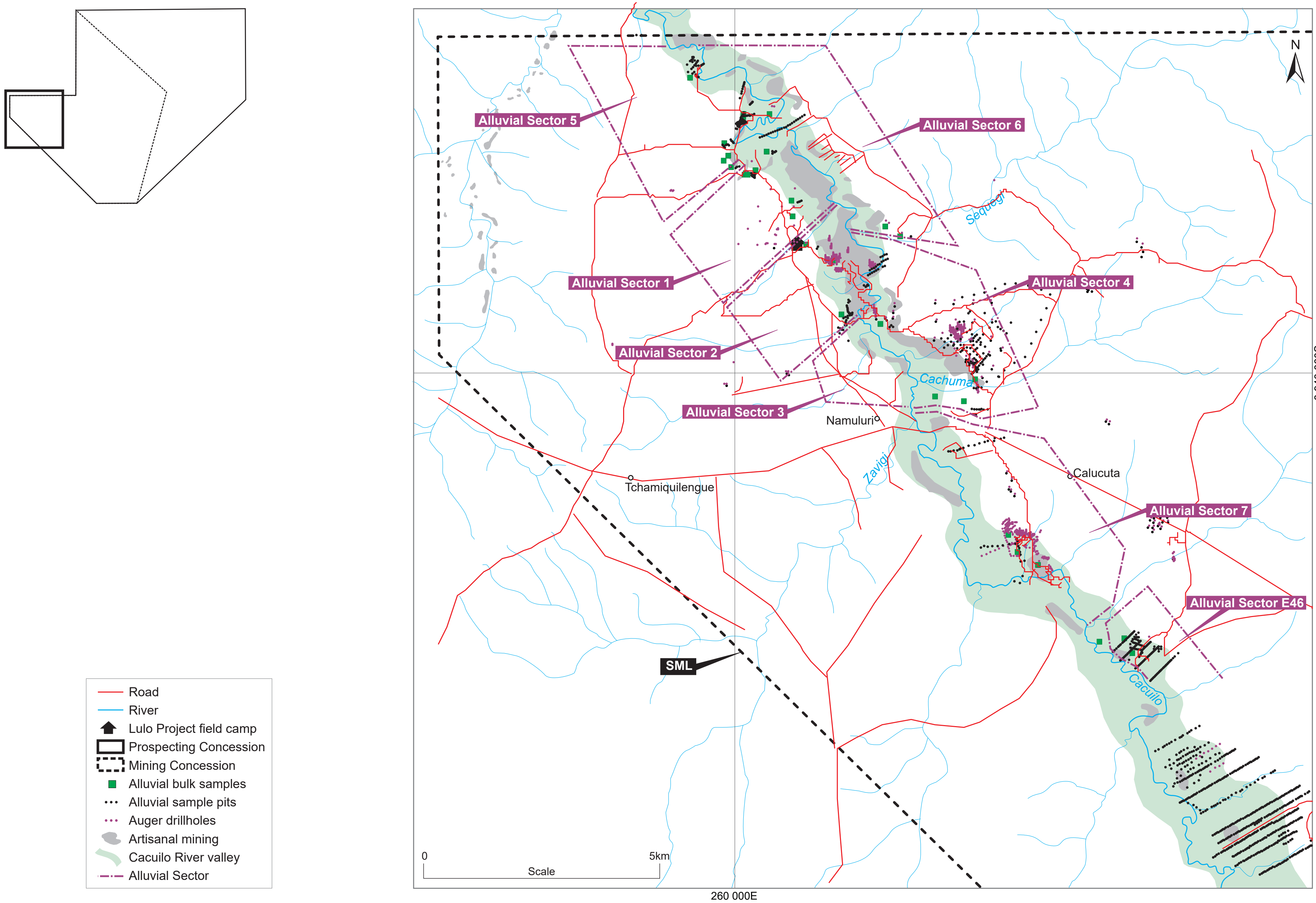
Due to the regular distance between the pits, this method can be considered as representative of the gravel being sampled. The pit spacings were considered adequate by Z Star for the reporting of exploration results and sufficient to establish a low to moderate degree of confidence with respect to geological continuity as required by the estimation of Inferred Resources.

The pits used for Diamond Resource gravel delineation are indicated on the relevant diagrams in Section 14.30.2. The results of the pitting were used to estimate the gravel and overburden thicknesses within the resource blocks.

The excavator pits were named sequentially with the prefix "EPT". Manual pits were sequentially numbered with the prefix "P". The following information was recorded for each pit:-

- pit number;
- coordinates in WGS84, UTM Zone 34L;
- elevation;

Location of alluvial exploration activities (2010-2017)



Source: LOM

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Lucapa Diamond Company

Figure 21

- maximum depth; and
- lithological description with associated from and to depths.

The pitting naming scheme evolved with time, as the number of pits increased. By 2013 the pits were named according to sector (Figure 21), line and pit number, e.g. S5L5P2.

The number of pits excavated in the various areas is presented in Table 8.

Table 8 : Alluvial pitting by area (2010 - 2017)

AREA	NO. PITS
Bulk sample areas	33
Canguige	6
E41	169
E46	127
E57	246
MB06	27
MB08	89
MB25	10
MB28	13
Sector 2	23
Sector 3	1
Sector 5	68
Sector 6	22
Sector 7	24
TOTAL	**858**

Source: LOM

The pits were logged in sufficient detail to be used for gravel resource estimation purposes. The pitting line results were collated using section diagrams to gain an understanding of the valley geology. An example of a section line is presented in Figure 22.

Between 2013 and 2014 the exploration pitting focused on the Mining Blocks between Namuluri and the northern limit of the concession, on both banks of the Cacuilo River, as well as around MB46.

14.19.3. Drilling

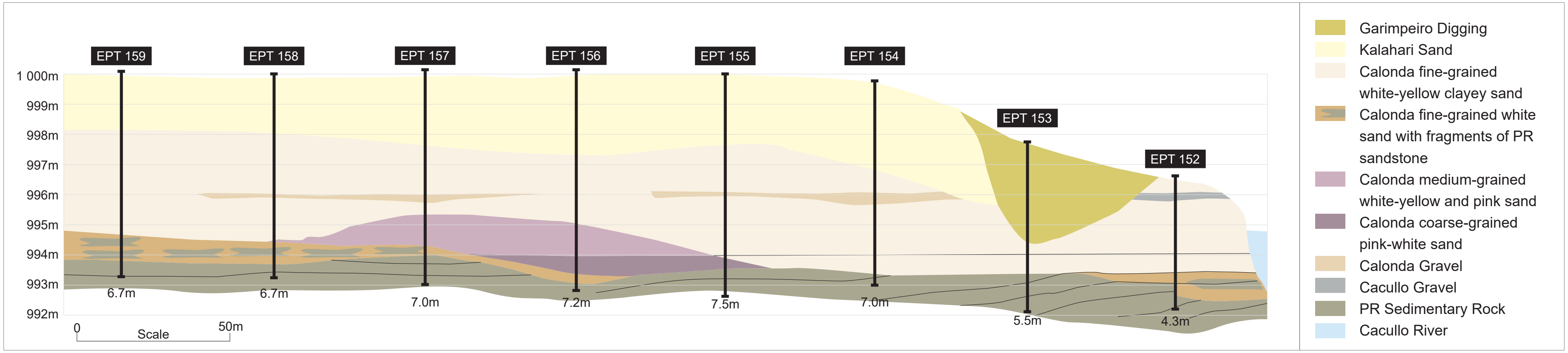
No drilling on alluvial targets was undertaken during this period.

14.19.4. Bulk sampling

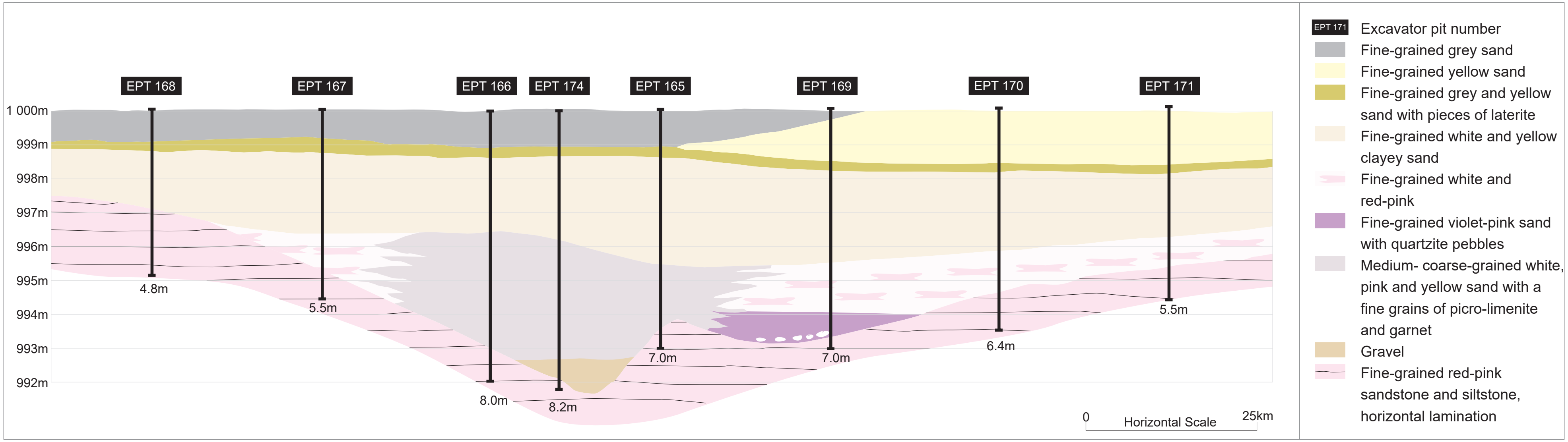
The previous exploration identified three proposed bulk sampling pits based upon the results of the geological survey. The bulk sampling was aimed at testing the grade of the alluvial gravels, the Pleistocene lateritised terrace gravels, the recent river gravels along with their associated diamond quality and value.

Bulk sampling commenced in 2010 with the processing of BLK-02, located adjacent to the sampling plant (Figure 21). This was a Calonda derived gravel bulk sample. BLK-01, treated during 2011, tested an upper terrace lateritic gravel. It is interesting to note that these gravels have very high concentrations of kimberlitic indicator minerals (KIMs). The bulk sample results between 2010 and 2013, according to gravel type, are tabulated in Table 9. The bottom screen size (BSS) and top screen size (TSS) apertures are defined below Table 9. All samples were processed through the sampling plant.

Geological cross-section of Line 9 in Alluvial Sector 3



Geological cross-section of Line 10 in Alluvial Sector 4



Source: LOM

Figure 22

Table 9 : Alluvial gravel bulk sample results processed through the sampling plant (2010 – 2013)

SAMPLE NO.	YEAR MINED	GRAVEL TYPE	IN SITU GRAVEL VOLUME TREATED (m^3)	BULKED GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	GRADE (ct/100m^3)	BULKED GRADE (ct/100m^3)	AVE STONE SIZE (ct/st)
BLK 1	2011	River	232.00	259.14	7	4.80	2.07	1.85	0.69
BLK 9	2012		42.90	47.92	2	0.45	1.05	0.94	0.23
SUB TOTAL / AVE RIVER			**274.9**	**307.06**	**9**	**5.25**	**1.91**	**1.71**	**0.58**
BLK 2	2010	Alluvial	368.30	411.39	44	47.55	12.91	11.56	1.08
BLK 3	2011		276.30	308.63	40	31.00	11.22	10.04	0.78
BLK 5			123.50	137.95	7	2.50	2.02	1.81	0.36
BLK 6			457.60	511.14	116	184.15	40.24	36.03	1.59
BLK 7	2012		310.20	346.49	43	25.30	8.16	7.30	0.59
BLK 8			198.90	222.17	24	189.05	95.05	85.09	7.88
BLK 12	2013-14		16.90	18.88	5	3.55	21.01	18.81	0.71
BLK 13			259.88	290.29	20	19.95	7.68	6.87	1.00
SUB TOTAL / AVE CALONDA DERIVED			**2,011.58**	**2,246.93**	**299**	**503.05**	**25.01**	**22.39**	**1.68**
BLK 3 L	2011	Lateritic	113.20	126.44	1	0.20	0.18	0.16	0.20
BLK 4			256.70	286.73	11	9.20	3.58	3.21	0.84
SUB TOTAL / AVE LATERITE			**369.90**	**413.18**	**12**	**9.40**	**2.54**	**2.28**	**0.78**
BLK 10	2012	E222	117.00	130.69	3	2.65	2.26	2.03	0.88
SUB TOTAL / AVE E222			**117.00**	**130.69**	**3**	**2.65**	**2.26**	**2.03**	**0.88**
BLK 11	2013	E46 - Alluvial	31.20	34.85	5	8.65	27.72	24.82	1.73
BLK 14			184.00	205.53	52	52.45	28.51	25.52	1.01
SUB TOTAL / AVE E46 ALLUVIAL			**215.20**	**240.38**	**57**	**61.10**	**28.39**	**25.42**	**1.07**
GRAND TOTAL ALLUVIAL BULK SAMPLING			**2,988.58**	**3,338.24**	**380**	**581.45**	**19.46**	**17.42**	**1.53**

Notes:

Source: LOM. All samples treated through sampling plant, effective BSS= 2.0mm, TSS = 18mm.

Bulking factor of 1.117 used to estimate bulked volume from in situ volume.

No information on the percent of concentrate and undersize was available for the bulk samples. Sample grade at different BSSs was not performed as 1.5mm was considered an appropriate minimum BSS. Due to the early stage of exploration, no adjustment was made to the size distribution for scaling up of the sampling plant results to a commercial scale.

The results above yielded an average in situ grade for the alluvial gravels of 25.01ct/100m^3. The average stone size of 1.68ct/stone was exceptional in terms of the typical Angolan diamond stone size of 0.30ct/stone.

Bulk samples are typically positioned in the areas of optimal gravel development. Therefore, the results may not always be fully representative of the entire gravel package present across the river floodplain.

The alluvial gravels overlying two kimberlite anomalies was also bulk sampled during this time (Table 9). Their results are discussed in Section 15.18.13. Kimberlite L46 is located in the Cacuilo River, approximately 7km south of the bridge (Figure 21). The diamond population pertaining to the E46 Alluvial is similar in grade and diamond size to the other alluvial gravels. This discovery provided evidence of continued alluvial diamond potential upstream in the Cacuilo River, to the south.

14.19.5. Density estimation

A measurement of the density of the alluvial gravel was estimated in March 2011 from two alluvial gravel samples taken from two bulk sample pits (Table 10).

Table 10 : Alluvial gravel density estimates

		PIT DIMENSIONS (m)					
GRAVEL TYPE	LOCATION	X	Y	Z	VOLUME (m^3)	MASS (t)	DENSITY (t/m^3)
Alluvial	BLK03	1.650	1.100	0.800	1.452	3.127	2.154
	BLK01	1.210	1.260	0.670	1.021	2.111	2.067
TOTAL / AVERAGE					**2.473**	**5.238**	**2.118**

Source: LOM March 2011 monthly report

This density measurement is limited and may not be representative of the density of all the alluvial gravels present at SML.

14.19.6. Granulometry

A basic granulometry test was undertaken in March 2011. A 3.127t sample from BLK03, previously used for the density measurements, was used for the granulometry testing. The reason for the granulometry results was not provided.

The material was relocated to a local stream and the various fractions were washed out using a washing basin and screens. The material recovered in each size fraction was weighed in buckets using a household scale. The results are presented in Table 11.

Table 11 : Alluvial gravel granulometry results

RESULT	SIZE FRACTION +34mm	18mm - 34mm	+2mm - 18mm	-2mm	WATER LOST
Volume (m^3)	0.18	0.11	0.29	0.1	
Weight (t)	0.235	0.143	0.411	0.028	
Percentage (from $1m^3$)	12%	8%	20%	7%	53%
Rock Type	Rounded and angular pebbles of sandstone and laterite. Few quartzite.	Sandstone and laterite.	Sandstone and laterite. Individual grains of picro-ilmenite.	Pieces of sandstone, quartzite, quartz and picro-ilmenite.	

Source: LOM March 2011 report

14.19.7. Processing and diamond recovery

The specially designed 15tph sampling plant for the treatment of bulk samples was erected and commissioned during October and November 2010. The DMS sampling plant comprised the following:-

- 15tph scrubber;
- 10tph DMS;
- particle size range of +1.5mm to 18mm; and
- fully containerised Flowsort x-ray machine, attached to the DMS by a tubular conveyor for security purposes.

The sampling plant is discussed in Section 14.28.6.

The initial concentrates were hand sorted to recover diamonds, and thereafter re-processed through the Flowsort once it had been commissioned in February 2011. Bulk samples BLK 1 to BLK 8 yielded five large or special stones (+10.8ct) totalling 258.5cts from a total of 1,966m^3 of gravel treated. The largest stone recovered was 131.4cts. This is a stand out result for the size of the bulk sample.

No tailings granulometry studies were undertaken.

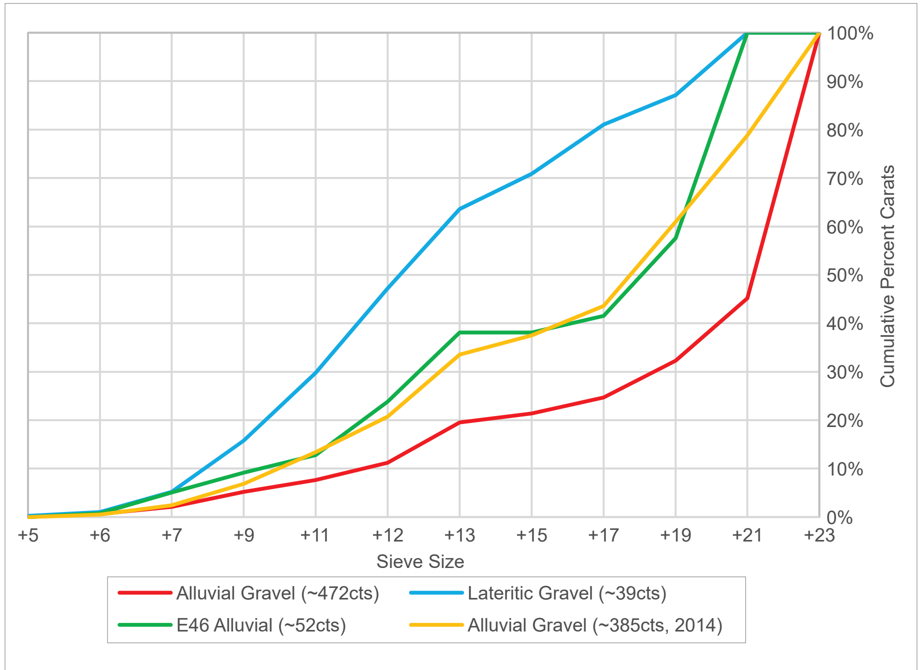
14.19.8. Size frequency distribution (BLK1-14)

All diamonds recovered during the bulk sampling campaign from 2010 to 2013 (BLK1 to BLK14) were weighed individually. LOM then assigned the stones into the various sieve classes based upon the lower critical size, just smaller than the diamond. This method was used as no standard Diamond Trading Company (DTC) sieves were available on site. The size frequency distributions (SFDs) for the Alluvial, laterite and E46 alluvial diamonds were analysed separately and are presented in relation to each other in Figure 23.

An SFD provides valuable insight as to the typical size distribution of a population of diamonds. Each geological population has a signature size distribution curve which can be monitored with time, and compared to other populations to identify size differences between them. SFDs are valuable management tools for monitoring diamond production with time, especially with respect to possible losses of diamonds.

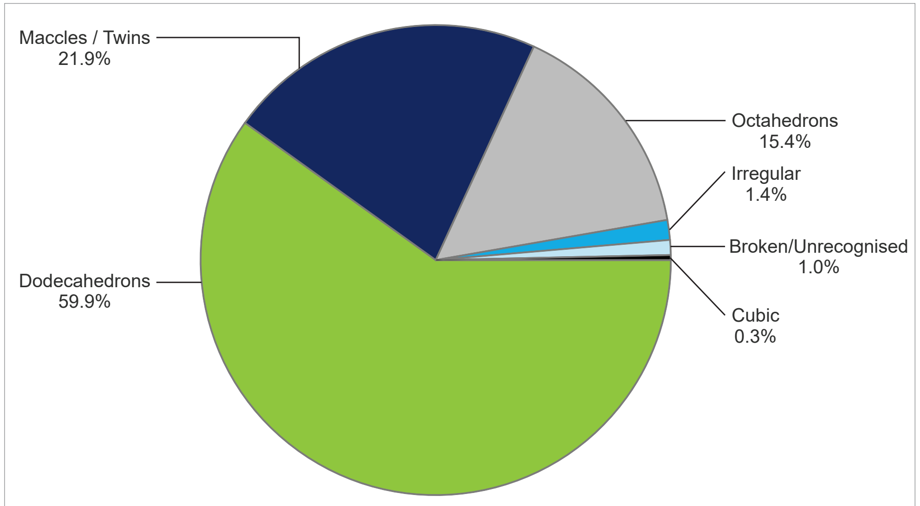
Graphs of alluvial bulk sampling SFD, diamond shapes, diamond colours and Type IIa diamond colours

Graph of alluvial bulk sampling SFD (2010-2013 and 2014)



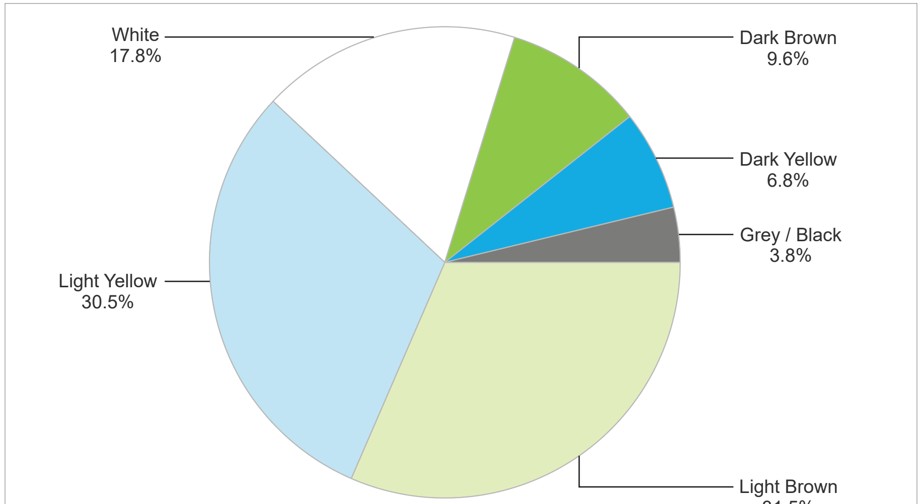
Source: LOM, Venmyn Deloitte analysis

Graph of diamond shapes in the BLK1-8



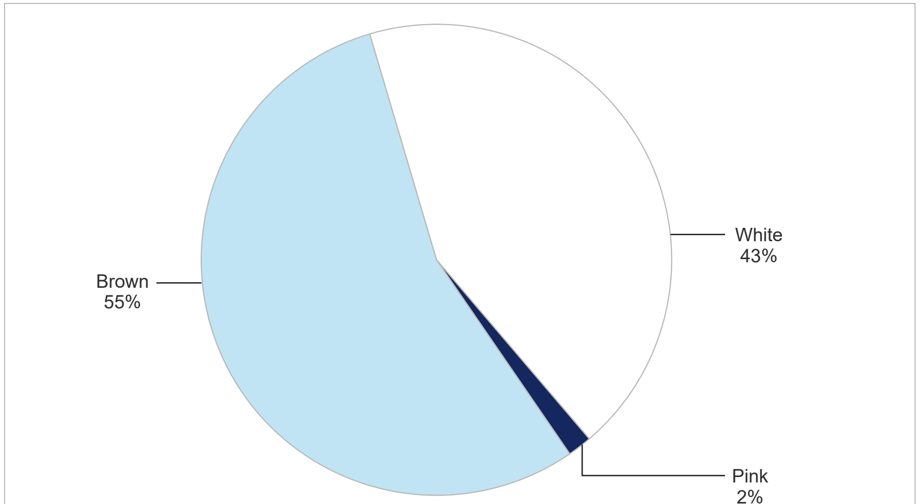
Source: QTS, Venmyn Deloitte analysis

Graph of diamond colours in BLK1-8 parcel



Source: QTS, Venmyn Deloitte analysis

Graph of Type IIa diamond colours



Source: QTS, Venmyn Deloitte analysis

Source: LOM

Consideration of the SFD plot in Figure 23 indicates the following:-

- the alluvial gravel has the largest stone size distribution, with 55% of the stones being greater than the +21 sieve size. The concave shape of the curve is characteristic of a geological domain yielding a significant percentage of stones reporting to the larger sieve sizes;
- the E46 alluvial shows a very similar shaped concave curve to the Alluvial gravels, however, without the +21 sieve size stones. This may simply be a function of the smaller sample size from E46, 52ct versus 472cts for the Alluvial gravel, which has not yielded any larger stones; and
- due to the lateritic gravels SFD being based on a small sample set, it's premature to attempt any in-depth analysis thereof.

14.19.9. Diamond valuation (BLK1-8)

In August 2012, the diamonds recovered from BLK1 to BLK8 were valued by Mr R Ferraris of QTS Kristal Dinamika (QTS). Mr Ferraris is a highly experienced and reputable independent diamond valuator. Mr Ferraris is independent of LOM.

These samples were primarily recovered from the alluvial gravel. The parcel totalled 495.7cts and included a 131.4ct stone. QTS split the diamonds into the standard size classes and then estimated a USD per carat for each. The results are tabled in Table 12.

It is evident from Table 12 that 90% of the value of this parcel originates from a single stone, the 131ct stone. Moreover, 97% of the value of the parcel stems from the +10.8ct stones. An average price of the entire parcel was estimated at USD7,904/ct. Disregarding the special stones, an average price of USD413/ct would be achieved.

Table 12 : BLK 1 to BLK 8 diamond valuation results

SIZE CLASSIFICATION	CARATS	% OF CARATS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE
+100ct	131.40	27%	26,750	3,514,950	90%
+50ct	53.15	11%	5,250	279,038	7%
+30ct	38.10	8%	285	10,859	0%
+20ct	22.15	4%	375	8,306	0%
+10.8ct	13.70	3%	525	7,193	0%
SUBTOTAL / AVE +10.8ct	**258.50**	**52%**	**14,779**	**3,820,345**	**98%**
10ct	0.00	0%	-	0	0%
9ct	0.00	0%	-	0	0%
8ct	8.70	2%	475	4,133	0%
7ct	0.00	0%	-	0	0%
6ct	18.40	4%	215	3,956	0%
5ct	16.10	3%	1,015	16,342	0%
4ct	21.10	4%	1,125	23,738	1%
3ct	12.60	3%	1,315	16,569	0%
10grn	5.60	1%	225	1,260	0%
8grn	33.05	7%	475	15,699	0%
6grn	15.00	3%	155	2,325	0%
5grn	15.10	3%	220	3,322	0%
4grn	19.65	4%	180	3,537	0%
3grn	22.25	4%	125	2,781	0%
+11	30.40	6%	95	2,888	0%
+9	13.40	3%	74	992	0%
+7	4.15	1%	62	257	0%
+5	1.70	0%	48	82	0%

SIZE CLASSIFICATION	CARATS	% OF CARATS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE
SUBTOTAL/ AVE <10.8ct	**237.20**	**48%**	**413**	**97,879**	**2%**
GRANDTOTAL / AVE	**495.70**	**100%**	**7,904**	**3,918,224**	**100%**

Source: QTS

QTS noted the potential high value of the stones due to the presence of the following diamonds within the parcel reviewed:-

- high value large stones;
- white Type IIa stones;
- coarse sample;
- high yielding dodecahedral shapes;
- occasional high yielding octahedrons;
- predominantly commercially saleable colours;
- absence of boart;
- very low percentage of frosted goods generally present in alluvial parcels;
- no colour deterioration from high abrasion surfaces typically found in alluvial goods;
- low percentages of highly fluorescent stones;
- low percentages of industrial goods; and
- potential for colour improvement with deep boiling.

QTS noted that the polishable gem diamonds accounted for 65% of the parcel, while the cheaper Clivage and Indian makeables accounted for an additional 31%. The reject stones accounted for only 4%, as expected from alluvial sources.

The E46 stones were valued in a similar manner, using the price curve, multiplied by the E46 distribution. These results are presented in Table 13.

Table 13 : BLK 14 diamond valuation result

SIZE CLASSIFICATION	CARATS	% OF CARATS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE
6ct	6.95	13%	215	1,494	5%
5ct	10.90	21%	1,015	11,064	40%
4ct	4.40	8%	1,125	4,950	18%
3ct	3.75	7%	1,315	4,931	18%
10grn	-	-	225	-	-
5grn	6.45	12%	475	3,064	11%
6grn	-	-	155	-	-
5grn	1.30	2%	220	286	1%
4grn	5.35	10%	180	963	3%
3grn	3.05	6%	125	381	1%
+11	5.50	10%	95	523	2%
+9	2.15	4%	74	159	1%
+7	2.25	4%	62	140	0%
+5	0.40	1%	48	19	0%
GRANDTOTAL / AVE	**52.45**	**100%**	**533**	**27,973**	**100%**

Source: QTS

The average diamond price for the E46 alluvial gravels was USD533/ct. This was similar to the average price estimated for the alluvial gravels, without the influence of the large stones. Due to the small sample size of BLK14 compared to BLK 1 to BLK 8, no large stones were recovered. However, subsequent trial mining at E46 has revealed that large stones are present in that orebody. This is discussed further in paragraph 14.31.10.

14.19.10. Diamond characteristics (BLK1-8)

QTS evaluated the shapes of the diamonds from the BLK1-8 parcel. The breakdown of the parcel according to shape is presented in Figure 23(b). The majority of the diamonds are dodecahedrons, with lessor amounts of maccles and octahedrons. QTS identified that the high yielding dodecahedrons account for almost 20% of the diamond population.

The colour breakdown of the BLK1-8 parcel was undertaken by QTS. These results are presented in Figure 23(c). The dominant colour is light yellow. QTS notes that a number of the diamonds, including the 131.4ct stone, have a faint brown residue. QTS believes that the colour of these diamonds and some of the light brown diamonds will improve significantly with deep boiling in acid.

QTS also noted that although the sample was small, there was potential to produce fancy coloured stones. The parcel included a 13.79ct stone which had the potential of yielding a dark brown fancy diamond. Others included potential golden dark browns, pinkish browns and a light yellow fancy.

QTS noted the potential for Lulo to produce Type IIa diamonds. These are rare diamonds (<1.5% of all diamond produced) characterised by having:-

- top white colour;
- very good clarity;
- irregular shapes;
- no fluorescence; and
- unusual surface features.

Type IIa diamonds typically command a higher price. QTS was of the opinion that the 131.4ct stone was a Type IIa diamond and recommended that LOM purchase a Yehuda Colour Machine in order to test diamonds for their Type.

14.19.11. Diamond valuation (BLK9-19)

In February 2014, the diamonds recovered from BLK9 to BLK19 were valued by QTS.

These samples were primarily recovered from the alluvial gravel. QTS split 385cts of diamonds into the standard size classes and then estimated a USD per carat for each. The results are tabled in Table 14.

Table 14 : BLK 9 to BLK 19 diamond valuation results

SIZE CLASSIFICATION	CARATS	% OF CARATS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE
+20ct	24.45	6%	1,800	44,010	9%
+10.8ct	13.30	3%	821	10,916	2%
10ct	10.15	3%	18,450	187,268	39%
9ct	0.00	0%	0.00	0	0%
8ct	0.00	0%	0.00	0	0%
7ct	14.65	4%	1,053	15,424	3%
6ct	25.10	7%	2,129	53,425	11%
5ct	31.60	8%	1,450	45,820	10%
4ct	28.90	7%	936	27,042	6%
3ct	22.95	6%	1,152	26,429	6%
10grn	15.20	4%	343	5,206	1%
8grn	18.30	5%	316	5,788	1%
6grn	25.15	7%	265	6,665	1%
6grn Pink	1.40	0%	17,857	25,000	5%
5grn	17.60	5%	285	5,016	1%
4grn	28.45	7%	238	6,777	1%
3grn	41.40	11%	141	5,825	1%
+11	40.40	10%	112	4,533	1%
+9	17.00	4%	97	1,647	0%
+7	7.40	2%	60	444	0%
+5	2.00	1%	53	105	0%
TOTAL / AVE	**385.40**	**100%**	**1,239**	**477,340**	**100%**

Source: QTS

QTS estimated an average diamond price of USD1,239/ct, with 39% of the value coming from a single 10.15ct Type IIa stone.

14.19.12. Diamond characteristics (BLK9-19)

QTS noted that the parcel was very similar to the parcel studied in 2012 in respect of colour, shape and gem:near gem ratio.

The Type IIa diamond population appeared to have increased significantly, with 37% of the stones being Type IIa. Type IIa diamonds are the purest form of diamond. Type IIa stones can be white (D to G), all shades of brown and pink, but never yellow, due to the absence of nitrogen. Type IIa diamonds are rare and account for less than 1.5% of all diamonds mined. They are highly sought-after stones and hence command a higher diamond price.

The split of Type IIa colours recovered at Lulo is presented in Figure 23(d). QTS noted the presence of “some exceptional Type IIa white, pink and top light brown diamonds.”

QTS also noted that the degree of abrasion expected in alluvial recovered diamonds remains very low. Only a limited number of stones showed heavy abrasion.

The breakage levels appeared to be slightly higher than the 2012 sample, mainly in the Type IIa diamonds. However; these stones were typically broken along existing cracks and ruts. As noted with the previous parcel, there were several stones which may have improved in colour with a deep-boiling process.

14.19.13. SFD (BLK9-19)

The SFD for the 385cts assessed by QTS is included in the graph in Figure 23. It would appear from the graph that the large stones recovered in the previous bulk sampling had not been recovered in this bulk sample.

14.19.14. Diamond sales

Two diamond parcels were sold during 2013 and 2014, comprising diamonds recovered from the alluvial bulk sampling programme. According to Angolan legislation, all stones must be sold through Sodiam and cannot be directly exported by any diamond company. The result of the two sales is presented in Table 15. These are independent valuations carried out by Sodiam's experienced valuators.

The sales result was exceptional with an average price per carat of USD6,429/ct being achieved. This was directly attributable to the large stones and high percentage of Type IIa stones in the parcels.

Table 15 : Diamond sales result (2013 - 2014)

DATE	CARATS SOLD	AMOUNT (USD)	AVE VALUE (USD/ct)
August 2013	495.70	2,875,000	5,800
February 2014	371.45	2,700,000	7,269
TOTAL	**867.15**	**5,575,000**	**6,429**

Source: LOM

14.20. Recent exploration (2014 to 2017)

In 2014, new management was engaged at SML with the aim of developing the alluvial exploration operation into a scalable alluvial mining operation. Alluvial mining commenced at the beginning of 2015. The Estudo de Viabilidade Técnico-Económica (EVTE), or Technical Economic Report, was prepared and submitted to the government department in application for an alluvial mining title. The commissioning of the new 150tph plant in late 2013 enabled the operation to increase production rates.

Exploration over the last three years has primarily been to identify additional economic alluvial mining blocks to support the ongoing success of the mining operation.

14.20.1. Helicopter electromagnetic survey of the Namaluri Block (2017)

LOM appointed Danish company, SkyTEM Surveys Aps, in October 2016 to perform a SkyTEM304 helicopter-borne geophysical survey over the Namaluri Block at SML. The survey included 8,566 line kilometres at a line spacing of 100m. The location of the survey is indicated on Figure 17.

The purpose of the survey was to obtain additional geophysical data to interpret with the aim of identifying the source of the large diamond being extracted by the SML mining operations in MB08. The geophysical survey is discussed in detail in Section 15.19.3, on the Lulo Kimberlite Project.

The interpretation of the SkyTEM survey results was performed by GRS Consulting in conjunction with LOM's geologists. Along with kimberlite targets, analysis of the results provides information on the location and extent of alluvial deposits within the Cacuilo River basin. It must be noted that this result does not provide an indication as to whether the alluvial deposits are optimally developed gravels or diamondiferous.

A series of early time low-moment red, green and blue (RGB) ternary images were plotted to identify the alluvial deposits. The final image is presented in Figure 24.

The image presents the low-moment 6, 8 and 10 gates, with the brightest white colour in the rivers indicating areas of substantial alluvial deposits. The image further highlights an area of potential Calonda outcrop along a ridge. This area has potential for preferential diamond deposition and will be investigated as a matter of priority.

14.20.2. Pitting

Pitting has continued as it has proved a successful method for gravel exploration. The pitting may be undertaken manually but is more often performed using an excavator. The purpose of pitting is threefold:-

- to identify gravel in new areas to target for future bulk sampling. This pitting has focussed on areas to the south of the current mining activities;
- to define a bulk sample area, based upon the presence of optimal gravel development; and
- to confirm the existence of gravel ahead of the mining face.

Due to the large number of pits being excavated in the project area various naming conventions have been used. These naming conventions are described in Section 14.19.2. Alluvial pits were not given a different nomenclature to the kimberlite pipes. The reason for this is that alluvial gravels were discovered in kimberlite pits and *vice versa*, hence creating difficulties in the naming system. Occasionally, kimberlites were identified in pits excavated for alluvial gravels and *vice versa*, thus making specific pit nomenclature difficult to implement.

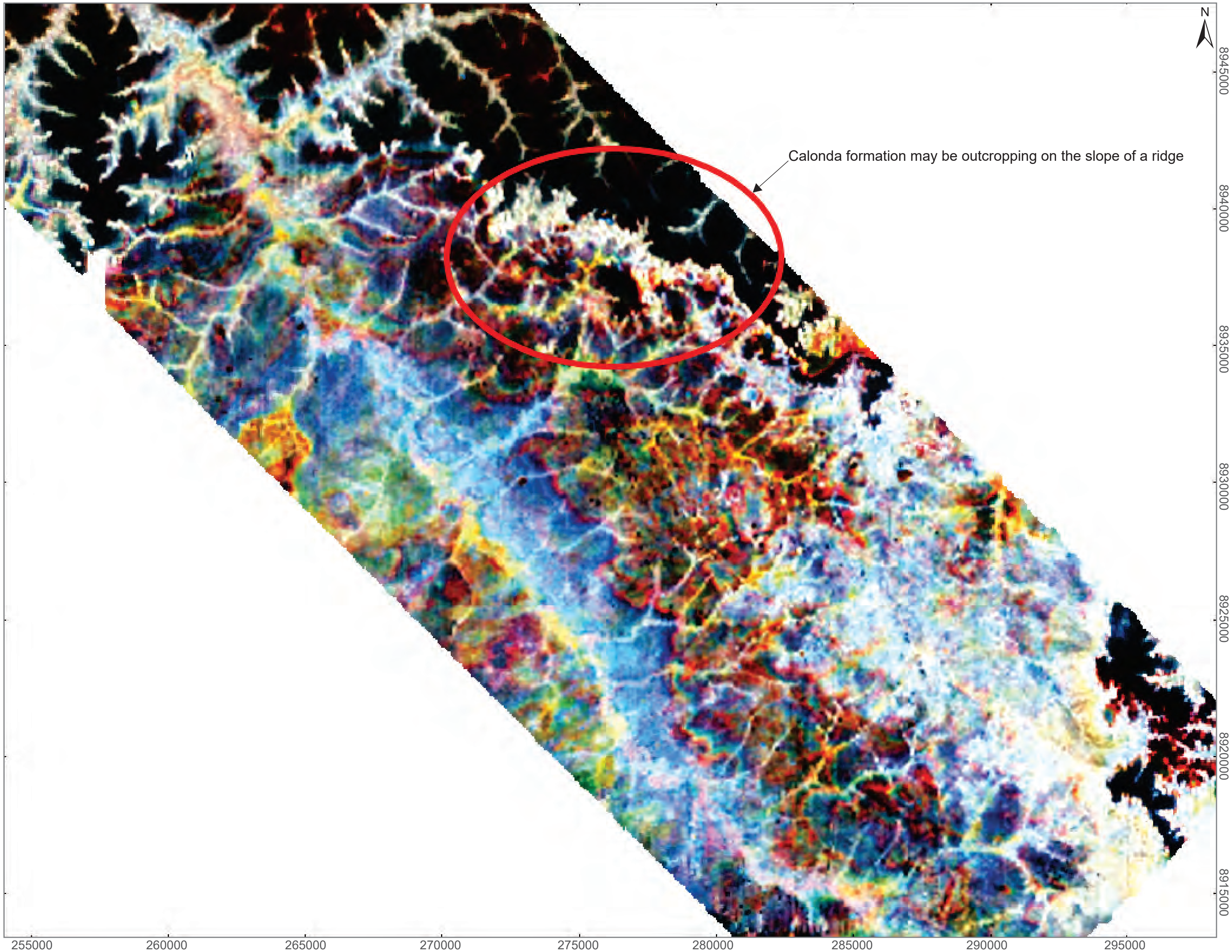
The number of alluvial pits excavated per year is presented in Table 7. During 2015, a total of 146 pits were excavated. During 2016, 454 pits were excavated and by the end of May 2017, a total of 64 pits had been excavated for 2017. The location of all pits excavated to date are indicated on Figure 21. The breakdown of pitting by area is presented in Table 8.

Pitting has been used, in conjunction with other exploration methods to explore various target areas. These areas have included mining blocks, alluvial deposits over kimberlites and geophysical anomalies and kimberlites and geophysical anomalies themselves. As at 31 May 2017 a total of 1,426 pits had been excavated across the SML concession area. Pitting associated with primary deposits is discussed in further detail in Section 14.21.

The pits are regularly spaced along either lines or using a grid pattern. The pit spacing is sufficient to establish a moderate degree of confidence with respect to geological continuity as required for the estimation of Inferred Resources.

Pitting has focussed on the alluvial target in the area of the E57 geophysical anomaly, with a total of 246 pits having been excavated. The results are discussed in in Section 14.21.5.

SkyTEM survey low-moment RGB image indicating alluvial and possible calonda deposits in the Namaluri block



Source: LOM

14.20.3. Sedidrill auger drilling

In January 2016, LOM purchased a multi-purpose auger and core drill rig for use in the alluvial and kimberlite exploration programmes, respectively. This is a cost and time effective manner of obtaining information on gravel thickness and depth. The drill rig can also reach greater depths than an excavator arm of approximately 6m.

The Sedidrill drill rig is mounted on a Land Cruiser for ease of mobility. The auger excavates a 4" (63mm) drillhole to a maximum depth of 30m and a 2.5" drillhole to a maximum depth of 50m. Diamond core drillholes are drilled with a 63mm diameter to a maximum depth of 70m. The auger is typically used for alluvial exploration, whilst the core bit is used for kimberlite exploration.

Sedidrill augering is used primarily to detect gravel in alluvial deposits. These deposits may be associated with rivers, terraces, flood plains, etc., as well as alluvial deposits developed over kimberlites or geophysical anomalies. The purpose of Sedidrill augering, like that of alluvial pitting, is threefold:-

- to identify gravel in new areas to target for future bulk sampling;
- to define a bulk sample area, based upon the presence of optimal gravel development; and
- to confirm the existence of gravel ahead of the mining face.

Alluvial drilling commenced in late June 2016, with the following information being recorded for each auger drillhole:-

- drilling type (auger, tricone or core);
- collar coordinates;
- elevation;
- lithology in 1.5m intervals;
- depth of gravel; and
- gravel thickness.

All Sedidrill drillholes include the letter "SD" in the naming protocol, in addition to the target i.e. mining block, area or anomaly being drilled. For example, the auger drillholes drilled over the alluvial deposits associated with E41 were named according to the target and line of pits i.e. SD/E41/1200/14, whilst drilling over a mining block was named, MB28/SD285 for example. The location of the Sedidrill drillholes is presented in Figure 21. The number of Sedidrill auger drillholes by target area is presented in Table 16.

Table 16 : Sedidrill auger drillholes by target

AREA	NO.
MB06	64
MB08	71
MB24	21
MB28	289
MB29	2
259	3
E41	11
MB46 (Xanganda River bridge)	15
TOTAL	**476**

Venmyn Deloitte observed the auger during their site visit in 2016. Photographs of the drilling of the E41 alluvial area are presented in Figure 25.

Sedidrill augering has focused on MB28 during 2016. The results are discussed in Section 14.21.3. The Sedidrill drill rig has been used in MB08, to define the extent or limits of the gravel, mainly ahead of the mining face. To date, a total of 71 auger drillholes have been drilled in this block. The most recent auger drillholes have been drilled to test the gravel located in the north of this Mining Block. The results are discussed in Section 14.21.1.

14.20.4. Bulk sampling

Bulk sampling was undertaken between 2014 and 2016 with the purpose of testing the economic diamond potential in the mining blocks ahead of full scale mining. These results were also used in the Diamond Resource estimates, provided the mining block was proved to have realistic prospects for eventual economic extraction.

BLK15 to BLK31 were excavated and processed through the production plant. The results of these bulk samples are presented in Table 17. The first trial mining block (TMB) was excavated during September and October 2014 (Table 17). Three additional trial mining blocks were excavated and treated in 2016.

The results reconfirmed the previous bulk sampling results whereby the alluvial gravels have the highest grades and largest stone sizes. The terrace gravels tested in BLK31 returned a good result in terms of both grade and stone size.

The alluvial gravels overlying E57 were tested as a bulk sample in September 2016. BLK28 was further extended in 2016.

A total of 20,914.46m^3 of in situ gravel have been treated in the bulk sampling programme through the current plant. The programme has yielded a total of 1,796.24cts with an average in situ grade of 8.59ct/100m^3 and an average stone size of 1.06ct/stone.

Although the bulk samples have been positioned in areas of optimal gravel development, these results, along with the recent mining results, have provided sufficient information on the grades to establish a low degree of confidence with respect to geological continuity, as required by the estimation of Inferred Resources.

No information on the percent of concentrate and undersize was available for the bulk samples. Sample grade at different BSSs was not performed as 1.5mm is considered an appropriate minimum BSS. These gravels were processed through the current plant and therefore no adjustments were required to reach a commercial scale.

No samples have been treated at an alternative facility.

14.20.5. Trench bulk sampling

SML carried out a trenching exercise on MB28 North in October 2016. Three trenches were excavated approximately 50m apart at right angles to the river valley. The trenches were planned to be at least 100m long. The purpose for the trenching was to:-

- obtain a continuous gravel profile between known points which were positive for gravel;
- obtain a representative sample across the area in question; and
- excavate enough gravel to constitute a bulk sample.

Photographs of Sedidrill drill rig

Landcruiser mounted drill

Sedidrill

Hole number label

Auger Drill

Sedidrill Core

Drill Sump

Source: Venmyn Deloitte

Table 17 : Alluvial gravel bulk sample results processed through the current production plant (2013 - 2016)

SAMPLE NO.	YEAR MINED	GRAVEL TYPE	IN SITU GRAVEL VOLUME TREATED (m^3)	BULKED GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	GRADE (ct/100m^3)	BULKED GRADE (ct/100m^3)	AVE STONE SIZE (ct/st)
BLK 18	2013-14	Alluvial	3,320.10	3,708.55	202	159.80	4.81	4.31	0.79
BLK 19			971.55	1,085.22	147	318.85	32.82	29.38	2.17
BLK 20	2014		1,164.33	1,300.56	87	110.30	9.47	8.48	1.27
BLK 21			1,138.32	1,271.50	124	69.75	6.13	5.49	0.56
BLK 23			907.29	1,013.44	54	61.00	6.72	6.02	1.13
TMB 1			3,629.16	4,053.77	392	293.50	8.09	7.24	0.75
BLK 24			391.80	437.64	52	35.15	8.97	8.03	0.68
BLK 25			333.54	372.56	43	31.85	9.55	8.55	0.74
BLK 26			408.51	456.31	7	1.95	0.48	0.43	0.28
BLK 28	2015		227.97	254.64	7	3.25	1.43	1.28	0.46
BLK 28B	2016		1,182.00	1,320.29	53	78.76	6.66	5.97	1.49
BLK 28C			447.00	499.30	28	24.28	5.43	4.86	0.87
BLK 29	2014		449.82	502.45	87	157.50	35.01	31.35	1.81
BLK 30			1,243.89	1,389.43	52	29.20	2.35	2.10	0.56
SUB TOTAL / AVE CALONDA DERIVED			**15,815.28**	**17,665.67**	**1,335**	**1,375.14**	**8.70**	**7.78**	**1.03**
BLK 22	2014	Lateritic	1,603.44	1,791.04	82	56.00	3.49	3.13	0.68
BLK 27			82.62	92.29	3	0.75	0.91	0.81	0.25
SUB TOTAL / AVE LATERITE			**1,686.06**	**1,883.33**	**85**	**56.75**	**3.37**	**3.01**	**0.67**
BLK 31	2014	Terrace	249.39	278.57	18	39.15	15.70	14.05	2.18
SUB TOTAL / AVE TERRACE			**249.39**	**278.57**	**18**	**39.15**	**15.70**	**14.05**	**2.18**
BLK 15 - 17	2014	E46 - Alluvial	62.73	70.07	3	1.00	1.59	1.43	0.33
TMB_1	2016		525.00	586.43	43	67.88	12.93	11.58	1.58
TMB_2			617.00	689.19	59	60.01	9.73	8.71	1.02
TMB_3			897.00	1,001.95	129	182.88	20.39	18.25	1.42
E57		E57 - Alluvial	454.00	507.12	1	0.36	0.08	0.07	0.36
E41		E41 - Alluvial	544.32	608.01	21	13.07	2.40	2.15	0.62
SUB TOTAL / AVE ALLUVIAL OVER KIMBERLITE			**3,100.05**	**3,462.76**	**256**	**325.20**	**10.49**	**9.39**	**1.27**
GRAND TOTAL ALLUVIAL BULK SAMPLING			**20,850.78**	**23,290.32**	**1,694**	**1,796.24**	**8.61**	**7.71**	**1.06**

Notes:

Source: LOM. All samples treated through production plant, effective BSS = 1.5mm, TSS = 32mm.

Bulking factor of 1.117 used to estimate bulked volume from in situ volume.

Previous bulk samples have been excavated into areas of optimal gravel development and therefore may not be representative of the greater gravel deposit.

A total of 275m were excavated using an excavator and each trench was consecutively numbered from south to north. The location of the trenches is shown in Figure 26, along with the results. The gravel was combined into a single bulk sample, BLK28B. The process results are presented in Table 17. The results are further discussed in Section 14.21.3.

14.20.6. Bulking factor estimation

A calculation of the bulking factor was undertaken for E46 during March 2016 by LOM.

A gravel block, within the E46 mining area, was marked out, measured by tape and the volume was calculated. The volume of the excavated gravel was calculated using the conical frustum volume formula. The increase in volume was estimated at 1.55. It must be noted that the gravel was wet and therefore this is the bulking factor for wet gravel.

14.20.7. Bulk density

Bulk density measurements were undertaken monthly or whenever material of different nature or composition was mined and treated. These were recorded by the Geology Department and the results were used in determining both mined and treated volumes.

14.20.8. Processing and diamond recovery

The bulk samples were processed through the 50tph DMS production plant and associated 150tph front end and final recovery. Details on the plant layout and flowsheet are presented in Section 14.28. The diamonds recovered were cleaned in a hydrofluoric acid 'cold soak' process, before being sieved.

The bottom screen size cut-off for the production plant was an effective 1.5mm with 1.2mm slot screens. The top size was set at 32mm.

No tailings granulometry studies have been undertaken.

14.21. Exploration (and mining) results on specific target areas

SML typically uses various exploration methods in combination to assess a specific target area. The section below discusses the combined results for six target areas, along with mining results, where appropriate.

14.21.1. MB06

MB06 is a large mining block located to the east and southeast of the Lulo camp. It is located on the western bank of the Cacuilo River (Figure 21). Two gravel bodies have been mapped out within MB06 through pitting and augering. A total of 27 pits have been excavated and 64 auger drillholes drilled (Figure 27).

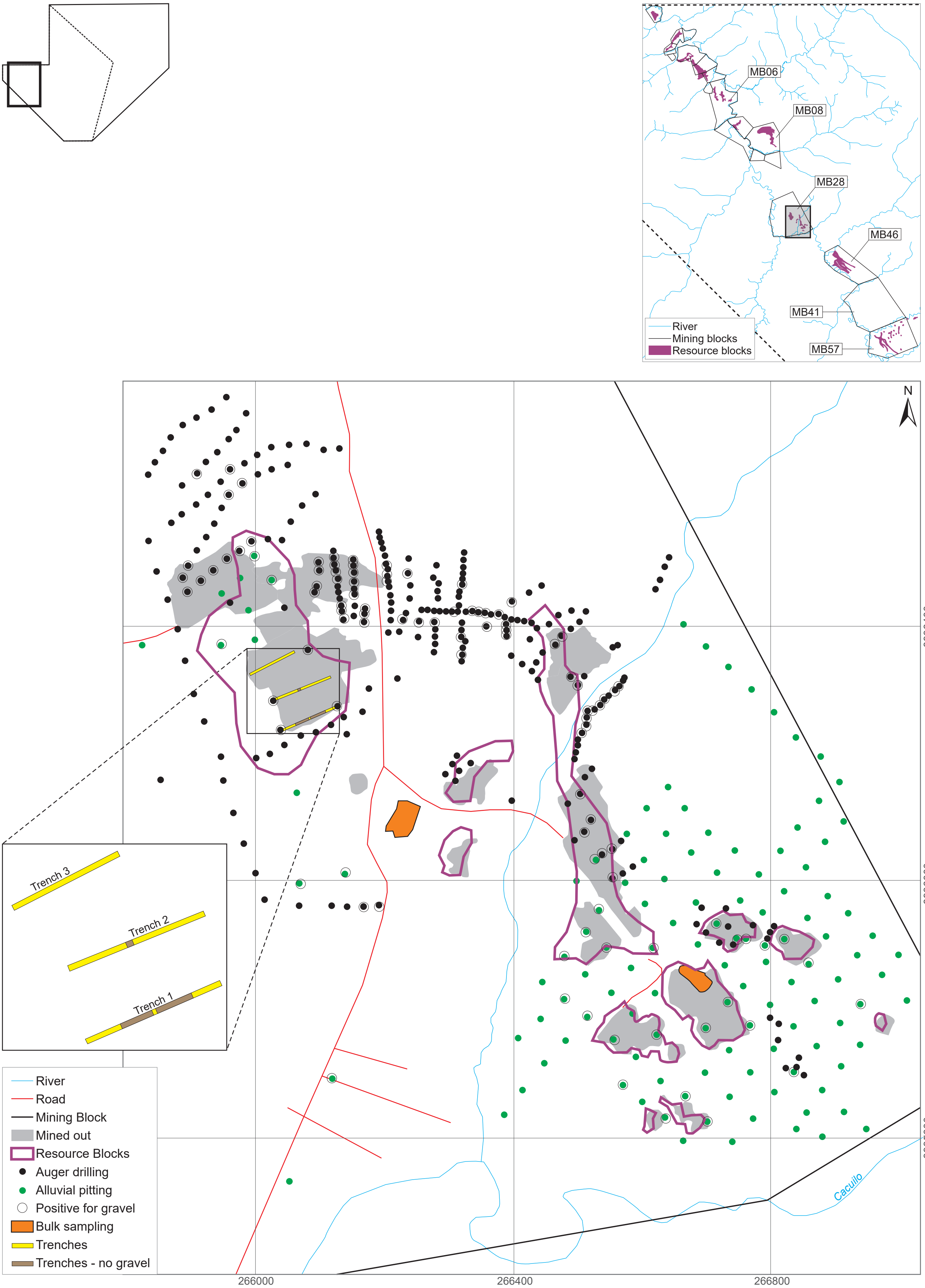
A bulk sample was taken in this block in 2011 which returned a very high in situ grade of 40.24ct/100m^3 and an average stone size of 1.59ct/stone. The location of the exploration is presented in Figure 27.

Mining commenced in MB06 in December 2015. To date a total of 48,818m^3 of gravel has been mined with a bulked average grade of 8.34ct/100m^3 and an average stone size of 1.43ct/stone. A total of ~4,070cts have been extracted from MB06 which amounts to 12% of the total mining production from SML.

Venmyn Deloitte.

Lucapa Diamond Company

Location and extent of exploration and mining activities in MB28

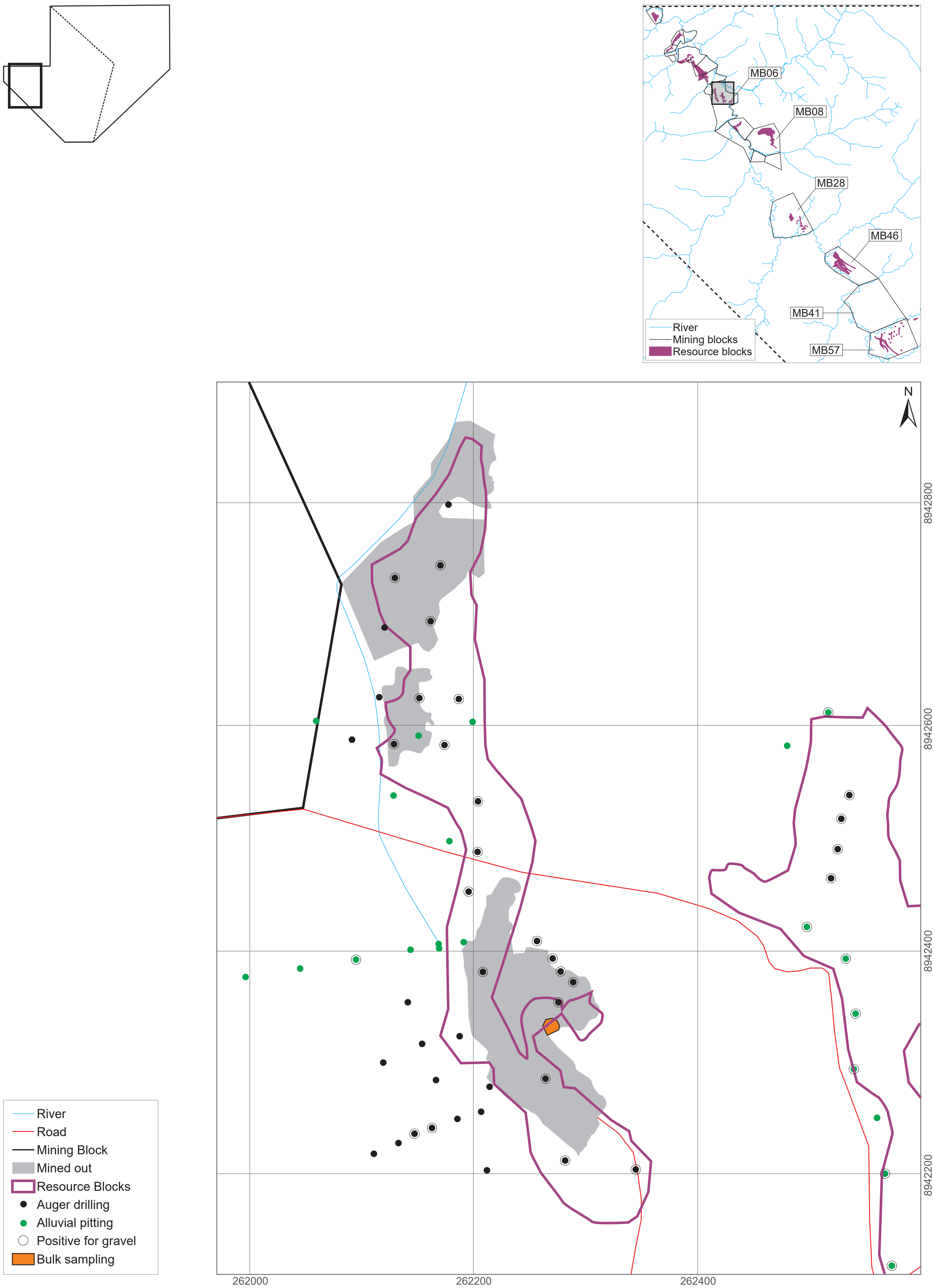


Source: LOM

Venmyn Deloitte.

Lucapa Diamond Company

Location and extent of exploration and mining activities in MB06



Source: LOM

This block has produced 42 special (>10.8ct) stones, with the largest being 133cts. Two stones greater than 100cts have been extracted. The bulk sampling grade result is notably higher than that obtained during regular mining operations. This is not unexpected due to the following:-

- bulk sampling sites are typically selected in areas of optimal gravel development;
- small sample size; and
- low sample density.

The average stone size is only 11% lower during mining when compared to the bulk sampling result.

14.21.2. MB08

MB08 is located north of the national road to Saurimo. This block has been the focus of extensive exploration and mining, contributing to 50% of SML's diamond sales from mining to date. The Cachuma tributary forms southern limit of MB08 (Figure 28). This tributary has an important influence on the diamond population found in MB08.

Pitting and augering was used to identify the gravel orebody and this was followed up by bulk sampling in 2012. To date a total of 89 pits have been excavated and 71 auger drillholes drilled in this mining block (Figure 28). The bulk sample taken in MB08 yielded both an exceptional in situ grade of 95.05ct/100m^3 and an exceptional stone size of 7.88ct/stone.

Mining in MB08 commenced in April 2015. To date a total of 146,768m^3 of gravel has been mined with an average bulked grade of 11.41ct/100m^3 and an average stone size of 1.85ct/stone. A total of ~17,084cts have been extracted from MB08 which amounts to 50% of the total production from SML. This block has produced 259 special (>10.8ct) stones, with the largest being 404.23cts. This is the largest diamond ever reported in Angola.

SML regularly uses auger drilling ahead of the mining face to identify the continuity and thickness of the gravel. This practise ensures that mining only takes place in gravel. The bulk sample grades and stone size were significantly higher than those produced during mining activities. As noted in Section 14.21.1, this is not unexpected due to the positioning of the bulk samples, the sample size and sample density.

14.21.3. MB28

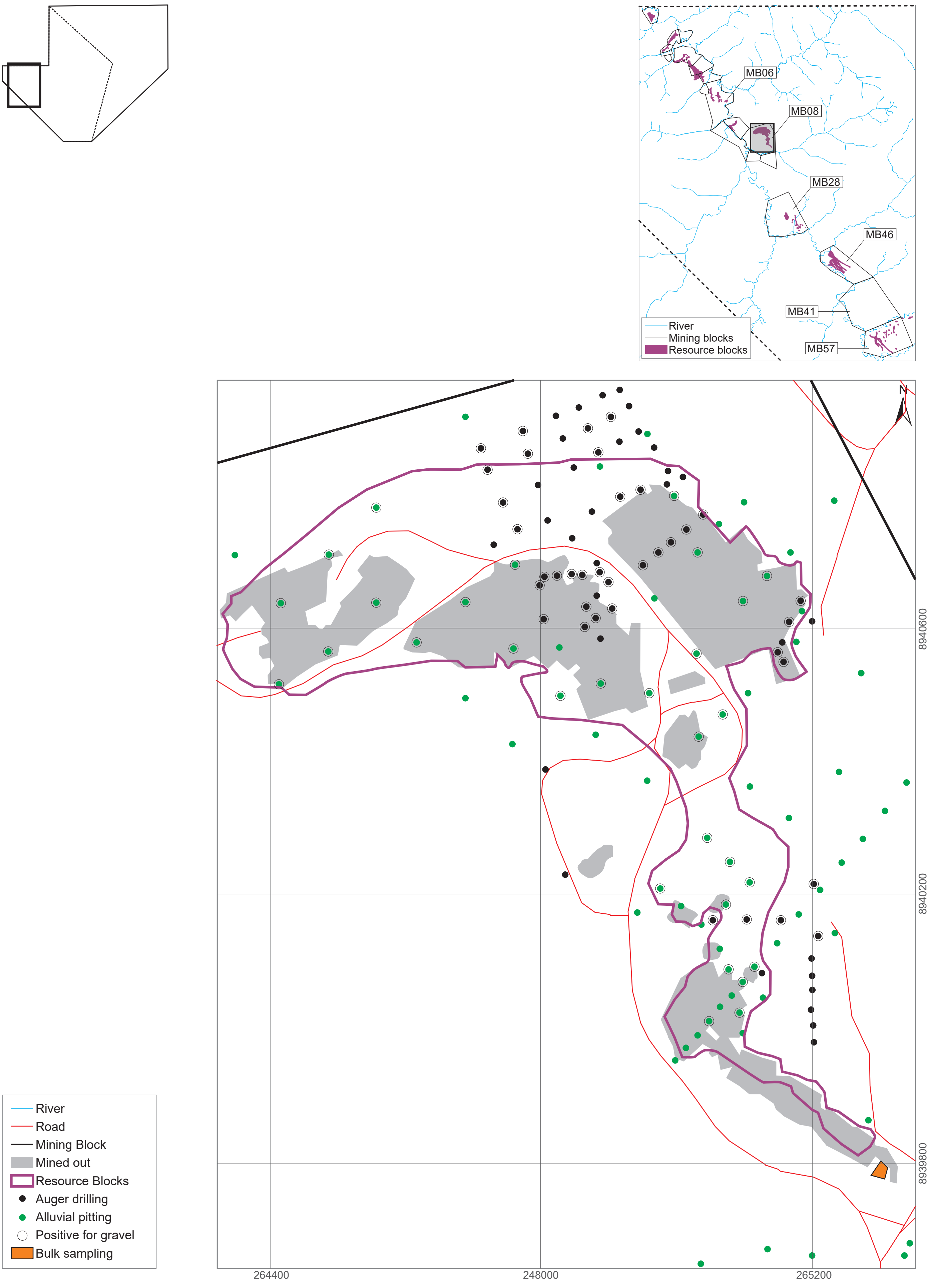
MB28 is an extensive block covering the area south of the national road to Saurimo towards MB46. The block's southernmost boundary extends to the Cairi tributary (Figure 21) enters the Cacuilo River. MB28 has been divided into a northern and southern area on either side of a minor tributary to the Cacuilo River.

Pitting and augering commenced in August 2016 to identify the gravel orebodies within the river valley. These exploration methods have continued to extend the gravel limits and are also now being used ahead of the mining face to guide the mining direction. To date (31 May 2017) a total of 13 pits have been excavated and 289 auger drillholes have been drilled into MB28. The results are presented in Figure 26.

Venmyn Deloitte.

Lucapa Diamond Company

Location and extent of exploration and mining activities in MB08



Source: LOM

The first bulk sample of 227.97m^3 was taken in January 2015 which yielded an in situ grade of 1.43ct/100m^3 and a stone size of 0.46ct/stone. Two additional bulk samples (BLK28B and BLK28C) were excavated in 2016. These combined samples of 1,629.00m^3 yielded an in situ grade of 6.33ct/100m^3 and an average stone size of 1.27ct/stone.

The BLK28B sample was comprised of the combined gravel excavated from the trenching programme in October 2016. Three trenches were excavated to assess the gravel extent across the river valley and to take a bulk sample. The location of the trenches and other exploration activities are shown in Figure 26.

A trial mining exercise was undertaken in April 2016 (TMB28) and again in November 2016. These results are included within the mining statistics.

Full scale mining in MB28 commenced in January 2017. To date a total of 82,383m^3 of gravel has been mined with a bulked average grade of 6.53ct/100m^3 and an average stone size of 1.07ct/stone. A total of 5,376cts have been extracted from MB28 which amounts to 16% of the total production from SML. This block has produced 53 special (>10.8ct) stones, with the largest being 227.71cts extracted from MB28C, Angola's second largest reported rough diamond.

14.21.4. MB46

The E46 anomaly is located adjacent to the Cacuilo River, approximately 7km south of the Cacuilo River bridge near Namuluri. This area had been identified as a potential area of interest in 2012 due to limited artisanal activities, and five diamonds recovered from a pile of artisanal gravels abandoned on the banks of the river.

Between March and July 2013, delineation pitting was carried out over E46 and into the river valley both to the north and south. The purpose of the exploration was to:-

- confirm whether E46 was a kimberlite; and
- identify diamondiferous gravels within the Cacuilo River valley that may be associated with the kimberlite.

The E46 anomaly was confirmed as a kimberlite through pitting and the drilling of a core drill hole, CDH_12. The kimberlite (L46) was also bulk sampled from surface. This is discussed in further detail in the Lulo Kimberlite Project, Section 15.20.2.

Being located within and adjacent to the Cacuilo River valley, this area became an alluvial gravel target. A pitting programme was carried out across the river gravels. Five lines of pits, at right angles to the river valley, were excavated using an excavator, at a line spacing of 200m to 400m. The lines were named sequentially, Line E46 – 0, 1.0, 1.5, 2 and 3 (Figure 29). The pits were spaced 25m apart and excavated to a maximum depth of 6m. A total of 127 pits were excavated in MB46.

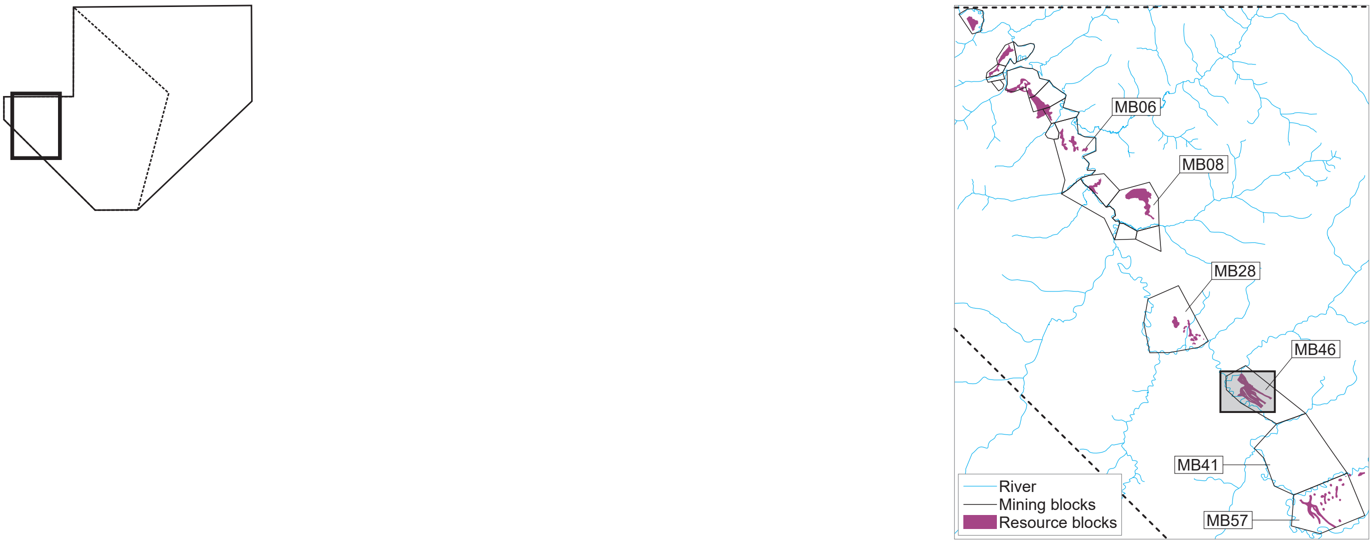
The pits were logged in the same manner as described in Section 14.19.2.

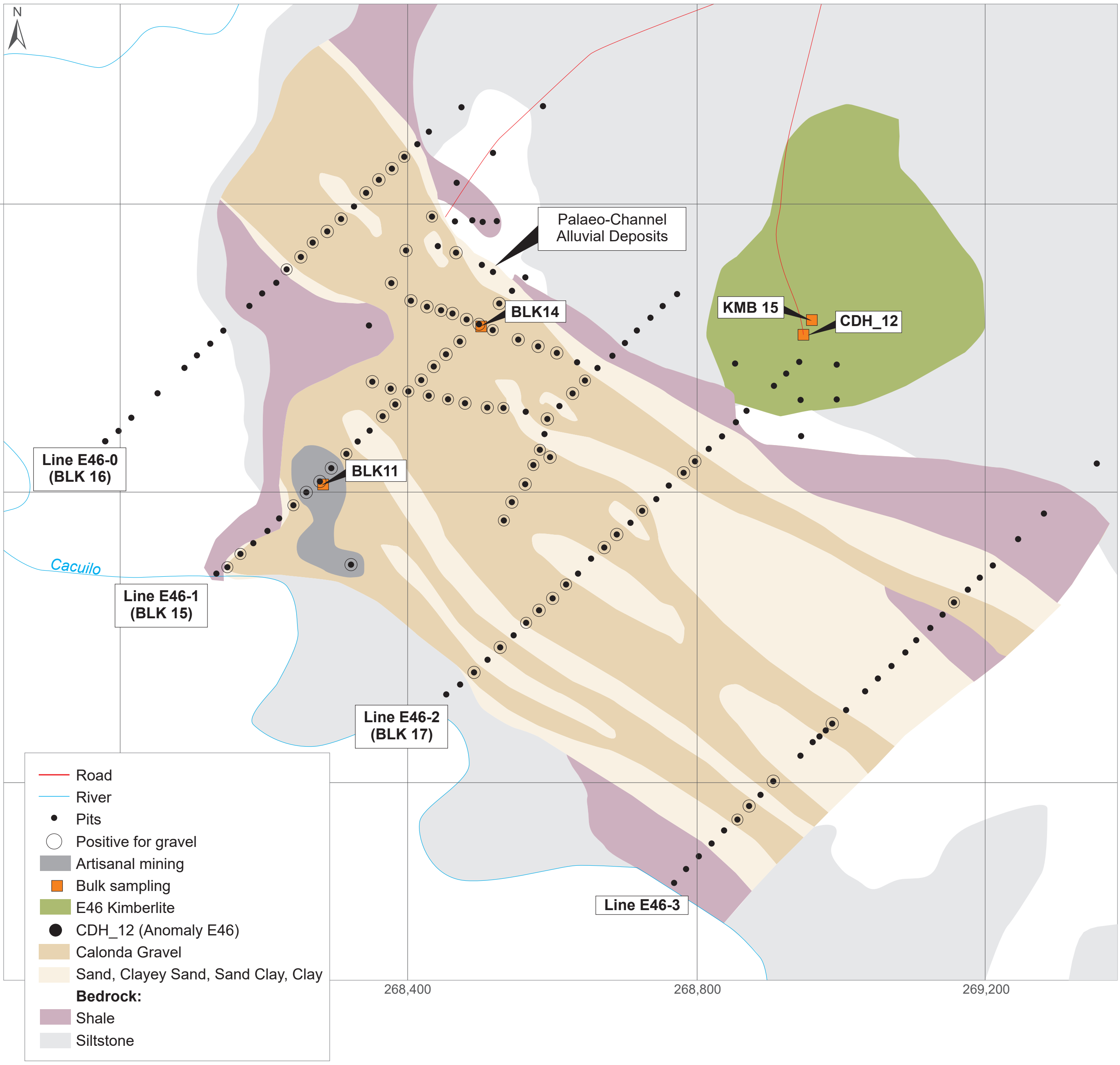
The pitting results enabled the mapping of the various gravel deposits within the river valley (Figure 29). The pitting was used to identify the optimal position for bulk samples to be taken to estimate the grade of the alluvial gravels in MB46. Two bulk samples (BLK11 and BLK14) were taken in 2013 and yielded an in situ average grade of 21.53ct/100m^3 and an average stone size of 1.07ct/stone from 243m^3 of gravel treated (Table 9).

Venmyn Deloitte

Lucapa Diamond Company

Location and extent of exploration and mining activities in MB46





Source: LOM

In 2014, encouraged by these results, SML treated a further three bulk samples (BLK15-17) sourced from the gravels extracted from the 2013 pitting programme. These bulk samples returned a combined in situ average grade of 1.59ct/100m^3 and an average stone size of 0.33ct/stone from 62.73m^3 (Table 17). From the results, this sample appeared to have been too small to be representative of the gravels and potential diamond population.

It must be noted that the gravels are open ended along the river valley and are simply limited by the extent of the pitting. SML has since tested for gravels to the south of E46.

SML commenced mining in MB46 in February 2016, until June 2016. To date, a total of 23,867m^3 of gravel have been treated, yielding 2,143.85cts at a bulked average grade of 8.98ct/100m^3 and an average stone size of 1.33ct/stone. The largest stone produced from MB46 was 88.17cts. The mining block has produced a total of 22 special stones (>10.8cts).

In March 2017, SML modified the outline of MB46 to include the Xangando River tributary of the Cacuilo River. Auger drilling was untaken on the southern bank of the Xangando River valley near the Xangando bridge. The purpose of this exploration was to identify gravels for future mining, and also to identify whether the large stones found downstream in MB28 are being brought into the Cacuilo River system from this tributary.

A total of 15 auger drillholes were drilled using the Sedidrill, amounting to 144m. The drillholes were consecutively numbered with a prefix indicating their location and method of drilling, e.g. XG/SD09. Only drillholes XG/SD12 and XG/SD15 intersected gravel.

14.21.5. E41

E41 is a geophysical anomaly located in Block41. The block lies south of E46, and north of the Canguigi tributary to the Cacuilo River. E41 is located to the east of the Cacuilo River in the valley and may be associated with alluvial gravels.

SML commenced test work in this block during July and August 2016. Five pitting lines were cleared at a distance of approximately 250m apart. A total of 169 pits were excavated along the lines at 50m spacings. The results are presented in Figure 30. Due to the instability of the ground, 33 pits could not be completed to intersect gravels, with their results being described as "unconfirmed". A large number of the pits encountered bedrock with no gravel. Some pits intersected kimberlite in the area of the geophysical target.

Due to the instability of the ground, the Sedidrill was used to complete the planned pits. A total of 11 auger drillholes were drilled. Their results are combined with the pitting results.

E41 revealed two different gravel deposits; namely, a central reworked Calonda derived gravel and a grés derived gravel. The names of the gravels were based on their apparent source gravels, as the clast assemblages were vastly different in the two.

The Calonda derived gravel had an average overburden thickness of 5.7m and an average gravel thickness of 0.3m. It is a matrix supported gravel with a dark grey and sandy matrix. Clasts are sub-rounded to rounded of cobble to pebble in size. The clasts are mainly comprised of chert. These are considered very similar to those found in the Calonda Formation basal conglomerate gravels of northeastern Angola. The gravel contains a high concentration of ilmenite, and also some large garnets. The gravel appears to be extremely channelized, and as a result the gravel thickness and composition is expected to vary widely over short distances.

The reworked grés gravel has an average overburden thickness of 3.8m with an average gravel thickness of 0.4m. The gravel is matrix supported in a yellow sandy matrix which contains abundant ilmenite at the base. Clasts are well-rounded to rounded with sizes ranging from pebbles to cobbles. The gravel is poorly-sorted. The quartzitic clasts are predominantly of 'grés' material that has been reworked from older terraces into the river floodplain.

A bedrock elevation grid was modelled using the 2008 Fugro survey and pitting results and is presented in Figure 30. The reworked grés gravels typically occur at higher elevations towards the edge of the palaeo valley, whilst the reworked Calonda occurs more centrally in the channels.

Two bulk sample results were selected to test the gravels over E41, namely BLK E41-1,2 and BLK E41AA (Figure 30). A total of 544m^3 of in situ gravel was excavated which yielded 21 stones which amounted to 13.07cts. This resulted in an in situ average grade of 2.40ct/100m^3 and an average stone size of 0.62ct/stone.

14.21.6. E57

E57 is a geophysical anomaly located in Block57. This block lies adjacent and to the south of MB41, approximately 20km southeast of Lulo camp. The E57 anomaly lies on the eastern side of the Cacuilo River valley and south of the Canguigi tributary. E57 is associated with alluvial gravels (Figure 31).

During August and September 2016 pitting lines were cleared to commence exploration in this area. The lines were spaced at between 100m and 250m apart, across the river valley. A total of 246 pits were excavated along the lines at a spacing of 50m apart. Another line was laid out across the Canguigi stream near the E43 geophysical anomaly. The location and results of the pitting is presented in Figure 31. Two types of gravel were identified, a black gravel and a yellow gravel.

The upper yellow gravel varies in thickness from 5cm to 20cm and is comprised of the following:-

- yellow to yellow/pink coarse-grained sand matrix;
- 5-10cm size sandstone and quartzite pebbles;
- ilmenites -3mm in size;
- few garnets,

The lower black gravel varies in thickness from 10cm to 40cm and is comprised of the following:-

- dark grey and black clayey sand in matrix;
- 5-15cm size sandstone and quartzite pebbles;
- ilmenites -4mm in size; and
- garnets -3mm in size.

A bedrock contour plot was produced using the pitting results. It was interpreted that most of the E57 was transported into the Cacuilo River by the Canguige stream where it was reworked.

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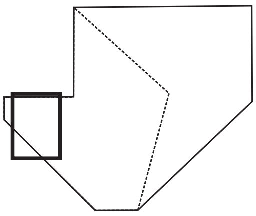
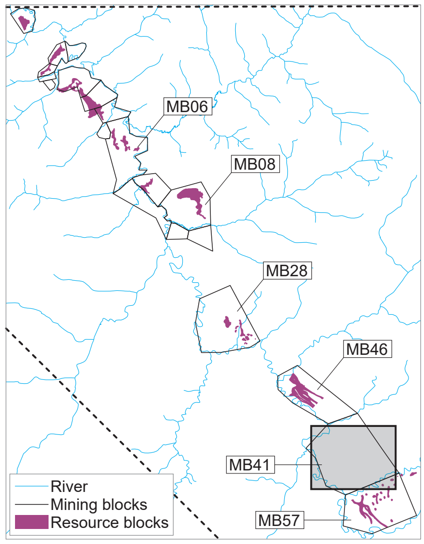
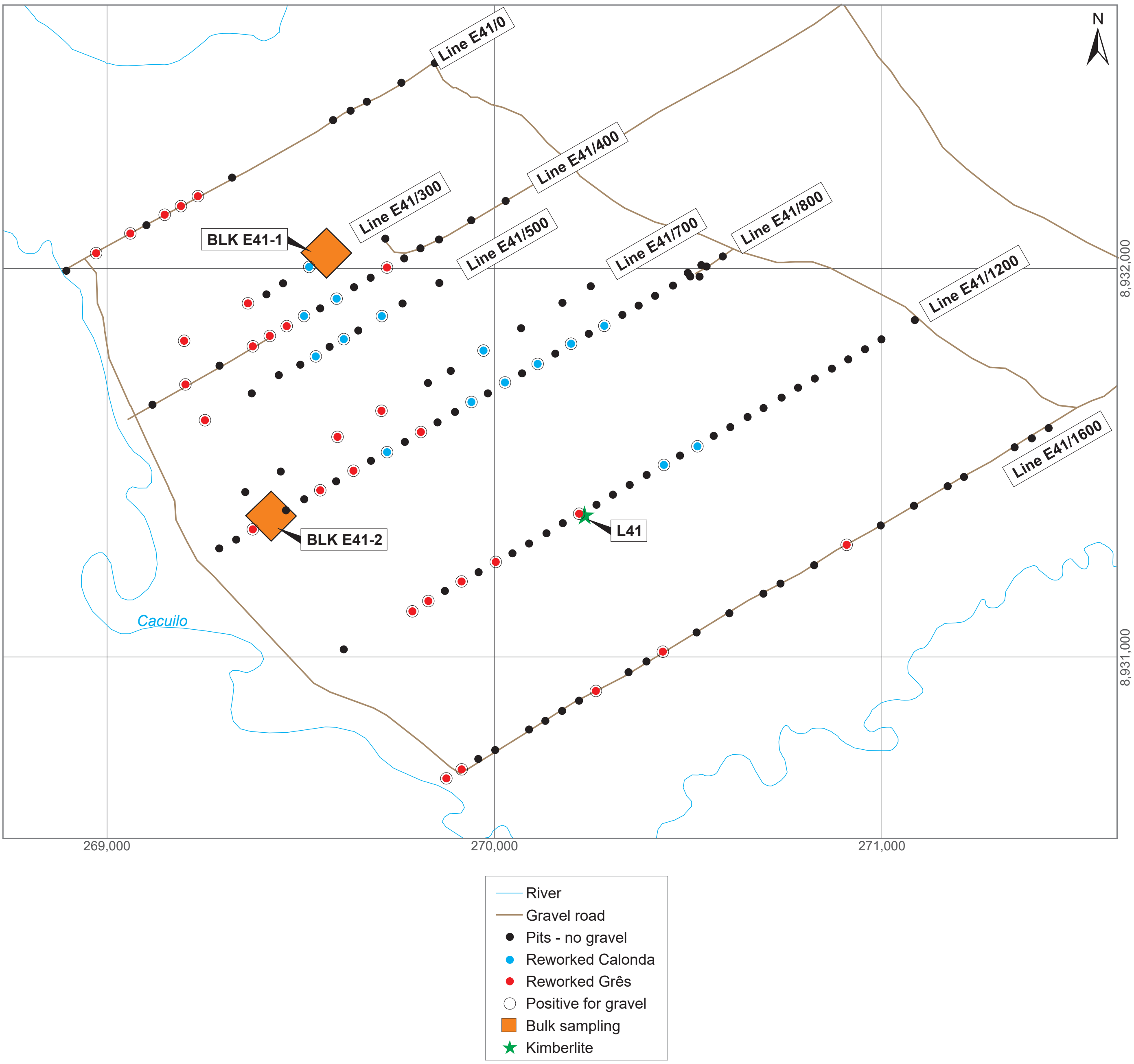
Location and extent of exploration activities in E41

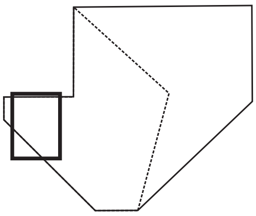


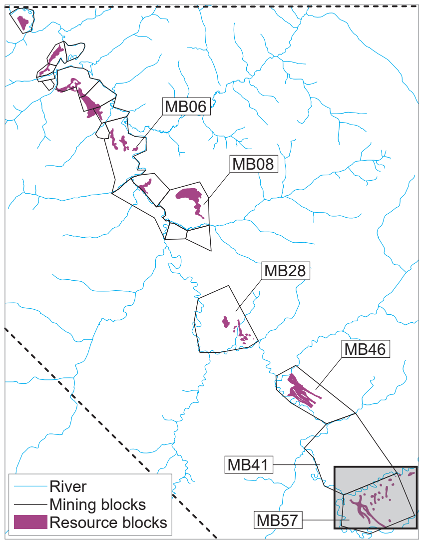


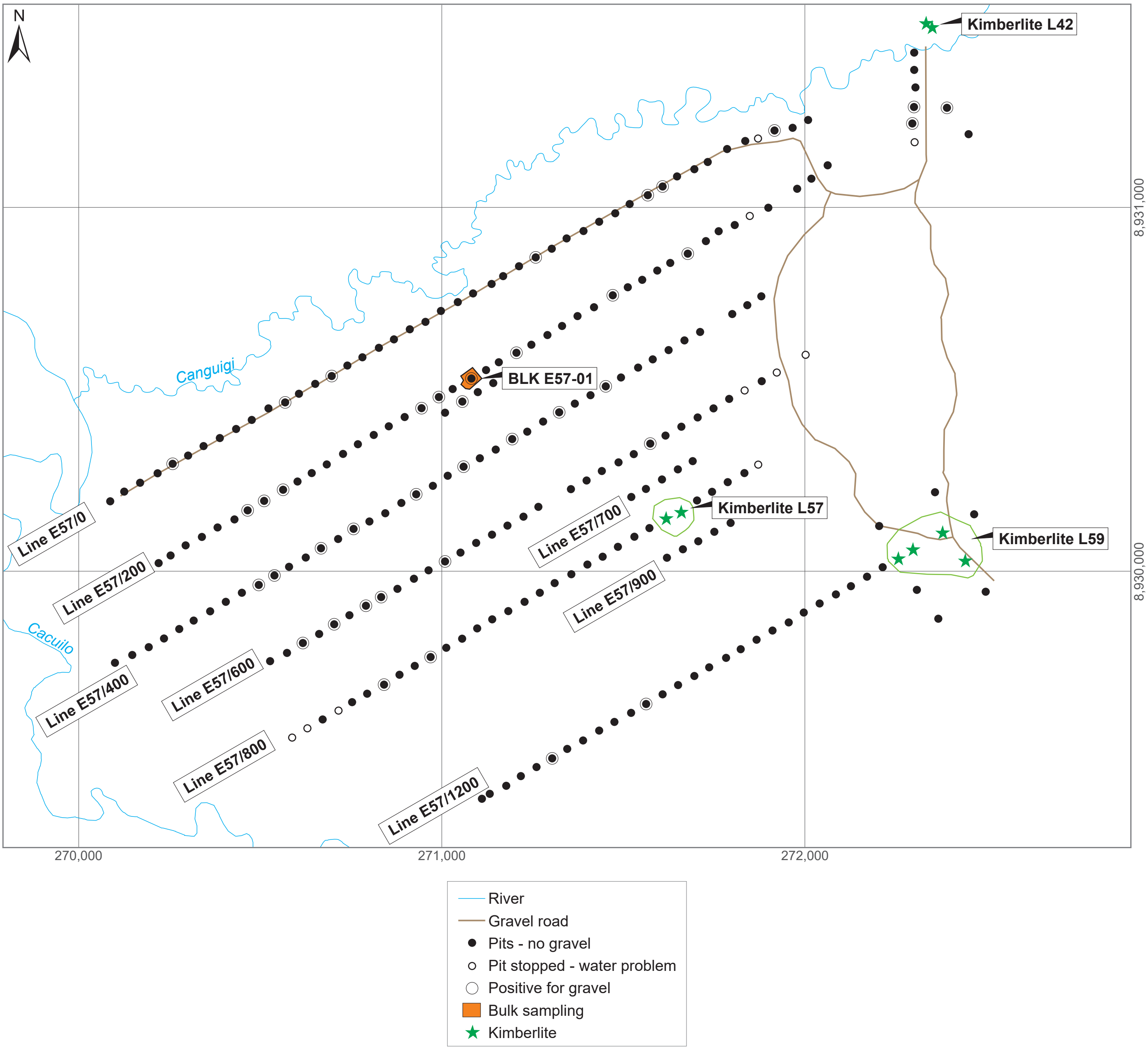


Source: LOM

Location and extent of exploration activities in E57







Source: LOM

Due to the positive pitting results, a bulk sample site was selected (Figure 31). A total of $454m^3$ of dark grey, sandy gravel was excavated and processed through the plant. Although garnets and ilmenites were present in the gravel, only a single 0.36ct poor quality diamond was extracted. This is an effective in situ grade of $0.08ct/100m^3$.

Taking cognisance of all exploration results, SML have determined that there is insufficient gravel present in MB57 for mining. However, it was recommended that the yellow gravel be bulk sampled near pit E57/200/-08, where it was optimally developed and contained abundant ilmenites.

14.21.7. Lulo River valley

Activities in this area commenced in November 2016 with the construction of a road to access the Lulo River valley. The road initially accessed anomaly e217 and kimberlite L25 and then pushed northwards towards the Lulo River (Figure 32). A temporary camp was constructed for the exploration programme undertaken. The location of this camp, and the associated access roads is indicated on Figure 32. Photographs of the camp are shown on Figure 33.

In April 2017, the exploration commenced on the Lulo River and its associated valley. The primary objective of any alluvial exploration is to ultimately locate additional resources to extend the life of mine of SML. Exploration in the Lulo River Valley remains at a very early stage with results not having been previously announced due to their current immateriality to SML. Exploration commenced from first principles using the same methods which have successfully yielded an alluvial mining project in the Cacuilo River valley.

14.21.7.1. Pitting

Four pits were dug by hand in the Lulo River valley, southwest of the river, during March 2017. These pits were sequentially named with a prefix indicating their location within the Lulo River valley and the method of excavation, e.g. Lulo/P002. Three of the pits were positioned at a distance of approximately 100m apart, whilst the fourth (Lulo 003) was positioned 250m to the north northeast of Lulo 004. The location of the pits are indicated on Figure 32. Photographs of the exploration are presented in Figure 33.

Details on the exploration method and information recorded for the pits is the same as that used at SML. This is outlined in Section 14.20.2.

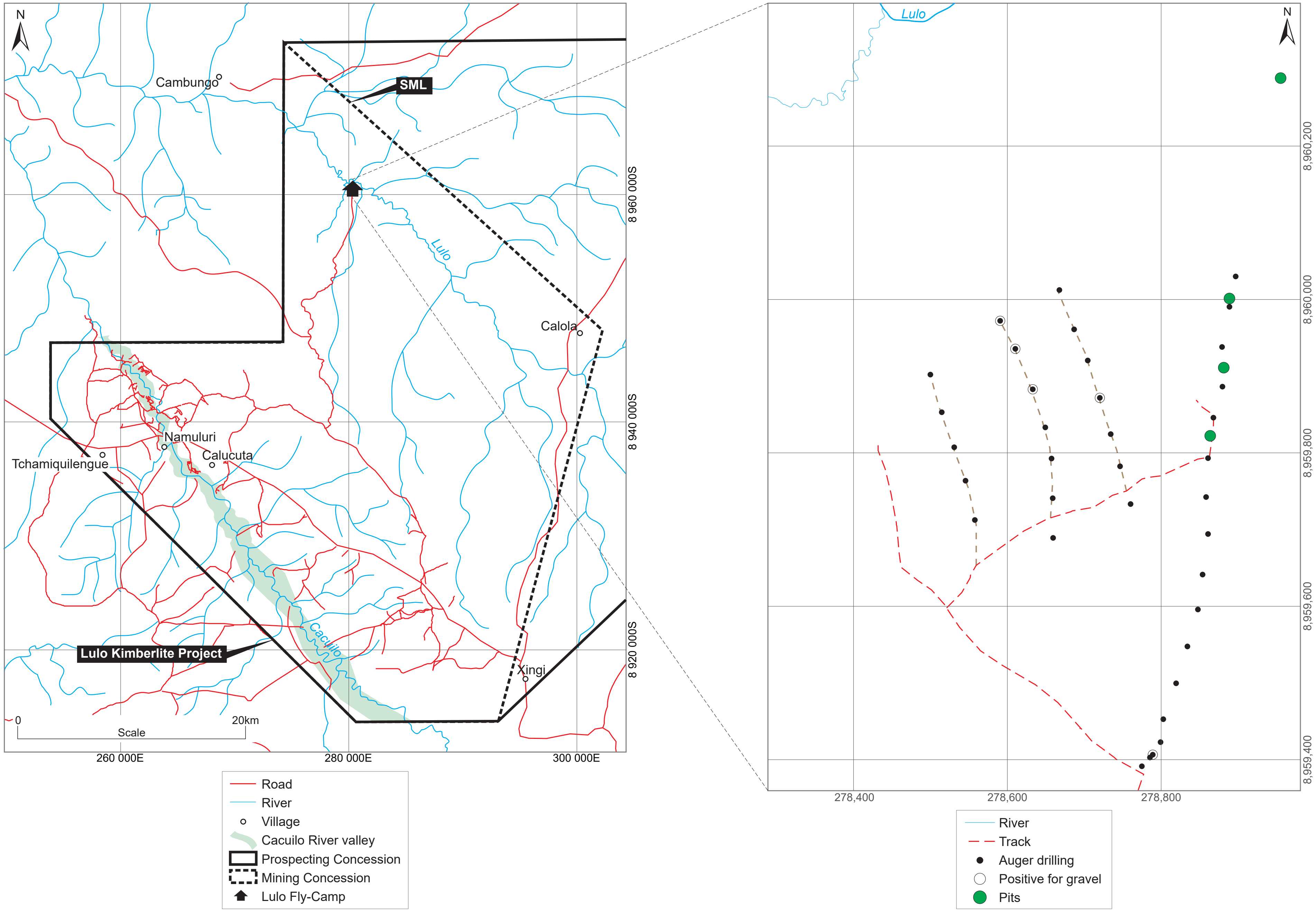
None of the pits intersected gravel and flooded quickly due to the high level of the water table. An immature nodular ferricrete horizon, known locally as "brita" was intersected in Lulo/P002

14.21.7.2. Sedidrill drilling

Sedidrill drilling was focussed on identifying gravels within the Lulo River valley. A total of 36 auger drillholes were drilled during April 2017, totalling 428.1m. The location of the drillholes is indicated on Figure 32.

The drilling was carried out along four drill lines positioned at approximately right angles to the river flow direction. The drillholes were sequentially numbered with a prefix to indicate their position within the Lulo River valley, and SD to indicate the method of exploration, e.g. Lulo/SD015.

Location of Lulo River valley infrastructure and exploration



Source: LOM

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Figure 32

Photographs of Lulo River camp and exploration activities

Auger material from hole LuloSD021

Camp at the Lulo River

Open area close to the Lulo River camp

Lulo River area south of LULO/P003, looking south

Source: LOM

A total of five of the 36 auger drillholes intersected gravel. The results are presented in Table 18.

Table 18 : Lulo River valley drilling results

DRILLHOLE NO.	COORDINATES			EOH (m)	GRAVEL		GRAVEL WIDTH (m)	O/B WIDTH (m)
	X	Y	Z		FROM (m)	TO (m)		
Lulo/SD016	278,788	8,959,403	1,010	14.10	11.70	11.80	0.10	11.70
Lulo/SD021	278,731	8,959,871	1,007	14.10	10.10	11.10	1.00	10.10
Lulo/SD025	278,596	8,959,975	1,000	8.10	4.00	4.20	0.20	4.00
Lulo/SD026	278,630	8,959,936	1,004	9.60	7.00	7.50	0.50	7.00
Lulo/SD027	278,644	8,959,884	1,005	11.10	8.80	9.80	1.00	8.80
TOTAL / AVERAGE				**57.00**			**0.56**	**8.32**

Notes:
EOH - End of hole
O/B - Overburden
Coordinate System - WGS84 UTM

Details on the exploration method and information recorded for the Sedidrill drilling is the same as that used at SML. This is outlined in Section 14.20.3.

The Lulo River valley gravels intersected in the Sedidrill drillholes can be described as a medium-grained gravel with a yellow / brown sandy matrix. Gravel clasts are typically angular quartz ranging in size from 0.5 – 3.0cm. Fine ilmenite grains are also present. In certain areas, the gravel appears to be "perched" or "suspended" over white river sand, whilst in other areas it is deposited on a red / brown weathered sandstone.

14.22. Geospatial information system

In April 2015, a South African company, Mineral Services (MS) was requested to assess the kimberlites located within the Lulo Kimberlite Project. As part of this assessment a geospatial information system (GIS) was compiled in order to collate all available data. The GIS included the following key data:-

- historical Diamang kimberlites;
- all magnetic anomalies;
- soil and stream sample positions;
- drillhole positions;
- pit positions;
- bulk sample position;
- DTM;
- satellite imagery; and
- airborne magnetic and radiometric data.

This was the first time that the extensive amount of data had been compiled into this format. The GIS was created in GeoSoft Software.

The onsite Lulo and LOM geologists manage this GIS system on their company laptops and update it regularly with results as they become available. Official protocols for offsite GIS backup have been implemented by LOM.

14.23. Database management

In November 2015, Foundation Resources, an Australian mining consultancy, was contracted to compile a database of all previous alluvial and kimberlite exploration results. The database was compiled in Microsoft Access™ and included the following points of information and associated results:-

- pitting;
- drilling;
- soil and stream sampling;
- heavy mineral sampling;
- mantle mapper sampling;
- micro-probe results; and
- bulk sampling.

Foundation Resources utilised the GIS database prepared by MS as the basis of their work. During the compilation of the database, information verification was carried out to ensure the accuracy and reliability of the data.

The database is maintained and updated on a regular basis by LOM as additional results become available. The database is password protected and stored on LOM's Perth office server. The database is backed up on the Perth server on a weekly basis. The site geologists have access to the database; however, the original is stored in Perth.

14.24. Reporting

The onsite reporting procedures are divided between exploration reporting and operating reporting. Each bulk sample has an associated report detailing all methods used and results achieved, with associated maps and photographs.

The operational reports typically include the following information, where relevant:-

- activity overview;
- key performance indicators;
- administration, finance and logistics;
- diesel allocations;
- metallurgy, including information on the plant availability, utilisation, maintenance, and breakdowns;
- final recovery, including reports on grades, size frequency distributions, diamond register and exports;
- vehicle usage;
- engineering;
- roads and bridge construction;
- weather conditions;
- mining results;
- alluvial exploration and prospecting activities and results, including relevant logs and photographs;
- kimberlite exploration and prospecting activities and results, including relevant logs and photographs;

- human resources; and
- security.

The following operational reports are prepared by the onsite personnel on a regular basis:-

- daily production reports;
- weekly reports;
- monthly reports; and
- six monthly reports.

14.25. Geological modelling

A total of 19 mining blocks have been identified along SML's 20km long Cacuilo River frontage. Out of these, 13 blocks have been explored sufficiently for modelling and ultimately for inclusion into the Diamond Resource estimate as resource blocks, provided they meet the minimum requirements of realistic prospects for eventual economic extraction (RPEEE). The gravel bodies occurring within a mining block, are defined as a resource block with the same block number as the mining block.

With the acquisition of the Sedidrill, extensive auger drilling has been undertaken by SML within the mining blocks (Section 14.20.3). The auger has been used to identify the extent of the gravel bodies, as well as to measure the gravel depths and thicknesses. This additional exploration has provided sufficient data to allow the computerised modelling of these parameters within the mining blocks.

Z Star carried out this modelling in the Isatis™ system. This is a geostatistics reference software package used for data analysis, visualisation and resource estimation.

Z Star received the following files from the SML geologists which were used in the modelling process:-

- Excel database of gravel thickness results from July 2016 to 26 May 2017. Z Star had previously obtained the preceding exploration results. The database included a total of 583 entries, of which 330 were located within the defined resource gravel bodies. Coordinates for 30 drillholes were measured using a hand-held GPS, rather than the DGPS. The maximum measurement difference between these two methods is approximately 4m and therefore Z Star deemed these acceptable for inclusion into the modelling; and
- GIS point and shape files of the outlines of each gravel body. The gravel body outlines are collated by the SML geologists from field observations, pitting and augering data.

Z Star plotted a histogram of all the gravel thickness measurements within the resource gravel bodies (Figure 34). The histogram indicates the typical log normal distribution associated with geological deposits. The gravel thickness has a mean of 0.51m and a standard deviation of 0.44.

Due to the volume of data, a block estimation method was selected. This allowed the thickness variability within each gravel body to be considered and accurately modelled. This resulted in the creation of a resource block inventory which could also be used for mine planning purposes in the future. The use of a block inventory will also allow for reconciliations between the geological model and mining results to be easily undertaken.

A 100m by 100m grid was applied across the SML gravel deposits. Z Star considered the nature and extent of the data as well as the mining and estimation methods when selecting the block size. The blocks were systematically named according to the X and Y coordinates of the block centre.

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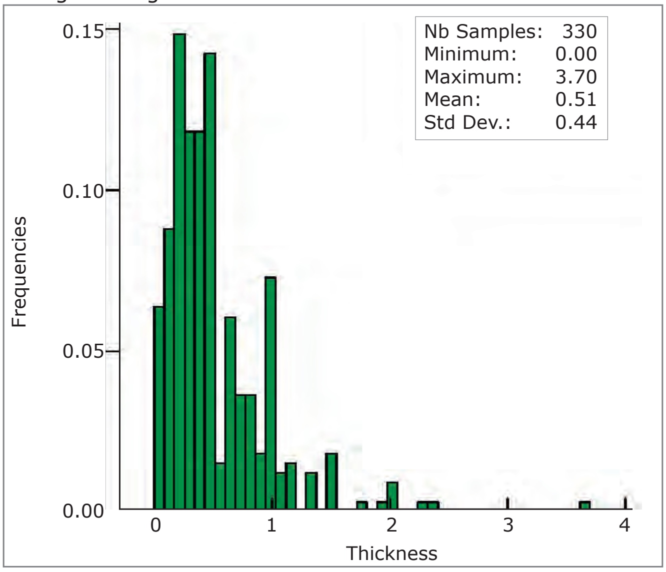
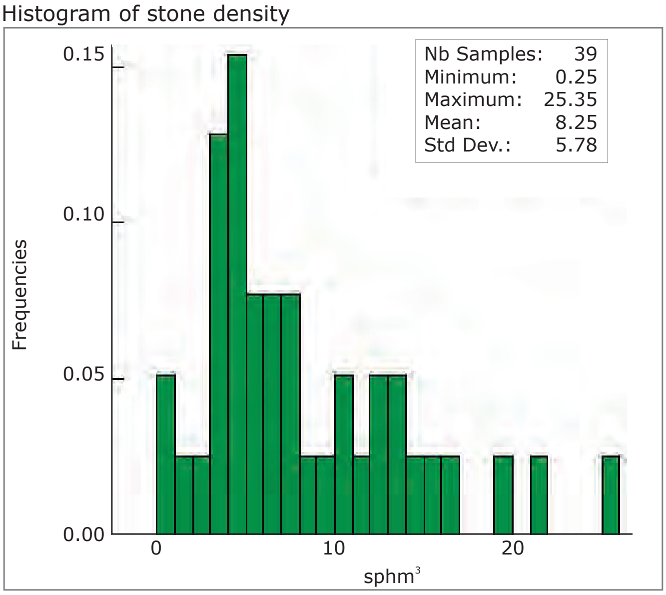
Histograms of gravel thickness (pits and auger drillholes), stone density and average stone sizes (bulk samples)

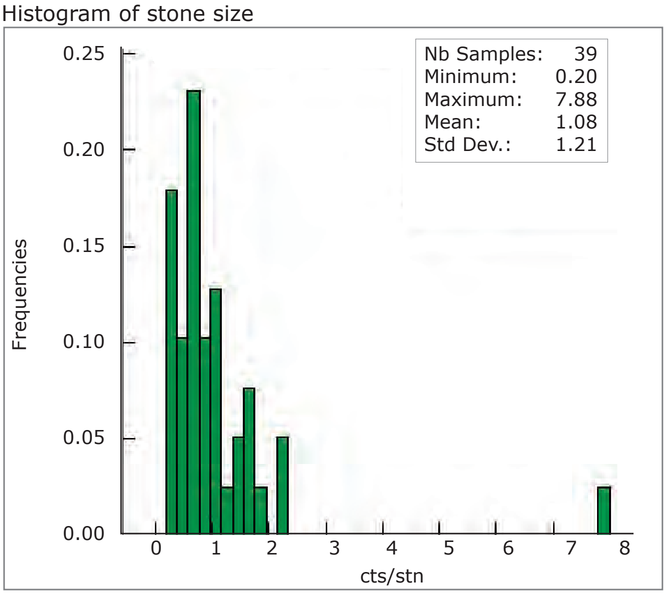
Histogram of gravel thickness



Histogram of stone density



Histogram of stone size



Source: Z Star

The coordinates were divided by 100 to reduce the number of digits in the naming scheme. For example, a block centre with the coordinates 259,700; 8,944,600 would be named 2597-89446. A total of 622 100mx100m blocks are included in the block inventory.

The area of gravel occurring in each 100m block was estimated in square metres This was then multiplied by the average thickness of the gravel, estimated within each block, to calculate the gravel volume in cubic metres. The stone density, stone size and diamond grade variations were also modelled and assigned to each block.

The estimation of the various parameters was undertaken using two different methods. The selection of the method was dependent on the volume and distribution of the points of information. The estimating methods used were either:-

- moving averages; or
- Ordinary kriging.

The estimation has an effect of smoothing the variability in each of the parameters across the resource block. It was imperative that the estimation method did not result in the significant over or under estimation of any of the variables.

The specific estimation methods and results are reported on a resource block basis in the section to follow along with the associated plots. The resource blocks are discussed from north (downstream) to south (upstream) along the Cacuilo River valley.

14.25.1. Block23

Block23 has 15 points of information (pits and/or auger drill drillholes) available for the determination of the gravel thickness. Due to the limited amount of information, a moving average was used to estimate the gravel thickness into the 100m blocks. The result is presented in Figure 35.

A single bulk sample (BLK23) result has informed all the 100m blocks with respect to stone density, stone size and therefore grade (Table 19).

Table 19 : Block23 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/st)
BLK_23	August 2014	113.22	5	1.10	4.42	0.22
	September 2014	794.07	49	59.90	6.17	1.22
TOTAL / AVE BULK SAMPLING		**907.29**	**54**	**61.00**	**5.95**	**1.13**

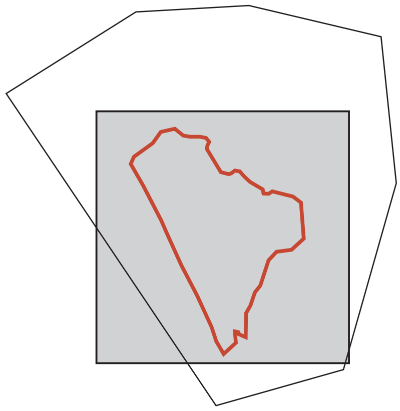
Source: Z Star, May 2017

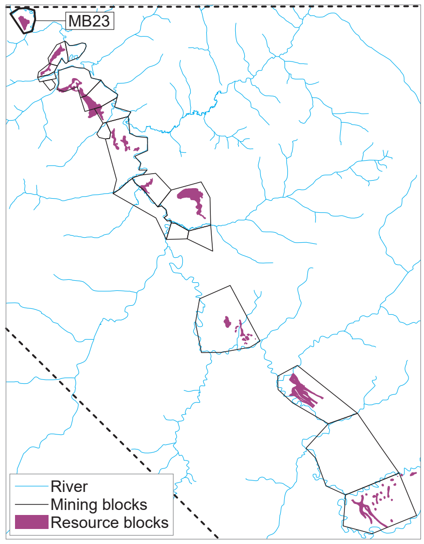
14.25.2. Block31_21

Block31 and Block21 were combined for practical reasons. A total of 34 gravel thickness measurements were available for block estimation. The measurements include an anomalous thickness of 3.7m in one pit. This measurement was capped at a maximum of 1.2m for estimation purposes. The gravel thicknesses were estimated using a moving average and show a general decreasing thickness moving downstream (Figure 36).

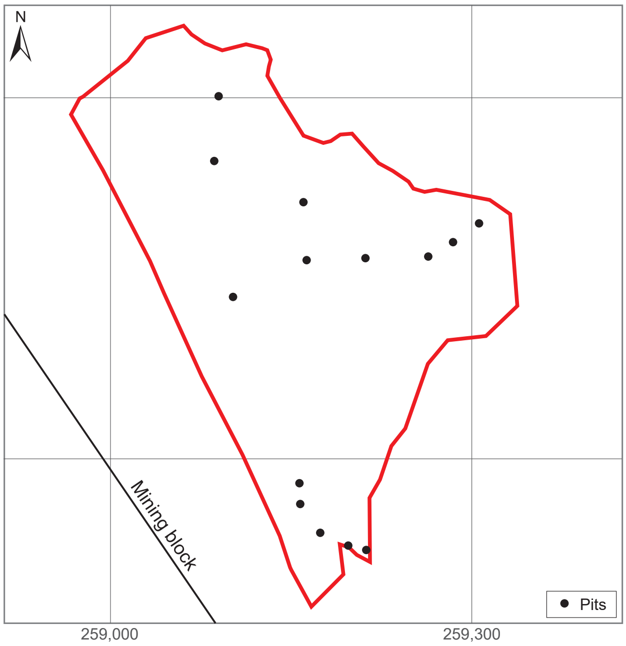
There were both bulk samples and mining results available for the estimation of stone density and stone size (Table 20).

Modelling results for Block23

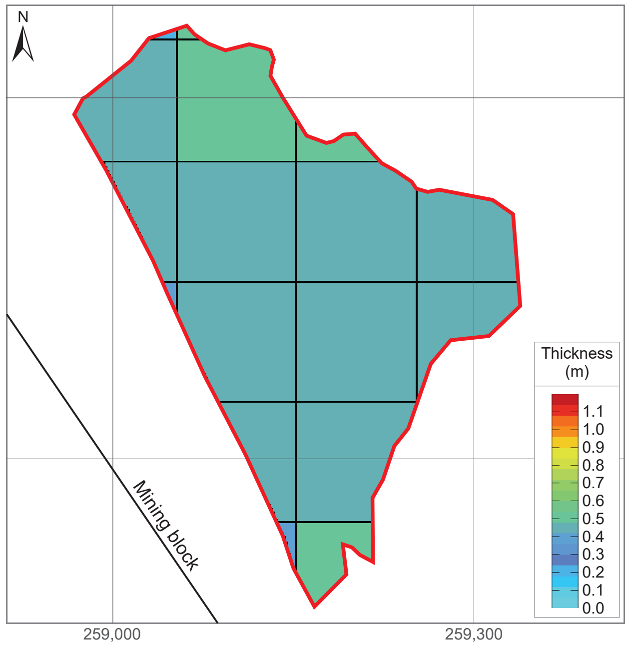




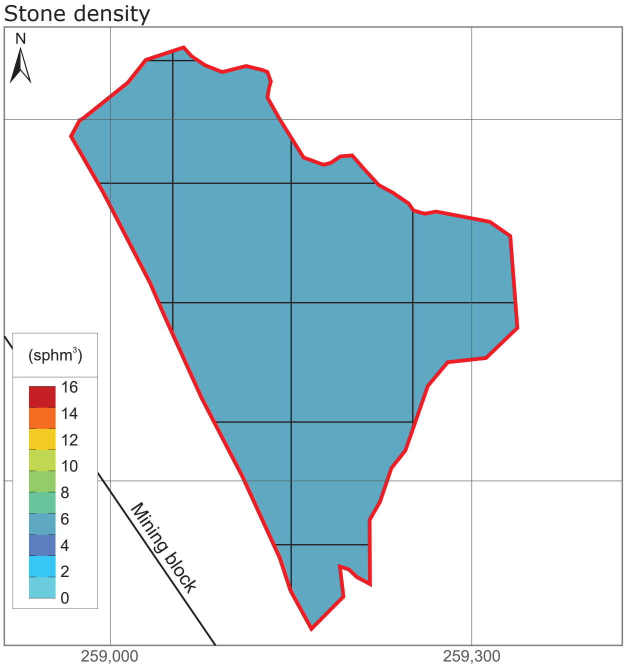
Resource outline



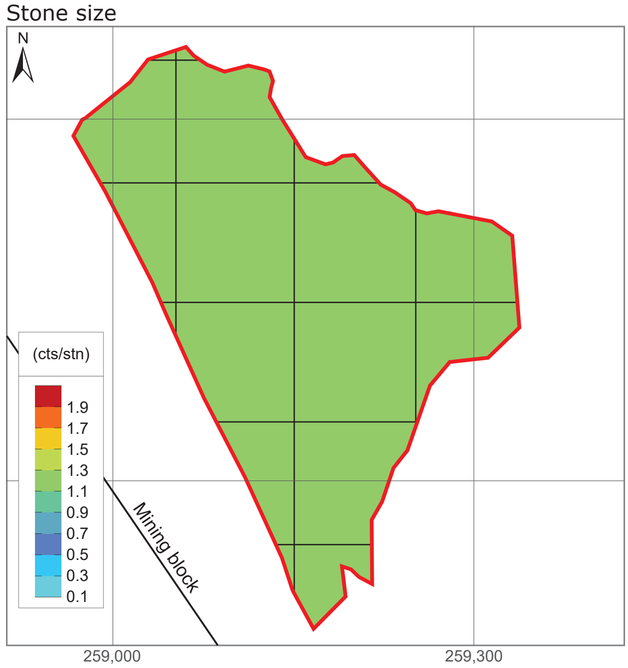
Thickness



Stone density



Stone size



Source: Z Star

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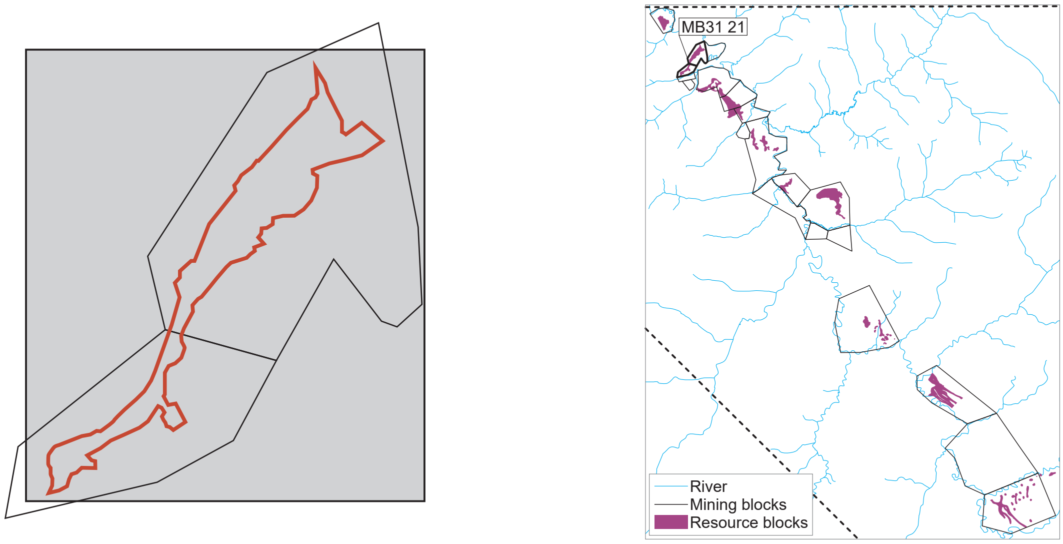
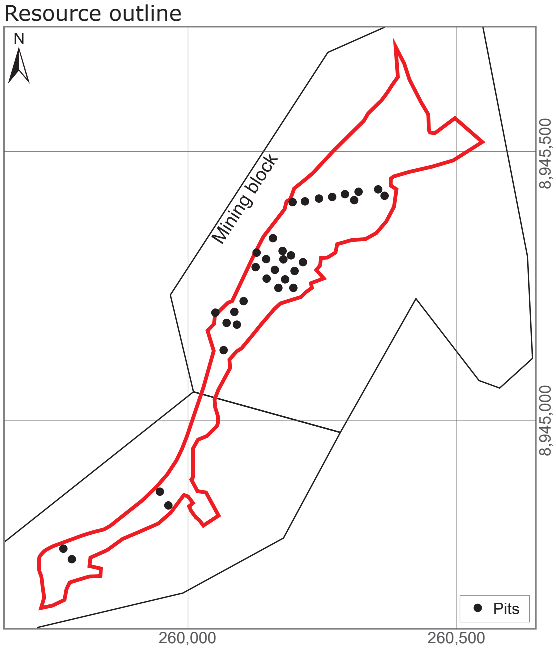
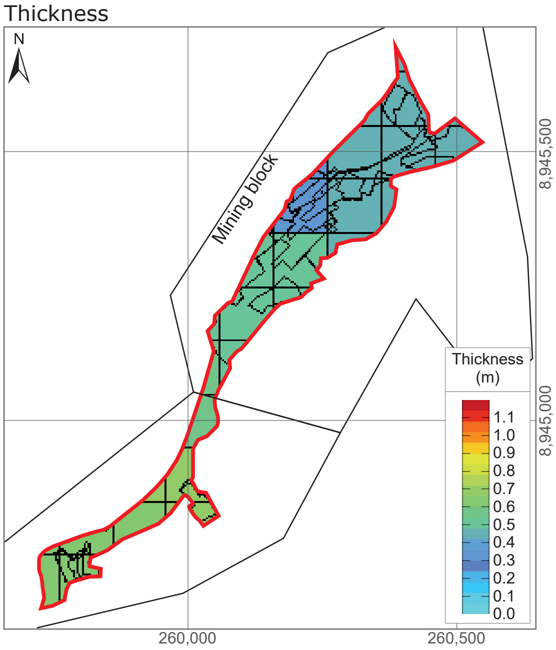
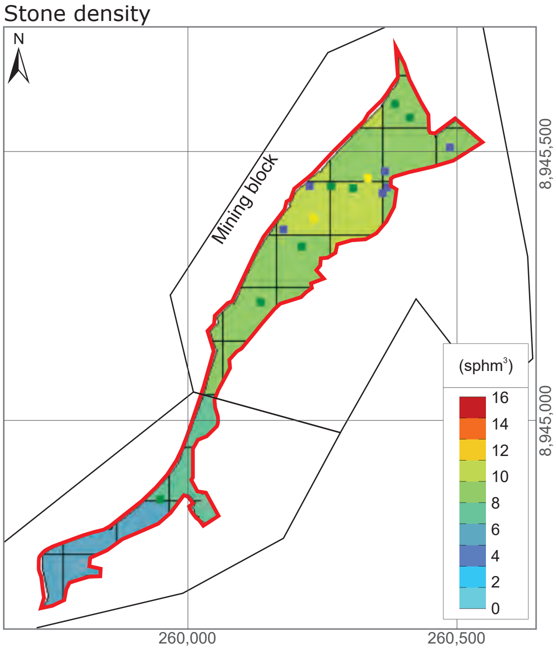
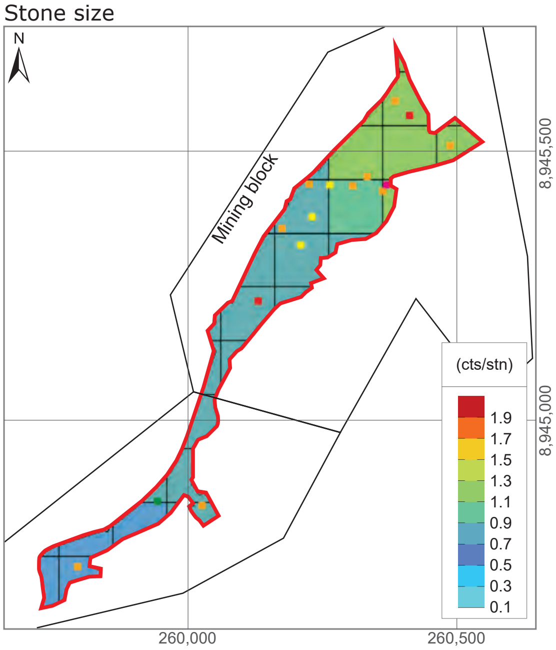
Modelling results for Block31_21











Source: Z Star

Table 20 : Block31_21 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/st)
BLK_13	September 2013	120.00	12	12.80	10.00	1.07
	October 2013	63.00	4	4.20	6.35	1.05
	November 2013	6.50	1	0.80	15.38	0.80
	April 2014	70.38	3	2.15	4.26	0.72
BLK_20	March 2014	555.39	36	38.80	6.48	1.08
	April 2014	287.64	17	16.80	5.91	0.99
	May 2014	321.30	34	54.70	10.58	1.61
BLK_21	May 2014	823.14	94	49.00	11.42	0.52
	June 2014	315.18	30	20.75	9.52	0.69
BLK_31	December 2014	249.40	18	39.15	7.22	2.18
TOTAL / AVE BULK SAMPLING		**2,811.93**	**249**	**239.15**	**8.86**	**0.96**
MB31_21	August 2015	219.64	25	20.43	11.38	0.82
	October 2015	888.39	9	4.48	1.01	0.50
	November 2015	5,487.50	187	154.71	3.41	0.83
	December 2015	2,959.82	99	81.93	3.34	0.83
	February 2016	1,172.32	78	48.56	6.65	0.62
	July 2015	1,453.57	159	109.70	10.94	0.69
	January 2015	1,193.75	98	83.10	8.21	0.85
	February 2015	4,229.46	422	476.30	9.98	1.13
	March 2015	3,995.54	485	495.20	12.14	1.02
	April 2015	3,974.11	563	540.95	14.17	0.96
	May 2015	1,433.93	255	184.95	17.78	0.73
	June 2015	4,293.75	564	424.00	13.14	0.75
	July 2015	9,539.29	889	878.25	9.32	0.99
	August 2015	1,634.82	215	232.91	13.15	1.08
	November 2015	1,475.00	72	59.18	4.88	0.82
TOTAL / AVE MINING		**43,950.89**	**4,120**	**3,794.65**	**9.37**	**0.92**
TOTAL / AVE SAMPLING & MINING		**46,762.82**	**4,369**	**4,033.80**	**9.34**	**0.92**

Source: Z Star, May 2017

A moving average was used to estimate these parameters into each 100m block. The results are presented in Figure 36. The modelling results within Block31_21 show an increasing stone density as well as average stone size moving downstream.

The mining volume results were quoted in a bulked form. However, in order to estimate diamond grades, an in situ volume is required. Z Star converted the bulked volumes to in situ volumes using a bulking factor of 1.12. This method was not considered ideal as it incorporated another variable into the estimation of grade. The bulking factor was calculated from limited mining and bulk sampling results which had quoted both bulked and in situ measurements of volume. This figure was determined from the available data at the time which was agreed upon by Z Star and the SML geologists as being too low. However, the bulking factor was only used where an in situ volume was not available.

14.25.3. Block01_04_26

Block01, Block04 and Block26 were combined into a single resource block, Block01_04_26 as they all occur within the same geological horizon, in this case a large gravel terrace covering an area of approximately 378,000m^2.

There are 57 points of information available for gravel thickness modelling. A spatial analysis was used to estimate the gravel thickness into each 100m block. A variogram model was produced and estimates made using Ordinary kriging. The variogram is presented in Figure 37, whilst the modelling results for each of the parameters are presented in Figure 38.

There are five bulk sampling results and limited mining results available for grade estimation purposes in Block01_04_26 (Table 21). These samples are not regularly spaced and were located at either end of the resource block. This was not considered ideal from a modelling perspective but, with the current level of available information, could not be avoided.

A moving average method of estimation was used to estimate the stone density and stone size into the Block01_04_26 block inventory. The mean of the sample set was 0.65ct/stone, compared to the mean of the block estimate of 0.63ct/stone. The similarity of the results provided comfort as to the accuracy of the estimation method used.

Figure 38 indicates the increasing stone density moving downstream, whilst the stone size remains constant across the resource block.

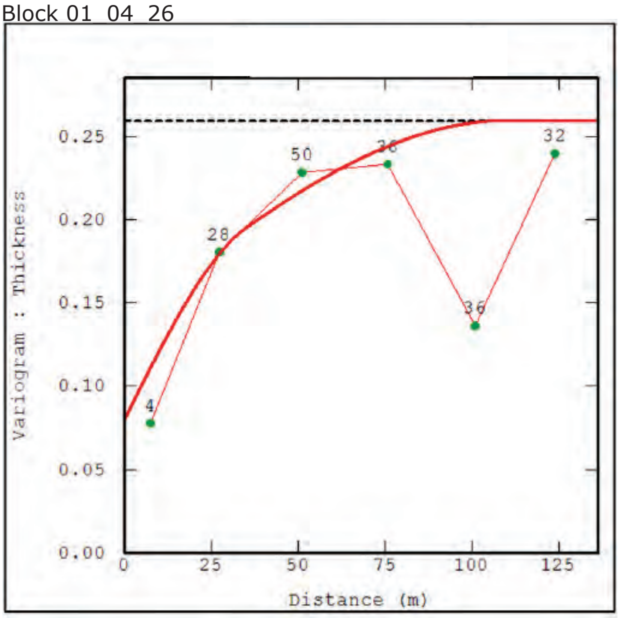
Table 21 : Block01_04_26 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ 100m^3)	AVE STONE SIZE (ct/st)
BLK_02	November 2010	130.40	3	26.45	2.30	8.82
	December 2010	167.70	10	11.40	5.96	1.14
	January 2011	70.20	1	1.85	1.42	1.85
	Mar/Jun 2011	Jig Tails	30	7.85	-	0.26
BLK_03	Mar/Apr 2011	148.90	27	22.50	18.13	0.83
	May 2011	127.40	13	8.50	10.20	0.65
BLK_04	July 2011	36.40	2	1.65	5.49	0.83
	August 2011	53.30	1	0.35	1.88	0.35
	September 2011	67.50	4	1.50	5.93	0.38
	December 2011	58.50	3	0.65	5.13	0.22
	January 2012	41.00	1	5.05	2.44	5.05
BLK_18	November 2013	179.01	8	6.00	4.47	0.75
	December 2013	657.90	35	19.35	5.32	0.55
	January 2014	1,303.56	89	64.10	6.83	0.72
	February 2014	598.23	42	39.55	7.02	0.94
	March 2014	212.67	12	11.85	5.64	0.99
	August 2014	368.73	16	18.95	4.34	1.18
BLK_26	November 2014	408.50	7	1.95	1.71	0.28
TOTAL / AVE BULK SAMPLING		**4,629.90**	**304**	**249.50**	**6.57**	**0.82**
MB01_04_26	January 2015	234.82	10		4.26	
	February 2016	73.21	3		4.10	
	March 2016	4,095.54	149		3.64	
TOTAL / AVE MINING		**4,403.57**	**162**		**3.68**	
TOTAL / AVE SAMPLING & MINING		**9,033.47**	**466**		**5.16**	

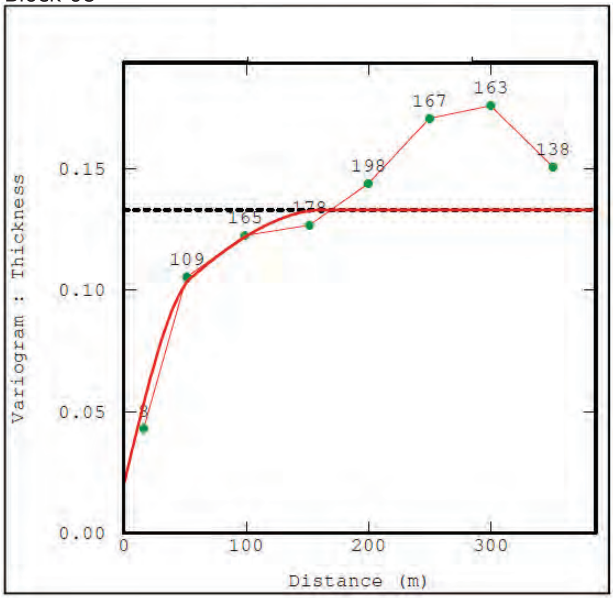
Source: Z Star, May 2017

Variograms of Blocks 01_04_26, 08, 28, 46 and 41

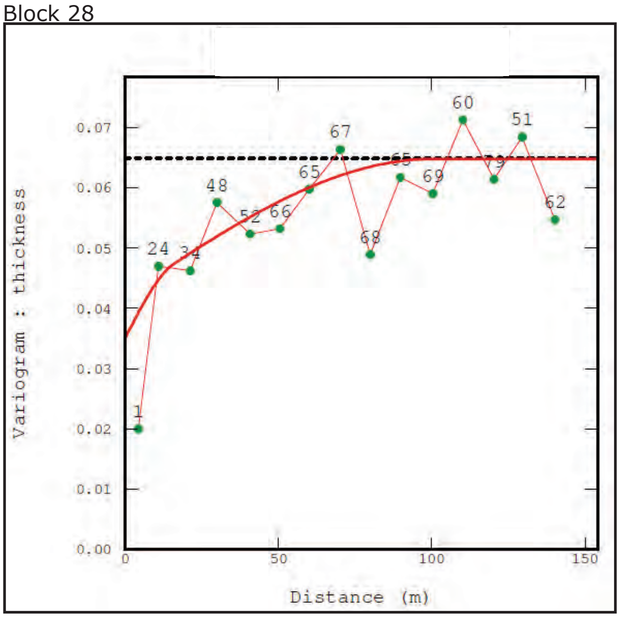
Block 01_04_26



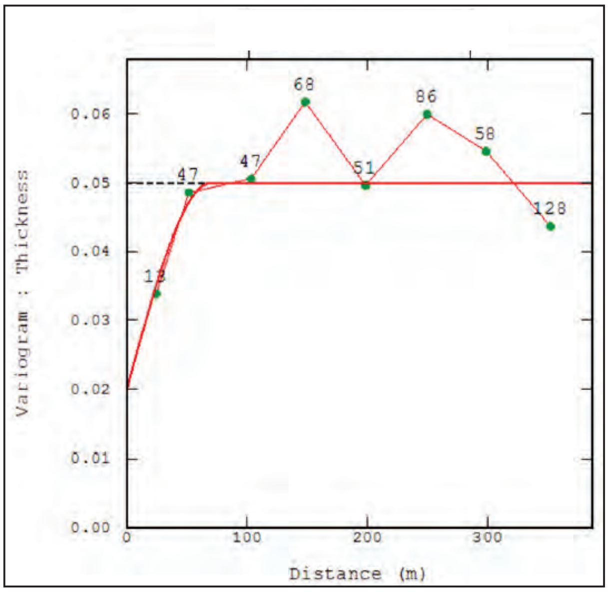
Block 08



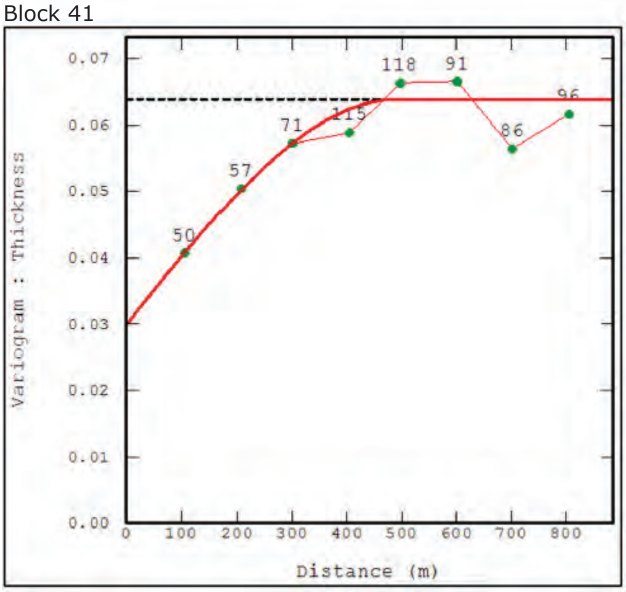
Block 28



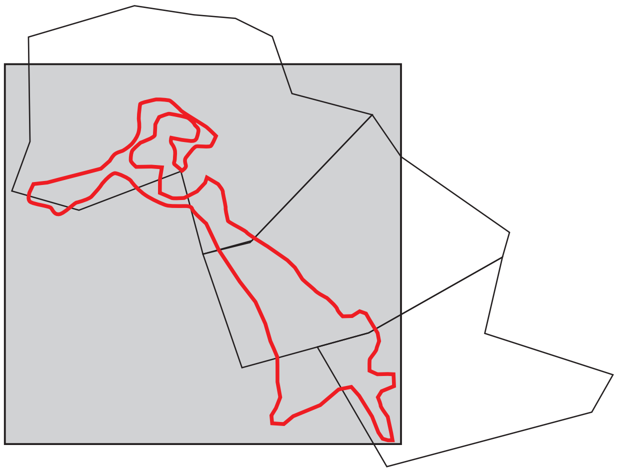
Block 46

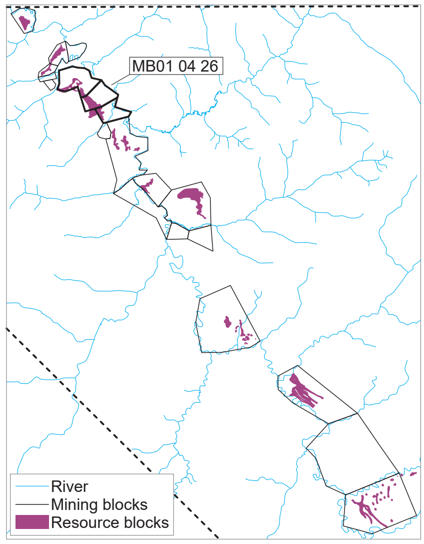


Block 41

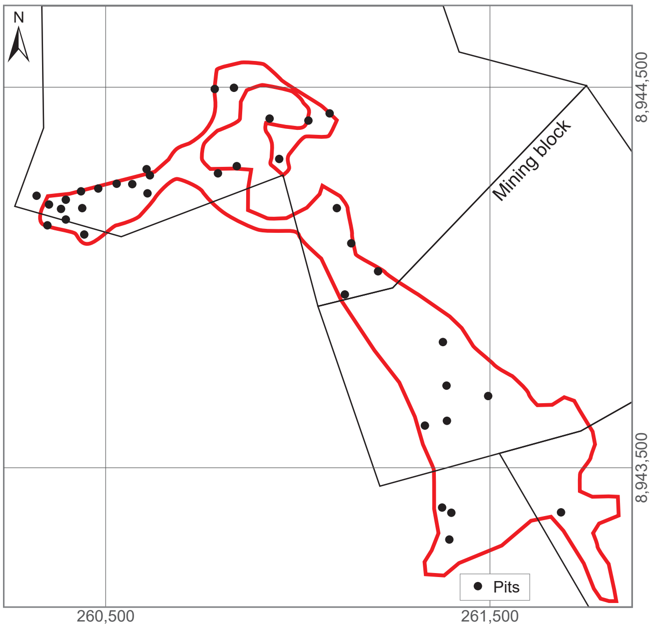


Modelling results for Block01_04_26

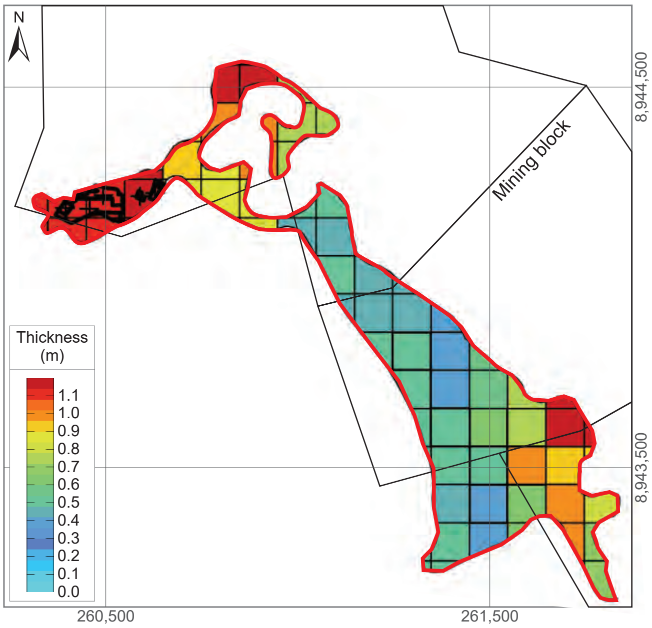




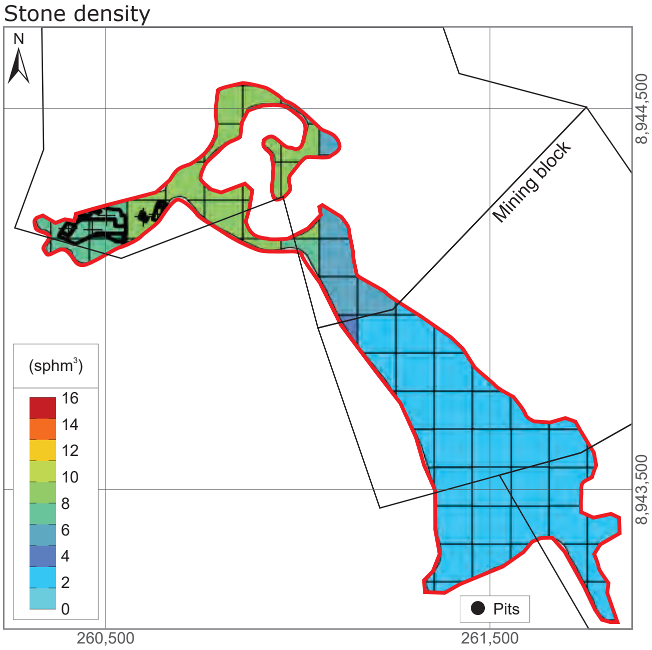
Resource outline



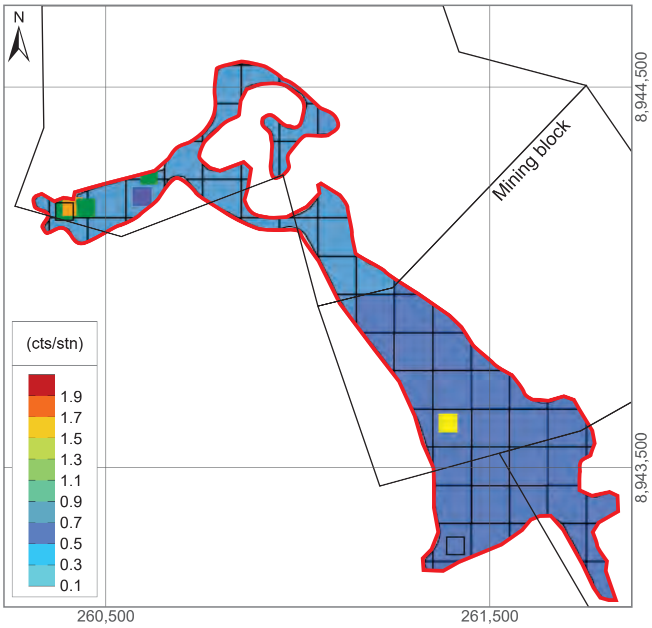
Thickness



Stone density



Stone size



Source: Z Star

14.25.4. Block06

Block06 had previously been excluded from resource estimates due to the extensive artisanal workings in the area. Recent mining and exploration results have provided sufficient information to perform estimation into Block06 and include it into the 2017 resource estimate. The areas of artisanal workings and recent mining were excluded from the available gravel resource blocks. As a result, only limited gravel areas remain, divided into three separate areas.

A total of 22 gravel thickness measurements were available for use in the estimation process. A moving average method was used to estimate into the 100m blocks. The results are shown in Figure 39. The western gravel area shows notably thicker gravel than the two eastern areas.

The mining results were used to inform the grade estimates (Table 22).

No measurements of stone density and stone size were located within the eastern gravel areas, thus the estimates into these blocks have a very low level of confidence. A moving average was used to estimate into each of the 100m blocks in all three gravel areas, and the results are presented in Figure 39.

Table 22 : Block06 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/st)
MB06	May 2016	6,673.21	342	316.23	5.12	0.92
	June 2016	4,326.79	292	284.16	6.75	0.97
	July 2016	821.43	72	70.48	8.77	0.98
	September 2016	200.89	16	11.75	7.96	0.73
	October 2016	6,541.07	446	760.84	6.82	1.71
	November 2016	3,066.07	328	506.26	10.70	1.54
	December 2016	3,288.39	192	335.64	5.84	1.75
	January 2017	652.68	34	62.09	5.21	1.83
	February 2017	5,257.14	281	407.59	5.35	1.45
	March 2017	549.11	14	11.14	2.55	0.80
TOTAL / AVE MINING		**31,376.79**	**2,017**	**2,766.18**	**6.43**	**1.37**

Source: Z Star, May 2017

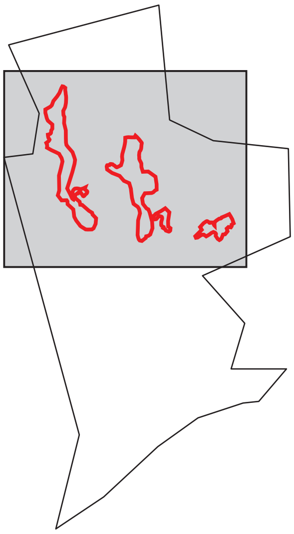
14.25.5. Block24

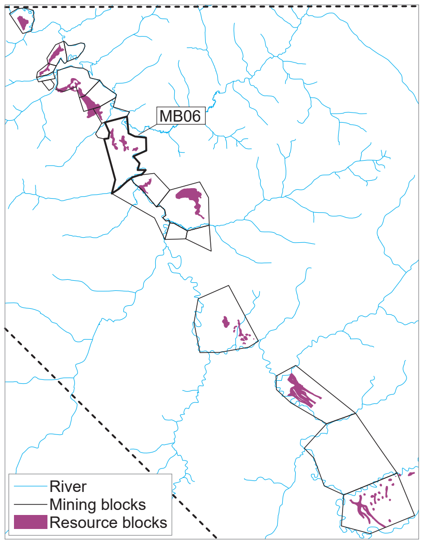
Block24 is located on a single gravel terrace which formed on a previous meander bend of the Cacuilo River. No mining has taken place within the gravel body, although mining in the adjacent artisanal areas has taken place.

A total of 13 measurements of gravel thickness are available for use in the estimation process. A moving average was used to estimate this parameter into each of the 100m blocks. The results are shown in Figure 40. The gravel thickness is constant across Block24.

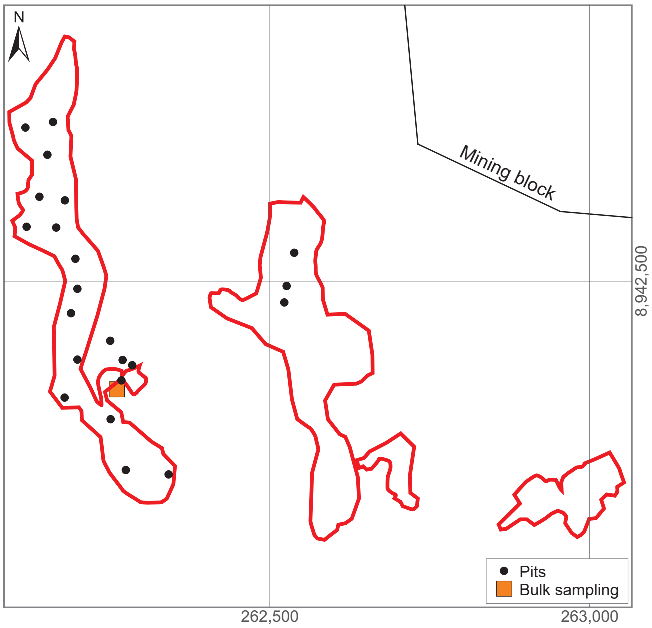
A single bulk sample and limited mining data was available for the estimation of stone density and stone size (Table 23). The weighted average of the combined bulk sampling and mining data was used to estimate a single stone density and stone size value across Block24.

Modelling results for Block06

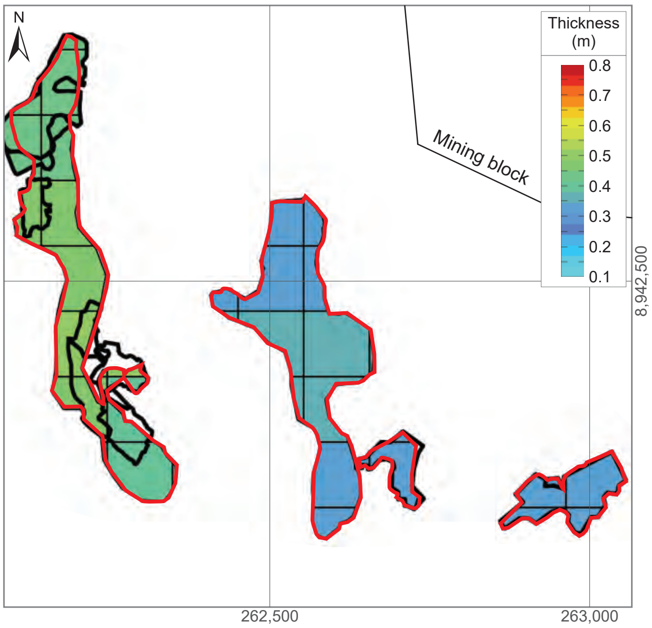




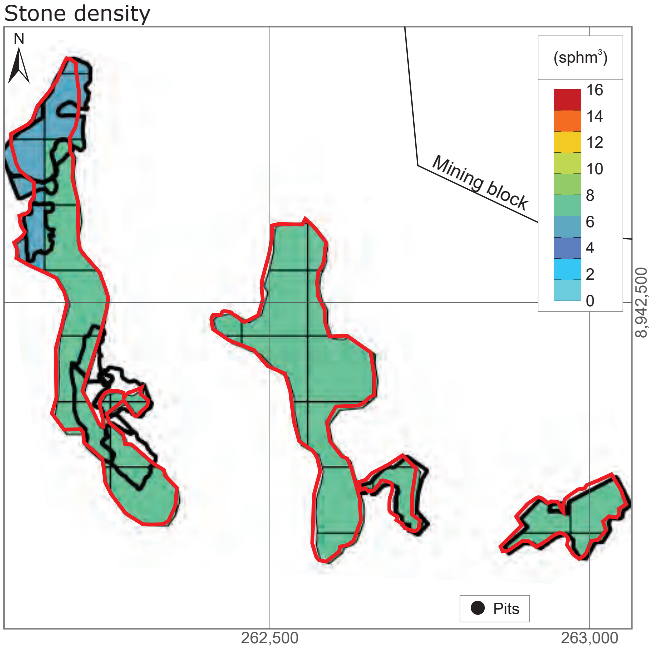
Resource outline



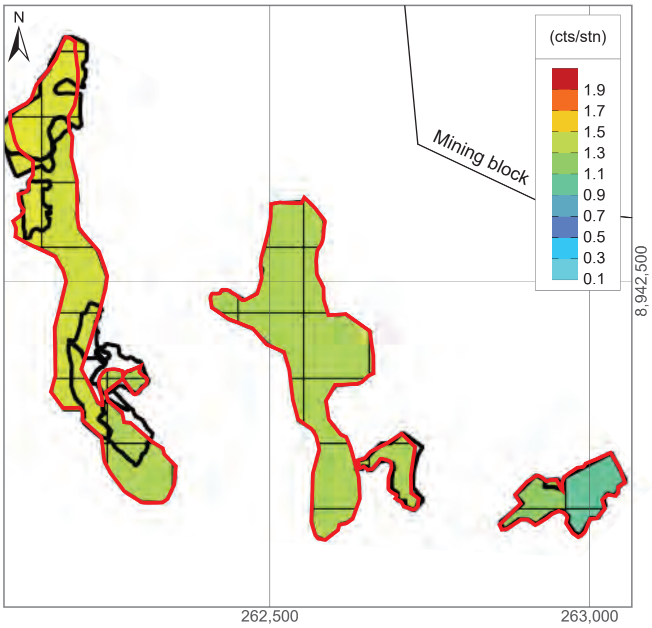
Thickness



Stone density

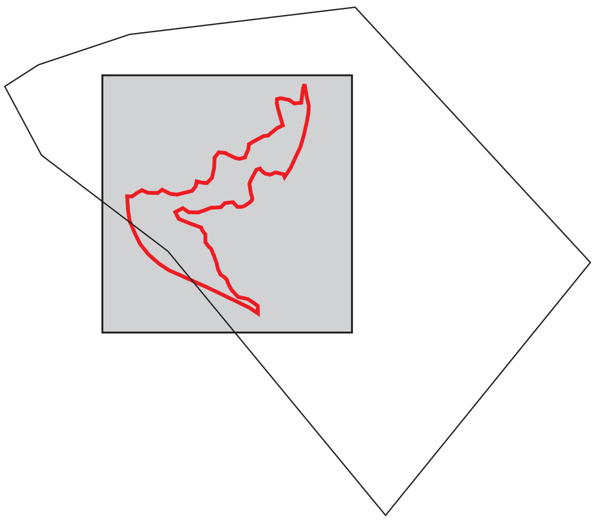


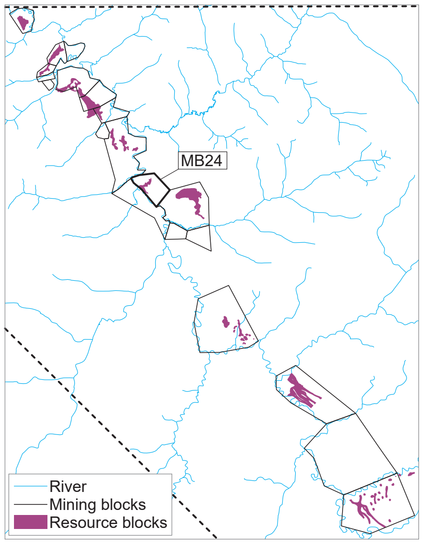
Stone size



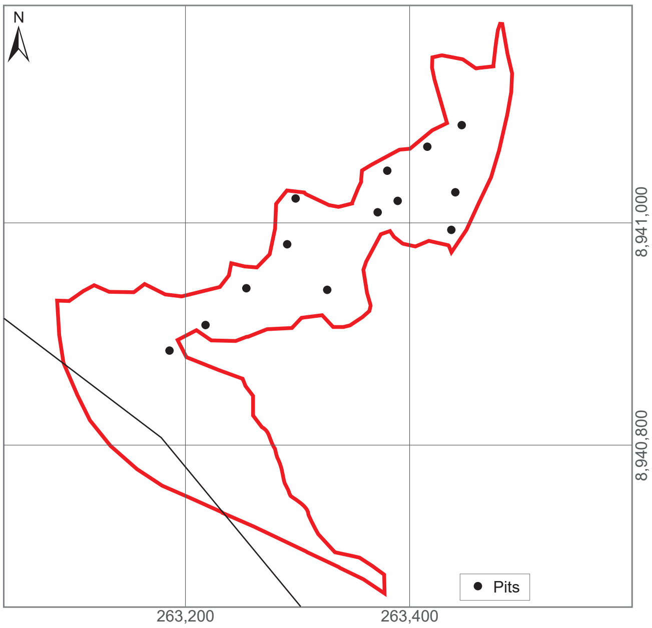
Source: Z Star

Modelling results for Block24

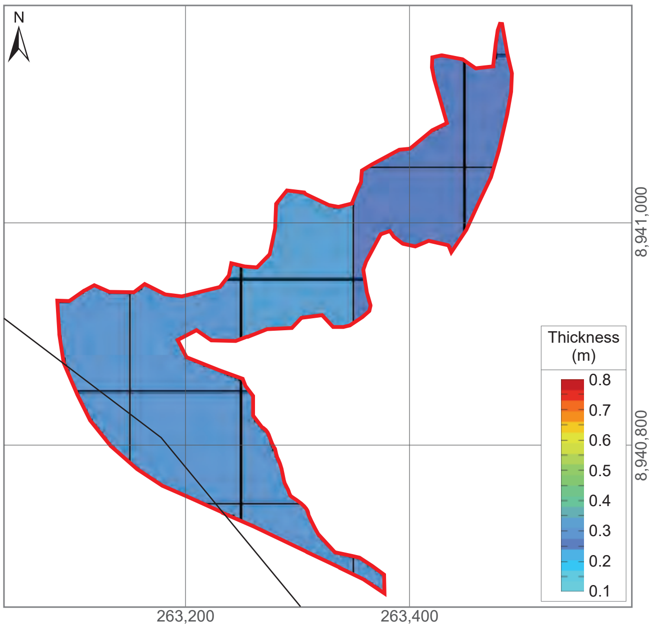




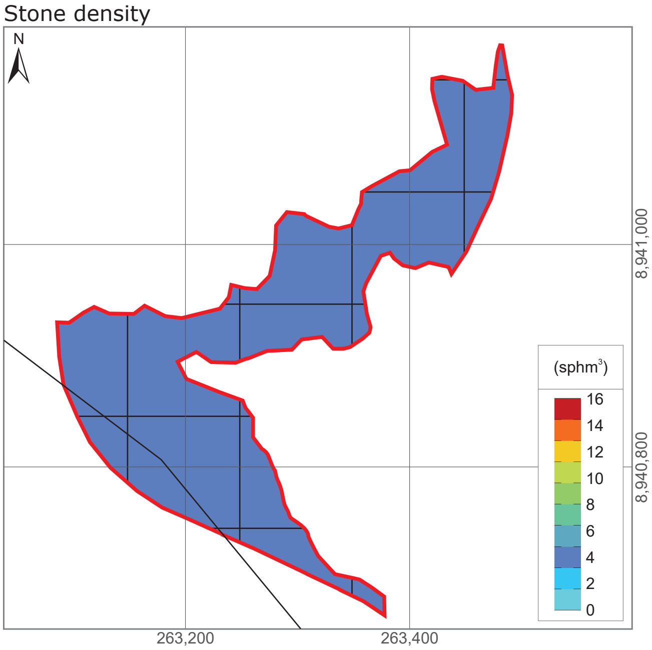
Resource outline



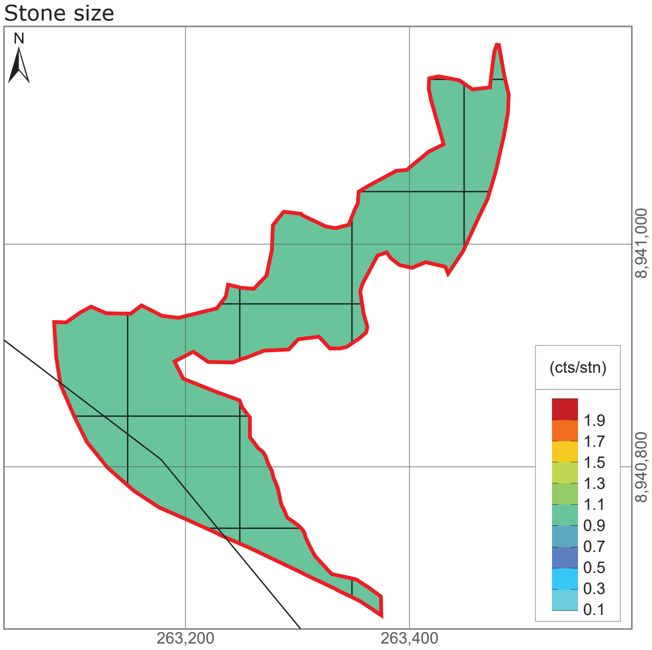
Thickness



Stone density



Stone size



Source: Z Star

Table 23 : Block24 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ 100m^3)	AVE STONE SIZE (ct/st)
BLK_24	September 2014	91.80	12	8.35	13.07	0.70
	October 2014	300.00	40	26.80	13.33	0.67
TOTAL / AVE BULK SAMPLING		**391.80**	**52**	**35.15**	**13.27**	**0.68**
MB24	October 2015	2,348.00	74	96.05	3.15	1.30
	October 2015	3,885.00	149	167.00	3.84	1.12
TOTAL / AVE MINING		**6,233.00**	**223**	**263.05**	**3.58**	**1.18**
TOTAL / AVE SAMPLING & MINING		**6,624.80**	**275**	**298.20**	**4.15**	**1.08**

Source: Z Star, May 2017

14.25.6. Block08

Block08 is located on a terrace identified at the confluence of the Cacuilo and Cachuma Rivers. This is an important block where extensive mining has been carried which has yielded a significant number of special stones including the 404ct stone.

A total of 71 gravel measurement were available for modelling. A spatial analysis was undertaken which produced a variogram which was then used in the estimation process. Ordinary kriging was used to estimate the gravel thickness into each of the 100m blocks. The results are presented in Figure 41. These show a general trend of increasing gravel thickness downstream.

Bulk sampling and extensive mining data was available for the modelling of the stone density and stone size variations across Block08 (Table 24).

Table 24 : Block08 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ 100m^3)	AVE STONE SIZE (ct/st)
MB08	May 2015	909.82	118	78.40	12.97	0.66
	August 2015	6,508.93	646	689.85	9.92	1.07
	September 2015	2,922.32	145	490.64	4.96	3.38
	September 2015	9,898.21	365	238.01	3.69	0.65
	September 2015	5,148.21	283	693.84	5.50	2.45
	October 2015	2,096.43	74	379.14	3.53	5.12
	October 2015	2,884.82	278	460.67	9.64	1.66
	October 2015	3,468.75	149	96.07	4.30	0.64
	October 2015	4,481.25	186	166.98	4.15	0.90
	November 2015	4,364.29	182	334.10	4.17	1.84
	December 2015	374.11	14	5.72	3.74	0.41
	December 2015	1,082.14	49	128.95	4.53	2.63
	January 2016	1,207.14	101	102.78	8.37	1.02
	February 2016	3,700.89	195	697.89	5.27	3.58
	June 2016	8,244.64	594	854.14	7.20	1.44
	July 2016	18,030.36	1,503	3,093.76	8.34	2.06
	August 2016	19,884.82	1,646	2,869.61	8.28	1.74
	September 2016	18,871.43	1,324	2,805.47	7.02	2.12
	October 2016	5,759.82	369	1,254.39	6.41	3.40
	November 2016	11,562.50	668	1,282.12	5.78	1.92
	December 2016	269.64	9	21.94	3.34	2.44
	January 2017	600.89	21	60.90	3.49	2.90
TOTAL / AVE MINING		**132,271.43**	**8,919**	**16,805.37**	**6.74**	**1.88**

Source: Z Star, May 2017

Any inconsistencies identified in the data were corrected prior to modelling. A bulking factor of 1.12 was used to calculate the in situ volumes, bringing in an additional variable.

The stone density and stone size were estimated into the 100m blocks using a moving average. The results are displayed in Figure 41. The plots clearly indicate an area of both high stone densities and large stone sizes where the terrace bends towards the west.

14.25.7. Block28

Block28 comprises a series of gravel bodies within the MB08 outline. Extensive mining has been carried out within this mining block and as a result only limited gravel resources remain.

A total of 97 gravel thickness measurements were available for modelling. Sufficient data was available for the preparation of a variogram and the estimation into the 100m blocks was carried out using Ordinary kriging.

The variogram range is approximately 100m and this distance will be used to optimise the spacing of points of information for ongoing exploration. The results are presented in Figure 42. The plot portrays thicker gravels in the central area which may indicate the presence of a palaeochannel.

Information on stone density and stone size is available from three bulk samples and seven mining areas (Table 25). Z Star validated the mining data and two mining results were removed due to no volumes reported. The remaining mining and bulk sampling data was merged and a moving average method of estimation used. The results are shown on Figure 42.

Table 25 : Block28 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m^3)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/st)
BLK_28	December 2014	227.97	7	3.25	3.07	0.46
BLK_28_B	November 2016	1,182.00	53	78.76	4.48	1.49
BLK_28_C		447.00	28	24.28	6.26	0.87
TOTAL / AVE BULK SAMPLING		**1,856.97**	**88**	**106.29**	**4.74**	**1.21**
MB28	April 2016	1,778.57	100	60.40	5.62	0.60
	January 2017	7,841.07	565	496.12	7.21	0.88
	February 2017	17,864.29	990	1,039.71	5.54	1.05
	March 2017	11,973.21	809	880.56	6.76	1.09
	March 2017	9,555.36	494	604.38	5.17	1.22
	April 2017	12,475.00	1,083	1,144.97	8.68	1.06
TOTAL / AVE MINING		**61,487.50**	**4,041**	**4,226.14**	**6.57**	**1.05**
TOTAL / AVE SAMPLING & MINING		**63,344.47**	**4,129**	**4,332.43**	**6.52**	**1.05**

Source: Z Star, May 2017

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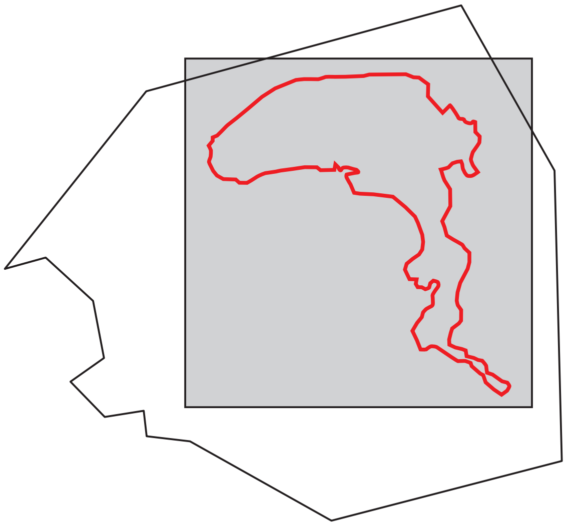
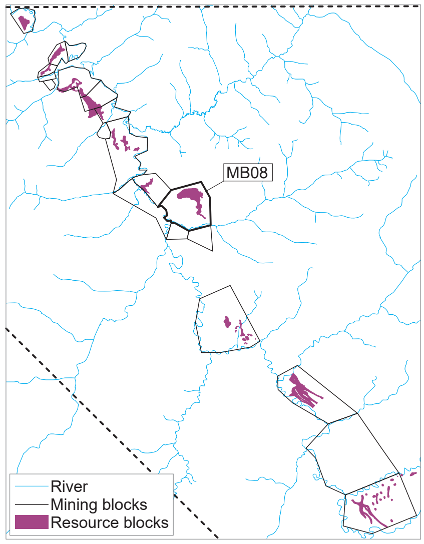
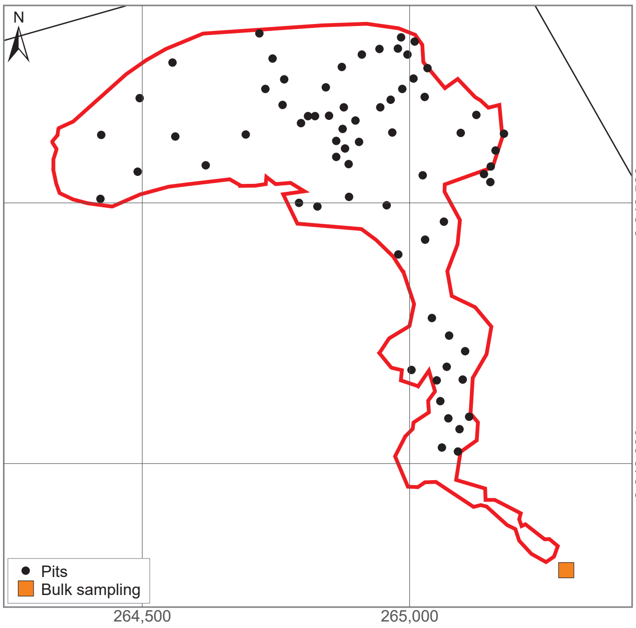
Modelling results for Block08

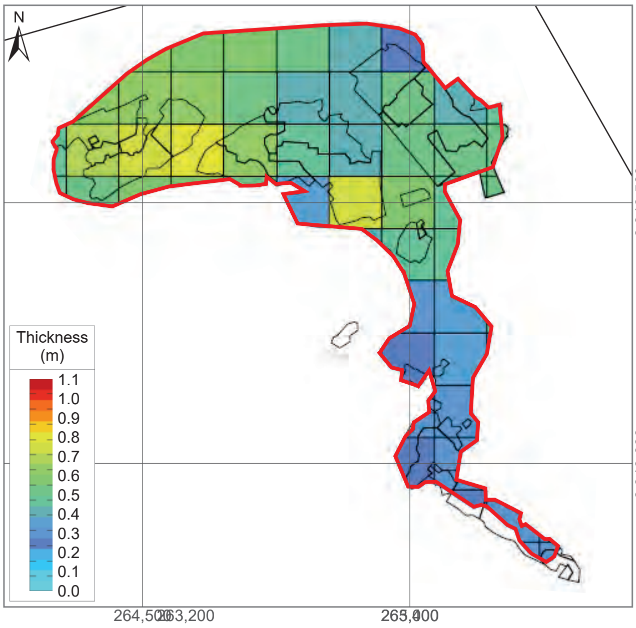




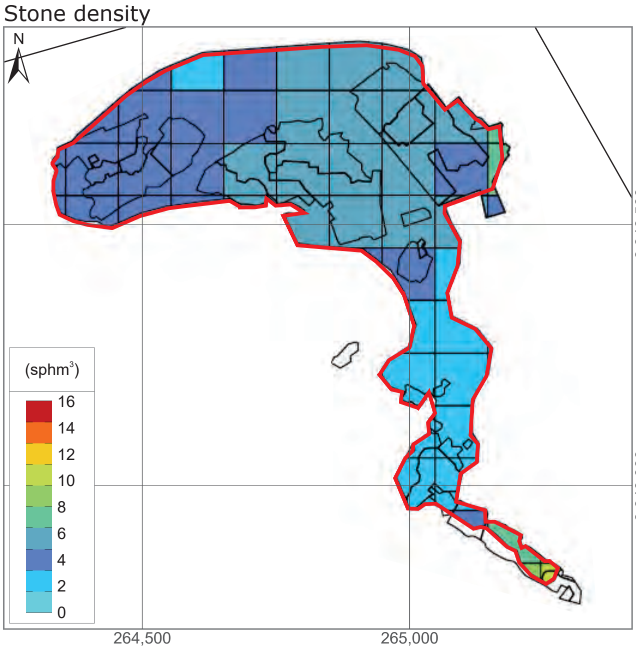
Resource outline



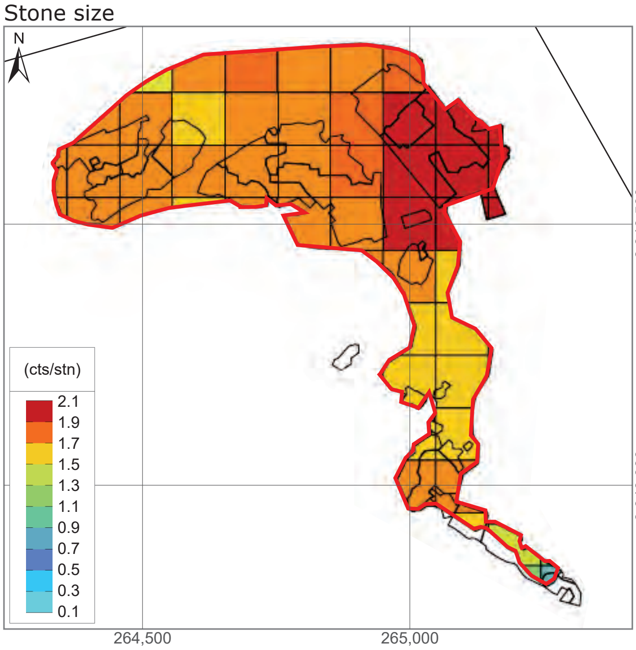
Thickness



Stone density

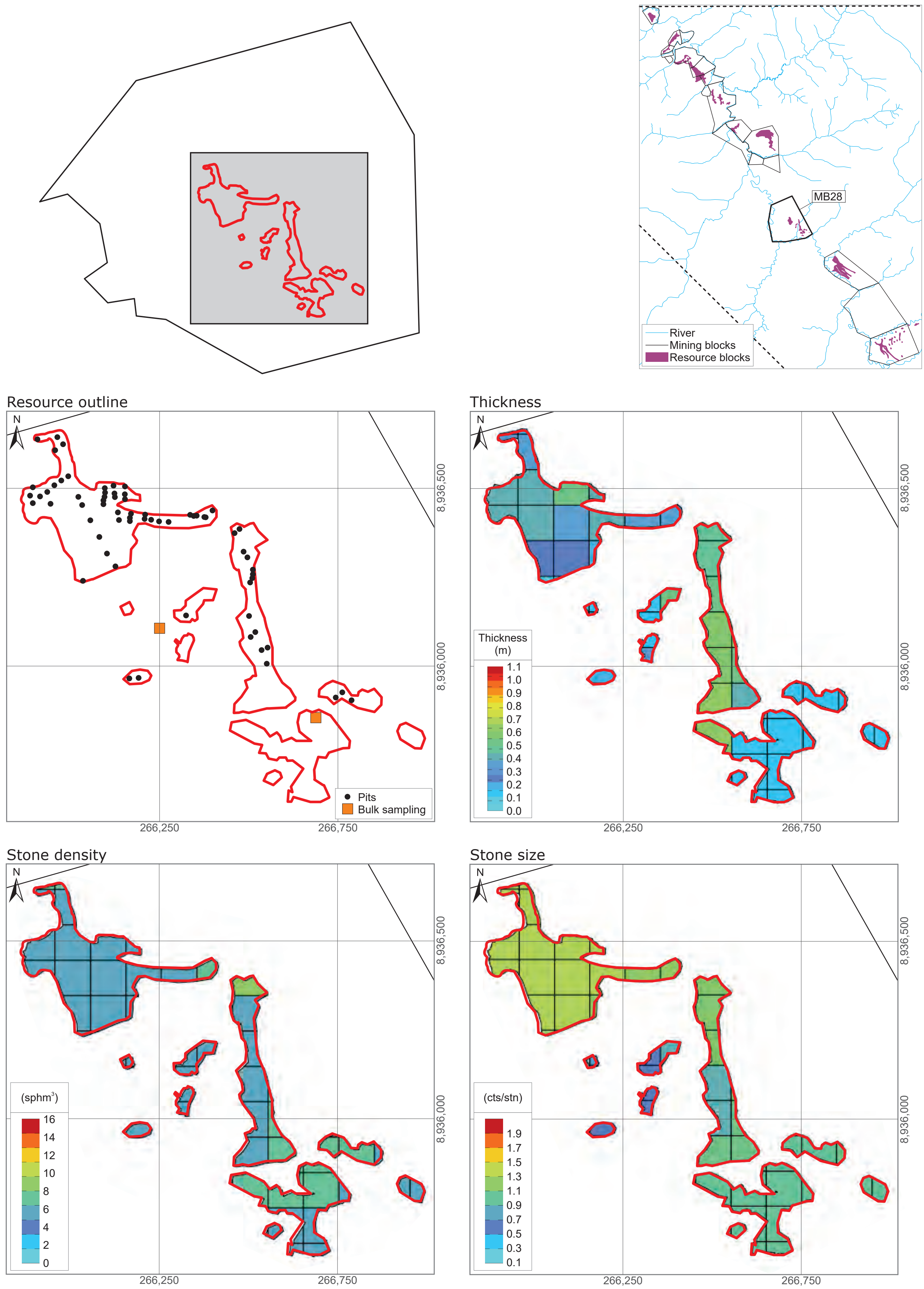


Stone size



Source: Z Star

Modelling results for Block28



Source: Z Star

14.25.8. Block46

No mining and exploration has been conducted in Block46 in 2017. The previous information provided 45 measurements of gravel thickness. A variogram of this data was modelled by Z Star. The estimates into the 100m blocks was undertaken using the Ordinary kriging method of estimation. The results are presented in Figure 43. The modelling shows a relatively consistent gravel thickness across the block.

Three trial mining, four bulk sampling and mining results from the first quarter of 2016 provided the stone density and stone size information (Table 26). A moving average method of estimation was used, and the results are presented in Figure 43. It must be noted that there is no data located in the far southern (upstream) areas of the block and hence the estimates in this area may be associated with a very low level of confidence.

Table 26 : Block46 results informing grade estimate

SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m³)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ 100m³)	AVE STONE SIZE (ct/st)
BLK_14	March 2013	184.00	52	52.45	28.26	1.01
BLK_15-17	August 2014	62.73	3	1.00	4.78	0.33
TMB_1	February 2016	525.00	43	67.88	8.19	1.58
TMB_2	February 2016	617.00	59	60.01	9.56	1.02
TMB_3	March 2016	897.00	129	182.88	14.38	1.42
TOTAL / AVE BULK SAMPLING		**2,285.73**	**286**	**364.22**	**12.51**	**1.27**
MB46	March 2016	7,251.79	656	767.16	9.05	1.17
	April 2016	3,470.54	263	483.70	7.58	1.84
	May 2016	5,657.14	264	382.19	4.67	1.45
	June 2016	2,911.61	196	200.03	6.73	1.02
TOTAL / AVE MINING		**19,291.07**	**1,379**	**1,833.08**	**7.15**	**1.33**
TOTAL / AVE SAMPLING & MINING		**21,576.80**	**1,665**	**2,197.30**	**7.72**	**1.32**

Source: Z Star, May 2017

14.25.9. Block41

As discussed in Section 14.21.5, two types of gravel were identified in this block.

A variogram of the 54 gravel thickness samples was modelled. The variogram shows good spatial correlation and a large spherical range of 400m, compared to the variograms from the other blocks which is in the order of 100m. Ordinary kriging was then used to estimate the gravel thicknesses into each of the 100m blocks. The results are displayed in Figure 44. Only two bulk samples are available for the estimation of stone density and stone size. The combined average of these two samples (Table 27) was applied to all the 100m blocks within Block41 (Figure 44).

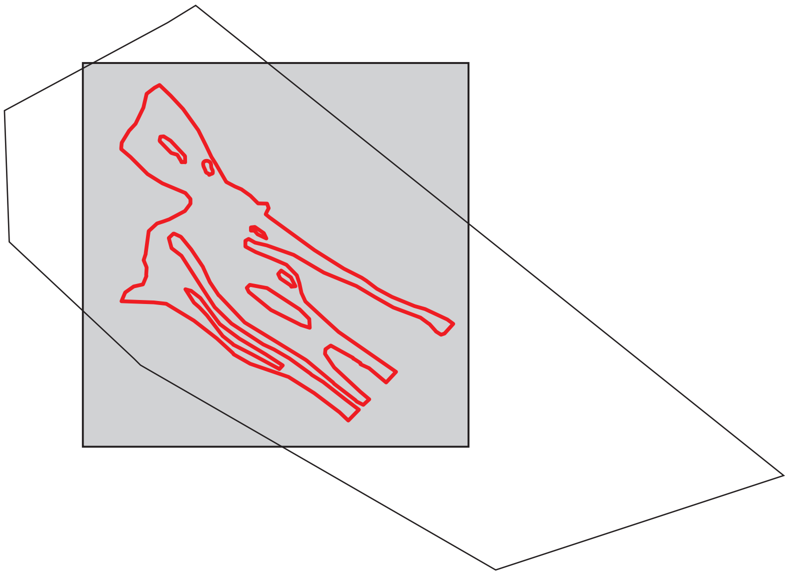
Table 27 : Block41 results informing grade estimate

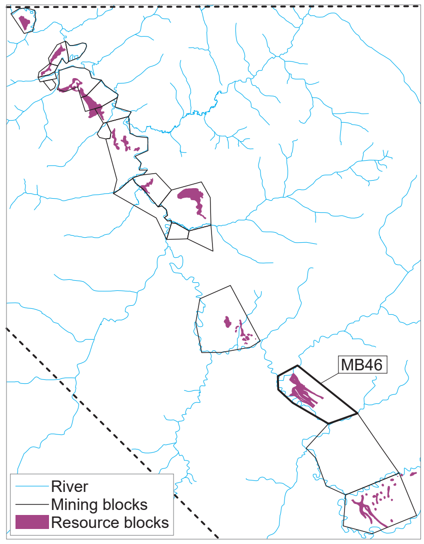
SAMPLE / MINING BLOCK NO.	DATE	IN SITU GRAVEL VOLUME TREATED (m³)	NO. STONES	CARATS RECOV. (cts)	STONE DENSITY (stones/ 100m³)	AVE STONE SIZE (ct/st)
BLKE41 1,2, E41AA	August 2016	544.32	21	13.07	3.86	0.62
TOTAL / AVE BULK SAMPLING		**544.32**	**21**	**13.07**	**3.86**	**0.62**

Source: Z Star, May 2017

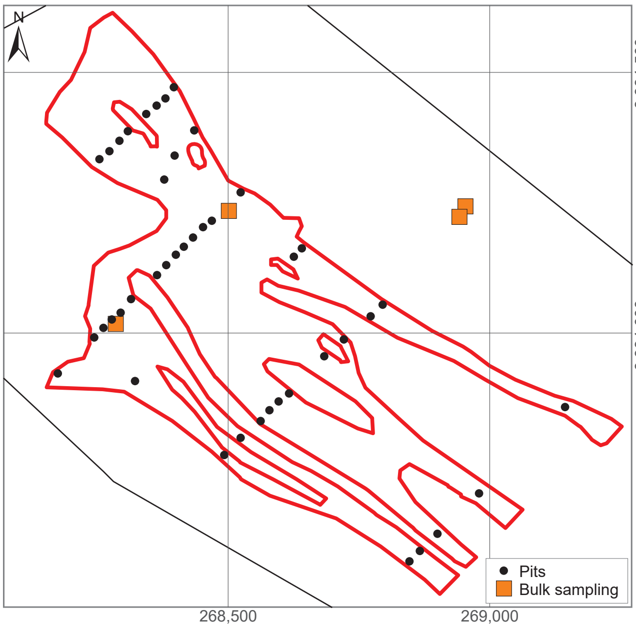
Upon consideration of the modelling results, this block was identified as not meeting the minimum criteria required for declaration as a Diamond Resource, i.e. RPEEE. Therefore, although Block41 is reported here, it is not included in the Diamond Resource estimate for 31 May 2017. Additional, positive exploration results in this block may warrant the reconsideration of this status going forward.

Modelling results for Block46

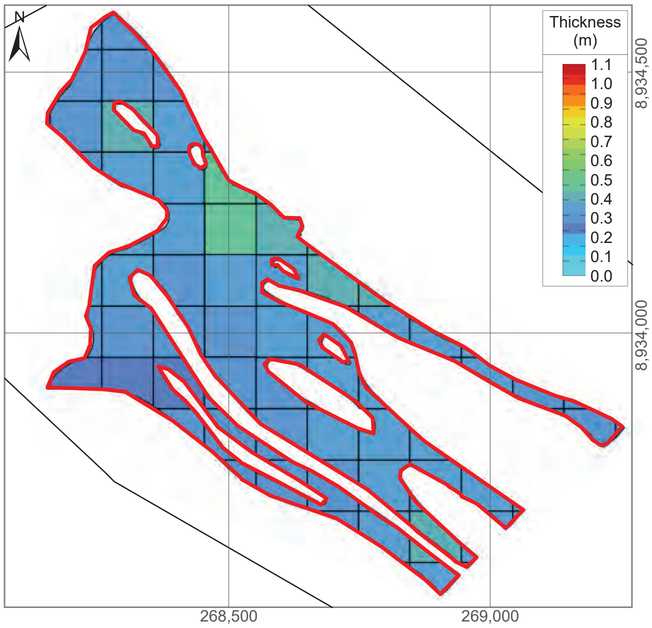




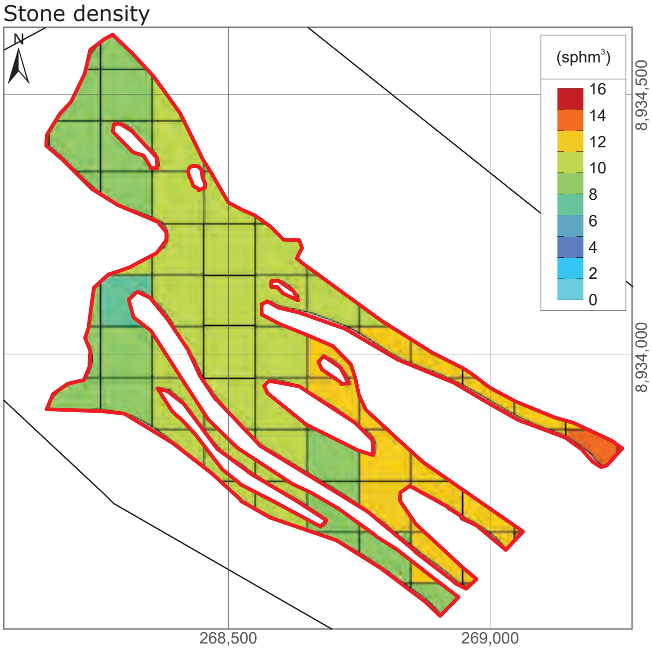
Resource outline



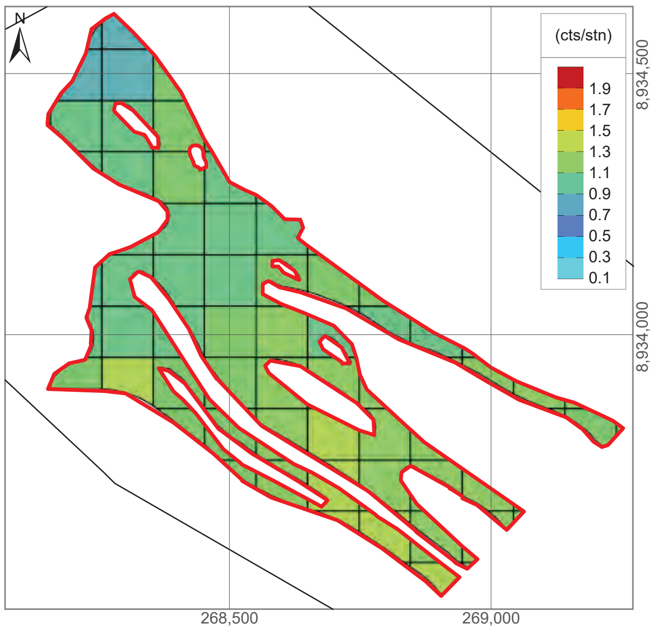
Thickness



Stone density



Stone size



Source: Z Star

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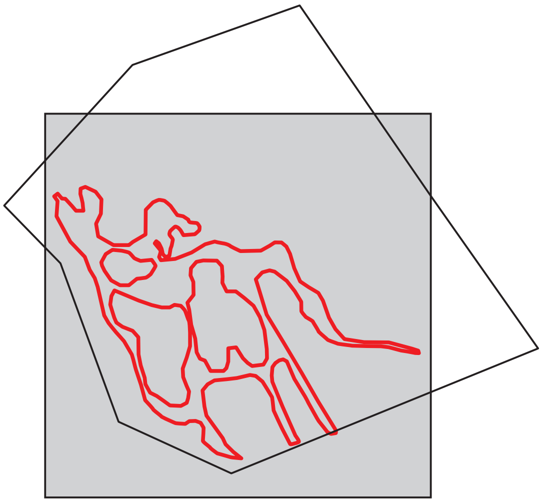
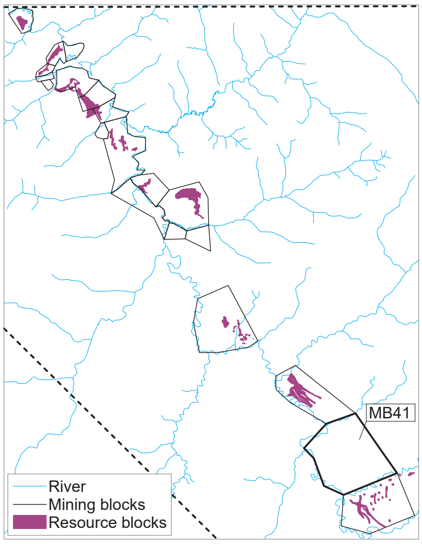
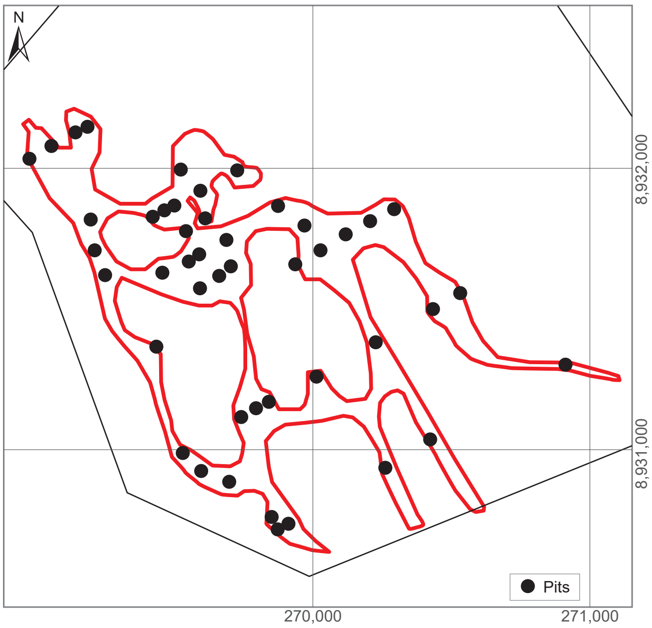
Modelling results for Block41

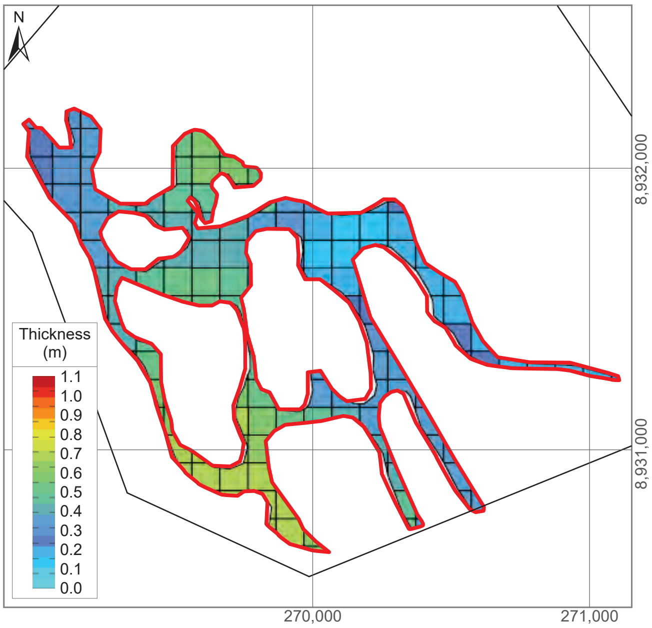




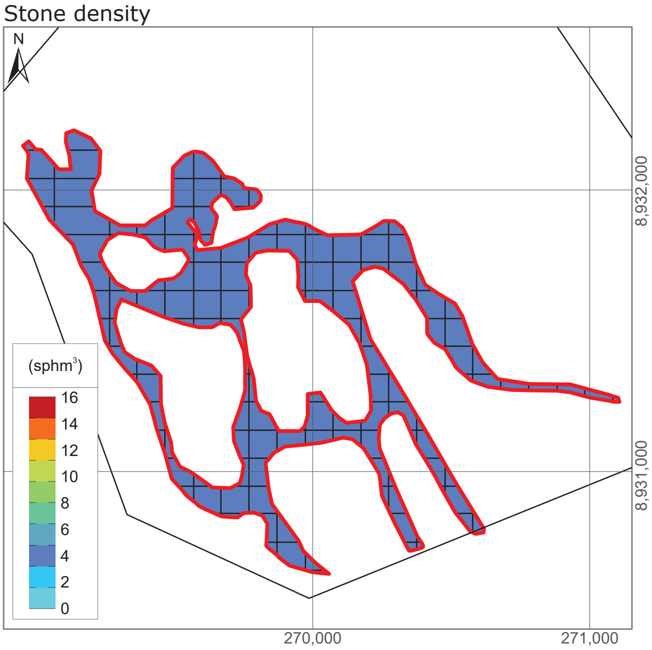
Resource outline



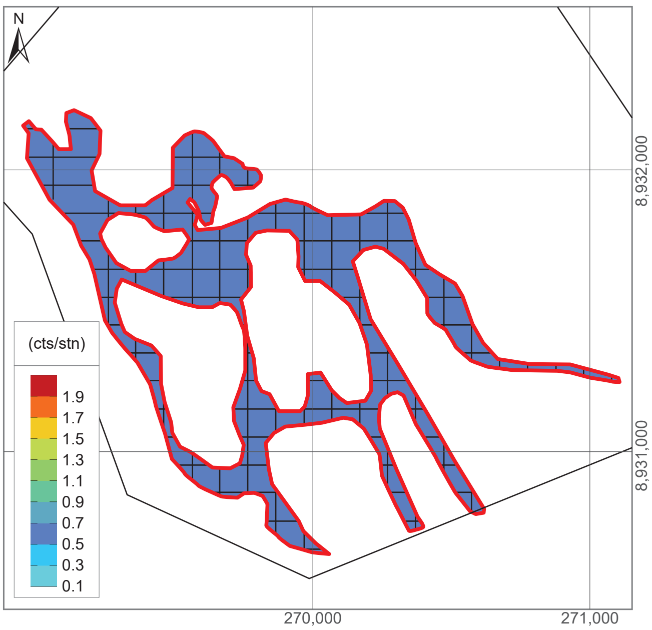
Thickness



Stone density



Stone size



Source: Z Star

14.25.10. Block57

Numerous gravel bodies were identified within Block57, a number of which were too small to warrant modelling from a resource perspective. Although a total of 13 gravel thickness measurements were available for modelling, only a single bulk sample has been taken in Block57. The bulk sample results yielded a grade that would not be economic to mine. Since Block57 did not satisfy the minimum requirement for resource classification, i.e. RPEEE, this block has not been modelled by Z Star and not included in their Diamond Resource estimate.

14.26. Mining

SML commenced mining in January 2015, following the granting and awarding of the secondary source mining licence in November 2014. Mining areas were selected based on the results of the pitting and bulk sampling programme that commenced in June 2010. The bulk samples with the most positive results were selected by LOM as initial mining sites. The higher lying areas were targeted initially, as the mining commenced during the Angolan wet season. Mining Blocks were concentrated in the area north of Namuluri, where the majority of the bulk samples had been located, and then progressed south along the Cacuilo River towards the E46 geophysical anomaly and E46 terraces.

Since mining commenced in January 2015, a total of 21 potential mining blocks have been identified in the Cacuilo River valley. The location of the mining blocks in relation to the Cacuilo River is presented in Figure 19 and Figure 20. A simplified schematic of the layout of the mining blocks in relation to each other and the Cacuilo River and its tributaries, indicated by blue shaded blocks and arrows, is presented in Table 28.

Table 28 : Schematic representation of mining blocks in relation to each other and the Cacuilo River and its tributaries

	North (Downstream)			
	West	**East**		
	MB23			
	MB29			
	MB31			
	MB21			
	MB22			
	MB30			
→				
	MB01			
	MB04			
	MB26			
	MB07			
	MB06			
→				
	MB19	MB24		
		MB08		
		Cachuma	←	
		MB27		MB25
		MB28		
		MB28-B		
			←	
		MB28-C		
		Cairi	←	
		Xangando	←	
		MB46		
		MB41		
		Canguigi	←	
		MB57		
	West	**East**		
	South (Upstream)			

14.26.1. Mining method

The mining at SML makes use of a conventional alluvial mining method to extract the diamondiferous gravels. The mining method involves the stripping of the sandy overburden, using mechanical excavators, to expose the alluvial gravel bed. The overburden is placed in the proximity of the excavated pit, thereafter they are used to extract the gravels to the underlying bedrock.

The gravels are loaded into trucks and transported to the plant for processing. Approximately 10cm to 20cm of the underlying bedrock is scraped, and loaded together with the diamondiferous gravels to ensure the recovery of any diamonds that may be trapped in the cracks and crevices of the bedrock. As mining progresses along the resource, the overburden is back-filled into the mined area of the pit where the gravel had been extracted.

The list of the earthmoving and mining fleet is presented in Table 29.

Table 29 : Earthmoving and mining fleet

MAKE AND MODEL	TYPE	COMMENTS
CAT 322 L	Excavator	
CAT 322 BMLE	Excavator	
BELL HD 1430	Excavator	
CAT 350	Excavator	
CAT 374 F	Excavator	
CAT 374 F	Excavator	
CAT 336 D LME	Excavator	
CAT D6R	Bulldozer	
CAT D8R	Bulldozer	
CAT D8R	Bulldozer	
CAT 725 E	ADT	
CAT 725 E	ADT	
BELL B 25 D	ADT	Converted to fuel bowser
BELL B 25 D	ADT	Converted to water bowser
CAT 740 B	ADT	
CAT 740 B	ADT	
CAT 740 B	ADT	
CAT 745 C	ADT	
CAT 745 C	ADT	
CAT 745 C	ADT	
CAT 745 C	ADT	
CAT 745 C	ADT	
CAT 160K	Grader	
CAT 928G	FEL	Processing plant
CAT 928G	FEL	Processing plant
BELL L1806D	FEL	Processing plant
CAT 966H	FEL	Processing plant
GROVE RT530E2	Crane	
CAT 422 E	TLB	
CAT 422 E	TLB	
CAT TH414 C	Telehandler	
NEW HOLLAND 8030S	Tractor	Drill support
CAT CP533 E	Compactor	
HANJIN	Drill rig	
SEDIDRILL	Drill rig	

Mining is performed through a number of strips which are usually 20m to 25m (maximum 30m) in length and 12m wide, as determined by the reach of the excavator boom radius. Depending on the overburden thickness, overburden removal can occur in single or multiple strips. Where overburden removal is through more than one strip, this is done by maintaining a 1.5m to 2.0m bench (2m wide), to ensure sidewall stability as the excavator digs below and ahead of itself. The alluvial gravels are usually removed in a single strip as they are seldom greater than 2m thick, and are often less than 1m in thickness.

To control the water inflow in the mining areas, drainage channels are excavated around the perimeter of the pits to direct water away from active mining sites.

Since the inception of mining at SML, the mining strategy has been directed economically to produce positive project cash flow, which will be used to fund further mining and exploration activities. The decision to intermittently initiate or suspend mining in specific mining blocks is influenced *inter alia* by access and mining conditions during the wet and dry seasons.

14.26.2. Recent production

Between January 2015 and May 2017, mining has been undertaken in the various mining blocks, with most of the alluvial gravels being sourced from MB08, MB28, MB06 and MB31, as show in Table 30 and graphed in Figure 45. The selection of the mining block is influenced by access during the wet and dry seasons.

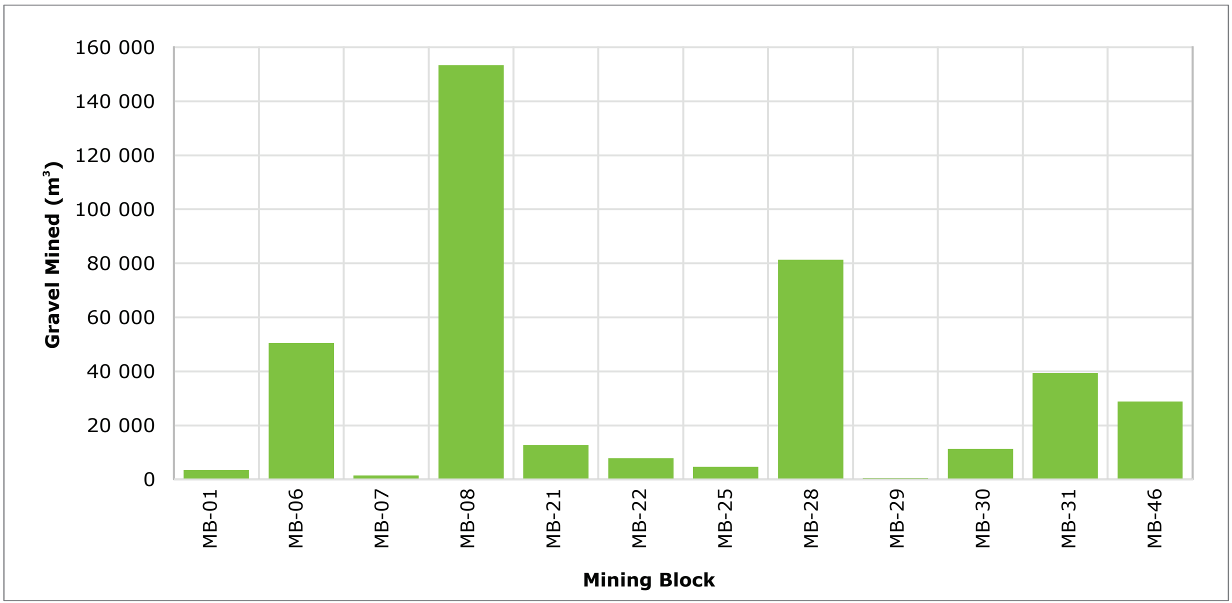
Table 30 : SML production per mining block (January 2015 to May 2017)

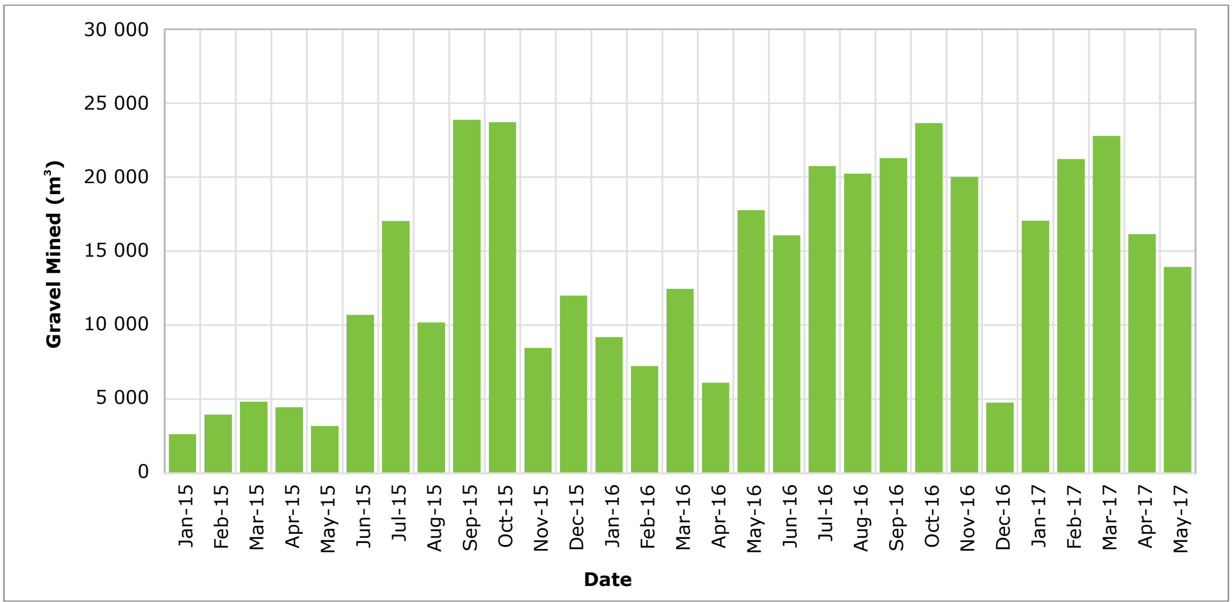
MINING BLOCK	OVERBURDEN (m^3)	GRAVEL (m^3)	STRIP RATIO (m^3:m^3)	PERCENTAGE OF TOTAL MINING (%)
MB01	19,742	3,517	5.61	1%
MB06	427,069	50,499	8.46	13%
MB07	0	1,438	0.00	0%
MB08	1,014,542	153,425	6.61	39%
MB21	35,002	12,744	2.75	3%
MB22	9,164	7,883	1.16	2%
MB25	22,336	4,712	4.74	1%
MB28	585,188	81,341	7.19	21%
MB29	4,264	567	7.52	0%
MB30	31,248	11,356	2.75	3%
MB31	211,189	39,385	5.36	10%
MB46	109,078	28,864	3.78	7%
TOTAL / AVERAGE	**2,468,822**	**395,731**	**6.24**	**100%**

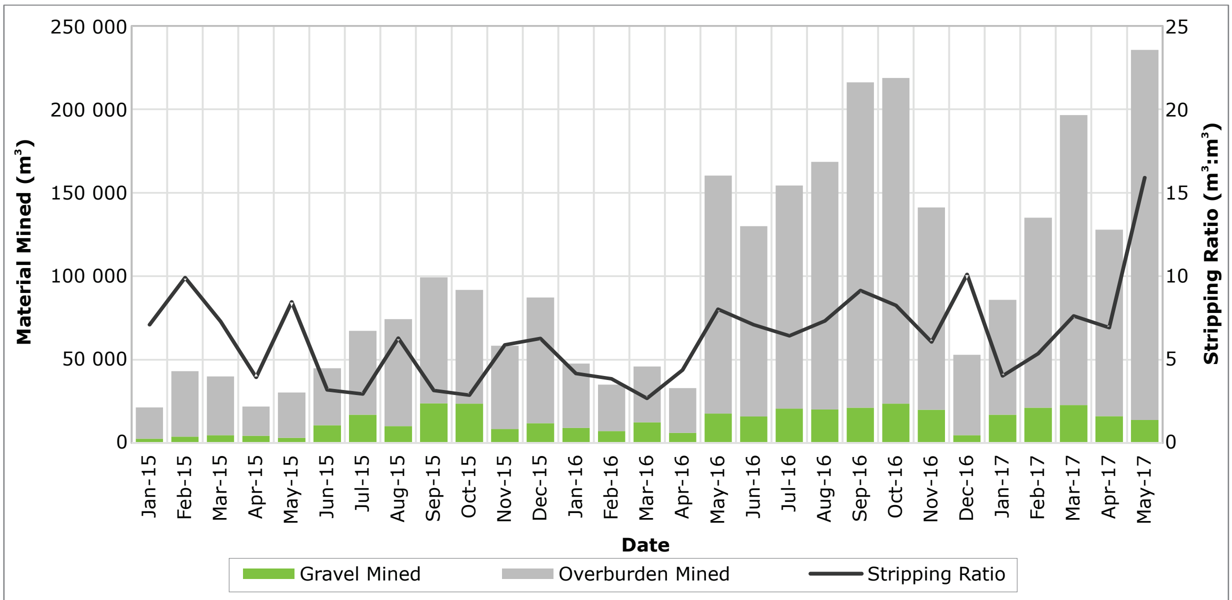
Source: LOM

SML has a planned gravel mining rate of ~20,000m^3 per month. The monthly gravel mining volumes are indicated in Figure 45. The graph indicates a steadily increasing monthly production to mid-2016. The steady state planned mining rates are being achieved with slight fluctuations about the 20,000m^3 rates. December 2016 showed a production rate of <5,000m^3 due to high rainfall at the time.

Graphs of SML mining production by MB, monthly gravel and overburden mining statistics







Source: LOM

Average mined overburden and gravel volumes over the 12 month mining period under review have been 137,070m^3 and 18,1593m^3, respectively. The average stripping ratio (defined as overburden volume removed over gravel volume removed) has been 7.55:1. The variations in stripping ratios are presented in Figure 45.

The stripping ratio has been fairly constant between 4:1 and 9:1. The stripping ratio increased significantly to over 15:1 in May 2017. This was a result of combined stripping of 20.68, 18.06 and 15.07 in blocks MB06, MB08 and MB28, respectively. This was as a result of ongoing mine planning and stripping occurring ahead of mining the gravels. As such the overburden material had been mined, but the associated underlying gravels had not.

The mining progress is monitored regularly using drone photography. The current mining status of MB06, MB08 and MB28 is presented in Figure 46, Figure 47 and Figure 48, respectively.

14.27. Surveying

LOM utilises the services of a qualified surveyor, Mr P Howe, for exploration and mining surveying requirements. All surveying is undertaken in World Geodetic System 1984 (WGS84) in Zone 34S of the Universal Transverse Mercator System (UTM Zone 34S).

A differential GPS in real time accuracy (RTK) mode is used for the positioning and surveying of pit and drillhole collars and mining faces. An S Nikon Total Station is used for setting out civil works such as roads. A Trimble R7 Global Navigation Satellite System (GNSS) base receiver transmitting corrections via a Trimble Tactical Data Link (TDL) 450 radio modem, Trimble R8 rover receiver. LOM uses Nikon DTM 330 and Trimble S8 Total Stations. The level of accuracy is 10mm in the XY plane and 20mm in the Z plane.

LOM has recently started using a drone in tandem with a differential GPS and pix4d software to create maps accurate to 80mm in all planes.

Modelmaker software is used to calculate stockpile volumes. ArcGIS is used as the mine's GIS software package for creating mine maps, etc.

Due to the National Angolan Trigonometric Beacon network being inoperable, a local network of GPS control points using the Fast Static method was set up. This was adjusted using Trimble Wave Software and checked using the RTK method. All topographic surveys are tied into these control points. When conducting surveys, stations are repeated that have been measured previously so as to ensure the integrity of measurement.

14.28. Mineral processing

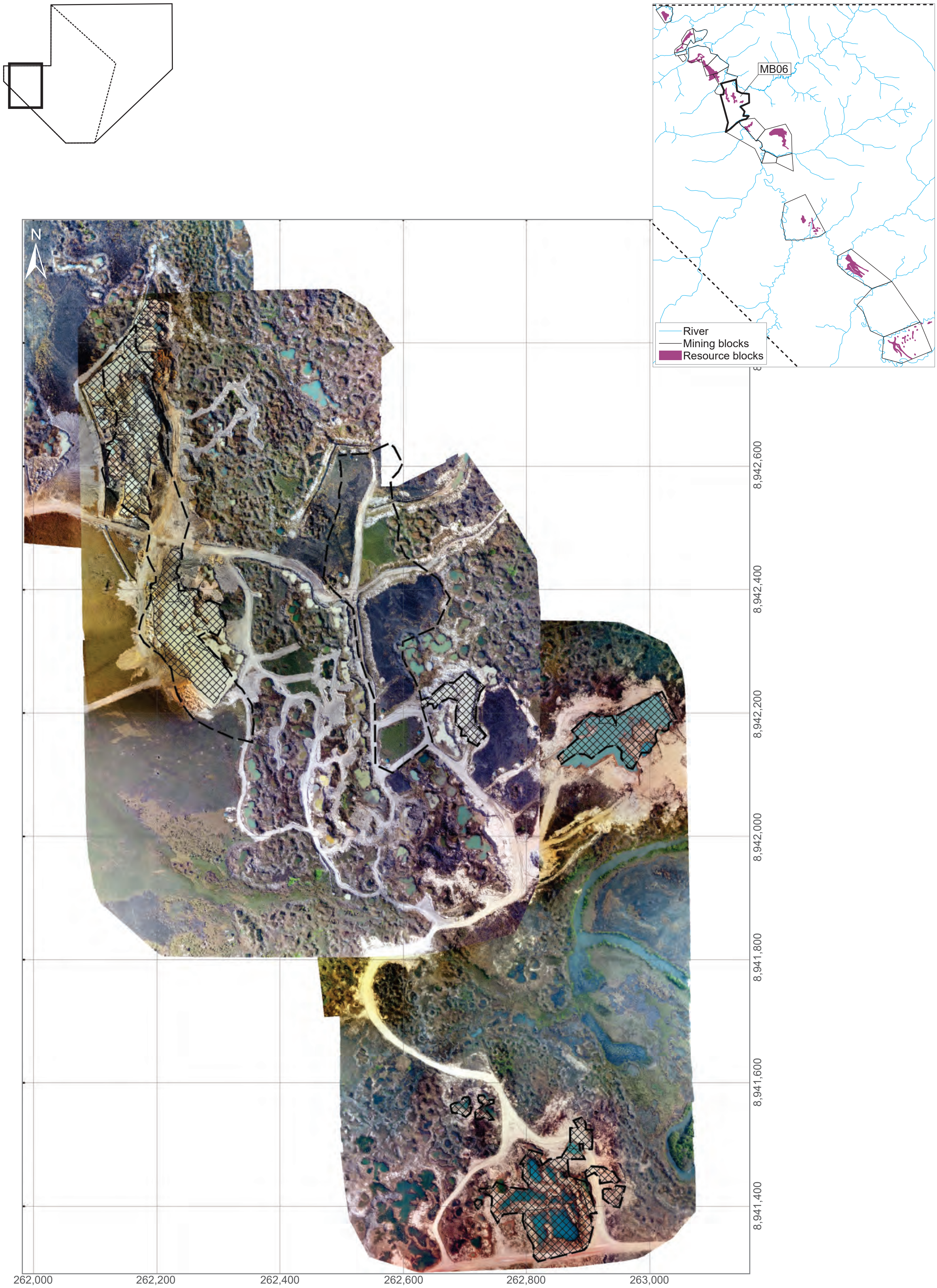
The mine currently operates a 50tph DMS plant with a 150tph front end. Due to the high clay content of the feed material, LOM has installed a wet front end capable of treating ROM with both high clay and moisture content. Photographs of the plant are presented in Figure 49.

14.28.1. Original front end

The original 150tph front end comprises the following components and process flow:-

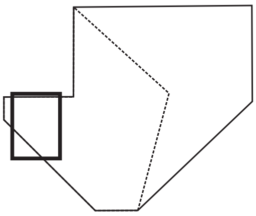
- the ROM ore of is fed into the static grizzly using an FEL;
- +200mm fraction reports to the static grizzly oversize stockpile;
- the scrubber cleans the gravel using water and removes fines, especially clay particles;

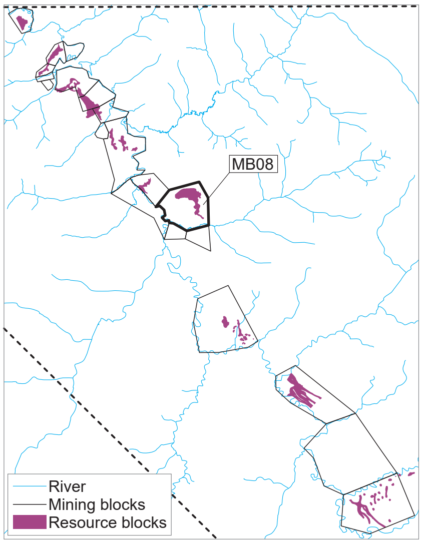
Drone photography indicating current status of mining in MB06

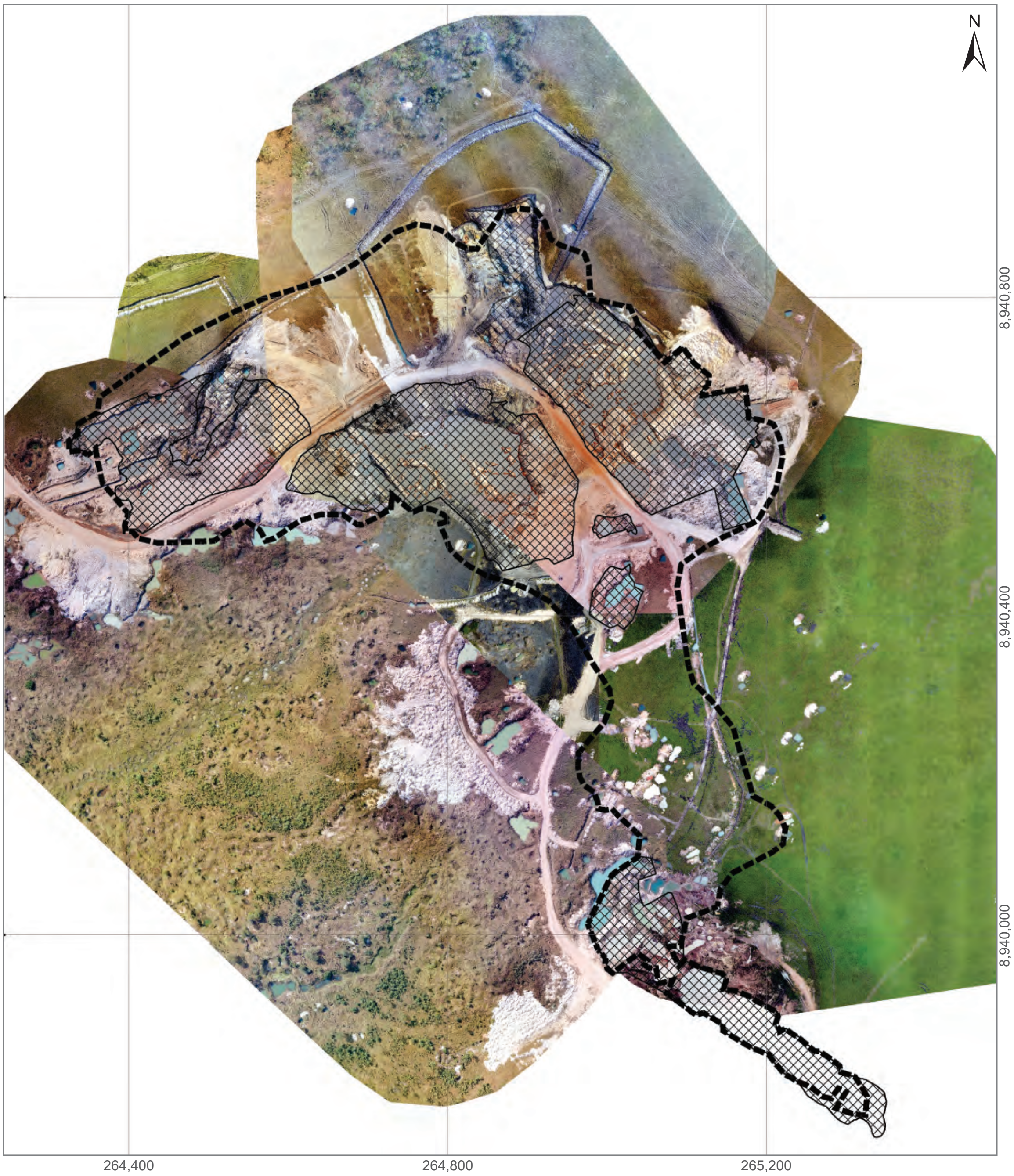


Source: LOM

Drone photography indicating current status of mining in MB08

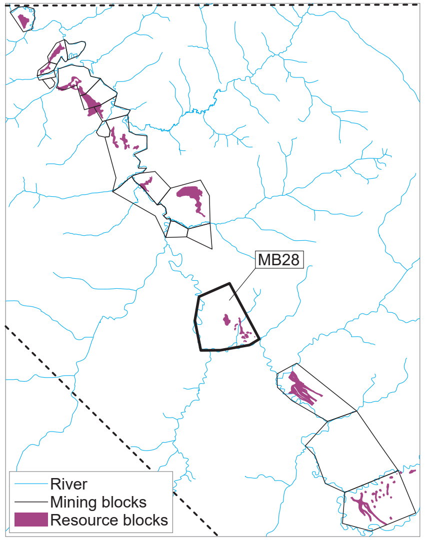


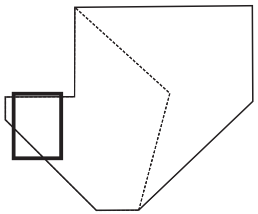


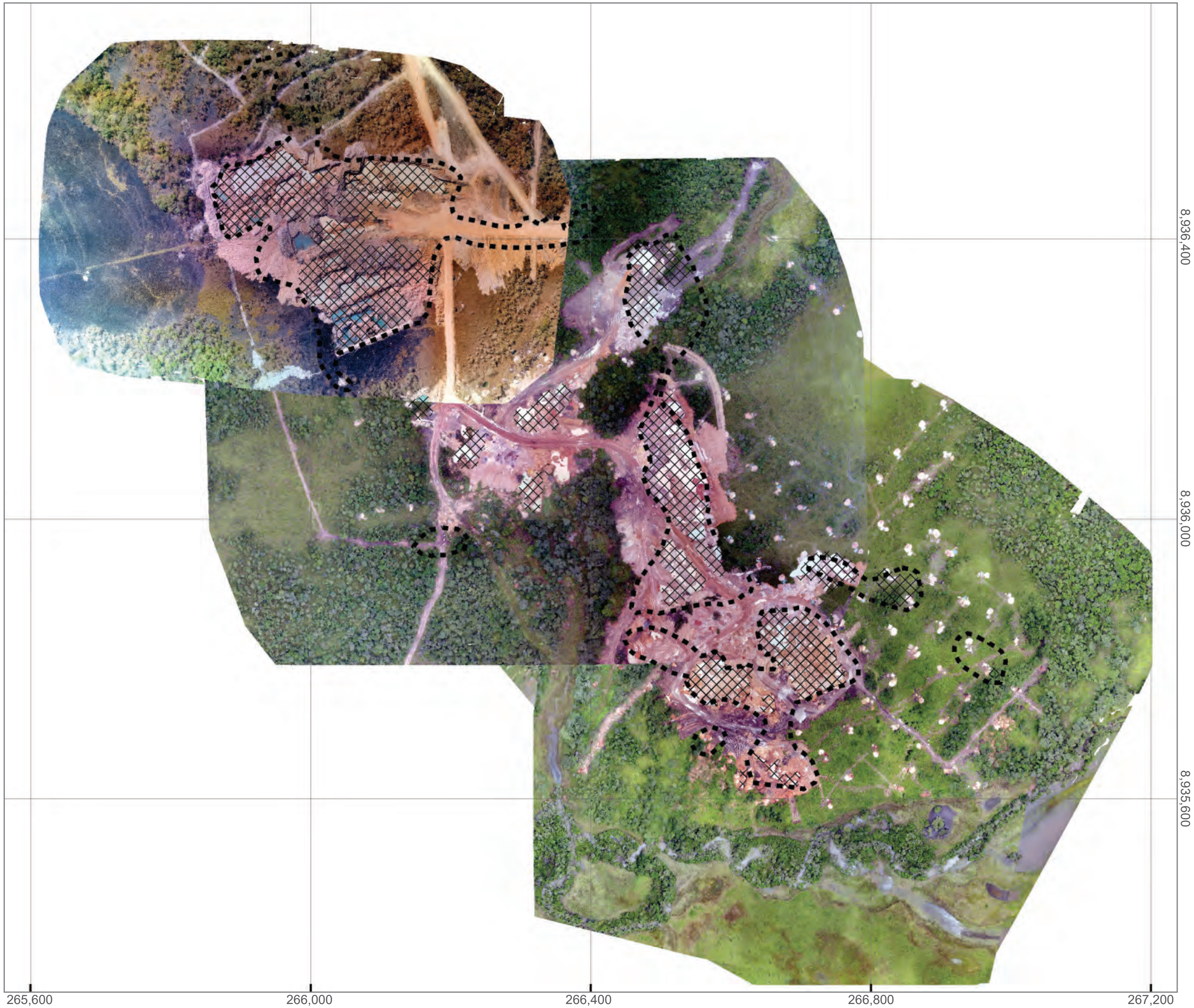


Source: LOM

Drone photography indicating current status of mining in MB28







Source: LOM

Photographs of the processing plant

XRT Plant, with scrubber in foreground and the final recovery building in the background

Lulo treatment plant from the air, with the new XRT final recovery building (white roof)

Source: LOM

- -200mm fraction passes onto the run of mine (ROM) feed hopper;
- the hopper material is fed into the scrubber via conveyors at approximately 148.5tph;
- the scrubber output passes over a primary screen which separates the +1.5-32mm fraction and the -1.5mm fraction;
- approximately 5.0tph of +32mm oversize fraction reports to the primary oversize conveyor and then to the primary screen oversize stockpile;
- approximately 16.0tph of +1.5mm-32mm fraction reports to the 10t DMS surge bin; and
- approximately 129.2tph of -1.5mm slimes reports to the slimes dam.

The flow diagram and mass balance for the front end is presented in Figure 50.

14.28.2. Wet front end

Due to the high clay and fines content (>80% of -1.5mm material) present in some of the feed material, a new front end was installed in July 2016. This is a wet front end which will enable material with a high clay and moisture content to be fed to the scrubber at design tonnage.

The existing front end will remain operational and will be utilised as and when required. Both units operate ahead of the existing scrubber.

An upgraded pump and 320m^3/h water line was installed to supply water to the wet front end. The wet front end comprises the following components and process flow:-

- two 10bar water guns will spray water onto the face of the ROM feed hopper;
- the ROM hopper will feed onto a new grizzly screen at a rate of 150tph. Top and bottom deck spray bars will spray additional water onto the grizzly to flush out the fines and break up the clay lumps;
- approximately 1.5tph of the +120mm material will report to the vibrating grizzly screen oversize stockpile;
- approximately 148.5tph of the -120mm material will report to the primary double deck screen. A water lance will be installed above the screen for manual flushing and screen cleaning when required;
- approximately 52.5tph of the 120mm material will report to the conveyor for feeding into the existing scrubber; and
- approximately 96tph of -1.5mm will be extracted. Of this, slimes 67.2tph will report to the slimes dam via the existing primary screen and 28.8tph will report to the existing scrubber as part of the scrubber water makeup.

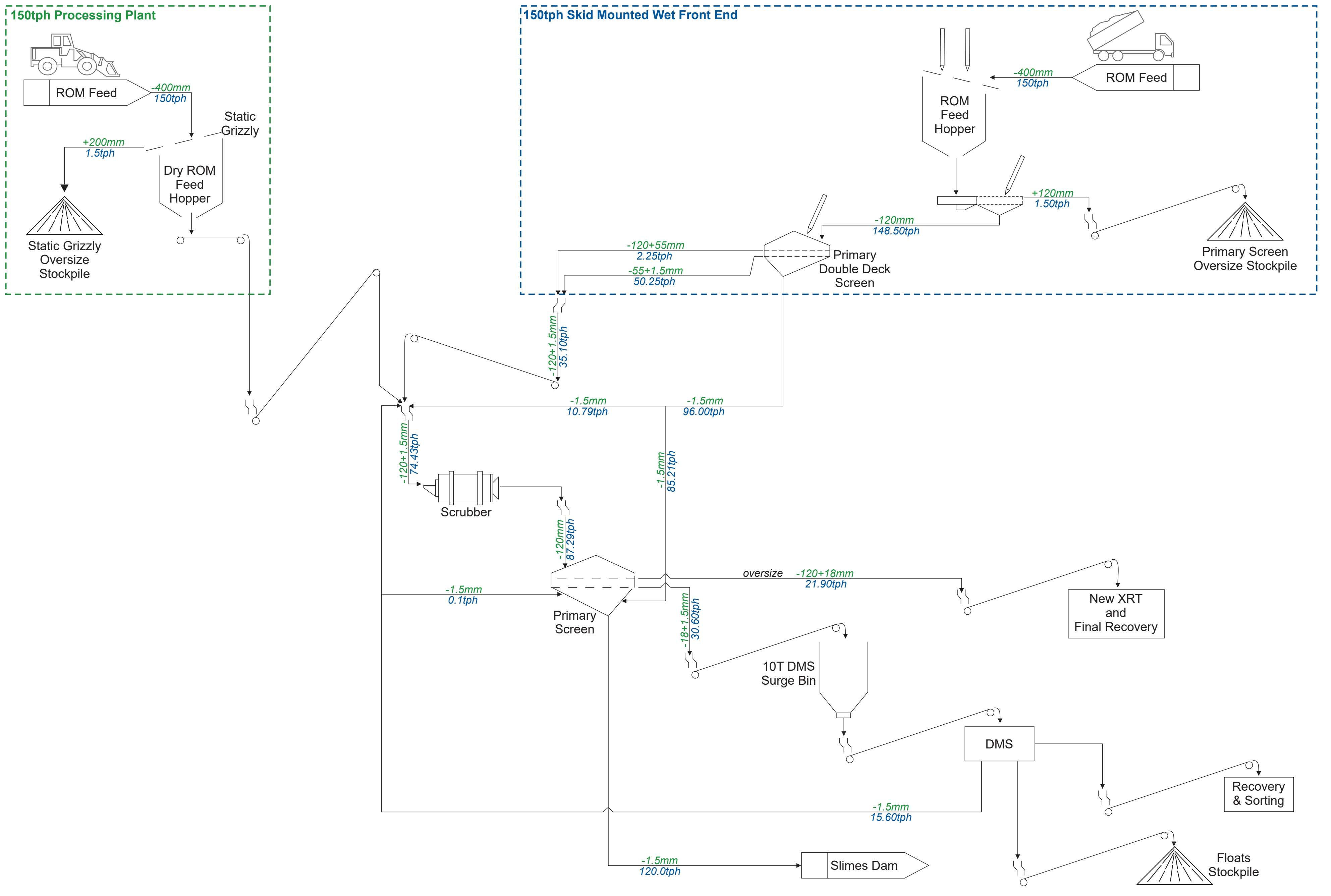
The modified front end flowsheet is presented in Figure 50.

14.28.3. Current DMS plant

The 50tph DMS comprises the following components and process flow:-

- the DMS receives 30.6tph of +1.5mm-18mm feed;
- the feed passes through the DMS feed prep screen;

Simplified original and wet process plant front end flowsheet



Source: LOM

- the underflow of approximately 0.5tph reports to the DMS effluent;
- the prep screen output feeds into a conventional mixing box;
- the mixing box output passes into a Multotec DMS cyclone; and
- approximately 30tph of floats report to the floats screen;
- the floats screen drain reports to the magnetic separator to recover the ferrosilicon (FeSi) heavy medium;
- the +1.5mm-18mm floats report to the DMS tailings stockpile via the floats conveyor;
- approximately 1tph of sinks report to the sinks screen;
- the sinks screen drain also reports to the magnetic separator for FeSi recovery; and
- the +1.5mm-18mm sinks screen over flow reports to the final recovery plant via the sinks fully enclosed pipe conveyor.

LOM has been monitoring the performance of the DMS with regular tracer tests since December 2015. The plant operator adds between 20 and 90 tracers per density interval to the feed during the month. The tracer test results are graphed in Figure 51. The tracers' densities range from 2.70g/cm^3 to 3.53g/cm^3. The tracer recovery rate is monitored and reported monthly. The average recovery rate for the last 18 months is 99.70%.

The Tromp Curve produced is used to measure and establish the cyclone performance and is presented in the monthly reports. The Tromp Curve for May 2017 is shown in Figure 51.

SML also monitors the plant's availability, utilisation and overall efficiency rates on a monthly basis. The results are presented in Figure 51. A trend line has been added to the graph which indicates the overall plant efficiency has increased by over 10% in the last two years.

DMS tailings audits are carried out on an infrequent basis as the need arises. Those that have been done have yielded zero carats recovered indicating a 100% recovery efficiency during these periods. The DMS flowsheet is presented in Figure 52.

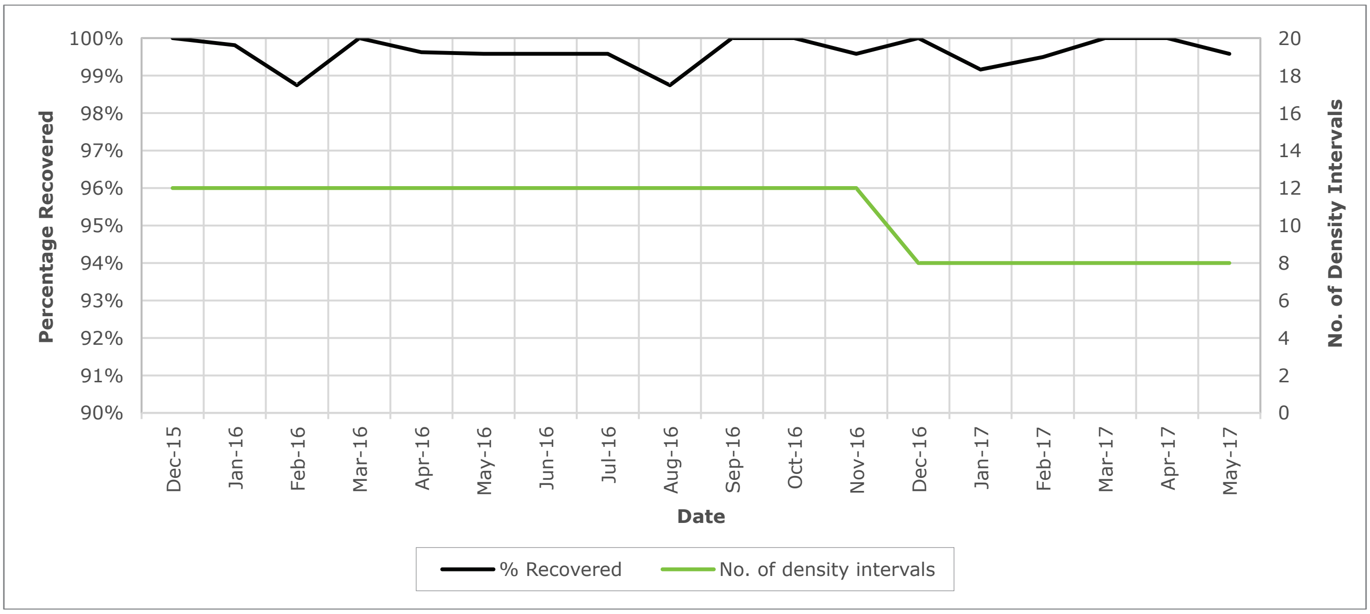
14.28.4. Final recovery for DMS concentrates

SML operates a containerised X-ray Flowsort for final recovery in four size fractions. The final recovery comprises the following components and process flow:-

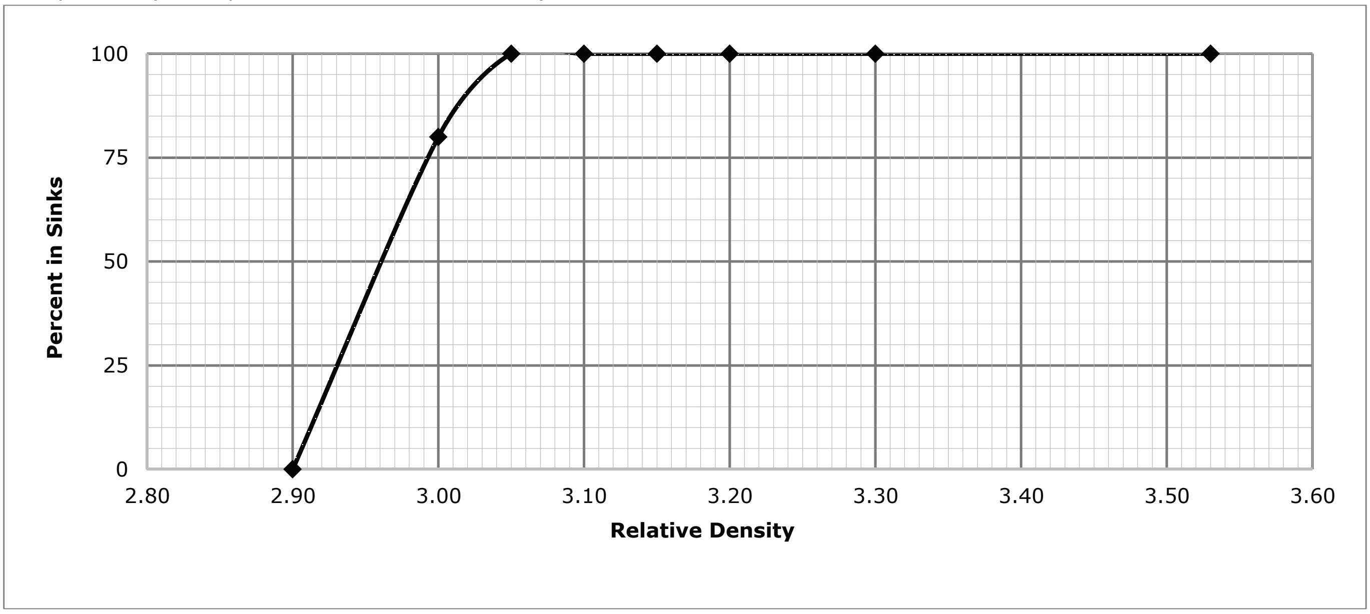
- the pipe conveyor feeds the recovery classifying screen;
- the classifying screen separates the sinks into four size fractions, namely:-
    - fines (+1.5mm-3mm);
    - middlings (+3mm-6mm);
    - coarse (+6mm-12mm); and
    - very coarse (+12mm).
- each size fraction flows separately into the fully containerised double stage Flowsort x-ray sorting machine;

Graphs of tracer test results, Tromp curve and plant efficiency

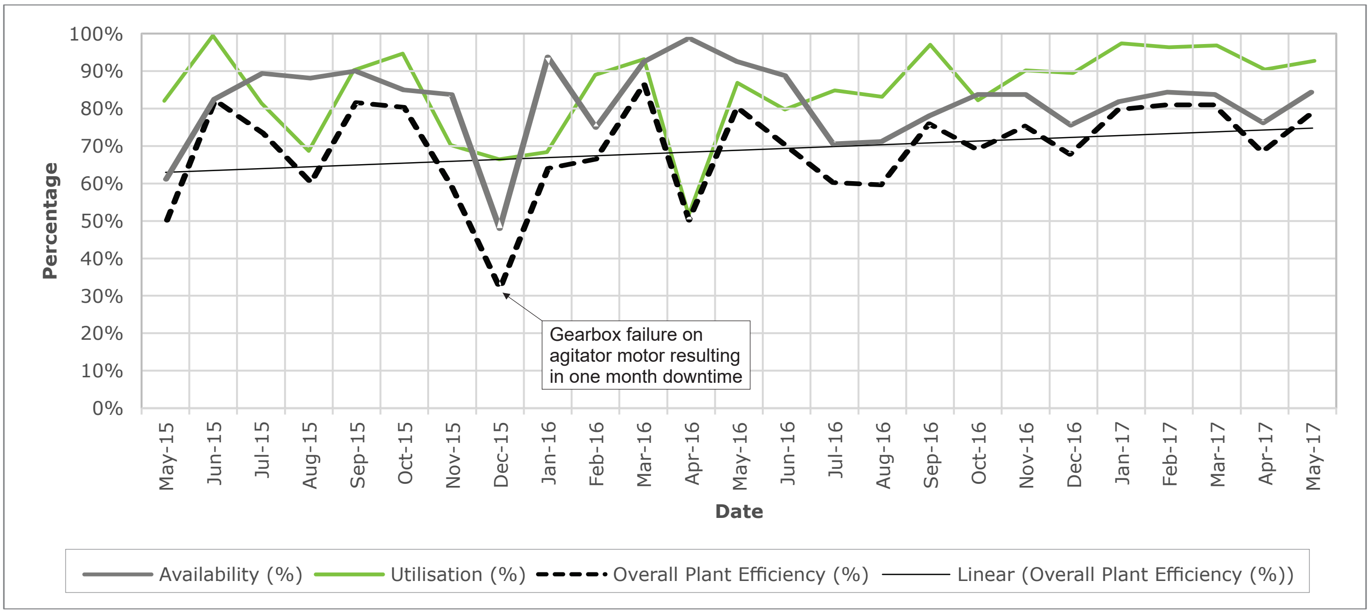
Tracer test results



Tromp Curve (Density = 2.65, Pressure = 160kPa)

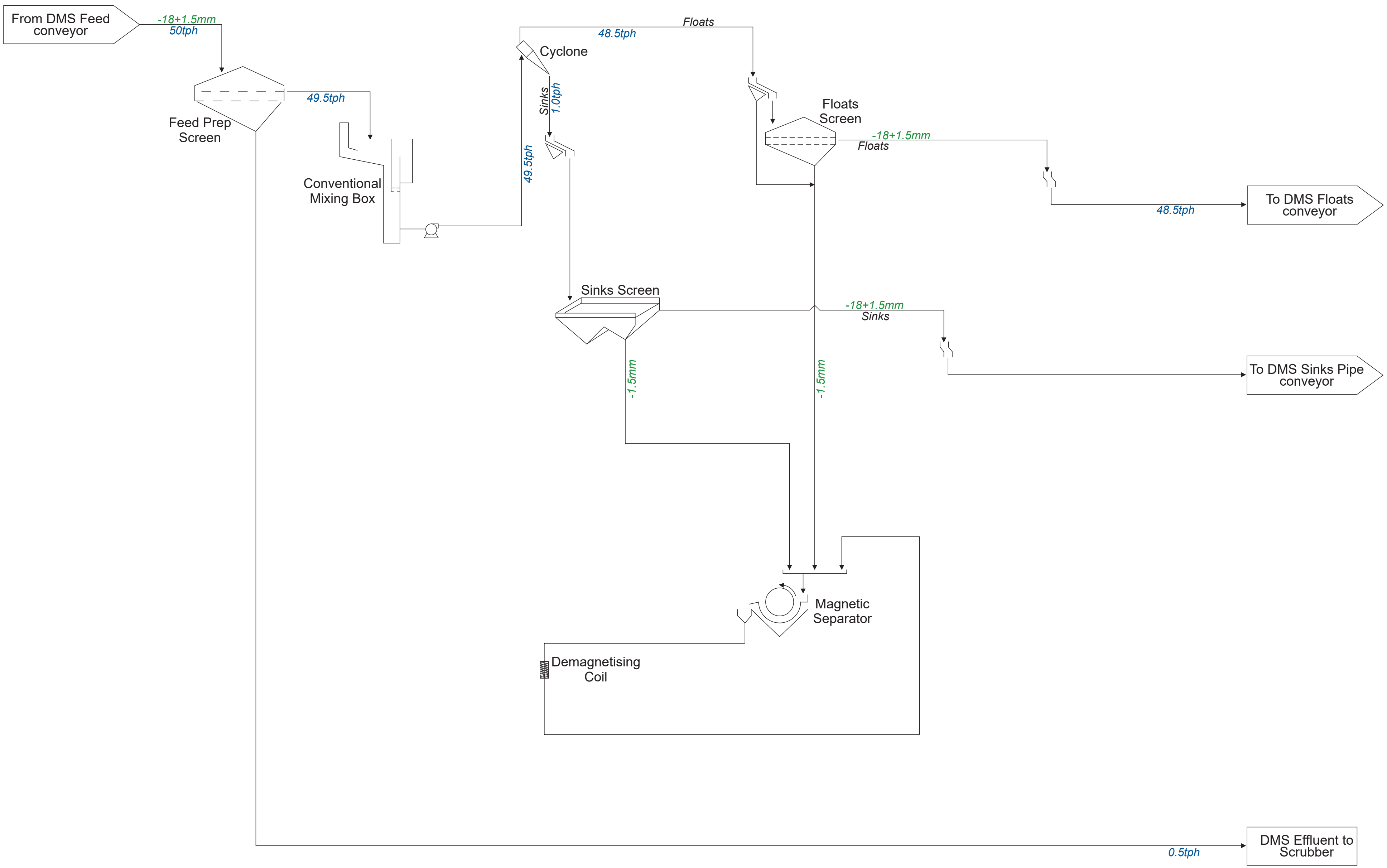


Plant efficiency



Source: LOM

Simplified DMS plant flowsheet



Source: LOM

Figure 52

- the tailings from the x-ray machine report to the fenced recovery tailings stockpile via a conveyor;
- the x-ray products report to the drier surge bin;
- the x-ray product surge bin feeds into a drier;
- the drier product feeds into a two-man glove box for final sorting; and
- the diamonds are stored in a safe.

The final recovery flowsheet is presented in Figure 53.

Post the final recovery, the diamonds are then cleaned in the deep boiling acid plant, before being sieved and weighed. Each stone is weighed and recorded separately into an Excel database. As the number of stones has increased with the increased mining rates, standard Diamond Trading Company (DTC) sieves are being used to sieve the diamonds.

While the losses in weight due to the deep boiling process can vary depending on the diamond shape and quality, generally an acid loss of 1% is acceptable. The losses due to acidisation in 2016 to date is at 0.06%.

All product high security areas, containers and safes require the presence of SML independent security, CSD and the plant manager for opening.

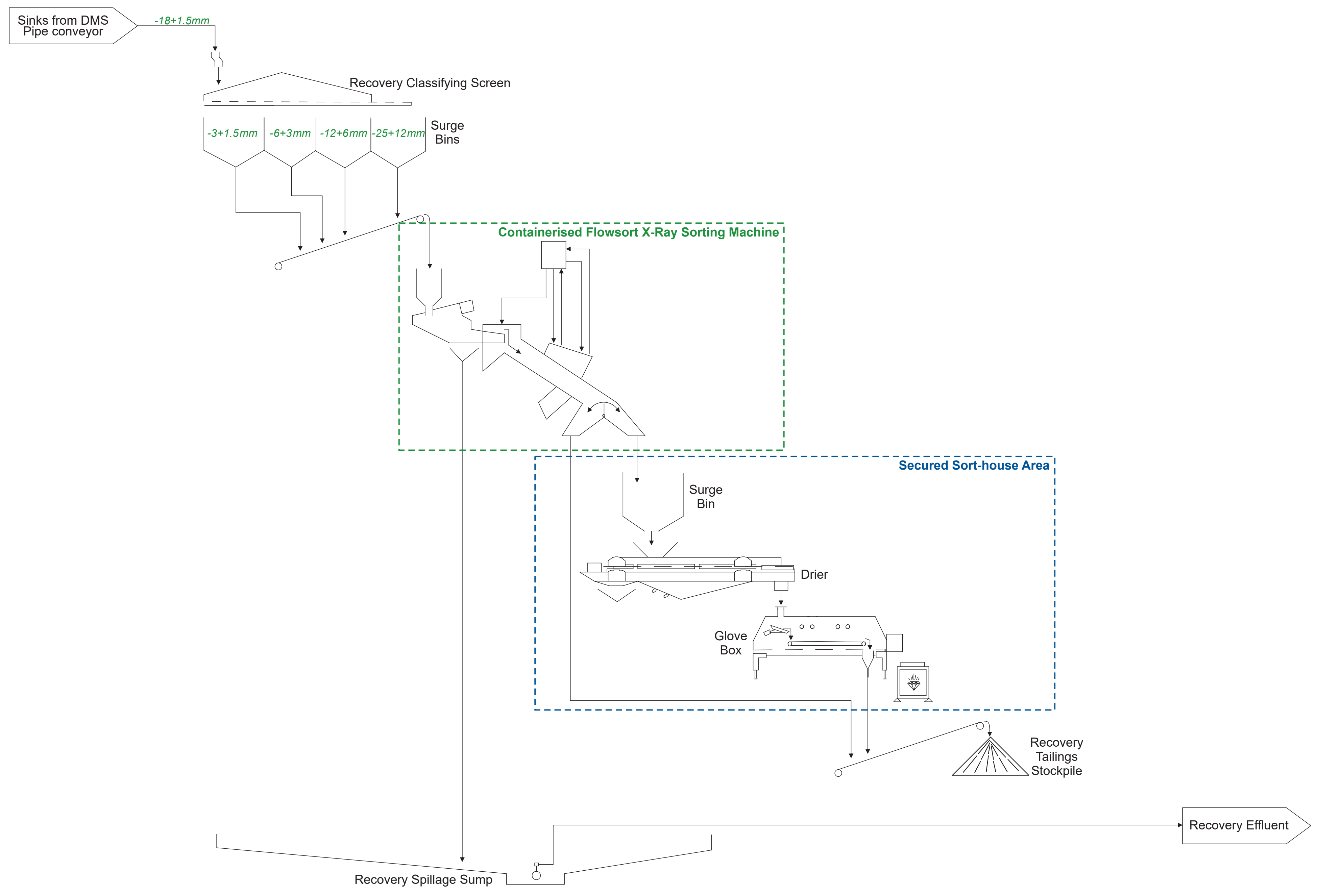
14.28.5. Coarse XRT and associated final recovery

With the regular recovery of large (+100ct) diamonds, LOM identified the need for a new XRT plant which, together with the larger screens, allows for processing of coarser gravels. The XRT receives the coarse or oversize +18mm-55mm fraction from the primary screen, post the primary and XRT scrubbers. The XRT was installed and commissioned by Consulmet® in November 2016.

The coarse XRT comprises the following components and process flow:-

- oversize +18-120mm fraction from the primary screen will report to a secondary scrubber via a conveyor at approximately 26tph;
- approximately 2.3tph of +55mm-120mm fraction will report to the secondary scrubber oversize stockpile;
- approximately 24tph of the +18mm-55mm fraction will report to the secondary screen;
- approximately 11.3tph of the +18mm-55mm fraction will report to the 20t XRT feed surge bin or the XRT feed bypass stockpile;
- the secondary screen undersize -18mm fraction will report to the primary screen for processing through the existing DMS; and
- the +18mm-55mm fraction stored in the 20t XRT feed surge bin will report to the associated final recovery;
- the feed reports to a belt feeder and then into a containerised Tomra x-ray transmissive unit;
- the +18mm-55mm concentrate fraction will report to a three-person glove box at approximately 0.04tph;

Simplified final recovery flowsheet



Source: LOM

- the +18mm-55mm tailings fraction will report to the combined XRT and existing recovery tailings stockpile at approximately 11.2tph;
- the x-ray dust collection will be stored in bins and then also report to the combined stockpile;
- the glove box product, i.e. diamonds will report to the safe prior to acidisation; and
- the glove box waste will report to the combined stockpile.

The XRT was incorporated into a new, larger and more secure sorthouse, which is fully containerised and attached to the existing recovery plant. The flowsheet and mass balance of the XRT and associated final recovery is presented in Figure 54.

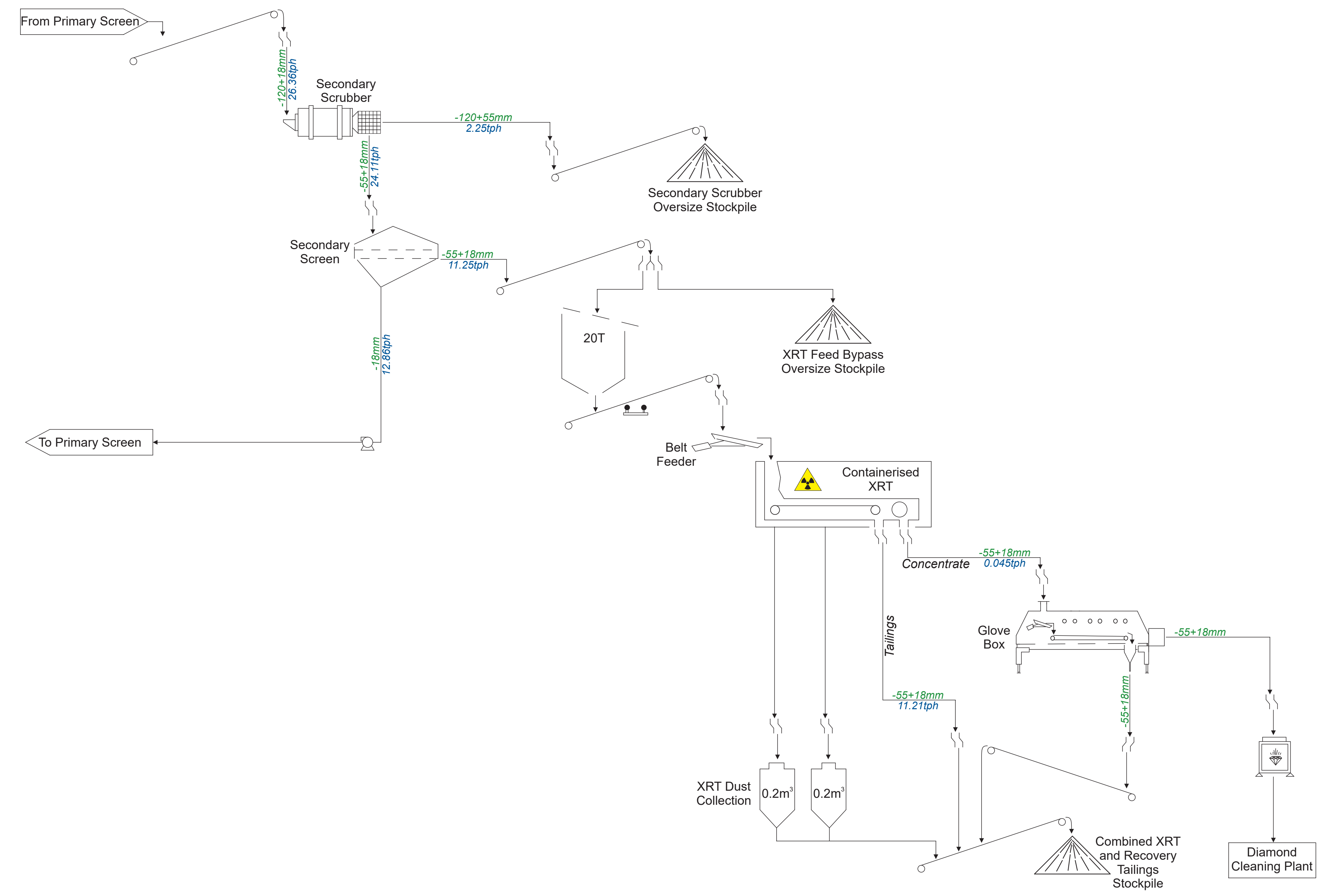
14.28.6. Old sampling plant

The 15tph old sampling plant on site is not currently in operation and would require upgrading and refurbishment prior to use. LOM may refurbish or replace the plant to utilise it for future bulk sampling exercises to free up the existing production plant to focus on revenue generation. The flowsheet for the old sampling plant is presented in Figure 55.

The sampling plant comprises the following components and process flow:-

- the material is loaded at 15tph onto the static grizzly using an FEL;
- the -20mm material passes into the mobile plant feed hopper;
- the +20mm fraction reports to the static grizzly oversize stockpile;
- the -20mm fraction reports to the primary scrubber at a rate of approximately 14.0tph;
- the scrubber outflow reports to a double deck screen;
- the +12mm-20mm fraction reports to the oversize stockpile at a rate of approximately 3.0tph. This will be crushed down further via a mobile crushing plant in the case of a competent kimberlite being sampled;
- the +1mm-12mm fraction to the mixing box and then the DMS cyclone at a rate of approximately 5.0tph;
- the +1mm-12mm floats report to the screen flood box and then to the floats tailings at 4.5tph;
- approximately 0.3tph of the +1mm-12mm sinks report to the final recovery via a pipe conveyor;
- the -1mm fraction reports to the scrubber effluent sump at a rate of 6.0tph and then to slimes;
- the final recovery comprises a single pass x-ray Flowsort;
- the product reports to the sort house; and
- the waste reports to a stockpile.

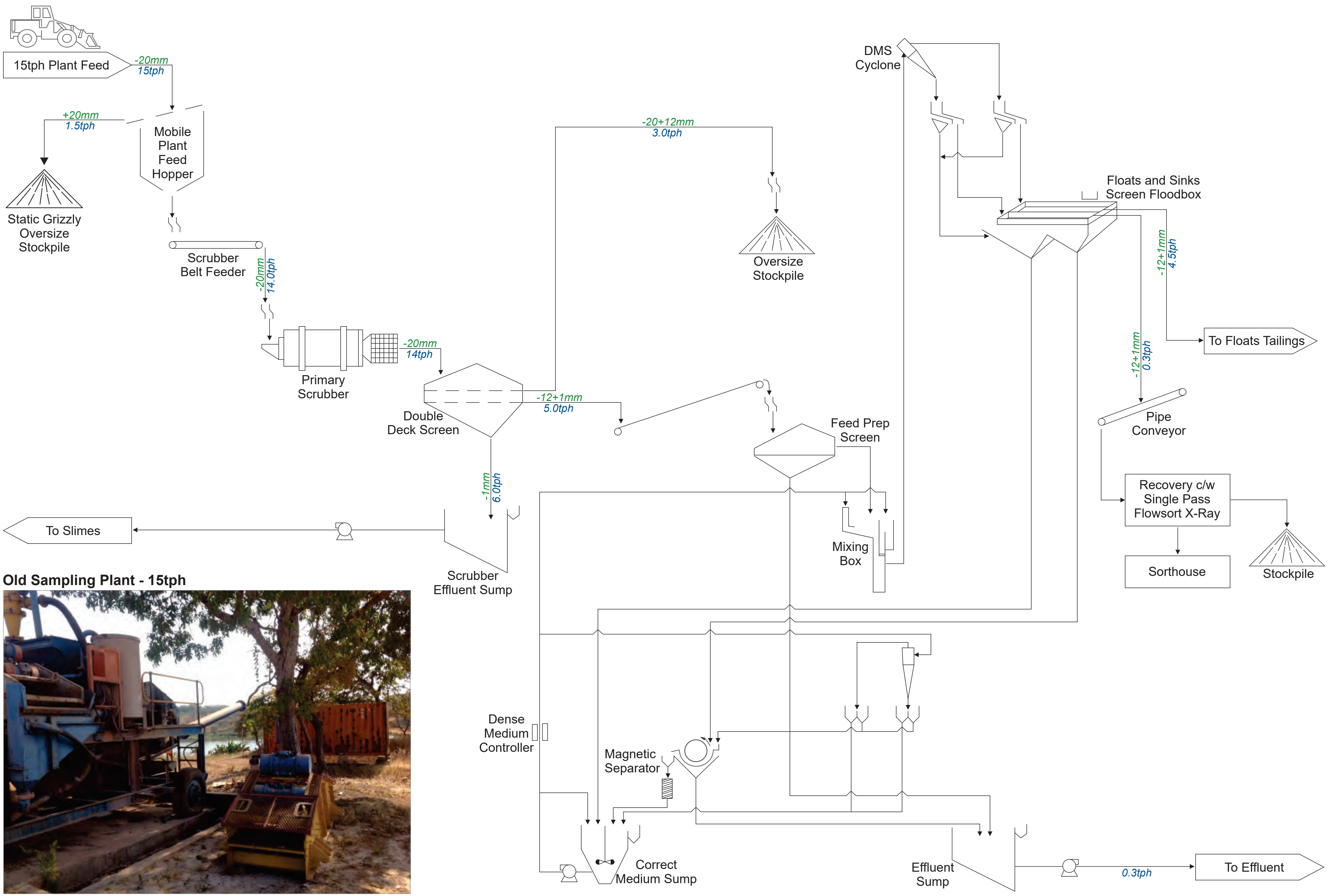
Simplified coarse XRT plant and associated final recovery flowsheet



Source: LOM

Figure 54

Simplified flowsheet of old sampling plant



Old Sampling Plant - 15tph

Source: LOM

14.29. Diamond recovery

This section deals with the diamonds recovered in the mining process from January 2015 to 31 May 2017. All diamonds recovered during the exploration phase are discussed in the relevant sections above.

14.29.1. Production rate

Mining commenced in January 2015 and has continued for the last two and a half years. The production statistics until 31 May 2016 are presented in Figure 56. The plant has treated an average of 14,111m^3 (bulked) of gravel per month and recovered an average of 1,200ct per month. Although the plant is capable of treating higher volumes, throughput has been limited by the supply of mined gravels.

The bulked average recovered grade is 8.51ct/100m^3 with an average stone size of 1.39ct/stone. The grade varies according to the block selected for mining, which is dependent on seasonal access, and has ranged from a minimum of 4.40ct/100m^3 in December 2015 to a maximum of 14.99ct/100m^3 reported in July 2016 (Figure 56). Similarly, the stone size varies between mining blocks, as selected, dependent on seasonal access. Photographs of a selection of the diamonds recovered are presented in Figure 57.

The variation of the grade and stone size per mining block is clearly illustrated in Figure 58. The graph has been plotted such that the mining blocks are ordered along the X axis from north to south, with north (downstream) to the left and south (upstream) to the right. Linear trend lines have been added for both parameters. It is evident from the graph that the average stone size decreases sharply downstream, whilst the average grade is almost constant with a slight increase downstream. MB29 has the highest bulked average grade of 16.52ct/100m^3. MB08 has the highest average stone size of 1.85ct/stone, closely followed by MB25 at 1.75ct/stone. The 404ct stone was discovered in MB08.

14.29.2. Size frequency distribution

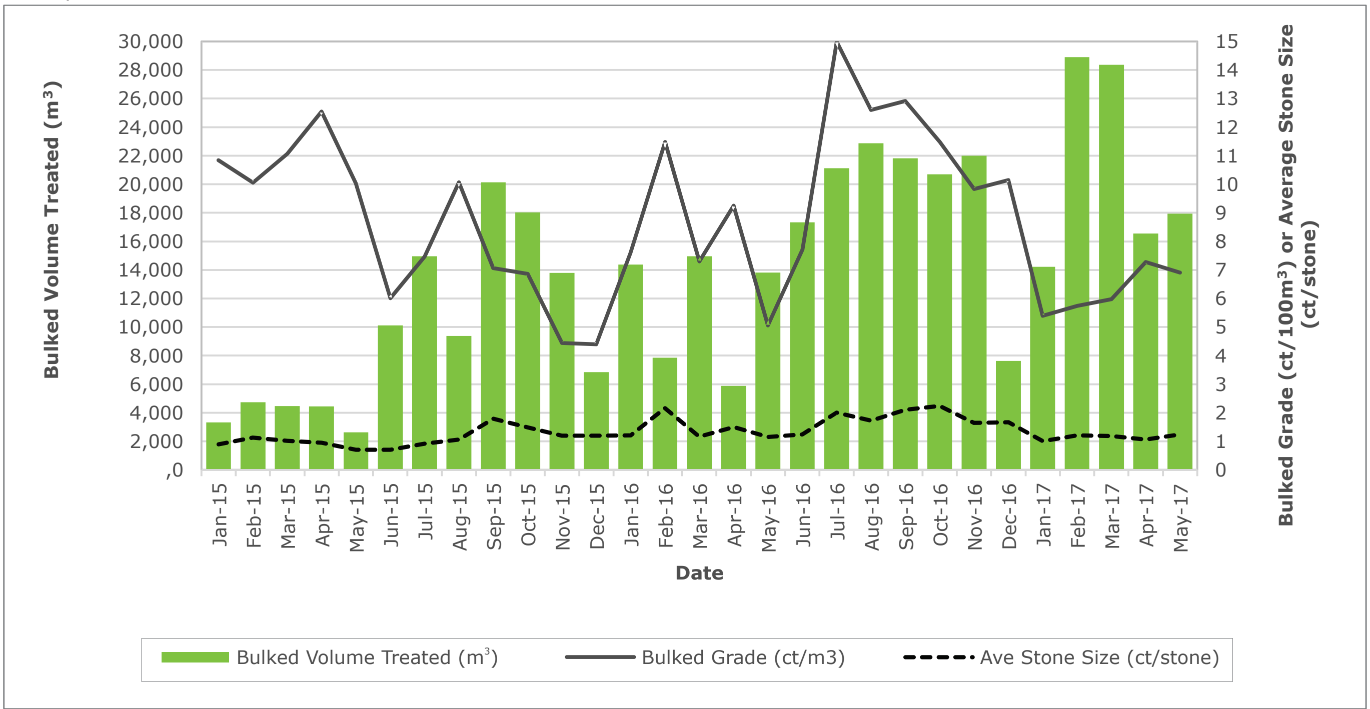
Since January 2015, each stone recovered has been individually weighed and recorded according to mining block. As a result, an SFD can be plotted for each of the mining blocks. The reader should note that the greater the number of carats, the more representative the sample and the greater the confidence in the SFD curve plotted. Venmyn Deloitte has plotted an SFD to assess the size distribution for the diamond recovered in a number of mining blocks. This was undertaken for the mining blocks where significant mining has occurred, and where the individual mining blocks were definitively identified, i.e. not grouped with other mining blocks. This graph does not present the full production from SML. Each of these blocks, or combinations of adjacent blocks has contributed more than 2,000cts. The SFD is presented in Figure 58.

The most northern mining blocks (MB21, 22, 29 & 31) show the lowest concentration of large diamonds. MB08, situated in the central area, shows the highest proportion of large stones. This was confirmed by the average stone size graph presented in Figure 58. The other three blocks show variations between these two end members.

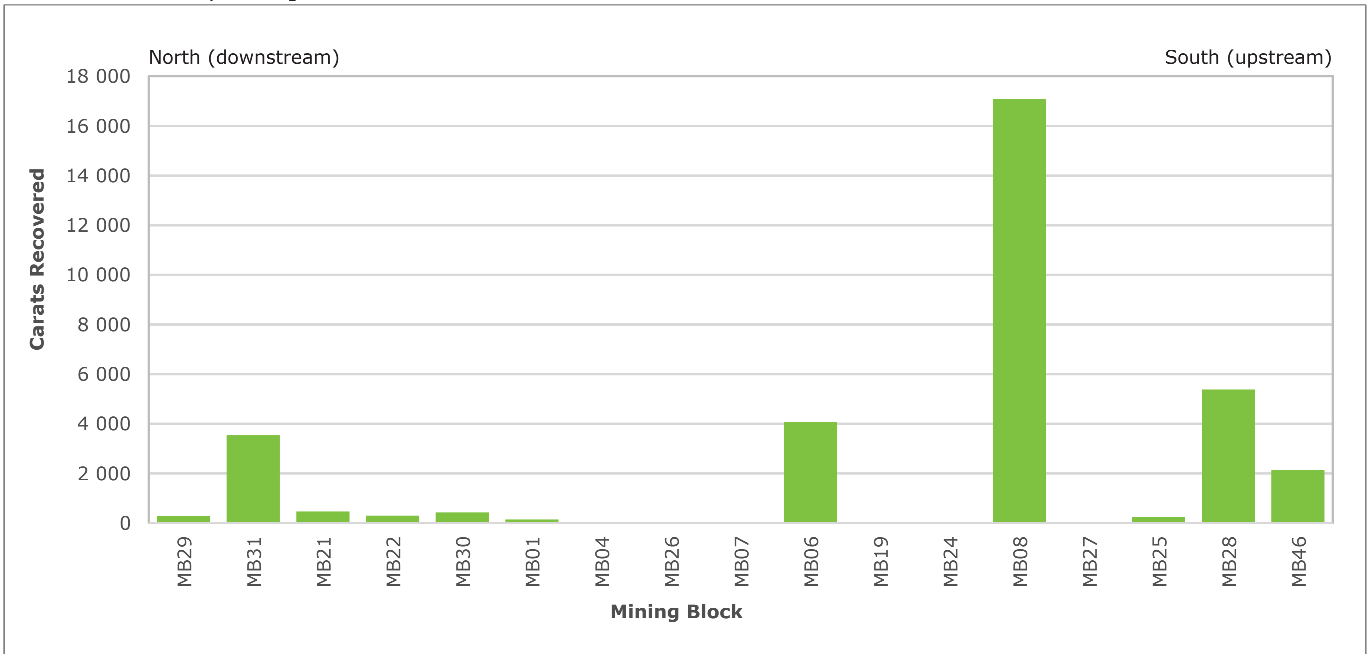
The percentage of special stones (>10.8cts) by carats, recovered per mining block is shown in Table 31. The occurrence of special stones has a direct influence on the revenue received per mining block.

Graph of plant production statistics and carats recovered by mining block

Plant production statistics



Carats recovered by mining block



Photographs of diamonds recovered during mining

404 ct diamond recovered from MB-08 - March 2016

227 ct diamond recovered from MB-28-C - February 2017

173 ct diamond recovered from MB-08 - September 2016

131 ct diamond recovered from MB-08 - September 2016

90.32ct diamond recovered from MB-08 – Sept 2015

104ct diamond recovered from MB-08 – Sept 2016

Source: LOM

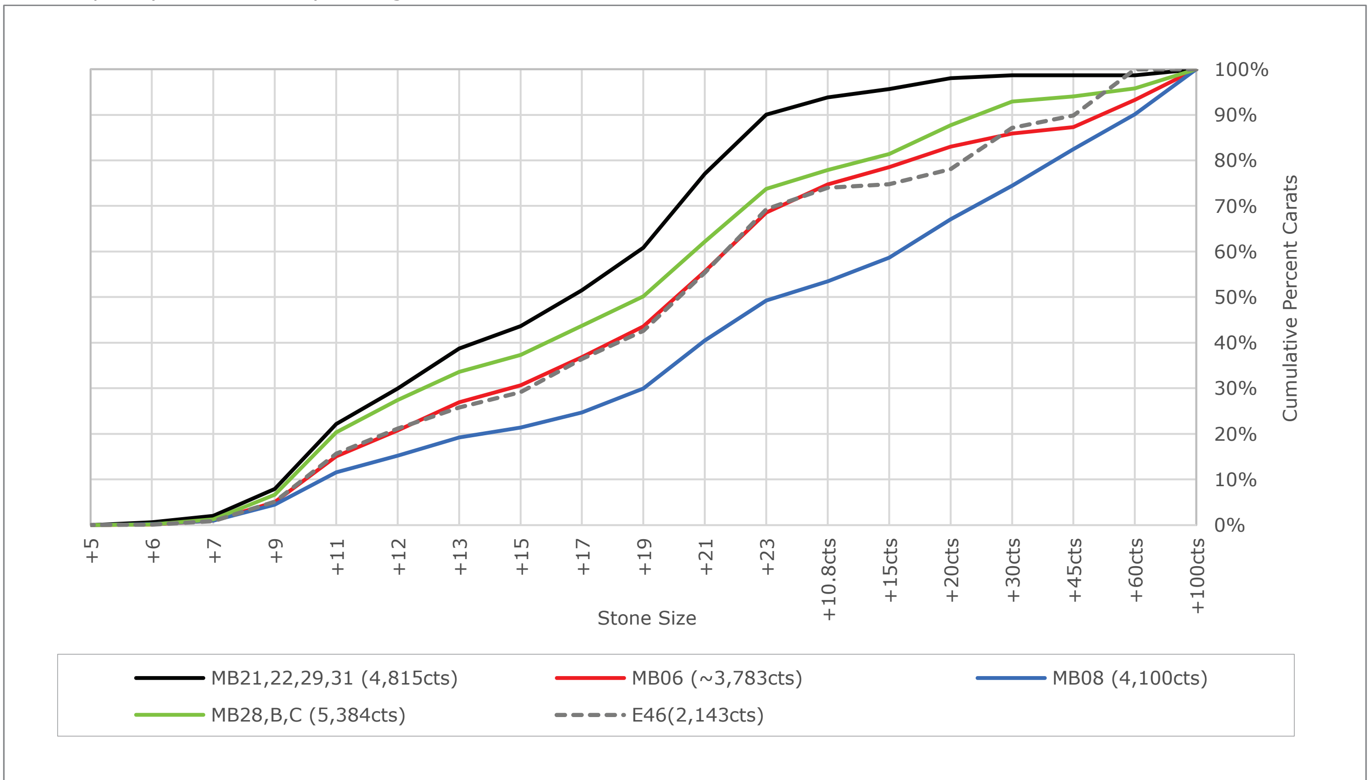
Venmyn Deloitte.

Lucapa Diamond Company

Graphs of bulked average grade, stone size and size frequency distribution by mining block

Bulked average grade and stone size by mining block

Size frequency distribution by mining block



Source: LOM

Table 31 : Percentage of special stones by mining block

LOCATION ALONG CACUILO RIVER	MINING BLOCK	% >10.8ct (BY CTS)
North	MB21,22,29,31	11%
	MB06	31%
	MB08	40%
	MB28	26%
South	MB46	31%
TOTAL PRODUCTION FROM SML		**31%**

14.29.3. Diamond characteristics

Between January 2015 and the end of May 2017, SML has recovered 424 special stones (+10.8ct) weighing a total of 10,962.15cts. Thus 31% of the mining production, by carats, has reported to the +10.8ct fraction.

Venmyn Deloitte has reviewed the database of special stones and their classification by SML according to type, classification and colour. The 2017 special stones, totalling 1,802cts, has the most complete classification breakdown according to these criteria. The results are presented as a series of pie charts in Figure 59.

Of the stones measured, 47% may be classified as Type IIA. These are highly valued stones in the diamond market.

With regard to classification, almost two thirds of the special stones may be categorised as gems. The colour breakdown of the special stones indicates that approximately half are 'D' colour. SML has produced a small percentage of yellow stones in the +10.8ct size fraction since January 2017.

14.29.4. Diamond valuation

All diamond parcels are delivered to Sodiam for government valuation and sale preparation. Each parcel is reviewed and valued for internal purposes by Mr F Govic of Crodiam Consulting, a diamond expert with significant experience and the appointed company valuator.

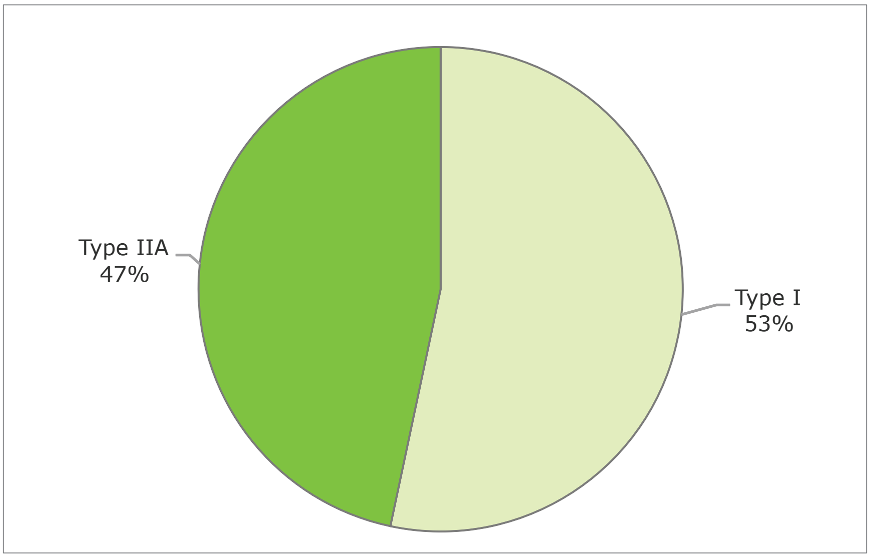
It is not practical to report the detailed valuation breakdown by size fraction for all the parcels sold by SML. However, the average prices per parcel sold since April 2015 are reported in Section 14.29.5 and graphed in Figure 59.

The detailed valuation of the last three parcels is presented in Table 32, with a comparison to the actual prices obtained from Sodiam in the final negotiation. The Crodiam Consulting valuation was based upon the expected selling price. The final price of any sale is a negotiation between SML and the buyer.

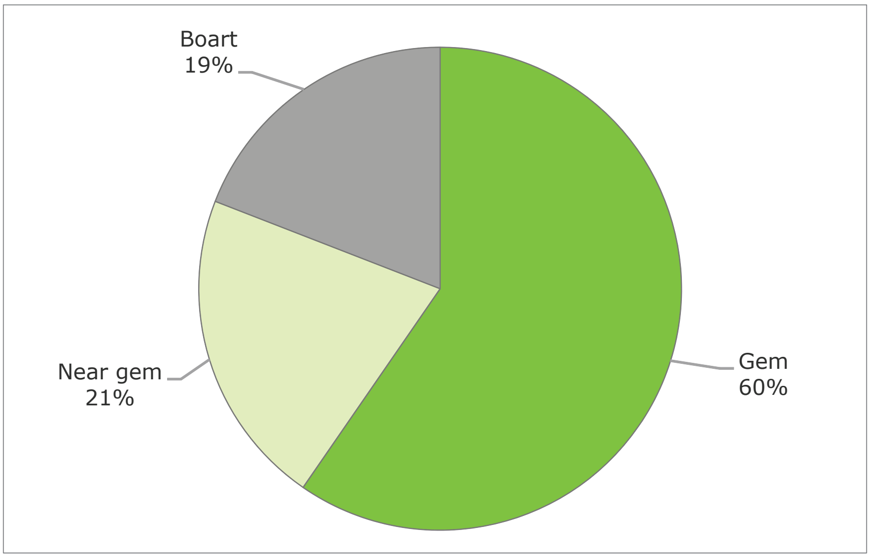
The Crodiam Consulting valuation result for May 2017 indicates that 64% of the value of the parcel originates from 28% of the stones, i.e. the +10.8ct stones. This is a decrease from April 2017, where 67% of the value came from 21% of the stones and March 2017 where 64% of the value originated from only 18% of the stones. The changing valuation is principally a result of the different mining blocks extracted during this time period and the number, size and quality of the special stones extracted.

Graphs of 2017 special stones represented according to type, classification and colour

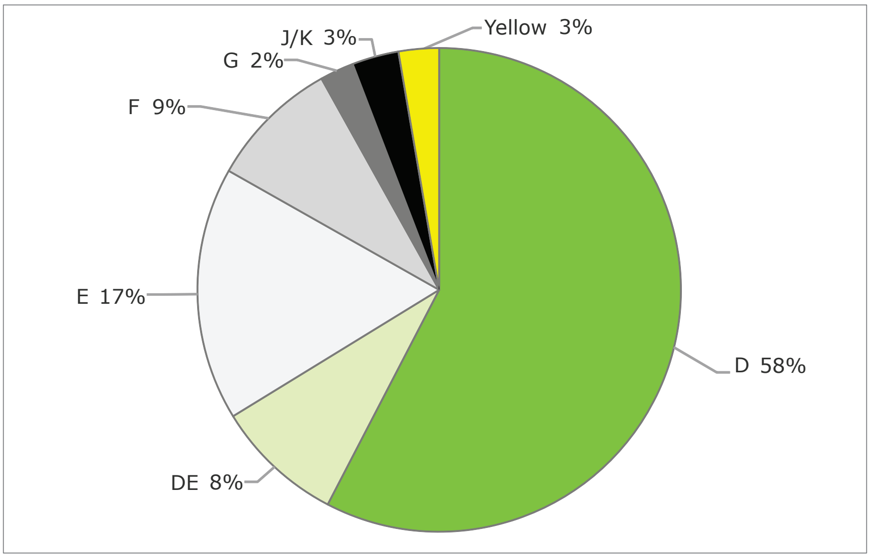
Type



Classification



Colour



Source: LOM

Table 32 : March, April and May 2017 parcel valuation result

STONE SIZE	MARCH 2017 PARCEL CARATS	% OF CTS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE	APRIL 2017 PARCEL CARATS	% OF CTS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE	MAY 2017 PARCEL CARATS	% OF CTS	AVE VALUE (USD/ ct)	VALUE (USD)	% OF VALUE
+10.8ct	232.25	18%	2,266	526,258	64%	397.33	21%	2,741	1,088,973	67%	495.50	28%	1,253	620,979	64%
10ct	0.00	0%		0	0%	30.68	2%	962	29,505	2%	31.76	2%	71	2,243	0%
9ct	9.24	1%	495	4,578	1%	55.09	3%	1,382	76,120	5%	27.63	2%	948	26,185	3%
8ct	16.26	1%	1,850	30,074	4%	49.21	3%	1,416	69,703	4%	17.07	1%	472	8,054	1%
7ct	57.36	4%	215	12,343	2%	42.65	2%	1,272	54,267	3%	44.39	2%	837	37,156	4%
6ct	31.87	2%	865	27,578	3%	31.66	2%	515	16,298	1%	49.75	3%	559	27,797	3%
5ct	37.33	3%	753	28,103	3%	58.41	3%	615	35,945	2%	46.81	3%	837	39,202	4%
4ct	56.58	4%	734	41,537	5%	103.57	6%	362	37,462	2%	76.75	4%	430	33,038	3%
3ct	76.47	6%	340	25,993	3%	154.56	8%	453	69,981	4%	80.85	5%	266	21,484	2%
10grn	21.88	2%	312	6,820	1%	17.87	1%	414	7,404	0%	25.65	1%	412	10,573	1%
8grn	108.92	8%	236	25,739	3%	138.16	7%	260	35,943	2%	98.39	6%	249	24,487	3%
+13	366.53	28%	181	66,376	8%	412.07	22%	204	84,115	5%	427.91	24%	227	97,113	10%
+11	217.62	16%	75	16,321	2%	275.53	15%	82	22,716	1%	251.50	14%	84	21,186	2%
+9	71.42	5%	50	3,587	0%	70.57	4%	60	4,252	0%	91.49	5%	56	5,119	1%
+7	20.53	2%	36	729	0%	18.57	1%	38	701	0%	21.07	1%	42	883	0%
-7	0.00	0%	0	0	0%	0.00	0%	0	0	0%	0.00	0%	0	0	0%
TOTAL	**1,324.26**	**100%**	**616**	**816,036**	**100%**	**1,855.93**	**100%**	**880**	**1,633,383**	**100%**	**1,786.52**	**100%**	**546**	**975,499**	**100%**
Special	227.73		28,586	6,510,000		62.75		16,494	1,035,000		91.97		4,871	448,000	
TOTAL	**1,551.99**		**4,720**	**7,326,036**		**1,918.68**		**1,391**	**2,668,383**		**1,878.49**		**758**	**1,423,499**	
ACTUAL	**1,324.26**		**567**	**750,855**		**1,918.68**		**1,317**	**2,527,541**		**1,878.49**		**695**	**1,304,668**	
	227.73		**27,006**	**6,150,000**											
	1,551.99		**4,446**	**6,900,855**											

Source: LOM, Crodiam Consulting

14.29.5. Diamond sales

A total of 19 parcels have been sold between January 2015 and May 2017 totalling 34,332cts. The diamonds were escorted, under the required security protocols, to Luanda, where they were valued by the government diamond valuator and the SML appointed valuator, before being sold to the buyer.

The results for each sale is presented in Table 33 and shown graphically in Figure 60. The 404ct stone was sold in February 2016 for a record USD39,580/ct. The average sales price to 31 May 2017, including the 404ct stone was USD2,159/ct and excluding it was USD1,718/ct.

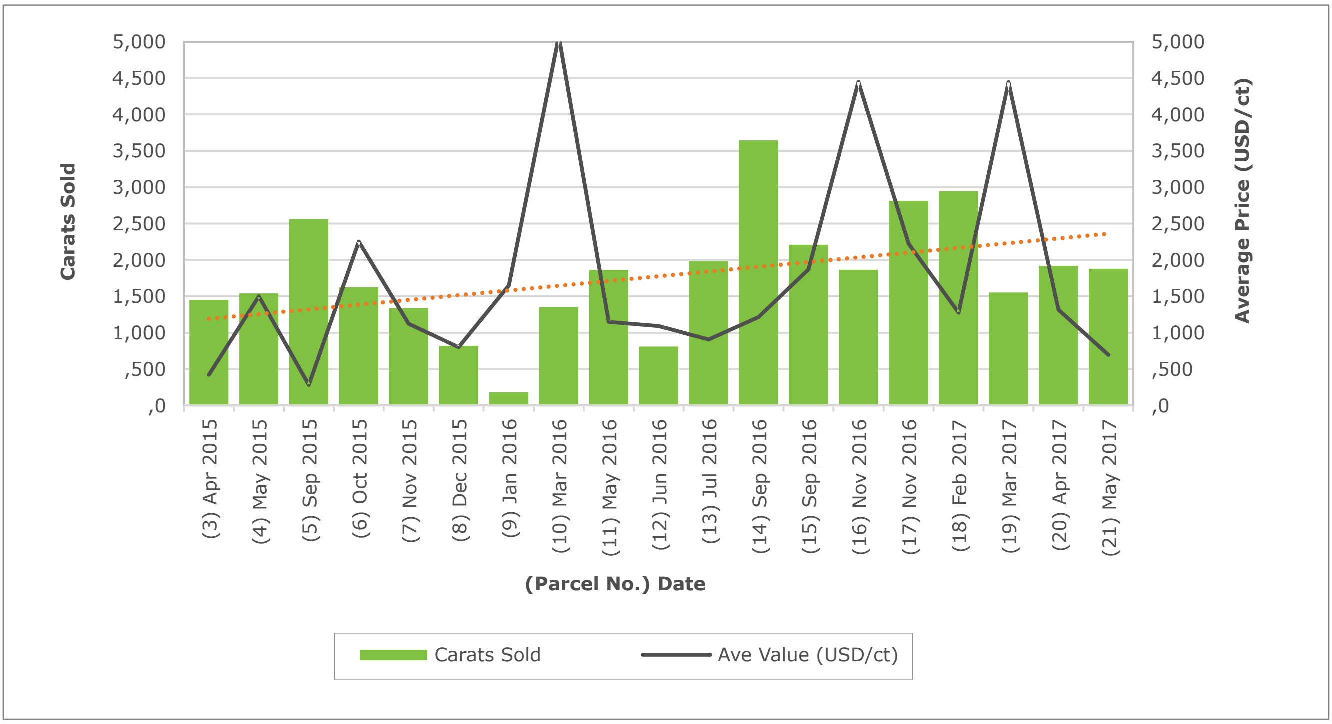
Table 33 : Diamond sales results (January 2015 to May 2017)

(PARCEL NO.) / DATE	CARATS SOLD	AMOUNT (USD)	AVE VALUE (USD/ct)
(3) April 2015	1,450.16	608,920	420
(4) May 2015	1,539.06	2,308,590	1,500
(5) September 2015	2,559.11	716,551	280
(6) October 2015	1,621.45	3,656,370	2,255
(7) November 2015	1,339.38	1,500,521	1,120
(8) December 2015	817.64	654,112	800
(9) January 2016	177.98	293,667	1,650
(404ct) February 2016	404.24	16,000,000	39,580
(10) March 2016	1,348.78	6,844,982	5,075
(11) May 2016	1,862.20	2,141,530	1,150
(12) June 2016	808.00	880,720	1,090
(13) July 2016	1,985.28	1,796,678	905
(14) September 2016	3,642.31	4,414,480	1,212
(15) September 2016	2,209.65	4,128,604	1,868
(16) November 2016	1,864.06	8,298,230	4,452
(17) November 2016	2,812.26	6,250,000	2,222
(18) February 2017	2,945.86	3,760,000	1,276
(19) March 2017	1,551.99	6,900,855	4,446
(20) April 2017	1,918.68	2,527,541	1,317
(21) May 2017	1,878.49	1,304,668	695
TOTAL	**34,736.58**	**74,987,018**	**2,159**
TOTAL (Excl. 404ct)	**34,332.34**	**58,987,018**	**1,718**

Source: LOM

The diamond sales prices on a USD/ct basis have shown a general increasing trend over the last two and a half years. The recent decrease in the May 2017 sale price was a function of mining only in MB28 during April and May 2017. This mining block has a characteristic smaller average stone size when compared to the other mining block. SML expects that the average price will increase again once the mining operation returns to MB08 and MB06, which are more readily accessible in the dry season.

Graph of diamond sales results (2015 - 2017)



Lulo March 2017 parcel

14.30. Previous Diamond Resource estimates

14.30.1. Maiden Diamond Resource estimate (31 October 2015)

The first official JORC Code compliant resource estimate was estimated by Z Star in October 2015. The resource estimate is presented in Table 34.These resource estimates were published on the LOM website, along with a JORC Table 1.

Z Star based their resource estimates on the previous pitting, bulk sampling and mining results in each of the Sectors. The gravel resource excluded areas previously mined or disturbed by artisanal mining. The resources were all classified in the Inferred category due to the uncertainty associated with the following:-

- geology of the gravel bodies;
- the sampling;
- the determination of the:-
    - volume (bulking factor);
    - stone density (stones/m^3);
    - stone size (cts/stone) and
    - density (t/m^3).

Z Star estimated the diamond grade based upon the stones per cubic metre and the average stone size by sector, as required by JORC. The multiplication of the two parameters provides the grade in ct/100m^3, as typically reported for diamonds resources. The gravel tonnes are reported, as required by JORC. These were estimated at an average density of 2.115t/m^3 for all sectors.

Z Star's competent persons, Mr SP Duggan (Reg. No. 400035/01) and Mr DE Bush (Reg. No. 400071/00) are both registered geological scientists with the South African Council for Natural Scientific Professionals. They both have the required experience to practise as Competent Persons in diamond resource estimation.

14.30.2. Previous Diamond Resource estimate (31 January 2017)

The previous diamond resource estimate was undertaken by Z Star at the end of January 2017. This Diamond Resource estimate was also published by LOM on its website, including a JORC Table 1.

The parameters and estimation methods used in the compilation of the resource statement are described in the section to follow. The resource statement was based upon the pitting, bulk sampling, mining and sales results obtained to that date.

Z Star estimated the resources based upon the October 2015 dataset and added updated results to this data. Information was provided by SML in the form of monthly reports, excel spreadsheets and valuation reports. Z Star verified the data on an exception basis and found no major errors or inconsistencies.

The previous resource statement is presented in Table 35.

14.31. Current Diamond Resource estimate (31 May 2017)

The current Diamond Resource estimate was undertaken by Z Star, as at 31 May 2017. The current Diamond Resource estimate is presented in Table 36. The Diamond Resource block outlines are presented in Figure 61.

Table 34 : Maiden Z Star Inferred Diamond Resource estimate for SML (31 October 2015)

ALLUVIAL AREA	RESOURCE BLOCK NO.	AREA (m^2)	AVE GRAVEL WIDTH (m)	GRAVEL VOLUME (m^3)	GRAVEL TONNES	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/stone)	STONES PER BLOCK	CARATS PER BLOCK	AVE GRADE (ct/$100m^3$)	AVE VALUE (USD/ct)
Sector 1	-	363,700	0.60	218,200	461,400	6.60	0.82	14,400	11,800	5.41	781
Sector 4	MB08	255,575	0.57	120,000	253,800	6.20	1.48	7,440	11,010	9.18	931
	MB24	60,000	0.33	17,600	37,400	5.10	1.04	900	930	5.30	781
Sector 5	Sector 5	96,200	0.44	10,400	21,900	11.10	0.95	1,150	1,090	10.55	781
	North	80,000	0.64	51,200	108,200	6.00	1.13	3,070	3,470	6.78	781
E46	E46	331,800	0.40	132,700	280,600	18.20	0.97	24,150	23,420	17.65	781
TOTAL / AVE		**1,187,275**	**0.51**	**550,100**	**1,163,300**	**9.29**	**1.01**	**51,110**	**51,720**	**9.41**	**813**

Notes :-
Source: Z Star, Venmyn Deloitte rounded
BSS = 1.5mm, TSS = 32.0mm. Density of 2.115t/m^3 used for tonnage calculation.
Rounding down of gravel volumes to hundreds and stones and carats to tens. Rounding down may result in computational differences compared to the Z Star compiled and LOM issued resource estimates which employ a different rounding convention. These differences are immaterial.

Table 35 : Previous Z Star Inferred Diamond Resource estimate for SML (31 January 2017)

RESOURCE BLOCK NO.	AVE GRAVEL WIDTH (m)	GRAVEL AREA (m^2)	GRAVEL VOLUME (m^3)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/stone)	STONES PER BLOCK	CARATS PER BLOCK	AVE GRADE (ct/$100m^3$)	AVE VALUE (USD/ct)
Block23	0.44	84,672	37,800	5.95	1.13	2,240	2,540	6.72	846
Block31_21	0.54	55,156	30,200	11.89	0.92	3,590	3,310	10.98	846
Block01_04_26	0.77	361,375	260,400	6.45	0.69	16,780	11,660	4.48	846
Block06	0.37	83,402	31,900	6.64	1.25	2,110	2,640	8.30	1,215
Block24	0.33	51,112	17,000	5.05	1.04	850	890	5.25	1,880
Block08	0.51	163,914	87,700	8.87	1.77	7,770	13,750	15.68	1,880
Block28	0.31	71,767	22,900	4.74	1.21	1,080	1,310	5.74	845
Block46	0.39	295,754	118,700	9.03	1.13	10,720	12,120	10.22	1,103
TOTAL / AVE	**0.51**	**1,167,152**	**606,600**	**7.44**	**1.07**	**45,140**	**48,220**	**7.95**	**1,245**

Notes :-
Source: Z Star, Venmyn Deloitte rounded
BSS = 1.5mm, TSS = 32.0mm. Density of 2.115t/m^3 used for tonnage calculation.
Rounding down of gravel volumes to hundreds and stones and carats to tens. Rounding down may result in computational differences compared to the Z Star compiled and LOM issued resource estimates which employ a different rounding convention. These differences are immaterial.

Table 36 : Current Z Star Inferred Diamond Resource estimate for SML (31 May 2017)

RESOURCE CATEGORY	RESOURCE BLOCK NO.	AVE GRAVEL WIDTH (m)	GRAVEL AREA (m^2)	GRAVEL VOLUME (m^3)	STONE DENSITY (stones/ $100m^3$)	AVE STONE SIZE (ct/stone)	STONES PER BLOCK	CARATS PER BLOCK	AVE GRADE ($ct/100m^3$)	AVE VALUE (USD/ct)
Inferred	Block23	0.44	84,667	37,700	5.95	1.13	2,240	2,530	6.72	846
	Block31_21	0.54	55,144	29,400	9.34	0.92	2,750	2,530	8.59	846
	Block01_04_26	0.77	366,359	270,100	5.16	0.77	13,930	10,730	3.97	846
	Block06	0.37	73,042	27,800	6.43	1.37	1,780	2,440	8.81	1,215
	Block24	0.33	51,111	17,000	4.15	1.08	700	760	4.48	1,880
	Block08	0.51	162,075	86,200	6.74	1.86	5,810	10,790	12.51	1,880
	Block28	0.31	69,719	25,800	6.52	1.09	1,680	1,820	7.08	845
	Block46	0.39	296,015	109,100	7.72	1.25	8,420	10,550	9.67	1,103
	TOTAL / AVE	**0.51**	**1,158,133**	**603,100**	**6.19**	**1.13**	**37,310**	**42,150**	**6.99**	**1,215**

Notes :-

Source: Z Star, Venmyn Deloitte rounded

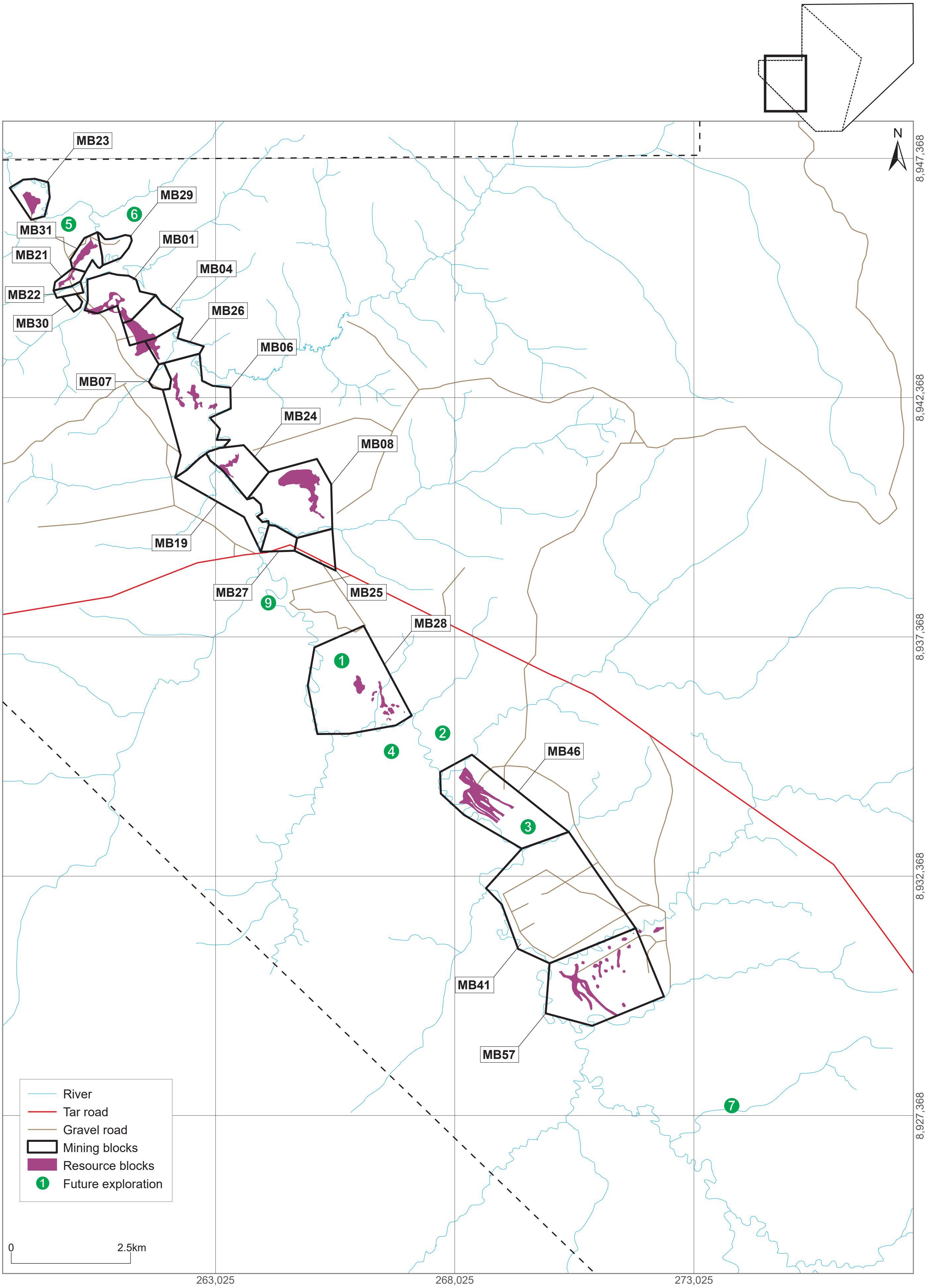
BSS = 1.5mm, TSS = 32.0mm. Density of $2.115t/m^3$ used for tonnage calculation.

Rounding down of gravel volumes to hundreds and stones and carats to tens. Rounding down may result in computational differences compared to the Z Star compiled and LOM issued resource estimates which employ a different rounding convention. These differences are immaterial.

Venmyn Deloitte.

Lucapa Diamond Company

Location of Diamond Resource blocks and areas planned for future exploration on the Cacuilo River



Source: LOM

The parameters and estimation methods used in the compilation of the Diamond Resource estimate are described in the section to follow. The entire area has been divided into 100m x 100m blocks, with each parameter estimated into the block. This block inventory forms the basis for the Diamond Resource estimate. The sum and/or average of all the 100m blocks located within a resource block forms the Diamond Resource estimate and is reported accordingly.

The Diamond Resource estimate was based upon the pitting, bulk sampling and mining results obtained to this date. The SFD, diamond assortment and revenue models, which were estimated at 31 January 2017 for the previous Diamond Resource estimate, remain the same.

Information was provided to Z Star by SML in the form of monthly reports, excel spreadsheets, GIS files and valuation reports. The information provided included the following:-

- GIS shape files to define the area of each gravel body;
- pitting and Sedidrill augering results used estimate gravel thickness in each gravel body;
- polygons from Surpac to delineate mining areas; and
- bulk sampling and mining results to enable the estimate of stone density and average stone size for each gravel body.

Z Star verified the data on an exception basis and found no major errors. Any inconsistencies identified were resolved with LOM ahead of resource estimation.

No correlation of the variables quoted in the Diamond Resource estimate has been recognised or has been applied in its derivation. Comparisons have been made between the model data and drillholes for each resource block. Mining results as well as bulk samples inform the Diamond Resource estimates. Geological modelling within each block has only recently commenced and, as a result, no reconciliations between the geological model (Diamond Resource estimate) and mining results have been undertaken. These will be carried out by LOM going forward.

LOM and Z Star are cognisant that the positioning of the bulk samples in areas of optimal gravel development may result in a statistically biased result, i.e. a bulk sample may not be fully representative of the entire gravel body. Such bulk sample results can return higher grades than those achieved by mining in the same area. As mining continues, these results will improve the estimation process. The Competent Persons have classified the Diamond Resources as Inferred.

14.31.1. Area

The area of the gravel bodies was provided to Z Star by SML. It was estimated using the least squares method from the geological mapping of the gravels, pitting and augering results. This is considered an appropriate estimation method. The resource block outline is determined by the extent of the gravel across the valley, by the extent of the points of information upstream or downstream and limited by the artisanal workings and mined out areas. The artisanal workings are excluded from all resource blocks.

The location and extent of the resource blocks in relation to the Cacuilo River are summarised in Figure 19 and Figure 20. Detailed outlines and modelling results for each gravel resource block are discussed in Section 14.25.

The resource blocks vary in dimension, with the width of the floodplain, from approximately 100m to 300m wide. They vary in length from approximately 500m to 1,500m. The estimated areas, depleted for mining, are reported in Table 36.

The average depth of the gravels, by resource block, was not reported for the resource statement, but typically varies from 1m to 10m. The average stripping ratios are reported, for the recent mining, by mining block in Table 30.

14.31.2. Gravel thickness or width

The gravel thickness was estimated by Z Star into each 100m block from the gravel thickness measurements. The estimation methods used and the results are described in detail in Section 14.25. The number of points of information per resource block informing the gravel estimation is presented in Table 37.

Table 37 : Density of points of information informing the gravel thickness estimates and bulk samples informing the stone density and size estimates

RESOURCE BLOCK NO.	NO. OF GRAVEL BODIES	NO. OF PITS / AUGER HOLES	GRAVEL AREA (m^2)	DENSITY OF DATA POINTS ($Pts/100m^2$)	NO. OF BULK SAMPLES
Block23	1	15	84,667	0.018	1
Block31_21	1	34	108,632	0.031	4
Block01_04_26	1	57	378,075	0.015	7
Block06	4	22	115,677	0.019	0
Block24	1	13	55,743	0.023	1
Block08	1	71	307,561	0.023	1
Block28	11	8	171,272	0.005	2
Block46	1	45	325,891	0.014	4
TOTAL / AVE	**21**	**265**	**1,547,518**	**0.017**	**20**

Source: Z Star, May 2017

The density of information provides an indication as to the confidence in the gravel estimation process, i.e. the density is proportional to confidence. In most cases there is a reasonable coverage across the extent of gravels declared in the resource.

The average thickness per resource block is presented in Table 36 and typically varies from 0.33m to 0.77m.

14.31.3. Volume

The volume was calculated by Z Star on a block by block basis, by multiplying the area of gravel within the 100m block by its estimated gravel thickness. The volume was not modelled using a geological modelling software package. This is an acceptable method as the underlying parameter, i.e. gravel thickness, has been modelled.

14.31.4. In situ density

A density of 2.115t/m^3 was used by Z Star for all the resource blocks. This is a wet density. The exact moisture content was not measured.

A density measurement was estimated in March 2011 from two Calonda derived gravel samples taken from two bulk sample pits (Table 10). The average density of the two samples was 2.118t/m^3 which was slightly different to the figure used for the Diamond Resource estimate. This was not material as the density was typically reported to one decimal place, in which case the rounded figures would be the same.

There are no density measurements associated with each resource block at Lulo. Therefore, there is uncertainty associated with this parameter.

14.31.5. Tonnage

The tonnage was estimated by Z Star from the volume of each resource block multiplied by a single density figure. These tonnages are reported on a wet basis.

Although JORC requires tonnage to be reported, Venmyn Deloitte does not recommend that this criterion be used as an estimation parameter. It is not a requirement to report alluvial Diamond Resources according to tonnes; reporting according to cubic metres or 100 cubic metres is acceptable. Reporting the volumes, and grade according to volume, removes any uncertainty associated with the density measurements.

Tonnage measurements will also be affected by the moisture content of the feed material.

14.31.6. Stone density

It is a JORC requirement to report the stone density. This provides an indication of the stones recovered per cubic metre or 100 cubic metres of gravel mined and treated. It is used as the basis of diamond grade estimation.

The number of stones and the cubic metres of gravel mined and treated was recorded by SML in the bulk sampling and mining records. Although a total of 39 bulk samples have been taken by SML, 23 were deemed by Z Star to be representative and reliable for estimation purposes. All mining results were included in the Diamond Resource estimate. The number of bulk samples per resource block informing the estimation of stone density is presented in Table 37.

It must be noted that there is a difference between in situ gravel volume, prior to mining, and bulked gravel volume which is measured through the plant. This difference has a direct and potentially significant impact on the grade (stone density) determination. In situ volumes must be used for grade estimation purposes. SML regularly measures and reports the bulking factor for the gravels. A bulking factor of 1.12 is used by Z Star when estimating in situ volumes.

The combined bulk sampling and mining results were used to estimate the stone density into each 100m block using moving averages. This is described in detail for each resource block in Section 14.25. This is considered to be an appropriate method of grade and stone size estimation. The majority of the bulk samples and all of the mining blocks have been processed through the current plant.

14.31.7. Stone size

The combined bulk sampling and mining results were used to estimate the stone size into each 100m block using moving averages.

This is described in detail for each resource block in Section 14.25. This is considered to be an appropriate method of stone size estimation. The majority of the bulk samples and all of the mining blocks have been processed through the current plant.

14.31.8. Grade

The grade associated with alluvial diamond deposits is typically reported as ct/m^3 or ct/100m^3. As required by JORC, the grade has been estimated by Z Star using the stone density (stones/100m^3) and is described in Section 14.31.6. By multiplying the stone density by the stone size, the grade can be estimated as ct/100m^3. This is presented in the resource statement in Table 36.

Although the grade has not been modelled, the underlying parameters of stone density and stone size have been. This is considered to be an appropriate method of estimation.

No grade cut-offs were applied as the resource blocks are above the currently estimated minimum grade of 4ct/100m^3. Only Block57 did not meet these minimum grade criteria and therefore was not included in the Diamond Resource.

14.31.9. Price

The price per resource block was estimated using information provided up to 31 January 2017. SML provided Z Star with the following information which was used in the derivation of diamond price per resource block:-

- single stone data; and
- parcel sales data.

Z Star used this information to assess size frequency distribution and assortment (model, colour and quality parameters used to define revenue) of diamonds within the SML Diamond Resource, respectively. The model of price assumes that the available data from bulk sampling and mining was representative of the unmined gravels, i.e. the revenue estimates were extrapolated. The greater the number of carats available for modelling, the more reliable are the derived estimates.

A log by log SFD curve was plotted for each of the following resource blocks:-

- Block31_21, which includes MB21, MB22 and MB32;
- Block06;
- Block08, which includes MB08 and MB24;
- Block28; and
- Block46.

Diamond assortment and price models were derived for the same blocks from the sales parcels. The multiplication of the diamond assortment by the SFD enabled an average diamond price to be estimated for each resource block. The information available for use in the estimation of the average price is presented in Table 38.

Table 38 : Information incorporated into Z Star average price estimation

RESOURCE BLOCK NO.	CARATS USED FOR SFD MODEL	CARATS USED IN PRICE MODEL	AVERAGE PRICE (USD/ct)	COMMENTS
Block23	N/A	N/A	846	Insufficient stones for SFD. Applied average price from adjacent resource blocks.
Block31_21	4,154	4 098.17	846	
Block01_04_26	N/A	N/A	846	Insufficient stones for SFD. Applied average price from adjacent resource blocks.
Block06	3,772	12 328.77	1,215	Results combined in revenue reporting.
Block24	16,693		1,880	
Block08			1,880	
Block28	1,702	1 862.29	845	Data available to 31 May 2017 will increase the SFD carats to 5,297ct.
Block46	2,144		1,103	

Notes:-
Based upon information available to 31 January 2017.

It must be noted that the recent mining and sales results for Block28 have not been included in the 31 January 2017 price estimate.

Where insufficient data is available to derive an SFD, the SFD and assortment of the adjacent block is applied.

14.31.10. Classification

Diamond Resources were declared in nine resource blocks by Z Star. All resource blocks were classified as Inferred due to uncertainty relating to the following:-

- geology of the gravel bodies;
- the sampling of the bulk samples;
- the determination of the volume;
- stone density (stones/100m^3);
- stone size (cts/stone);
- density (t/m^3); and
- bulking factor.

Z Star comments that SML is an operation which is low grade and is dependent on the recovery of larger stones with high value.

The data density and distribution is sufficient to obtain the geological and grade continuity required for the declaration of Inferred Resources. Reasonable prospects for eventual economic extraction, as required by JORC, is demonstrated through the mining currently underway.

Z Star notes that the geology of the alluvial deposits is relatively uncomplicated, with the key issues relating to the delineation of the thickness and area of the gravel bodies. The uncertainty of the bulking factor contributes to the overall uncertainty in the resource estimation.

The confidence in the delineation of the gravel bodies has increased with the use of a block inventory and spatial analysis. However, the estimation of the grade and density remains global in nature.

14.31.11. Differences between successive Diamond Resource estimates

The difference between the successive Z Star resource statements are presented in Table 39. The differences between the two successive Diamond Resource estimates are not material. The differences between the 31 May 2017 Diamond Resource estimate and the 31 January Diamond Resource estimate are presented in the January 2017 announcement and associated JORC Table 1.

There has been a 1% decrease in the gravel volumes and a 13% decrease in the contained carats due to mining depletions. There has been a 12% decrease in grade due to the recent exploration results. The diamond prices have not been remodelled. However, due to the depletions, the average price reported in the Diamond Resource estimate has decreased by 2%.

Table 39 : Difference between Z Star Diamond Resource estimates

	PREVIOUS (31 January 2017)				CURRENT (31 May 2017)				DIFFERENCE (%)			
RESOURCE BLOCK NO.	GRAVEL VOLUME (m^3)	AVE GRADE ($ct/100m^3$)	CARATS	AVE VALUE (USD/ct)	GRAVEL VOLUME (m^3)	AVE GRADE ($ct/100m^3$)	CARATS	AVE VALUE (USD/ct)	GRAVEL VOLUME (m^3)	AVE GRADE ($ct/100m^3$)	CARATS	AVE VALUE (USD/ct)
Block23	37,800	6.72	2,540	846	37,700	6.72	2,530	846	0%	0%	0%	0%
Block31_21	30,200	10.98	3,310	846	29,400	8.59	2,530	846	-3%	-22%	-24%	0%
Block01_04_26	260,400	4.48	11,660	846	270,100	3.97	10,730	846	4%	-11%	-8%	0%
Block06	31,900	8.30	2,640	1,215	27,800	8.81	2,440	1,215	-13%	6%	-8%	0%
Block24	17,000	5.25	890	1,880	17,000	4.48	760	1,880	0%	-15%	-15%	0%
Block08	87,700	15.68	13,750	1,880	86,200	12.51	10,790	1,880	-2%	-20%	-22%	0%
Block28	22,900	5.74	1,310	845	25,800	7.08	1,820	845	13%	23%	39%	0%
Block46	118,700	10.22	12,120	1,103	109,100	9.67	10,550	1,103	-8%	-5%	-13%	0%
TOTAL / AVE	**606,600**	**7.95**	**48,220**	**1,245**	**603,100**	**6.99**	**42,150**	**1,215**	**-1%**	**-12%**	**-13%**	**-2%**

Notes :-
Source: Z Star, Venmyn Deloitte rounded, Venmyn Deloitte analysis
BSS = 1.5mm, TSS = 32.0mm.
Rounding down of gravel volumes to hundreds and stones and carats to tens. Rounding down may result in computational differences compared to the Z Star compiled and LOM issued resource estimates which employ a different rounding convention. These differences are immaterial.

The additional exploration, bulk sampling and mining results has enabled the modelling of gravel thickness, stone density and stone sizes for the first time in the 31 May Diamond Resource estimate. This has provided greater confidence in the estimate of the Inferred Resources.

14.31.12. Audits or reviews

No audits or reviews have been undertaken on the SML resource statement, other than the Venmyn Deloitte high level review completed during the compilation of this CPR and the LOM review of both the maiden and subsequent Diamond Resource estimates, as part of the company's listing obligations.

14.32. Environmental aspects and compliance

The SML, Lulo Alluvial and Kimberlite Projects are located in the Capenda Municipality of the Lunda Norte Province. Capenda's water resources originate from the Kwango River which, in parts, is wider than 100m. The Lulo and Cacuilo Rivers cross the Concession in a southwest-north-westerly direction and are the main sources of transport of diamonds. These rivers are still relatively young and are heavily sedimented. The geological and mining activities of this first phase of mining are concentrated in the Cacuilo River.

The area of the land proposed for the development of the mine consists of open grassland. There are a few human settlements, situated at least 7km away from the areas of direct influence. If such areas are found to be of geological interest, consultation will be held with the affected settlements and according compensation made.

The Capenda Municipality is in the process of expanding the existing primary and secondary education facilities. The existing health infrastructure is not yet sufficient to cater for the local population within the municipality, which greatly limits the health services that are and can be provided. More serious diseases are treated at the municipal hospital.

Planning and land use is considered to be a "mixed land use" area, and as such is not subject to the constraints applicable to the country's National Parks and Reserves or to the water domain.

There have been no archaeological heritage sites identified to date within the project area.

14.32.1. Environmental compliance status

The General Environmental Law (5/98) of 19 June 1998 requires that an EIA be compiled and submitted to the Ministry of Environment for approval to obtain an Environmental Authorisation.

Juspen, Lda, a company licenced by the Environmental Ministry (Registration Certificate No. 027), compiled an EIA report in March 2014 on behalf of SML to prepare an EIA report, which constitutes an EIS, for the proposed Lulo Project.

An opinion on the project was received from the Ministry of Environment on 27 October 2015, concluding that the EIA reasonably complies with the Angolan legislation and the international standards on this matter. The Ministry of Environment recommended that Environmental Management Plans specific to the site must be developed, implemented, and updated during the useful life of the mine. Further to this, SML is required to present a mine closure plan which must be submitted during the construction and operational planning phases. The Environmental Ministry has specified that the plan must identify the measures required during the operational phase for the progressive recovery of the disturbed or developed areas at the mine site.

SML has been awarded a Mining Licence and needs to comply with the applicable environmental legislation.

A water licence is applicable to the mine as contaminated storm water infiltrates soil and leaves the site as surface water. Licensing has been applied for in this regard with no issuance as yet from the Ministry. Mining is being conducted under the successful approval of the EIA.

14.32.2. Financial provision

The financial rehabilitation provision for SML was estimated at USD1,884,126 as at 31 December 2016. This provision is carried in the accounts of SML.

14.32.3. Mine closure requirements

The EIA report documents that several procedures will be implemented at the closure of the mining operations, with a view to rehabilitating the areas impacted by the project (wherever possible, returning the site to its original state).

The rehabilitation section within the EIA report makes provision for decommissioning operations to reduce effort and costs, and minimise interventions in areas already restored during previous phases of the project. However, there may be areas where mining operations are more active than expected and may require a more specific intervention plan to ensure that such areas are restored to their original state.

The EIA has committed that, whenever possible, the rehabilitation of the impacted areas will restore the site to a state similar to that prior to the commencement of mining activities. Experience indicates that, to keep such a commitment, a detailed rehabilitation plan will be required. The EIA has further committed to undertaking consultations as to land use and plant cover before rehabilitation takes place.

The rehabilitated areas will be monitored and maintained to ensure that the land use of the rehabilitated site is being complied with. The EIA report has described monitoring and management plans that will be undertaken as summarised in Table 40.

Table 40 : Environmental monitoring plan

ENVIRONMENTAL FACTOR	OCCURRENCE PHASE	MONITORING PARAMETERS	SAMPLING SITE	FREQUENCY
Landscape architecture Soil Profile	Prospection Development Mining	Afforestation Restoration of fertile soils	Sampling and mining fronts Roads	Annual, half-yearly or in the event of an anomaly.
Water Resources	Prospection Development Mining Mine Closure	Quantity of fine sediment in river waters and wells. Ground water level Water coloration	Rivers and wells located in proximity to the treatment plants, excavations and the campsite	Sampling in the event of any anomaly or critical situations
Cultural and Historical Conflicts	Prospection Development Mining	Need to monitor the presence of the staff within the communities; Protect the communities' cultural interests	Gather the inputs from the local and traditional authorities	In the event of anomalies

Source: LOM

14.32.4. Rehabilitation assessment

During March 2017, an assessment was undertaken by SML of the state of the rehabilitation in the area previously known as Sector 5. This area consists of MB21, 22, 29 and 31 in the north of the concession area. The area was evaluated from the drone survey image of the area. The rehabilitation status is indicated in Figure 62.

The assessment indicated that 17,260m^2 still required backfilling. All mining blocks still require landscaping with progressive rehabilitation ongoing as mining continues.

14.33. Planned exploration (2017 to 2019)

The focus on the alluvial exploration within SML will be continuing with the pitting and bulk sampling programmes to identify additional gravel resources on both sides of the Cacuilo River as follows:-

- north of MB28 current mining area (Figure 61). This area is known to exhibit a narrow (>30m wide) palaeochannel, with coarse basal gravels deepening to the north and east of MB28B. This area is also known to host large Type IIa diamonds;
- east bank of the Cacuilo River between MB28 and MB46 (Figure 61), known as Xangando AA. This area has the potential to increase the Diamond Resource base considerably and, along with MB28 and MB46, warrant consideration of building an additional plant to reduce hauling distances;
- south of MB46 (Figure 61). The palaeochannel is believed to narrow to the south, between MB46 and MB41;
- western bank of the Cacuilo River between MB28 and MB41 (Figure 61). This area has high economic potential since the discovery of the 227ct stone in MB28. In addition, this area covers the yet untested e212 anomaly;
- western bank of the Cacuilo River between MB29 and MB23 (Figure 61). Although this area is expected to have relatively low grades and stone sizes, the close proximity to the plant makes it an area of interest;
- eastern bank of the Cacuilo River near the plant. Artisanal diggings on the western bank of the Cacuilo River near the plant suggest potential for an unmined palaeochannel in this area on the eastern bank;
- south of MB57, along the Cacuilo River between the Chinguimbo and Longo tributaries. Reconnaissance drilling is suggested to identify gravel potential;
- the western bank of the Cacuilo River between MB28 (227ct stone) and MB08 (404ct stone) near the Zavige tributary (Figure 61). This area is a high priority because of the discovery of the large stones in the surrounding mining blocks. Satellite imagery suggests that the palaeochannel of the Cacuilo River meandered towards the Zavige tributary; and
- continued pitting and bulk sampling exploration within the Lulo River valley.

14.34. Conclusions

The conclusions drawn for SML may be summarised as follows:-

- the extensive amount of exploration, bulk sampling and mining within SML has led Z Star to estimate an Inferred Diamond Resource (31 May 2017) of 0.60Mm^3 of gravel in the Cacuilo River area, at an estimated diamond grade of 6.99ct/100m^3 and an average diamond price of USD1,215/ct;

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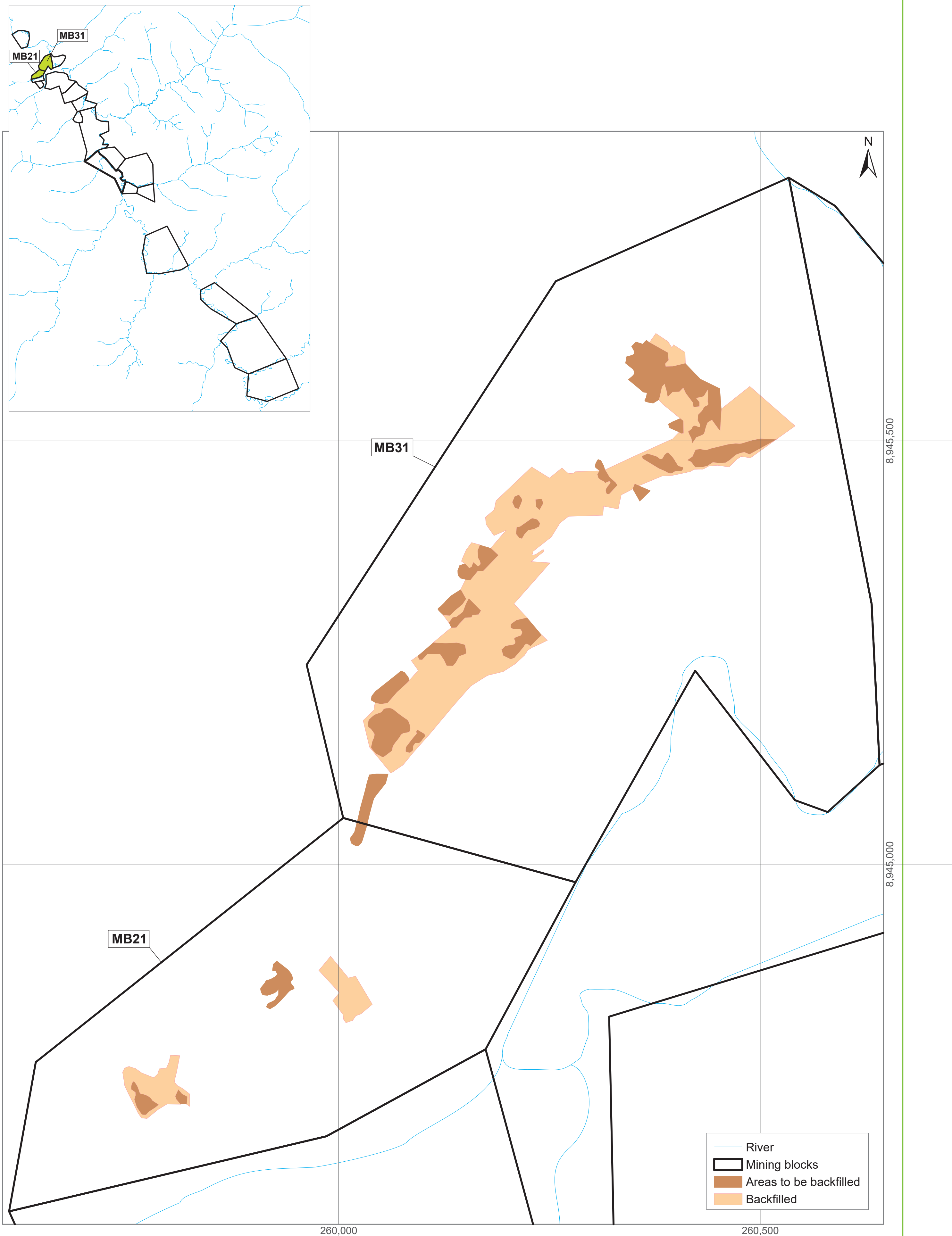
Lucapa Diamond Company

Rehabilitation status of MB21 and MB31



Source: LOM

- mining commenced in January 2015 and the mining rate has steadily increased to the planned average rate of 20,000m^3 per month. Gravel has been mined at an average rate of approximately 18,159m^{3}per month during the last 12 months and at an average overburden to gravel stripping ratio of 7.55:1;
- the gravel is processed through a 150tph front end and 50tph DMS. Plant modifications have been completed to implement a wet front end to address the high clay content of the feed and to install a new XRT module to process the coarse fraction. The XRT plant was considered by LOM as necessary to optimally recover the large diamonds which have regularly been recovered since mining commenced;
- the plant has treated an average of 14,160m^3 of gravel (bulked) per month and recovered an average of 1,200ct per month. The bulked average recovered grade is 8.51ct/100m^3 with an average stone size of 1.39ct/stone. The grade varies according to the block selected for mining, which is dependent on seasonal access;
- between January 2015 and the end of May 2017, SML recovered 424 special stones (+10.8ct) weighing a total of 10,962.15cts. Thus 31% of the mining production, by carats, has reported to the +10.8ct fraction. Of these special stones, a significant percentage has been classified as high value Type IIa; and
- the additional exploration, bulk sampling and mining results has enabled the modelling of gravel thickness, stone density and stone sizes for the first time in the 31 May 2017 Diamond Resource estimate. This has provided greater confidence in the estimate of the Inferred Resources.

15. Lulo Kimberlite Project

In Angolan mining legislation, concessions are awarded separately for primary (kimberlite) and secondary (alluvial) source exploration and mining activities. The Lulo Kimberlite Project relates to the specific kimberlite exploration activities that are focused on identifying the primary source or sources of the alluvial diamonds and a potential future kimberlite mine. The exploration status for this project is schematically presented on Figure 3 and may be considered as advanced exploration.

15.1. Location and access

The Lulo Kimberlite Project and associated kimberlite exploration licence covers the entire 3,000km^2 Lulo concession area. It is located in the Lunda Norte Province in northeastern Angola (Figure 5). It is located 724km east of Luanda, the capital of Angola, and 254km west of the city of Saurimo.

The access to this area is described in Section 14.1 and presented in Figure 6 and Figure 8.

The remainder of the project area, outside the Cacuilo River valley, may be accessed via a tarred road off the road between Saurimo and the Lulo camp, at the village of Xingi. The village is approximately 45km southeast of the camp. There is a steel bridge over the Lulo River approximately 30km north of the village of Xingi. The distance between the bridge and the northern boundary of the concession is approximately 45km along a gravel road. The nearest village to this area is Calola (Figure 6 and Figure 8).

15.2. Ownership

LOM holds a 39% interest in the unincorporated JV responsible for the Lulo Kimberlite Project (Figure 2). The other shareholders in the JV are the Angolan state-owned diamond company, Endiama who hold a 51% interest with the remaining 10% held by a private Angolan registered company, Rosas & Pétalas, SA (Figure 63). After LOM has recouped its full investment under the prospecting and mine development phases for kimberlites, the JV interests will change to LOM holding 30%, Endiama 51% and Rosas & Pétalas 19%.

15.3. Management structure

The Lulo Kimberlite Project is managed under the LOM and SML management structure, as discussed in Section 14.3 and illustrated in Figure 2.

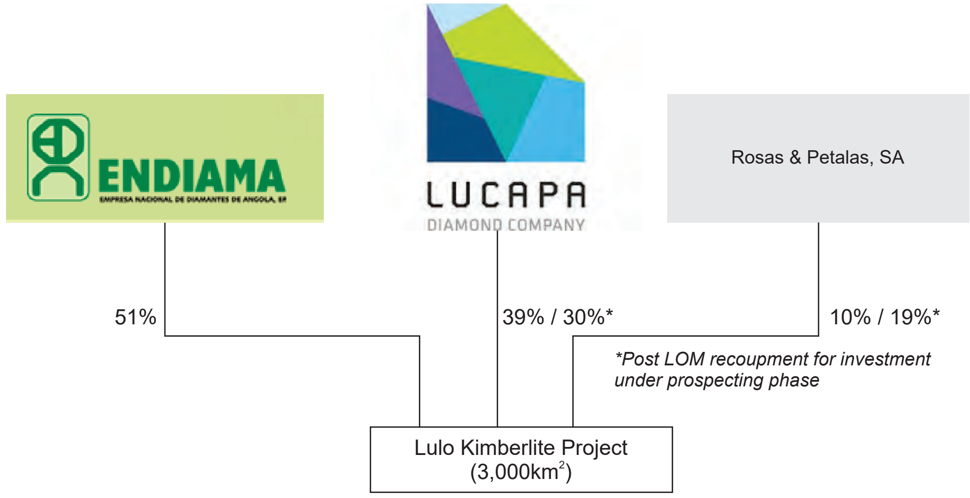
15.4. Mineral tenure

The original JV for the prospecting of primary diamond deposits in the Lulo Kimberlite Project was gazetted in 2008. The shareholding is noted in Section 15.2, with LOM responsible for the technical and financial input for the project. This exploration licence was awarded on 24 December 2007 and expired on 23 December 2012. It was published in the Government Gazette in Decree 44/08 of 18 July 2008.

On 26 May 2014, the kimberlite exploration licence (004/05/02/T.P/ANG-MGM/2014) was renewed over the 3,000km^2 Lulo concession by the Ministry of Mines and Geology for a further two years, until 25 May 2016. The coordinates of the corners are indicated in Table 41 and shown in Figure 6.

On 28 November 2016 LOM announced that the Angolan Minister of Mines and Geology had formally approved a new kimberlite exploration license for the Lulo diamond project. The license covers a period of 5 years over the entire 3,000km^2 Project Lulo Concession. This approval enables the Lulo partners to finalise a MIC for the new license.

Ownership of the Lulo Kimberlite Project



Kimberlite Pit Label

Kimberlite Pit

Core Trays

Source: LOM, Venmyn Deloitte

Table 41 : Point coordinates of Lulo Kimberlite Project exploration licence

CORNER	GEOGRAPHIC COORDINATES LATITUDE (S)	LONGITUDE (E)	AREA (km²)
A	09°16'35"	19°25'27"	**3,000.0**
B	09°31'52"	19°25'27"	
C	09°49'08"	19°06'57"	
D	09°49'08"	19°00'15"	
E	09°34'38"	18°45'35"	
F	09°31'00"	18°45'35"	
G	09°31'00"	18°55'56"	
H	09°16'44"	18°55'56"	

Source: LOM Licence

15.5. Surface rights

The JV does not own any of the surface rights to the Lulo Kimberlite Project.

15.6. Royalties

No royalties are applicable to primary exploration licences.

15.7. Material contracts

There are no material operational contracts associated with the kimberlite project as most material functions are owner managed and operated out of SML structures, except for the lease of the dozer and the Rosanstroi drill rig.

15.8. Other legal issues

There are no additional legal issues to which Venmyn Deloitte has been made aware of.

15.9. Climate

The reader is referred to Section 14.9 for a description of the climate.

15.10. Topography

The reader is referred to Section 14.10 for a description of the topography of the project area. The northeastern areas are characterised by the occurrence of a large plateau extending to the north and east. The plateau has an average elevation of 1,230mamsl within the project area. The headwaters of the Lulo River lie along the edge of this plateau.

15.11. Vegetation

The reader is referred to Section 14.11 for a description of the vegetation typical of the lowland areas and river valleys. The vegetation associated with the plateau is typically savannah grassland with occasional small trees.

15.12. Local resources

The reader is referred to Section 14.12 for a description of the local resources. Additional resources are available in the village of Calola, located north of the Lulo River bridge. This village would be the main source of labour and supplies for any exploration being carried out in the northeast of the Lulo concession.

15.13. Site infrastructure

The kimberlite project utilises the same camp and site infrastructure as SML (Section 14.13). There are two temporary camps proposed for the northeastern area when exploration commences in this area (Figure 8).

15.14. Regional geological setting

The reader is referred to Section 14.14 for a description of the regional geological setting.

15.15. Local geological setting

The reader is referred to Section 14.15 for a description of the local geological setting. The Lulo kimberlites were intruded on the edge of the Angolan Shield centred on Saurimo, and are situated within the Lucapa Graben (Figure 5). The Lulo kimberlites form the northern part of the Cucumbi Cluster of kimberlites.

Approximately 100 kimberlites or probable kimberlites have been identified within the Lulo Project, a large percentage of which occur in the Cacuilo River valley. The location of the Project within a conjugate fault system to the Lucapa Graben is believed to be the controlling mechanism allowing for the intrusion of the large number of intrusives in this particular area.

Drilling and pitting has provided geological information on the typical stratigraphy of the kimberlites present in the southwest of the project area. None of the anomalies to the northeast have yet been investigated by LOM.

The kimberlites drilled exhibit rock types typical of the upper reaches of a kimberlite pipe (Figure 13). The main types of kimberlite facies present in the Lulo kimberlites are as follows, from the top to the base:-

- CS:- crater facies sediments. Finely laminated sandstones, siltstones and / or mudstones typically red to purple in colour;
- SRVK:- sedimentary reworked volcaniclastic kimberlite - light-brown, sandy-clayey, fine to medium grained, micaceous, poorly consolidated sandstone, with occasional coarser beds. Ilmenites present mainly in the coarser beds. Bedding horizontal to dipping at 30° to the horizontal. Bedding occasionally wavy. Sandstone is massive in certain areas. The basal layer is generally coarser, with clasts up to a few centimetres in size. Granite clasts often identifiable;
- VK:- volcaniclastic kimberlite, i.e. same as RVK without the interbedded sedimentary layers; and
- PK:- pyroclastic kimberlite - predominantly red, but occasionally green. This pyroclastic kimberlite has an extremely variable distribution of clasts within the finer matrix. Most clasts < 10cm in size, but some in the 20 - 40cm range. Air-fall bedding apparent due to vertically-emplaced (not flat-lying) clasts. Clasts of bedrock shales, sandstones and autoliths of hypabyssal kimberlite (HK) (root zone material). Granite clasts also present - and other exotics. Some clasts exhibit thermal alteration rims.

Within each of the above facies a number of subtypes may occur. Photographs of the major kimberlite facies are presented in Figure 64. Typically, the kimberlites are covered by 6-10m of recent and Kalahari cover.

15.16. Historical ownership

The historical ownership and activities are outlined in Table 6. The Condiama and Diamang reconnaissance exploration and pitting in the early- to mid-1970s led to the discovery of 27 kimberlites in the southwest of the Lulo Project area.

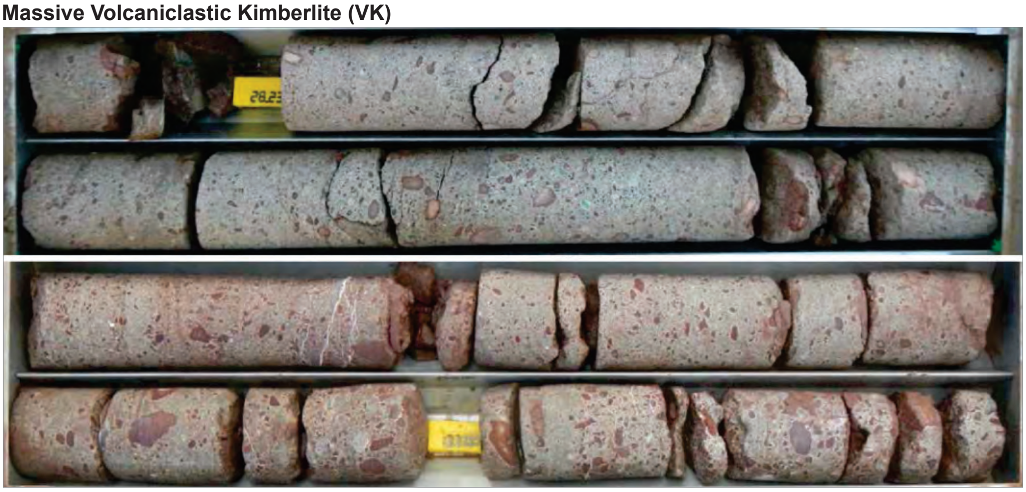
Venmyn Deloitte. Lucapa Diamond Company

Photographs of main kimberlite facies at the Lulo Kimberlite Project

Crater Facies Sandstone (CS)

Bedded Resedimented Volcaniclastic Kimberlite (RVK)

Massive Volcaniclastic Kimberlite (VK)



Source: MSG

Of relevance to the Lulo Kimberlite Project is the initial awarding of the kimberlite exploration licence in 2008. The shareholding of the original JV is outlined in Section 15.2 and 15.4, with LOM responsible for technical and financial input for the project.

15.17. Historical exploration and mining

Extensive prospecting for, and sampling of, kimberlites was conducted in northeastern Angola by Diamang and Condiama. The sampling programme was comprehensive and typically used a consistent method of exploration.

The exploration on the Lulo Project was divided into exploration in the southwest, in and around the Cacuilo River, undertaken by Diamang and a separate programme which took place in the northeast, which was undertaken by Condiama, as indicated on Figure 16.

Prospecting work for kimberlites was historically undertaken by Diamang between 1971 and 1974 in the eastern tributaries of the Cacuilo River, namely the Xangando, Conguije and Camaconde Rivers. A total of 27 kimberlite pipes were identified in this area. Diamang recorded the occurrence of tuffisitic kimberlite rocks in six pipes, namely Xangandolamba 1, Xangandolamba 3, Xangando 1, Xangando 3, Xangando 4 and Camaconde 1.

More than 350 kimberlite and overburden samples were collected from the kimberlites, with the recovery of no diamonds. Diamang typically excavated a 2m^2 area and then washed the ore. No kimberlite volumes were recorded, only the thickness.

Between 1972 and 1973, Condiama undertook a reconnaissance stream sampling programme directed at identifying kimberlite indicator minerals (KIMs) in the northeast of the project area. Also during this period, the company conducted a loam sediment sampling programme to the east of the Cacuilo River, also directed at identifying KIMs. The loam samples were taken at 200m or 50m intervals. The coverage of this sampling programme is indicated on Figure 16. The KIM work resulted in the discovery of an additional five kimberlite pipes, sequentially named 137-K1 to 137-K5 (Figure 16).

Kimberlite 137-K5 was subsequently tested for diamonds downstream of the pipe. The results are tabulated in Table 42. A rotary pan was stationed on site which was used to test the material. No information is available on the screen size cut-offs associated with the pan plant.

Table 42 : Kimberlite bulk sample results

YEAR	ANOMALY / KIMBERLITE	GRAVEL VOLUME (m^3)	NO. STONES	CARATS RECOV. (cts)	GRADE (ct/100m^3)	STONE SIZE (ct/st)	BSS (mm)	TSS (mm)
1973	137-K4	188.0	1	0.02	0.01	0.02	N/A	N/A
1973	137-K5	82.0	1	0.04	0.05	0.04	N/A	N/A

Note:
BSS - Bottom screen size cut-off, TSS - Top screen size cut-off
Source: M Marx

There is evidence of limited artisanal workings on the surface of some of the known kimberlites. However, it appears that the focus of the historical mining was on the alluvial gravels.

15.18. Previous exploration (2008 to 2014)

This work refers to the modern exploration activities applied to the Lulo concession by LOM between 2008 and 2014, specifically on the kimberlite project. As previously mentioned, the exploration focussed on reconnaissance techniques designed to cover larger areas and to identify target areas for future detailed exploration programmes.

Unfortunately, the governmental approvals for the project were obtained just before the global financial crisis impacting on funding. This resulted in only limited activities being carried out by LOM between 2008 and 2010. After 2010, the exploration activities increased.

15.18.1. Magnetic / radiometric survey / digital terrain survey (2008)

Geophysical surveys are typically used to identify anomalies usually associated with kimberlite pipes. These surveys are highly effective as they cover large areas quickly and are able to identify anomalies beneath the Kalahari cover, prevalent to many areas in northeastern Angola.

The anomalies being identified are typically circular in aerial shape which represents the shape of kimberlite pipes. Kimberlite pipes are often magnetic but non-magnetic kimberlites may also be diamondiferous and therefore multiple geophysical methods are used to identify these differing kimberlite characteristics.

The aim of the kimberlite exploration is to identify the primary source, or most likely, multiple sources for the large stones being extracted from the Cacuilo River alluvial deposits and yet to be explored Lulo River.

These surveys were carried out to identify magnetic and non-magnetic anomalies that may be associated with kimberlite pipes in the Lulo Kimberlite Project. The radiometric data was useful in assisting with geological mapping. A detailed model of the topography, i.e. a DTM was also acquired from the survey.

A high-resolution MIDAS aeromagnetic / radiometric survey was conducted by Fugro, in January and February 2008. The survey was carried out using a helicopter over an area of 1,200km^2 (Figure 19). The helicopter was flown at an elevation of 25m above surface in north / south flight lines at spacings of 100m. An area overlying the artisanal workings was not able to be flown due to their presence at that time.

The results of the 2008 geophysical survey are presented in Figure 65.

15.18.2. Magnetic / radiometric / DTM survey (2013)

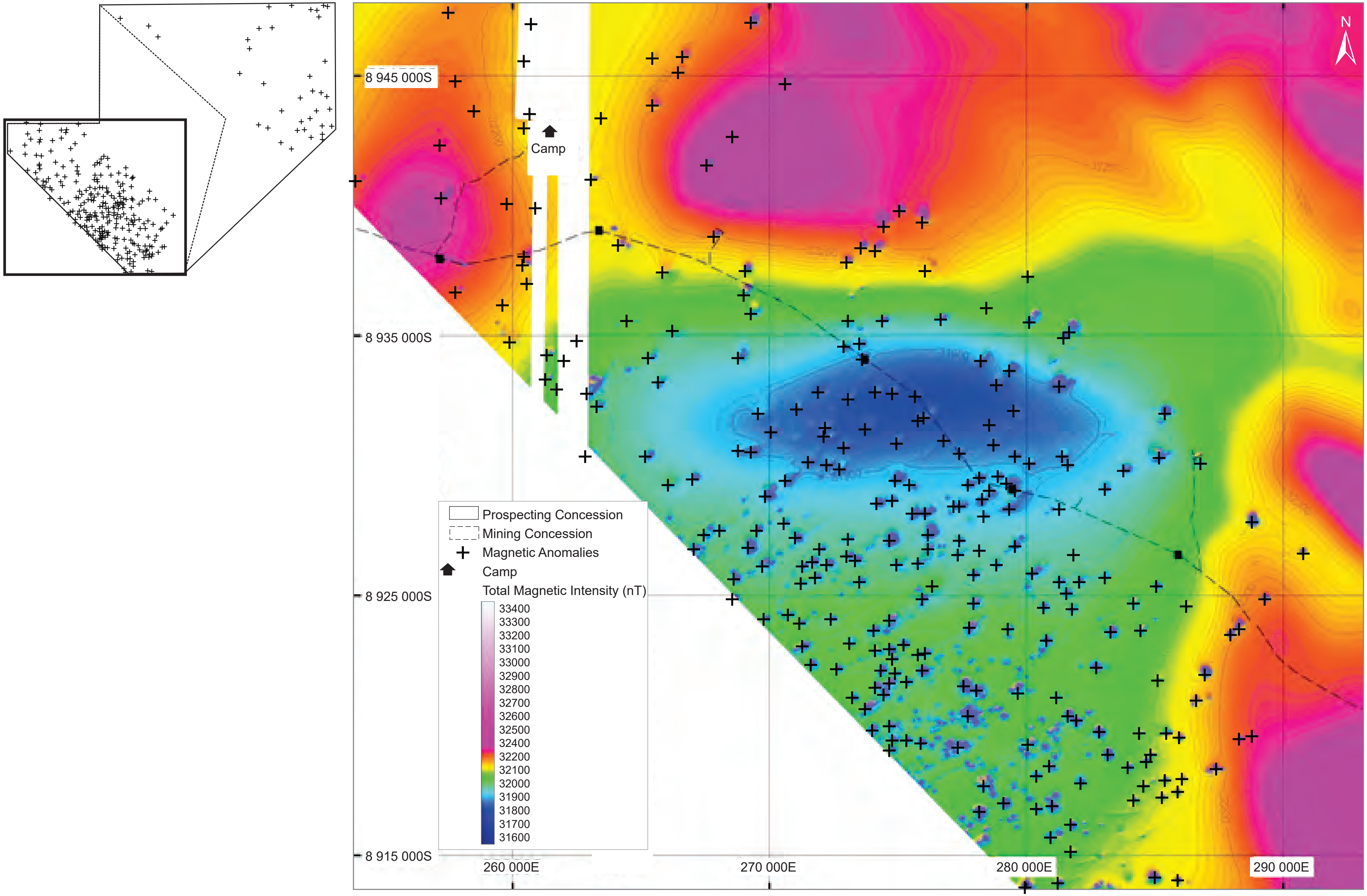
This survey was carried out on the central and eastern sections of the Lulo concession in order to cover the areas not previously flown in 2008 (Figure 19). In addition, an infill survey was conducted over the artisanal area which had previously been omitted.

The fixed wing survey was flown by Fugro during April and May 2013. The flight line spacing was 150m in the main block over an area of 2,025.0km^2, representing 15,116 line km's. For the infill block, a 100m line spacing was used over an area of 52.8km^2, representing 725 line km's. A 90m mesh grid was utilised for the DTM data.

This data was then merged with the 2008 data. Fugro provided the following results to LOM for both the infill area and the main block:-

- Geosoft databases and Ascii files for magnetics and radiometrics;
- Geosoft grids of various magnetic, radiometric and terrain derivatives;
- 1st Vertical Derivative (1VD) of total field, reduced to pole, grey scale;
- calculated digital terrain, sun shaded (Figure 11);
- analytical signal of International Geomagnetic Reference Field (IGRF) corrected total field, sun shaded with contours;

Results of the 2008 geophysical survey



Source: LOM

- IGRF corrected total field gradient enhanced magnetic intensity and reduced to pole, sun shaded with contours; and
- radiometric ternary map of potassium, thorium and uranium.

The tilt derivative plot indicating anomalies is presented in Figure 66.

15.18.3. Selection of the anomalies

The initial interpretation was undertaken by Mr EO Köstlin, an independent consulting geophysicist. The data was interpreted for primary kimberlites using the following criteria:-

- size;
- shape;
- amplitude;
- structural setting of dipoles and monopoles; and
- normally and reversely magnetised bodies.

This interpretation identified and georeferenced 217 magnetic anomalies in the southwest of the project area, with a high likelihood of being kimberlite pipes or magma blows. The anomalies were clearly evident against a background which is uniformly magnetic and indicative of deep basement covered by a sedimentary sequence. Anomalies were sequentially numbered from 1 to 217, with a prefix "E". Once confirmed as a kimberlite, the prefix would be changed to a prefix of "L" for Lulo Project. A further set of anomalies in the north and east were identified and sequentially numbered from 1 to 38, with a prefix "D". Most of these were thought to have a lower likelihood of being kimberlites.

The majority of the anomalies occur in the southern portion of the survey area and tend to occur parallel to the Lucapa Graben. Other individual anomalies appear to be associated with a kimberlitic dyke swarm. No bedrock structures were identified which could potentially be a conduit for the intrusions.

A later interpretation of the same data by the LOM on-site team identified a further 41 anomalies in the southwest area and were sequentially numbered from 218 to 258.

A single aerial photo feature located near MB08 was identified and labelled 259.

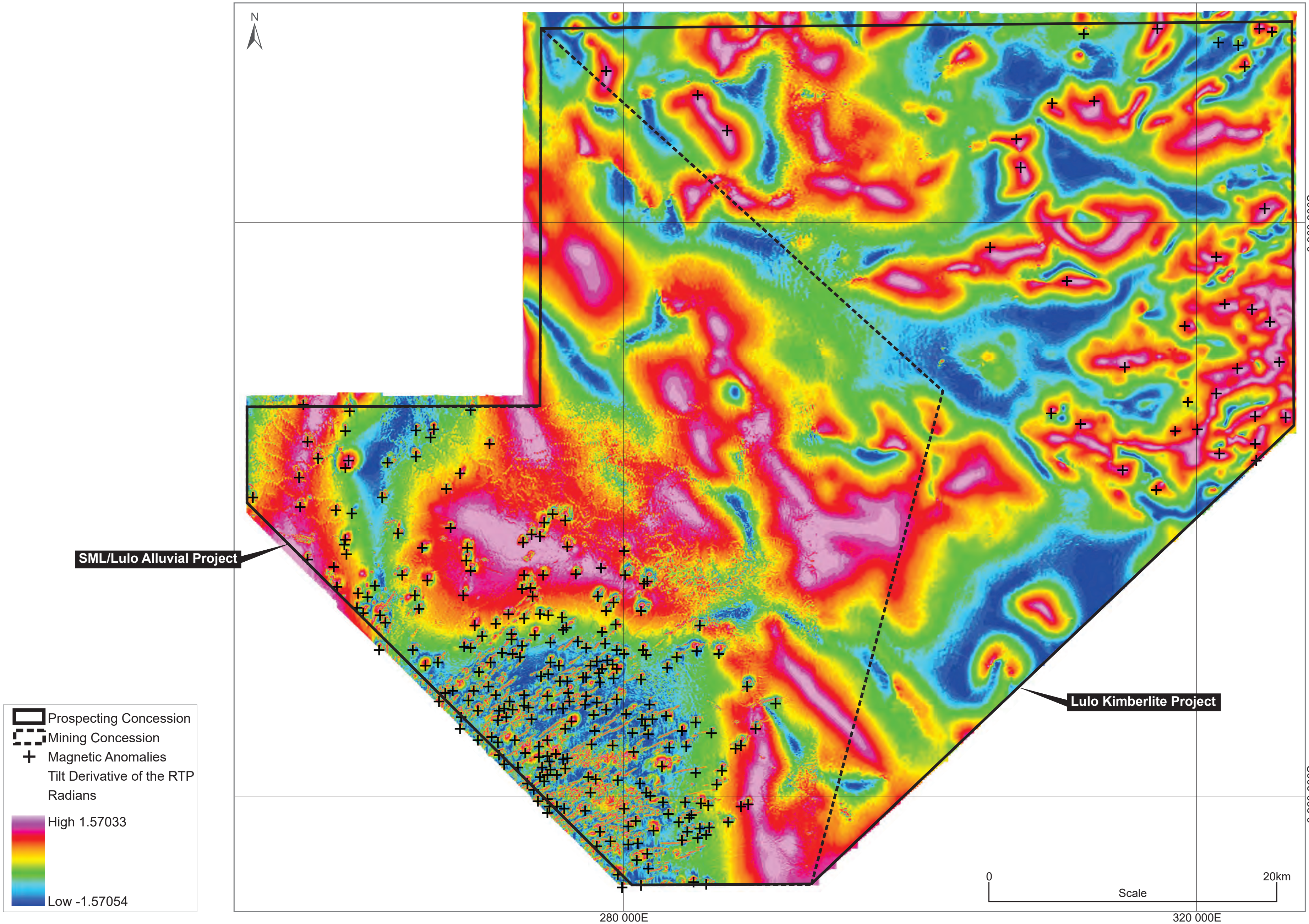
The radiometric results (Figure 18) provided a useful tool for geological mapping. Radiometric results typically reflect the surface or very near surface characteristics. The high uranium and thorium towards the south of the surveyed area in the valleys can be used to identify sediments and gravel accumulations in channels. Airborne radiometric results do not typically provide useful information for the identification of kimberlites, however. Köstlin noted that certain magnetic anomalies did coincide with isolated uranium anomalies, but did not provide a possible reason for this phenomenon.

15.18.4. Ranking of the anomalies

The geophysical surveys of 2008 had identified a significant field of potential kimberlite intrusions, primarily in the southwestern area of the Lulo concession. These anomalies then needed to be further investigated in order to confirm whether they were kimberlites.

Due to the large number of anomalies a ranking system was utilised by LOM to identify the top priority targets for further work.

Aeromagnetic results and anomalies (2013)



Source: LOM

Figure 66

The ranking was based upon the following:-

- magnetic footprint;
- size of the satellite image feature; and
- artisanal disturbances on surface.

A list of approximately 60 targets was identified for further evaluation. These included the anomalies that were greater than 10ha in surface area and a number of those that had already been identified as being kimberlites by Diamang and Condiama.

15.18.5. Grab samples and micro-probe analysis

Six of the 60 targets were visited by LOM in 2008 to obtain samples for chemical electron micro-probe analysis. Electron micro-probe analysis analyses the mineral geochemistry of the KIMs in the sample to identify whether they have the characteristics of minerals generally found in kimberlite, and whether they are typical of KIM's associated with the diamond preservation field. This work enables a kimberlitic origin to be confirmed and highlights the potential for the existence of diamonds but cannot confirm their existence in the pipe, nor give an indication of grades and diamond quality.

A 20kg to 40kg sample was taken from the centre point of the six anomalies. The sample was screened at -2mm and a concentrate extracted using a gold pan. The concentrates were shipped to the MSA Group Laboratory in South Africa for electron micro-probe analysis. This is the only independent ISO / IEC 17025 South African National Accreditation System (SANAS) accredited laboratory for the exploration and evaluation of diamond deposits in Africa.

The laboratory screened the samples into three size fractions which were weighed and concentrated using a heavy liquid. The concentrates were then hand sorted and 150 pyrope garnets (G9) and 150 picro-ilmenites were selected for analysis. The results are presented in Table 43. Kimberlites L72 and L71 were the only samples that returned pyrope garnets as well as picro-ilmenites, making MSA regard them as the highest priority targets for future exploration. In addition, the chemistry of the ilmenites was characteristic of the diamond preservation field, thus reportedly increasing their probability of being diamondiferous.

Table 43 : Micro-probe results (2008)

ANOMALY / KIMBERLITE	YEAR	PYROPE GARNETS	PICRO-ILMENITES	PROBABILITY OF BEING KIMBERLITE	FUTURE PRIORITY
K72	2008	122	20	High	High
K71		18	20	High	High
L6		0	45	High	Moderate
K50		0	10	High	Moderate
K6		0	24	High	Low
K14		0	8	High	Low
TOTAL		**140**	**127**		
Non kimberlitic		1	15		
Para kimberlitic			8		
Kimberlitic eclogitic garnets		9			
GRAND TOTAL		**150**	**150**		

Note:-

L6 - represents site with artisanal activities.

Source: LOM

15.18.6. Ground truthing of Diamang kimberlites

Ground truthing of the Diamang kimberlites was undertaken with the information obtained from the aeromagnetic anomalies. A total of 17 of the 27 kimberlites identified by Diamang corresponded to aeromagnetic anomalies.

Old prospecting pits were found on these sites. Prospecting pits were typically circular in shape with a diameter of 1.3m. Pits with dimensions of 1.5m x 0.8m were occasionally found. The depth of these pits ranged from 0.3m to 2.0m.

15.18.7. Stream and soil sediment sampling

The purpose of this stream and soil sediment (loam) sampling was to identify KIMs which would confirm the presence of a kimberlite pipe in the vicinity of the sample. The aim of the programme was to take a sample from each of the magnetic anomalies.

From May 2010, 65 stream or loam samples were taken from 38 magnetic anomaly target sites. The sampling method is described as follows:-

- the centre point of the anomaly was established as the location for the sample using a hand-held GPS;
- a 0.8m x 0.8m square pit was hand dug to a depth of approximately 1.0m;
- approximately 40kg of sediment was removed from the base of the pit;
- the sample was placed in plastic sample bags and transported to the nearest stream;
- the sample was washed and concentrated using a washing basin and "Russian" pan;
- the concentrate was dried in the field and placed in paper bags;
- a representative sample of the heavy minerals or KIMs was hand-picked from the concentrate using a 10x magnification hand lens; and
- the sample was bagged, labelled and sealed.

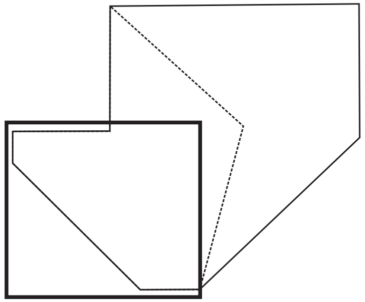
This is a simple but effective method for obtaining suitable samples. The quality of the sampling appears good. However, it is worth noting that there is a risk of contamination from the overlying alluvial sediments. The samples were taken at the bottom of the pit to minimise this risk. The sample was considered representative as it was taken in the centre of the anomaly.

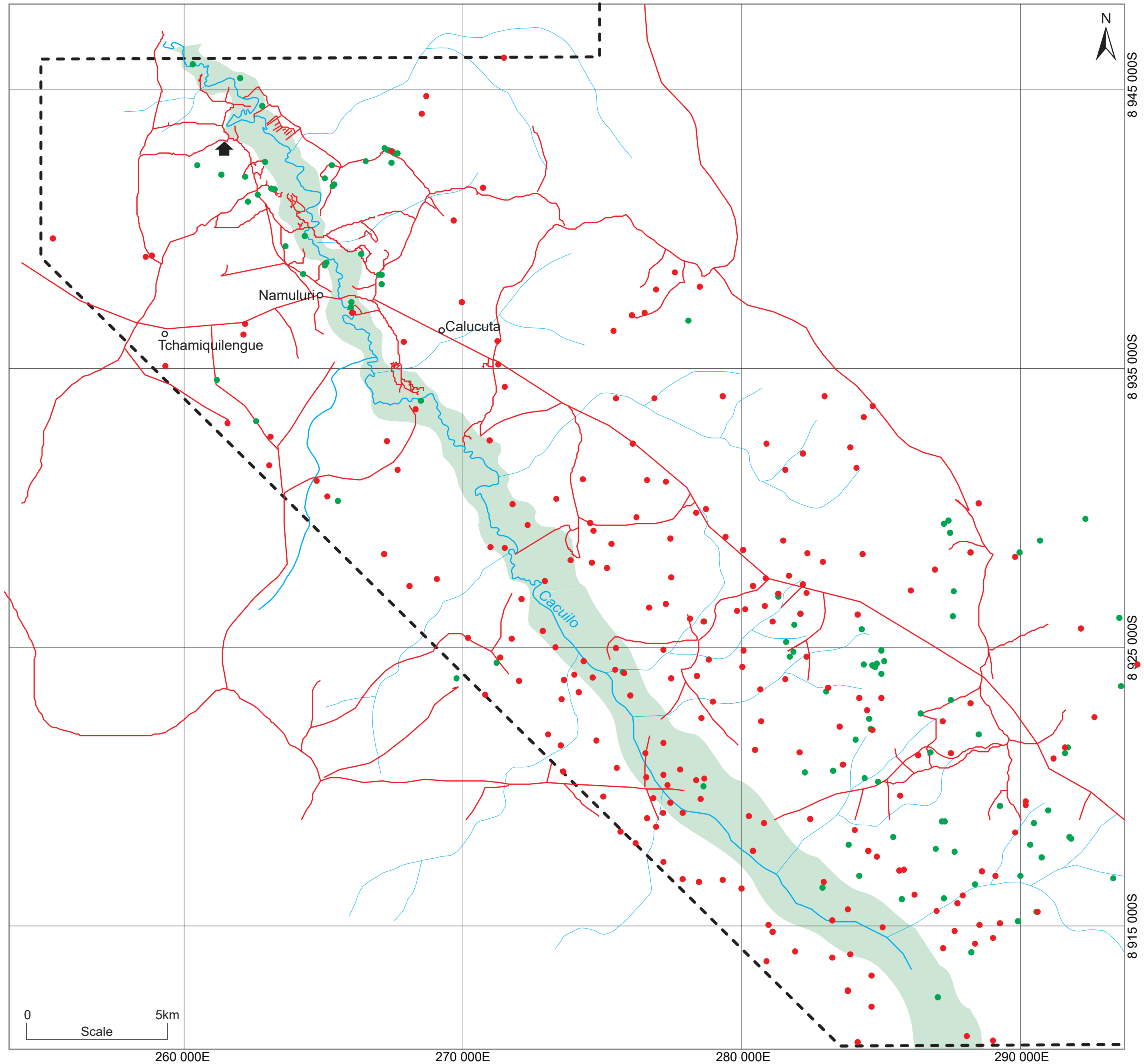
The identical method was used for stream sampling, except that the sample was removed from the base of the stream. Each soil sample was named according to the anomaly which it was testing, with a prefix "S" for soil samples, followed by the anomaly number, e.g. Se124. Each stream sample was named consecutively with the prefix "Hm", e.g. Hm3. The number did not correspond to the number of the anomaly being tested.

This programme continued from 2011 to mid-2014. The location of the sampling points are presented on Figure 67.

During the first quarter of 2011, an additional 34 loam and stream sediment samples were gathered. During 2011/2012, a total of 19 large samples were also collected from the known kimberlites and probable kimberlites. These samples typically weighed between 100kg and 250kg.Two heavy mineral samples of 400kg each were collected in July 2014.

Kimberlite exploration activities - stream and sediment sampling (2010-2014)





Source: LOM

Soil and stream sampling was continued on an ongoing basis until 2014, by which time a large number of the anomalies had been sampled. A total of 145 stream and soil samples have been taken to date.

15.18.8. Heavy mineral extraction and micro-probe analysis

The above mentioned samples were sent to the MSA laboratory in South Africa (ISO/IEC 17025 SANAS accredited) for heavy mineral recovery and micro-probe analysis. The method is described in Section 15.18.5 and the results are discussed herein.

The initial 2010 KIM results indicated potential kimberlites at eight locations from the original 38 target anomalies. These included L210 (previously identified as a kimberlite), L13, L164, L165, L170, L175 and L177. These were prioritised for future investigations.

MSA was tasked to perform the following on the 34 samples undertaken in 2011:-

- identify the mineralogical composition of the heavy mineral fraction of samples;
- describe the KIMs; and
- identify the probable proximity (or remoteness) of the source of kimberlite indicator minerals.

During 2011/2012, MSA received 158 stream (Hm) and soil (Se) samples for heavy mineral recovery and analysis. The aim of this study was to:-

- study the surface textures of the KIMs. This provides an indication of the proximity of the kimberlite to the sample site from which the KIM was taken; and
- perform micro-probe analysis on the KIMs.

Fresh KIMs were returned for 60 of the anomalies, indicating a close proximity of the kimberlite source.

MSA also used the KIM electron micro-probe results and an interpretation technique called "Diamond Hunter" to relate the geotherms measured in the KIMs to diamond potential. MSA recommended that E170 and E25 be followed up with further investigations.

Anomaly E170 was discovered as a kimberlite by LOM in 2011. It has an estimated area of 8.5Ha. A single diamond of 0.3mm was identified in the 25kg sample.

Anomaly E25, also known as Xangandolamba 1, was one of the kimberlites originally discovered by Diamang. It has an estimated surface area of 28Ha.

15.18.9. Manual and excavator pitting

Manual prospecting pitting was initially used as a prospecting tool to confirm whether an anomaly was kimberlitic. This is an industry standard and an effective method.

Manual pitting was also utilised on selected kimberlite pipes after they had been confirmed as such by the KIM samples and core drilling. The pitting was used to define the extent of the kimberlite pipe and to estimate its surface area. It was also used to map the near surface geology.

The pits were excavated on a regular grid pattern across and beyond the magnetic anomaly. The pits were sequentially numbered with a prefix "P" or "PIT". No indication of the kimberlite or anomaly being targeted was included in the naming system during this time.

During 2011, excavator pitting was undertaken on a number of anomalies to confirm the presence of kimberlite. The pits were typically 10m x 25m, to the maximum depth reach of the excavator, approximately 8.5m. The onsite geologist mapped the side walls. As noted above, it is not practical to report the coordinates, depths and results for each pit because of their extensive number.

The excavator pits were named sequentially with a prefix of "EPT". This type of pitting was undertaken during 2011 and 2012. No indication of the kimberlite or anomaly being targeted was included in the naming system during this time.

As the number of pits has increased, the pits have been numbered with a prefix indicating the kimberlite or anomaly being targeted. The difference between whether the pits are manually or mechanically excavated is no longer recorded.

The total number of kimberlite pits per year is presented in Table 7. The total number of pits excavated by kimberlite or anomaly is summarised in Table 44.

Table 44 : Exploration pits by kimberlite / anomaly (2010-2017)

AREA	NO. PITS	AREA	NO. PITS	AREA	NO. PITS
E001	1	E164	1	E220	7
E003	1	E165	1	E223	1
E004	1	E166	1	E243	3
E013	1	E167	1	E245	3
E014	34	E169	1	E248	41
E015	4	E171	1	E251	71
E016	1	E172	1	E252	2
E017	1	E173	1	E257	2
E040	1	E174	1	E258	1
E043	2	E204	1	E259	19
E063	2	E205	1	L042	2
E064	2	E210	1	L248	17
E071	1	E213	1	Sector 5	25
E104	1	E217	1	Not specified	307
SUBTOTAL	**53**	**SUBTOTAL**	**14**	**SUBTOTAL**	**501**
				TOTAL	**568**

Source: LOM

Due to the regular distance between the pits, this method can be considered as representative of the stratigraphic unit being sampled. The pits were logged by the site geologist, with the following information being recorded for each pit:-

- coordinates, surveyed;
- elevation, measured using a GPS;
- depth;
- detailed geological description; and
- digital photographs.

Heavy mineral samples were also collected from a number of the excavator pits and processed in the manner described in Section 16.18.8. Heavy mineral samples are taken from the base of the pit to reduce the risk of contamination from the overlying alluvial sediments.

15.18.10. Eastern Lulo Project Area stream sampling

During October 2013, the eastern portion of the Lulo Kimberlite Project area was visited near the town of Calola (Figure 6 and Figure 8). The purpose of the visit was to take stream sediment samples from anomaly D30 identified from the 2013 geophysical survey. The 2013 survey had identified 38 new targets in the northeastern project area. These had been named consecutively with a prefix "D". Recent artisanal mining pits were noted in D5.

The field visit included the following activities:-

- mapping of artisanal mining pits;
- studying outcrop; and
- stream sampling from the Mucondo River, downstream of the D30 kimberlite anomaly.

The stream sampling and preparation method is described as follows:-

- samples panned to obtain a "grey" concentrate of >5kg;
- samples were bagged and labelled;
- sample were taken back to the Lulo camp;
- samples sieved into three fractions;
- +2mm;
- +1mm-2mm; and
- -1mm.
- two larger size fractions were picked for diamonds and heavy minerals.

This is an acceptable sampling and preparation method. Three heavy mineral samples (Hm30-1 to Hm30-3) were obtained. The results noted that the ilmenites were not abraded and therefore would not been transported far.

15.18.11. Bauer rig core drilling

Core drilling commenced in October 2012 on a selected number of targets. This method of exploration was used to confirm whether an anomaly was in fact a kimberlite. It also provided the kimberlite stratigraphy from surface to the base of the drillhole.

This drilling was undertaken using a Bauer RB40 drill rig, drilling 4" core. The drilling was undertaken using the same Bauer drill rig used for the RC drilling programme (Section 15.18.12).

A total of 37 vertical diamond drillholes were drilled into seven targets between October 2012 and November 2013 (Table 45). Core with a diameter of 100mm was extracted from depths of up to 160m. A total of 2,353m was drilled using this method. The drillholes were numbered sequentially with the prefix "CDH", e.g. CDH_10 was drilled into anomaly E19. The drillhole depths are reported in Table 45.

Table 45 : Coordinates and drillhole details of the Bauer rig core drillholes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZIMUTH (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE*
CDH_01	L12	01 October 2012	265,644	8,943,956	995	-90	0	100.00	Yes
CDH_02	L222	06 October 2012	263,688	8,942,845	995	-90	0	75.00	Yes
CDH_03		17 October 2012	263,355	8,943,129	994	-90	0	50.30	Yes
CDH_04		20 October 2012	263,399	8,943,063	992	-90	0	51.00	Yes
CDH_05	L251	30 November 2012	260,659	8,943,094	1,055	-90	0	53.00	Yes
CDH_06	L2	06 December 2012	257,526	8,940,449	1,092	-90	0	51.00	Yes
CDH_07	L220	18 January 2013	258,796	8,943,754	1,022	-90	0	57.00	No
CDH_08	L18	08 February 2013	269,168	8,936,638	1,052	-90	0	63.20	Yes
CDH_09	L19	21 February 2013	269,446	8,936,016	1,010	-90	0	45.00	Yes
CDH_10		25 February 2013	269,465	8,936,058	1,018	-90	0	57.00	Yes
CDH_11		28 February 2013	269,471	8,935,925	990	-90	0	63.00	Yes
CDH_12	L46	07 March 2013	268,947	8,934,220	997	-90	0	33.00	No
CDH_13	L83_84	11 March 2013	278,655	8,928,960	1,066	-90	0	63.00	Yes
CDH_14		19 March 2013	278,660	8,929,059	1,075	-90	0	54.00	No
CDH_15		20 March 2013	278,684	8,928,824	1,067	-90	0	23.00	No
CDH_16		21 March 2013	278,613	8,928,968	1,073	-90	0	21.00	No
CDH_17	L251	01 May 2013	260,099	8,944,310	996	-90	0	51.00	Yes
CDH_18		02 May 2013	260,154	8,944,352	1,011	-90	0	45.00	Yes
CDH_19		03 May 2013	260,485	8,944,356	1,003	-90	0	57.00	Yes
CDH_20		06 May 2013	260,366	8,944,160	1,007	-90	0	57.00	Yes
CDH_21		11 May 2013	261,106	8,943,408	1,035	-90	0	110.00	Yes
CDH_22		30 May 2013	261,062	8,942,924	1,043	-90	0	117.00	Yes
CDH_23		01 June 2013	260,864	8,943,776	1,036	-90	0	51.00	Yes
CDH_24		31 July 2013	261,400	8,943,800	1,005	-90	0	46.70	Yes
CDH_25		02 August 2013	261,400	8,943,400	1,013	-90	0	35.00	Yes
CDH_26		03 August 2013	260,415	8,942,954	1,048	-90	0	63.00	Yes
CDH_27		06 August 2013	261,390	8,943,006	1,020	-90	0	37.00	Yes
CDH_28		08 August 2013	261,000	8,942,590	1,028	-90	0	65.00	Yes
CDH_29		09 August 2013	261,375	8,942,628	1,010	-90	0	45.00	Yes
CDH_30		13 August 2013	260,605	8,942,588	1,044	-90	0	75.00	Yes
CDH_31		15 August 2013	260,594	8,943,406	1,039	-90	0	45.20	Yes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZIMUTH (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE*
CDH_32		16 August 2013	260,217	8,942,606	1,045	-90	0	75.00	Yes
CDH_33		03 September 2013	260,800	8,942,600	1,037	-90	0	75.00	Yes
CDH_34		10 September 2013	261,000	8,942,800	1,035	-90	0	159.00	Yes
CDH_35		19 November 2013	261,652	8,942,642	1,009	-90	0	51.00	Yes
CDH_36	L2	22 November 2013	257,526	8,940,442	1,101	-90	0	99.00	Yes
CDH_37	L220	27 November 2013	258,760	8,943,760	1,036	-90	0	135.00	Yes
TOTAL								**2,353.40**	

Notes:

Coordinate System:- WGS84 UTM34S

* Positive for pyroclastic kimberlite

Core recovery was undertaken using a wireline system, and the core recovery was generally good below the unconsolidated surficial deposits. Core recovery was measured by LOM in all 37 drillholes, typically from the top of fresh rock to the end of the drillhole. The core recovery ranged from 58% to 97%, with the average for all the drillholes being 87%.

The cores were placed into galvanised steel core boxes and stacked next to the plant for storage. All cores were photographed. The cores were measured up by the site geologist. The core boxes were not secured. Core boxes for 16 of the 37 drillholes were available on site for inspection by Venmyn Deloitte. These cores have been well preserved. Venmyn Deloitte was advised that LOM elected to process the cores from the other 21 drillholes through the plant to determine if they were diamondiferous.

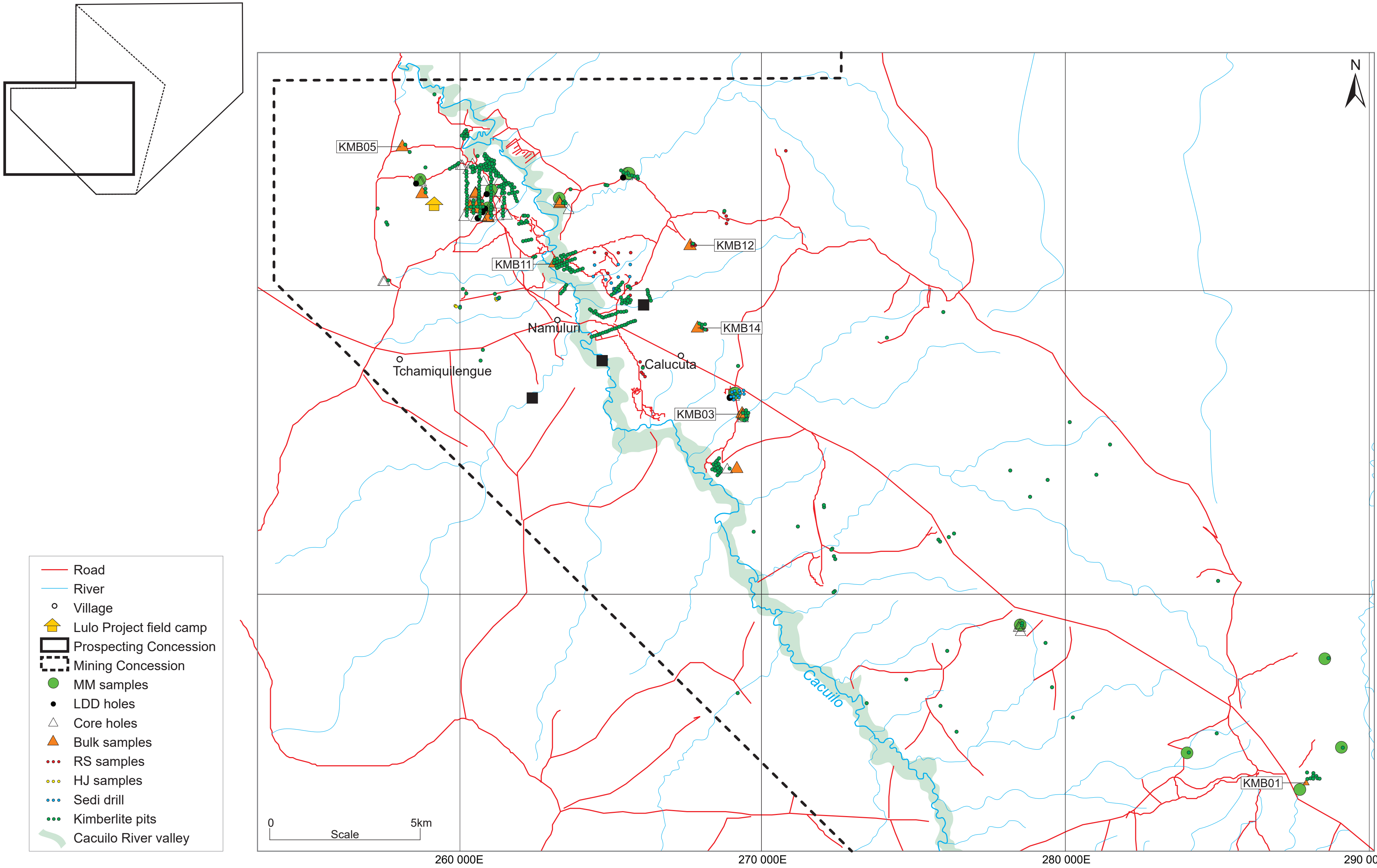
The location of the core drilling positions is indicated on Figure 68. A summary table of the drilling lengths and relevant intersections is presented in Table 46. Details on the core logs are discussed in a later review of the drilling programme in Section 15.19.6.

Table 46 : Core drilling results by anomaly / kimberlite (2014 – 2017)

ANOMALY / KIMBERLITE	YEAR	RIG	NO. HOLES	TOTAL LENGTH (m)	SRVK	PK	RVK	VK
L2	2013	Bauer	2	150.00	Yes		Yes	
L12	2013	Bauer	1	100.00			Yes	Yes
L13	2017	Rosanstroi	4	182.00		Yes	Yes	
L14	2017	Hanjin	2	129.00	Yes			
L15	2017	Rosanstroi	2	189.50	Yes	Yes	Yes	
e16	2017	Rosanstroi	5	272.00				
L18	2013	Bauer	1	63.20			Yes	Yes
	2016/17	Sedi	12	388.70				
L19	2013	Bauer	3	165.00	Yes		Yes	Yes
	2017	Sedi	1	18.92	Yes	Yes	Yes	
L41								
L46	2013	Bauer	1	33.00				
	2017	Sedi	1	63.50	Yes			
L171	2016	Sedi	1	48.60		Yes	Yes	
K83-84	2013	Bauer	4	161.00				Yes
e217	2017	Rosanstroi	4	302.50				
K220	2013	Bauer	2	192.00	Yes		Yes	Yes
K222	2012	Bauer	3	176.30			Yes	Yes
K223	2014	Bauer	1	53.00	Yes		Yes	Yes
e245	2017	Hanjin	4	192.95	Yes			
L248	2017	Rosanstroi	6	249.50	Yes			
	2017	Sedi	1	40.50	Yes			
L251	2013	Bauer	19	1,259.90	Yes		Yes	Yes
	2017	Sedi	1	39.80	Yes			
L252	2017	Hanjin	3	190.35	Yes		Yes	
e259	2016	Rosanstroi	8	369.50	Yes			
	2016	Sedi	25	642.63				
	TOTAL		**117**	**5,673.35**				

Source: LOM

Kimberlite exploration activities - drilling, pitting and bulk sampling (2010 - 2017)



Source: LOM

The drillholes were logged qualitatively. The drillhole was logged by the project geologist, with the following data recorded in excel sheets:-

- target name;
- coordinates;
- elevation;
- commencement and end date;
- responsible foreman and geologist;
- final depth of hole;
- dip and azimuth. All drillholes were vertical;
- core diameter;
- from and to;
- major rock type; and
- detailed lithological description.

The density of the various rock types was not measured by LOM using cores. Estimates of density have been made by LOM using industry standards for typical kimberlite facies. No geophysical logging has been carried out with any estimates of density.

The Bauer drilling programme was completed in November 2013.

15.18.12. Bauer rig reverse circulation drilling

RC drilling was undertaken by LOM on a number of selected kimberlites during 2012 / 2013. The aim of this drilling was to obtain a sample of kimberlite which could be processed for diamond recovery, thus determining whether a particular kimberlite was diamondiferous. RC drilling was typically carried out after the core drilling. The diamond core drillhole typically acts as a pilot drillhole prior to the drilling of the larger diameter drillholes.

The Bauer RB40 rig used for the coring was used for the RC drilling. Overburden was drilled using a 21” rotary bit, whilst sample was drilled using a 17.5” rotary bit. This dual-purpose rig was also utilised for the core drilling (Section 15.18.11).

Sample recovery was undertaken using the reverse-flow air-assist system to ensure maximum sample recovery with minimum diamond damage.

A total of 17 vertical RC drillholes were drilled into four target kimberlites between September 2012 and December 2013. A 440mm diameter drillhole was drilled, reaching a maximum depth of 140m (Table 47). A total of 1,372m was drilled using this method. The RC drillholes were named sequentially with the prefix “RC”, e.g. RC_06 was drilled into anomaly E251. Note that occasionally the RC drilling is referred to as large diameter drilling (LDD). The maximum drillholes depths are included in Table 47.

Table 47 : Coordinates of Bauer rig RC drillholes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZIMUTH (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE
RC_01	L12	17 September 2012	265,647	8,943,966	995	-90	0	50.00	Yes
RC_02		19 September 2012	265,646	8,943,962	995	-90	0	50.00	Yes
RC_03	L18	16 February 2013	269,165	8,936,648	1,039	-90	0	63.00	Yes
RC_04		19 February 2013	269,174	8,936,642	1,037	-90	0	63.00	Yes
RC_05	L251	21 May 2013	261,110	8,943,406	1,029	-90	0	112.00	Yes
RC_06		25 May 2013	261,107	8,943,410	1,037	-90	0	112.00	Yes
RC_07		06 June 2013	261,070	8,942,916	1,041	-90	0	114.00	Yes
RC_08		11 June 2013	261,050	8,942,920	1,041	-90	0	114.00	Yes
RC_09		13 September 2013	260,813	8,942,611	1,037	-90	0	60.00	Yes
RC_10		16 September 2013	260,812	8,942,606	1,037	-90	0	60.00	Yes
RC_11		18 September 2013	260,810	8,942,603	1,037	-90	0	60.00	Yes
RC_12		20 September 2013	260,809	8,942,599	1,037	-90	0	60.00	Yes
RC_13		25 September 2013	260,817	8,942,608	1,037	-90	0	60.00	Yes
RC_14		27 September 2013	260,812	8,942,606	1,037	-90	0	60.00	Yes
RC_15		02 October 2013	260,976	8,942,807	1,035	-90	0	97.00	Yes
RC_16		04 October 2013	260,975	8,942,802	1,035	-90	0	97.00	Yes
RC_17	L220	07 December 2013	258,770	8,943,742	1,042	-90	0	140.00	Yes
TOTAL								**1,372.00**	

Notes:

Coordinate System:- WGS84 UTM34S

Positive for kimberlite i.e. kimberlite intersected

Each drillhole was logged qualitatively by the project geologist, with the following data recorded:-

- target name;
- coordinates;
- elevation;
- commencement and end date;
- responsible foreman and geologist;
- final depth of drillhole;
- dip and azimuth. All drillholes were vertical;
- hole diameter;
- from and to;
- major rock type; and
- detailed lithological description.

The location of the RC drilling positions are indicated on Figure 68. Details on the chip logs are discussed in a later review of the drilling programme in Section 15.19.6.

The drilled material was bagged and sequentially numbered from the top to the base of the hole. Bulk bags contained a minimum of 3m of drilling length and a maximum of 12m, depending on the recovery of material. The bags were not sealed. The major rock units were not separately bagged. Although this was not an optimal sampling method, it was considered necessary due to the small sample volume. As a result, these samples were not considered representative of the separate facies, but are considered representative of the combined facies sampled.

A single sample was composited from the total number of bags for drillholes RC_01 to RC_08. The sample was numbered sequentially according to the drill hole type, e.g. RC_01. The bulk bags were then transported to the production plant for treatment.

In the case of drill hole RC_09 and RC_10, the different rock types were bagged, sampled and processed separately. Each sample were numbered sequentially with a prefix of the drillhole number, e.g. RC_09-01.

The samples were processed through the sampling plant until the production plant was commissioned in November 2013. Details on the processing plants are presented in Section 14.28. The results of the RC sampling according to kimberlite are presented in Table 48.

Table 48 : Kimberlite RC drilling results

		RC DRILLING / BULK SAMPLING						
KIMBERLITE / ANOMALY	**ESTIMATED AREA (ha)**	**YEAR**	**NO. DRILLHOLES**	**TOTAL LENGTH (m)**	**VOLUME SAMPLED (m^3)**	**VOLUME TREATED (m^3)**	**NO. STONES**	**CARATS RECOV. (cts)**
L12	<25	2012	2	100.00	11.8	11.8	0	0.00
L18	12	2013	2	126.00	15.8	15.8	0	0.00
L220	<30	2013	1	140.00	19.7	9.0	0	0.00
L251	<100	2013	12	1,006.00	131.6		0	0.00
		TOTAL	**17**	**1,372.00**	**178.9**	**36.6**	**0**	**0.00**

Source: LOM

It must be noted though, that due to these being small samples, they may not be fully representative of the kimberlite being sampled. Therefore, no estimate of grade or diamond characteristic can be made using these results. Due to the low concentration of diamonds in kimberlites and the small sample size, a negative result may not necessarily indicate that the kimberlite contains no diamonds.

No cross validation of sample weights (wet and dry) with drillhole volume and density were undertaken. No moisture factor was estimated.

The RC Bauer drilling programme was completed in December 2013.

15.18.13. Surface bulk sampling

Surface bulk sampling of the kimberlites commenced in May 2012. The purpose of the bulk sampling was to obtain sufficient sized samples to prove the presence of diamonds. The bulk sample would firstly confirm whether the kimberlite was diamondiferous, and secondly, provide an estimate of diamond grade and diamond characteristics.

The kimberlite surface bulk sample pits were sequentially numbered with a prefix of "KMB", e.g. KMB_1 was extracted from L170. The location of the kimberlite bulk sample pits are indicated on Figure 68.

The following information was recorded for each bulk sample:-

- volume of weathered material extracted;
- volume of oversize material (+22mm);
- volume of material treated through DMS (+2.0mm-22.0mm);
- number and weight of diamonds; and
- diamond size distribution.

A total of 23 surface bulk samples were taken by LOM from 14 sites from ten potential kimberlites between 2012 and 2014. Where multiple bulk samples were taken from a single kimberlite, these were evenly spaced. The results of the bulk sampling according to kimberlite are presented in Table 49.

Table 49 : Kimberlite surface bulk sampling results

	SURFACE BULK SAMPLING								
ANOMALY / KIMBERLITE	YEAR	NO. BULK SAMPLES	VOLUME SAMPLED (m^3)	TONNAGE TREATED	NO. STONES	CARATS RECOV. (cts)	GRADE (ct/100m^3)	STONE SIZE (ct/st)	PLANT
L13	2014	1	117.00	264.00	0.00	0.00	-	-	Production
L15	2014-15	1	110.00	240.00	0.00	0.00	-	-	Production
L19	2013	1	95.30	210.00	1.00	0.60	0.63	0.60	Sampling
L41	2016	1	351.00	772.20	0.00	0.00	-	-	Production
L46	2015	1	771.37	1,751.00	2.00	1.24	0.16	0.62	Production
K220	2013-15	1	95.59	217.00	0.00	0.00	-	-	Production
K222	2012	1	57.20	126.00	0.00	0.00	-	-	Sampling
L251	2013	14	4,852.80	10,950.00	12.00	7.10	0.15	0.59	Production
L257	2014	2	328.00	740.10	1.00	0.10	0.03	0.10	Production
	TOTAL	**27**	**7,302.16**	**16,452.40**	**17.00**	**9.14**			

Source: LOM

The bulk samples may be considered as representative samples of the specific kimberlite facies sampled. They should, however, not be considered as representative of all the facies present in the pipe. The bulk samples were placed in stockpiles at the plant for processing. It was not practical to separately secure these samples in any way due to their volumes.

Four samples returned diamonds. It must be noted that the size of the samples was relatively small by diamond industry standards, except for those over L251 and L46. Therefore, the lack of diamonds may be a result of a small sample size rather than the low diamond potential of the kimberlite.

No information on the percent of concentrate and undersize was available for the bulk samples. Sample grade at different BSSs was not considered appropriate on these grades. No adjustments were made to reach a commercial scale result.

15.18.14. Processing and diamond recovery

All samples taken during this time were processed by LOM through the sampling plant until November 2013 when the 150tph DMS plant was commissioned. The sampling plant specifications are presented in Section 14.28.

No diamonds were recovered from the RC sampling (Table 48). A total of 14 stones were recovered from L19, 251 and 257 during the bulk sampling (Table 49).

15.18.15. SFD and valuation (L251 & L257)

In July 2014, QTS reviewed the diamonds recovered from kimberlites L251 and L257. The ten diamonds extracted from these kimberlites were cleaned in hydrofluoric acid prior to their assessment and valuation. The diamonds were sorted according to size and also categorised as Type I or Type IIa (Table 50).

Table 50 : L251 & L257 diamond size distribution and classification

	KIMBERLITE L251				KIMBERLITE L257			
DIAMOND SIZE	**NO. STONES**	**CARATS**	**TYPE I**	**TYPE II a**	**NO. STONES**	**CARATS**	**TYPE I**	**TYPE II a**
5 grainer	0	0.00	-	-	1	1.35	1	-
4 grainer	1	1.05	-	1	1	1.00	1	-
+11 sieve	2	1.05	-	2	0	0.00	-	-
+7 sieve	3	0.37	3	-	1	0.10	-	1
+5 sieve	1	0.08	-	1	0	0.00	-	-
SUBTOTAL	**7**	**2.55**	**3**	**4**	**3**	**2.45**	**2**	**1**
TOTAL	**10**	**5.00**						

Source: QTS

The valuator then used these categorisations to value the diamonds. The results are tabulated in Table 51. The valuator estimated the average price to be USD212/ct. The valuation was likely to be imprecise given the very small number of carats involved.

Table 51 : L251 & L257 diamond valuation

	COMBINED VALUATION			
DIAMOND SIZE	**TOTAL CARATS**	**AVE VALUE (USD/ct)**	**TOTAL CARATS**	**AVE VALUE (USD/ct)**
5 grainer	1.35	449.00		
4 grainer	2.05	265.00		
+11 sieve	1.05	128.00		
+7 sieve	0.37	140.00	0.10	70.00
+5 sieve	0.08	78.00		
SUBTOTAL	**4.90**		**0.10**	
TOTAL	**5.00**	**211.87**		

Source: QTS

The valuator noted that this valuation is based upon a very small sample of stones and therefore may be subject to change upon the recovery of additional diamonds from these sources. Therefore, the confidence in this result is low.

QTS also noted that the high percentage of Type IIa stones and the characteristics of the stones were similar to those recovered from the alluvial bulk samples. QTS concluded that these kimberlites may be feeding into the alluvial deposit but noted that they may not be the only source of these diamonds.

15.19. Recent exploration (2014 to 2017)

The work carried out by LOM between 2014 and 2017 was initially focussed around the collation and review of the extensive amount of data collected on the project over the previous six years. This collation and review enabled the prioritisation of the large number of anomalies present in the Lulo Kimberlite Project area. The exploration plan from 2014 onwards was directed at testing the high priority anomalies within the Cacuilo River catchment area, with the focus on identifying the kimberlite sources of the large stones being extracted in SML's alluvial mining activities.

The previously used methods of exploration pitting were continued. In addition, three drill rigs were put into action between 2016 and 2017 to test the anomalies and kimberlites at greater depths than could be achieved with the pitting. The location of all exploration to date is graphically summarised in Figure 69.

15.19.1. Additional target selection from aeromagnetic surveys (2015)

A review of the previous aeromagnetic surveys was conducted in December 2015 by Mr G Selfe of GRS Consulting (GRS). This review resulted in the identification of additional magnetic dipoles, dyke like features and textural targets which are typically smaller and less distinct than those identified in earlier selection processes. These were reviewed in conjunction with other exploration information and selected targets were added to the approved exploration program.

GRS noted that the northwest/southeast trending graben features present across the project area played a major role in the distribution of the anomalies. There were very few anomalies located in the central area, where thick cover effectively fills the graben structure. GRS also noted that the targets identified in this area may be man-made features.

GRS highlighted the dyke swarm located in the southwest corner of the project area which appeared to be radial in arrangement and converging on an unknown point in the southwest. This is similar to the arrangement of the kimberlite dyke swarms around the Kimberley area in South Africa. The electro-magnetic data suggests that these are likely to be kimberlites.

GRS noted that, due to the large number of targets present in the Lulo Kimberlite Project area, prioritisation may be complex. GRS recommended prioritising the targets using their proximity to the following:-

- streams which have yielded high KIMs and / or diamonds;
- alluvial recoveries of large stone sizes; and
- extensive alluvial artisanal workings.

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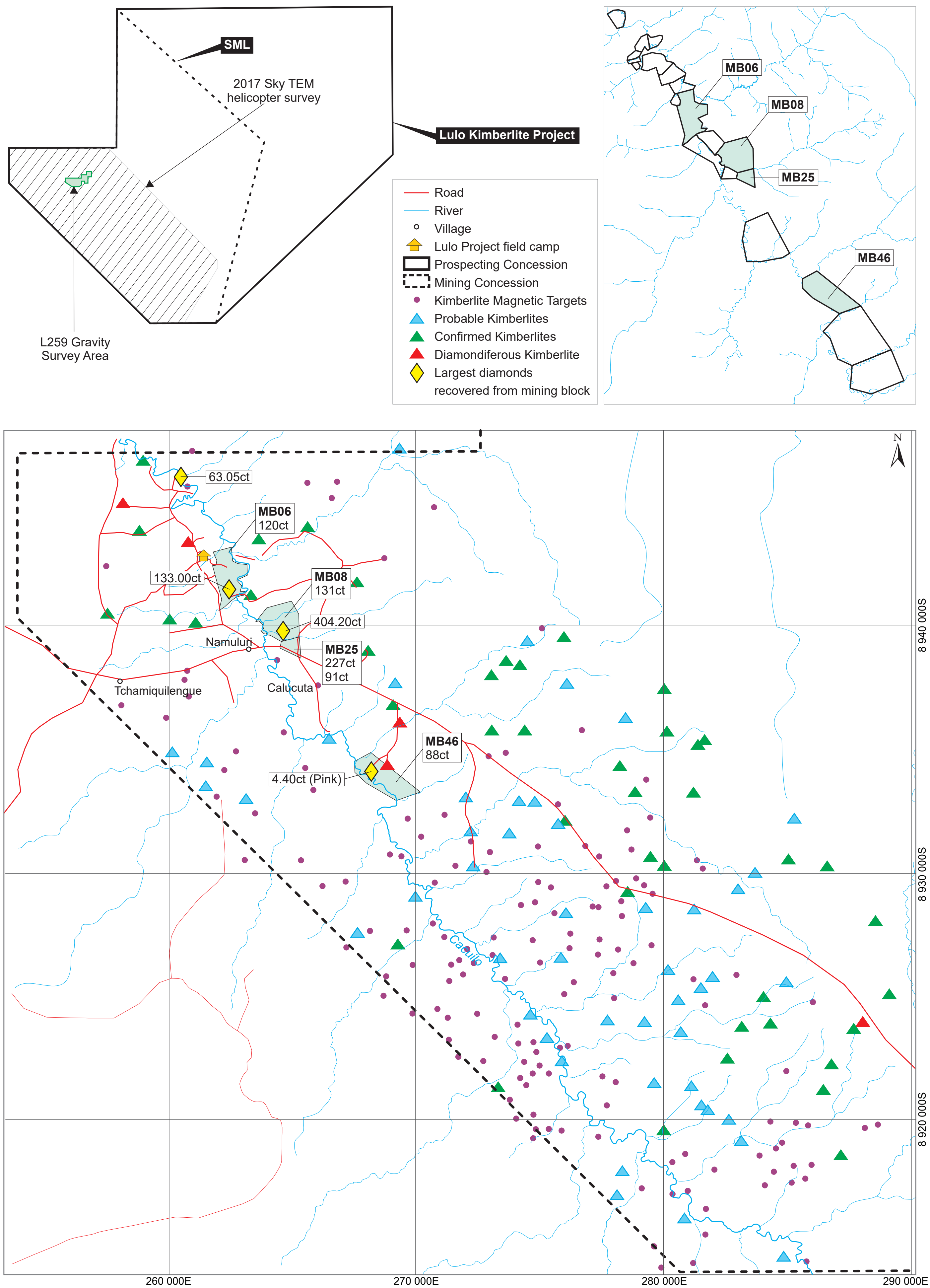
Results of all kimberlite exploration work to date



Source: LOM

15.19.2. Gravity and horizontal loop electro-magnetic geophysical survey (2016)

During the first quarter of 2016, LOM appointed GPR Geophysics to complete a ground based geophysical gravity survey and horizontal loop electro-magnetic (HLEM) survey. The surveys were planned, managed, processed and interpreted by GRS, with the field work completed by GPR Geophysics. The objective of the surveys was to attempt to define the limits of the known kimberlite targets which had the potential to be the source for the large stones being regularly recovered from MB-08 and MB-06. Due to the geography of the targets, the non-magnetic nature of the targets, and the unknown potential correlation between these targets and the gravity and EM anomalies, the survey was conducted over three logically separate target survey areas (Figure 69):-

- the first and initial area being over a smaller area covering the extent of a known kimberlite pipe, L251. The purpose of this was to confirm the potential correlation between non-magnetic kimberlites and gravity and EM anomalies. The results from this survey would then aid in the interpretation of the larger primary survey area;
- a larger target area which incorporated a swampy area associated with diamondiferous gravels, L259, where sediment-rich kimberlitic material has been exposed during pitting. It was unclear whether this sediment-rich kimberlitic material was transported or in-situ. As such the primary objective of this survey was to identify a potentially buried, non-magnetic kimberlite pipe, L259; and
- an eastern area adjoining the L259 survey area containing three identified aeromagnetic targets further east where kimberlite material had been subsequently exposed by pitting, L13, as well as an additional non-magnetic kimberlite target, E217, as well as an untested magnetic anomaly/texture.

Surveys were carried out on 100m spaced north-south trending lines with gravity survey stations spaced every 50m and HLEM stations every 25m. A Scintrex CG5 Autograv and Trimble 5700 Differential Global Positioning System (DGPS) was used during the gravity survey whilst an Apex Max-Min was used for the HLEM survey.

The following quality control measures were implemented during the survey:-

- gravity survey:- reading repeatability, drift, standard deviations, instrument levelling and GPS quality were closely monitored. Three local base stations as well as a main base station (at camp) were used to correct for drift. Tidal elevation, Bouguer and latitude corrections were carried out; and
- HLEM survey:- phase mixing was checked daily; the presence of any cultural noise sources was noted (e.g. power lines, fences etc.), precise distances were measured between the transmitter and the receiver and possible geographical noise sources such as rivers, swamps, clays and laterites were noted.

A summary of the GPR Geophysics interpretation of each of the surveys and techniques used at the three logically separate target survey areas is presented in Table 52.

Table 52 : Interpretation summary of the ground geophysical gravity and HLEM survey

TARGET		DESCRIPTION	GRAVITY RESULTS	HLEM RESULTS
Test Target	L251	Known kimberlite pipe (test case)	Clear gravity high associated with the central pyroclastic kimberlite. Spotty texture may be due to the presence of large xenoliths.	A clear out-of-phase anomaly associated with the pipe and an edge-anomaly with the RVK kimberlite, an indication that the body is a moderate conductor. Near-surface weathered material is conductive.
Primary Target - potential source of the MB08 and MB06 large stones	L259	Larger swampy area associated with diamondiferous gravels. Some sediment-rich kimberlitic material had been exposed during pitting.	Bouguer gravity does not indicate any strong trends as a regional slope is present which requires removal. Residual gravity results clearly map out a strong gravity low which correlates with those pits having intersected kimberlitic material. 3D modelling identified low density material to between 35m and 100m from surface. Beneath this, the density appears to be similar to that of the country rock.	A strong correlation between the HLEM and residual gravity results, an indication that both are mapping the same body which exhibits both low density and moderate conductivity. 3D modelling was done, the objective of which was to attempt to confirm body size, shape and depth extent. The most conductive parts of the anomaly tied in well with the gravity as well as where kimberlite was recorded in pits indicating that the kimberlite is conductive. This confirms that kimberlitic material does not occur throughout the low density body, but is confined mainly to the centre.
Eastern Targets	E217	Non-magnetic kimberlite target	Does not show unambiguous anomaly in the Bouguer gravity. Shows a vague residual gravity high	Displays a weak anomaly which is not clearly isolated from the background.
	L13	Known pitted kimberlite	Does not show unambiguous anomaly in the Bouguer gravity. No residual gravity anomaly.	Resistant in the west and conductive in the east, thereby creating a small hole in the conductive overburden.
	Textural Target	Untested magnetic anomaly/texture		Displays a clear double anomaly which justifies a pitting campaign.

Source: GPR Geophysics

Overall results reportedly confirm the location of the targets within the three survey areas. Known kimberlite L251 has a gravity high over kimberlite with a variation in the conductivity of the kimberlite; PK kimberlite is conductive, as are the margins of the RVK kimberlite. This is in contradiction to the L259 anomaly which instead displays a gravity low where kimberlitic material has been mapped (Figure 70). How much of the L251 gravity high is potentially due to high density xenoliths is unknown.

There is reportedly a good correlation between the outlines of the low-density body at L259 mapped by the gravity survey and the moderately conductive body mapped the HLEM survey (Figure 70).

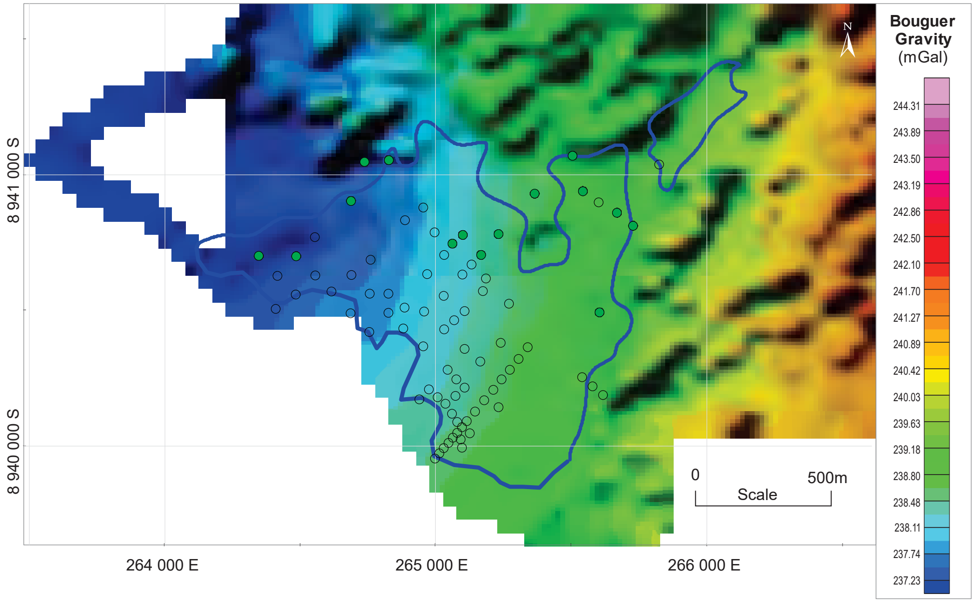
According to GRS, this is of greatest significance as this interpretation has resulted in the L259 body having an extent of approximately 1,050m in a northeast direction and 950m in a northwest direction.

This equates to a minimum surface area of 78ha and a maximum of 108ha, adjacent to MB-08 between 30m and 100m thick for a kimberlite. Indications are that the L259 body is a non-magnetic crater-facies kimberlite.

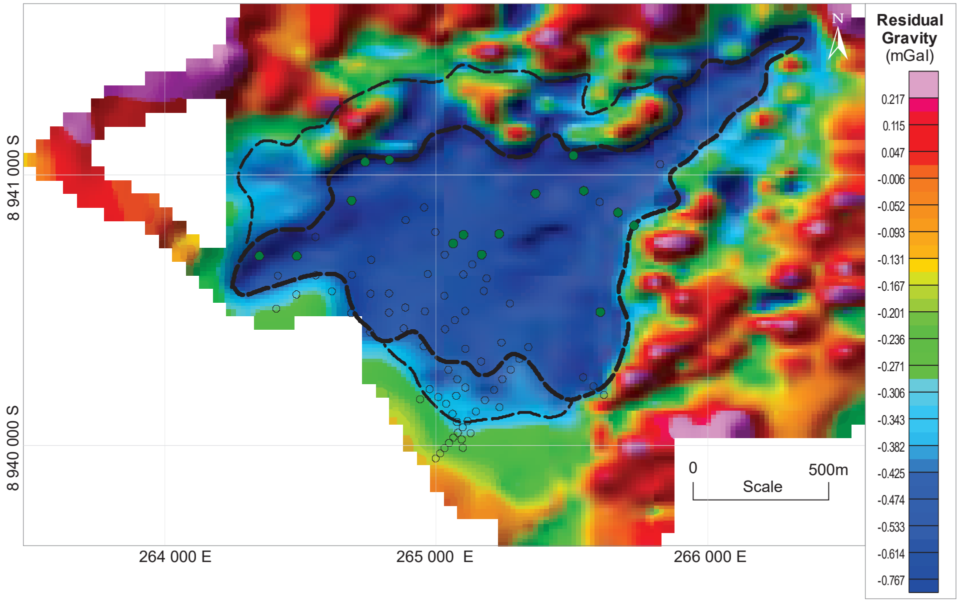
Drilling will need to be completed to eliminate the anomaly being a thick bed of alluvial gravels and marsh sediments as there remains no clear evidence that the L259 anomaly is not a kimberlite. Drilling a deep vertical drillhole in the centre of both the gravity and HLEM anomalies will be carried out in order to assess whether this anomaly is caused by a kimberlite at depth.

Ground geophysical gravity and HLEM survey results for E259

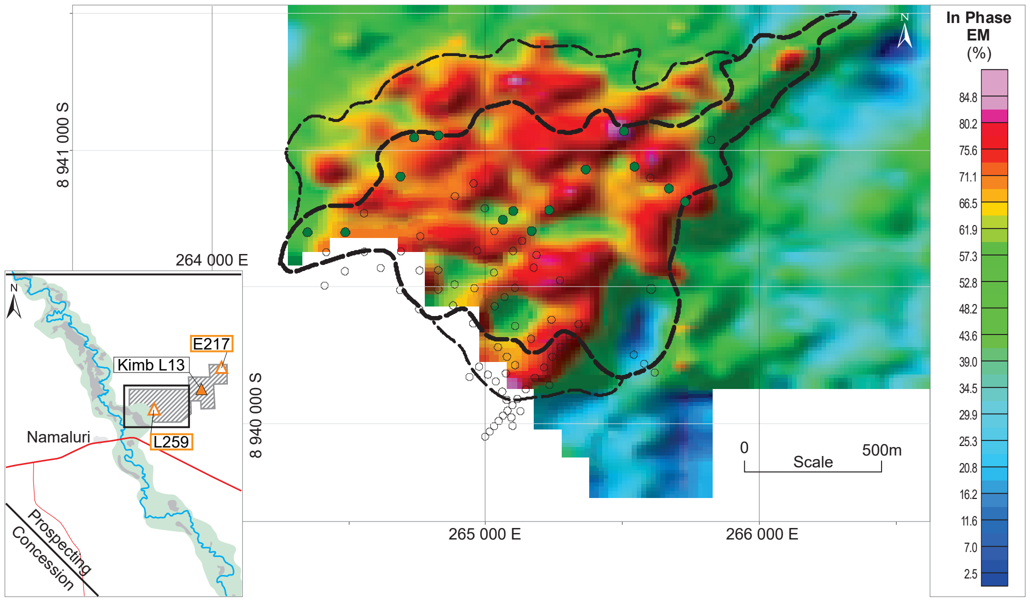
Bouguer gravity results for L259. The outline of the swamp is shown in blue. Pits are shown as open circles, whilst kimberlite in pits is shown as dark green circles.



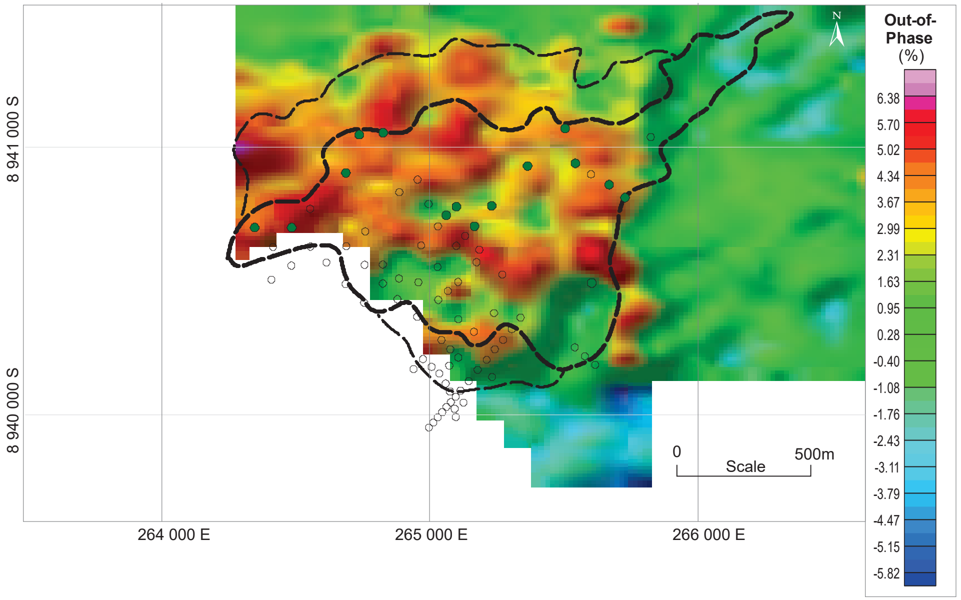
Residual gravity result for the L259 survey, with outline of the gravity low in black dashed line, and kimberlitic material in pits as green circles.



In Phase 1777 Hz for the L259 survey. It can be seen that the outline of the low density body from the gravity, in black dashed line, is strongly supported.



Out-of-Phase 444 Hz for the L259 survey. It can be seen that the outline of the low density body from the gravity, in black dashed line, is strongly supported.



Source: LOM

The majority of the eastern targets (Figure 71) have an associated gravity high, which could make sense geologically as the surrounding Calonda and Kalahari Formation have very low densities. Alternatively, these pipes could be xenolith-rich which would cause the gravity highs. All bodies have an EM anomaly (Figure 71), which GRS believes is an indication that an airborne EM survey could be a useful technique in defining non-magnetic kimberlites in the region with gravity used more as a localised delineation and follow-up technique.

15.19.3. Helicopter electromagnetic survey of the Namaluri Block (2017)

LOM appointed Danish company, SkyTEM Surveys Aps, in October 2016 to perform a SkyTEM304 helicopter-borne geophysical survey over the Namaluri Block at SML. The survey was carried out between March and April 2017 using a SkyTEM 304M system which included a time domain electromagnetic system, a magnetic data acquisition system and an auxiliary data acquisition system containing two inclinometers, two altimeters and three DGPS. All instruments are mounted on a frame suspended approximately 40m below the helicopter with the generator used to power the transmitter suspended between the frame and the helicopter, approximately 20m below the helicopter.

The purpose of the survey was to obtain additional geophysical data to interpret with the aim of identifying the source of the large diamonds being extracted by the SML mining operations in MB08.

The survey included 8,566 line kilometres at a line spacing of 100m. The location of the survey is indicated on Figure 17. The final SkyTEM survey data was provided to LOM and GRS Consulting for interpretation.

The selected targets exhibit a wide variety of electromagnetic signatures including weak and strong anomalies, normally polarised to reversely polarised anomalies, as well as dipoles and concentric rings. Crater filled kimberlites are also known to occur in the area.

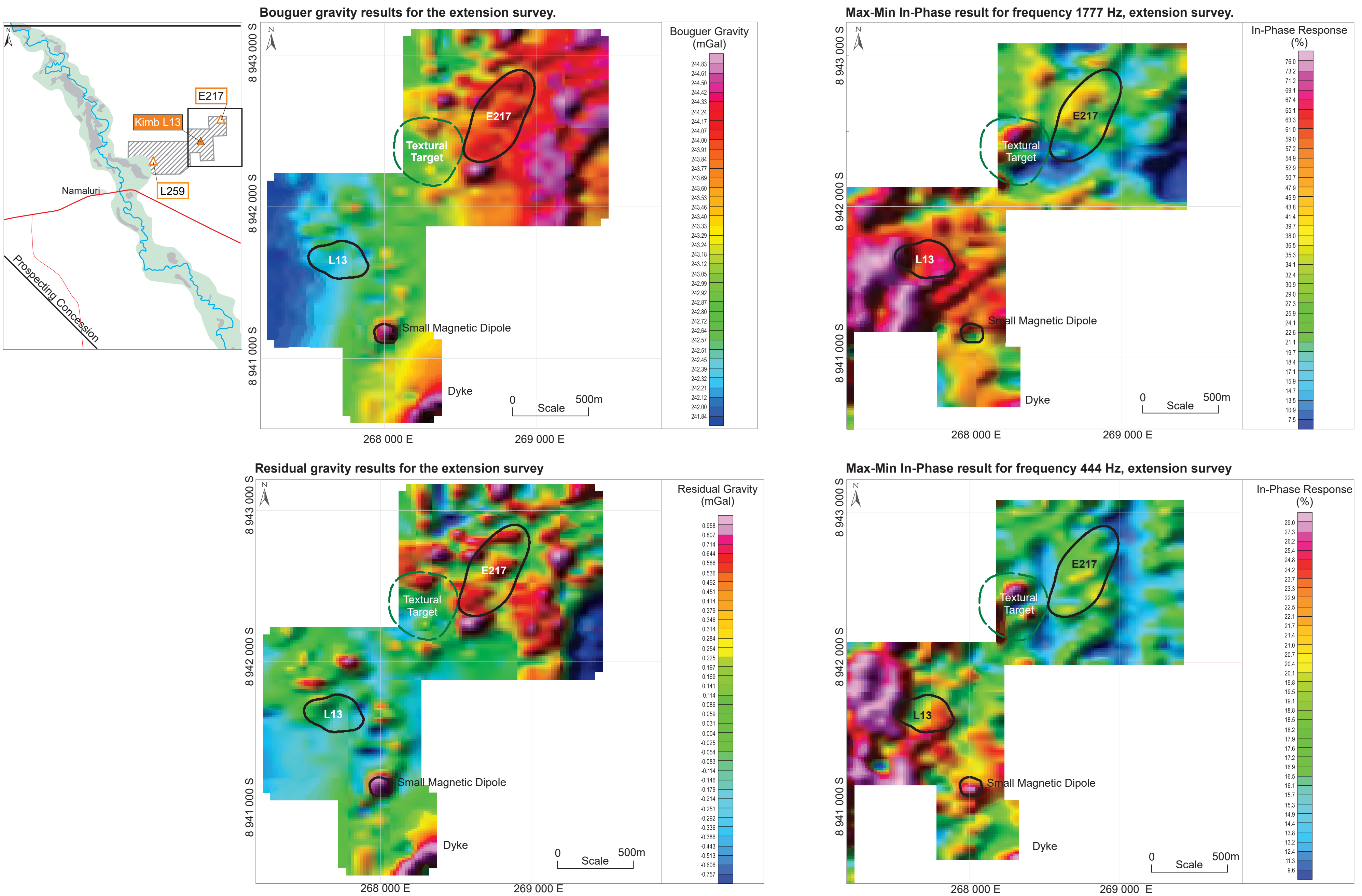
An interpretation of the EM data was undertaken by GRS and LOM geologists targeting the most significant drainage basins feeding in to the main alluvial mining blocks. The anomalies in each basin were analysed for good EM signatures and magnetic signatures where present, i.e. conductive bodies which are more likely to host pyroclastic kimberlite not diluted by sandy river sediments which are not generally conductive. Interpretations by GRS of the previous geophysical surveys were also considered. These indicated a general relationship between size, strength of magnetism, EM polarisation and conductivity.

Previous targets which have since been confirmed as kimberlites by drilling were excluded from the selection process.

A series of data manipulation methods were used for analytical purposes. According to GRS, these included:-

- "gridded channel data as well as database profiles;
- Tau time constant grids;
- depth slice grids as well as conductivity depth inversion sections (CDI); and
- ternary grids, red, green and blue (RGB) images composed of early, mid-time and late-time channels, Tau grids, and shallow, medium and deep depth slices."

Ground geophysical gravity and HLEM survey results for the eastern targets



Source: LOM

A total of 62 targets were identified as a result of the SkyTEM data interpretation. The location of these targets is indicated on Figure 72. Out of these targets, 51 had already been identified and numbered in previous geophysical surveys. The remaining 11 were new EM targets with no magnetic signature (Table 53). Each target was assigned a priority type ranking and also a priority location ranking (Figure 72). The target type priority was based upon the anomaly size, shape and strength of the EM and/or magnetic signature. The areas closest to MB08 and its alluvial feeder system were ranked with the highest location priority.

Table 53 : Top five SkyTEM location priority targets

ANOMALY / KIMBERLITE	LOCATION PRIORITY	TYPE PRIORITY	TARGET TYPE	LOCATION DESCRIPTION
G529	1	1	EM Only	Next to stream just north of L15. Good location for MB08 source
G524	1	1	EM and Mag Text	In MB08 catchment
E217	1	2	Mag Only	In MB08 catchment
E212	2	1	Mag and EM	Cacuilo
G549	2	2	EM Only	In Cacuilo river close to MB08. 1.2km SE of L014
G550	2	2	Weak Mag and EM	Very near L014
221	2	2	Mag and EM	Cacuilo Valley
G265	3	1	Mag and EM donut	In Zavige valley
G552	3	1	Mag and EM	In Zavige catchment
G510	3	1	Mag Text and EM	Zavige drainage
G551	3	2	Mag and EM	In Zavige valley
G553	3	2	EM only	In stream draining into Zavige
255	3	2	Mag and EM	Zavige catchment
E003	3	3	Mag and EM	Zavige catchment
254	3	3	Mag and EM	Zavige catchment
E025	4	1	Mag and EM	Xangando drainage headwaters
E022	4	1	Mag and EM	Xangando drainage headwaters
E219	4	1	Mag and EM	
G554	4	1	EM only	Next to E219, Xangando drainage
E024	4	2	Mag, no EM	Xangando drainage headwaters
E023	4	2	Mag and EM	Xangando drainage headwaters
G358	4	2	Mag and EM	Next to E219, Xangando drainage
E021	4	3	Mag and EM	Xangando drainage
E020	4	3	Mag and EM	Xangando drainage
E222	5	1	EM donut	Too far downstream to be source for MB06 or MB08
E010	5	1	Mag and EM	Sequege drainage
E009	5	2	Mag and EM	Sequege drainage
241	5	3	Mag and EM	Sequege drainage
E011	5	3	Mag and EM	Sequege drainage

Source: GRS

The 11 new targets were named sequentially with a prefix "G", continuing from the anomaly number of those previously identified by GRS. The list of the targets associated with the top five priority locations is presented in Table 53. These are indicated on Figure 72.

These targets will form the focus of the drilling programme for remainder of 2017.

15.19.4. Excavator and manual pitting

The systematic digging of excavator and/or manual prospecting pits over anomalies and kimberlites has continued from 2014 until present. The naming conventions and information gathering exercises have continued as described in Section 15.18.9.

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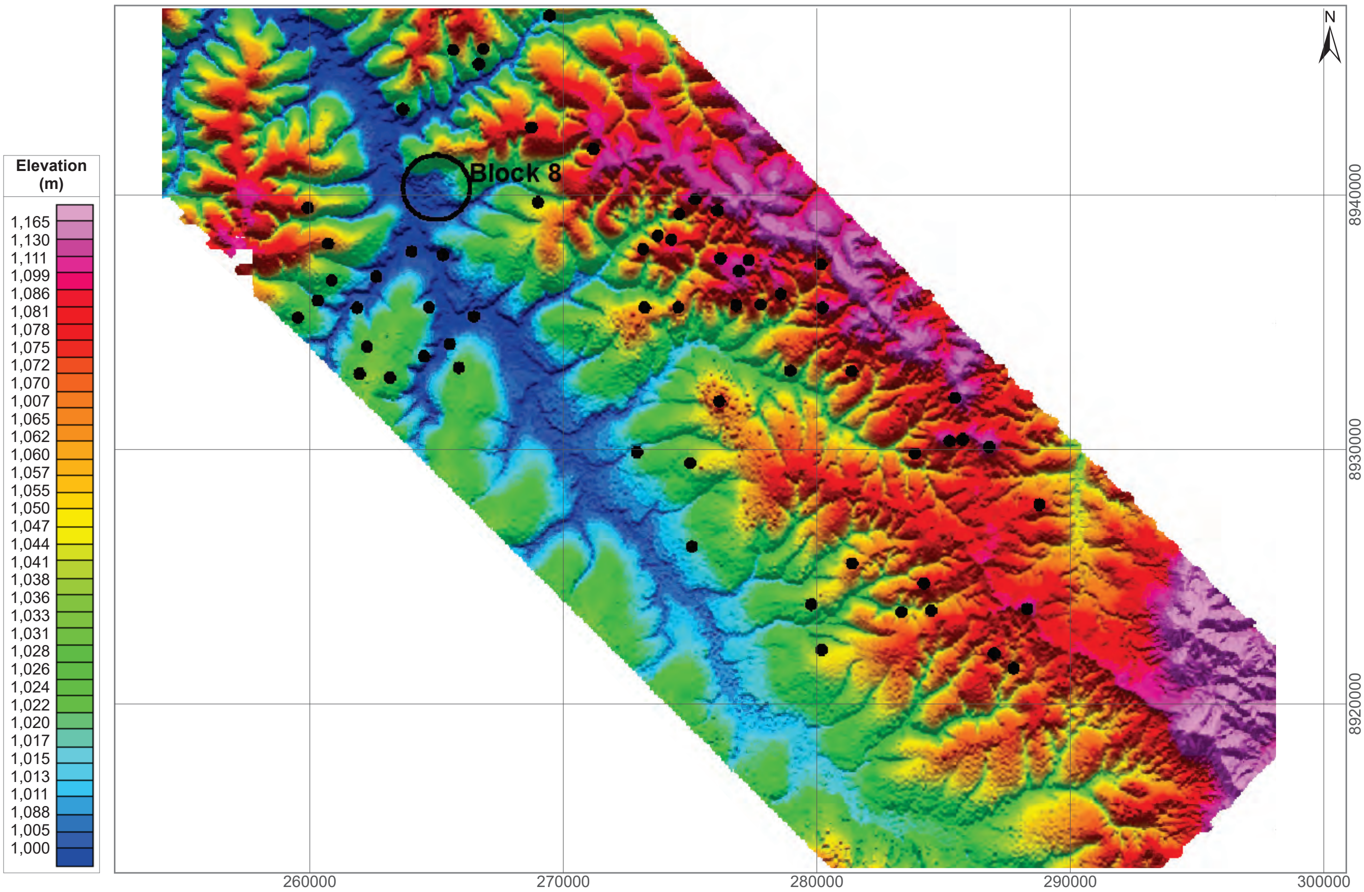
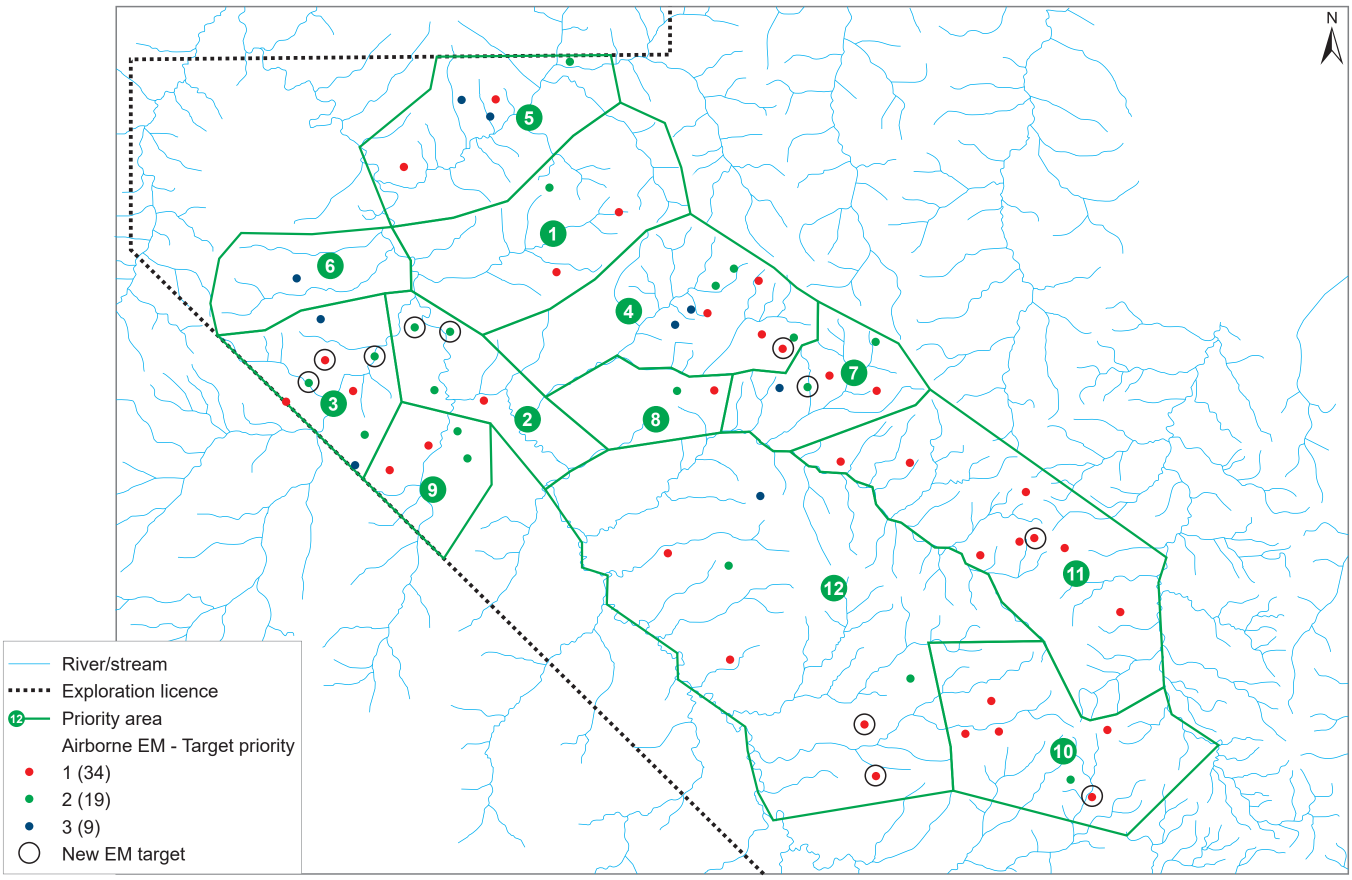
SkyTEM survey priority targets in relation to DTM and drainage basins





A total of 568 kimberlite pits had been excavated until the end of May 2017 (Table 7). The location of the various kimberlite pits are summarised in Table 44.

15.19.5. Heavy mineral sampling

Heavy mineral sampling has also continued on an ongoing basis during this interval. The method used is detailed in Section 16.18.5.

The naming scheme has been modified with time. Recent heavy mineral samples are identified according to the anomaly sampled as well as the pit number, e.g. HmPe167-2 is a heavy mineral sample from the second manual pit excavated into anomaly E167. Another example is Hme217-1 which was sampled from the first excavator pit into anomaly E217, named EPTe217-1.

The results of the latest Hm sampling are presented in the MS report on the geological assessment of the Lulo Kimberlite Project. This is discussed in detail in Section 15.19.6.

15.19.6. Geological assessment of exploration results to 2015

In April 2015, MS was requested to undertake the following on the Lulo Kimberlite Project:-

- a preliminary assessment of eight kimberlites / anomalies namely; L2, L12, L18, L19, L83-84, L220, L222 and L251 in order to understand the diamond potential in comparison to the regional trend shown by the Cucumbi Clusters of kimberlite. Lulo's kimberlites form the northern portion of this cluster. MS was seeking to answer the question as to whether the exceptional diamonds being recovered in the alluvial mining area are sourced from the Cucumbi cluster or from an as yet undiscovered source;
- take samples for mineral chemistry analyses for the application of their proprietary Mantle Mapper technique;
- review the aeromagnetic datasets to identify additional anomalies which could represent kimberlite intrusions, and integrate the results with the mineral chemistry, where possible; and
- review previous exploration data in light of the above results to make technical recommendations.

MS initially compiled a GIS database of the key data used in their review. The company then prepared a series of observations on the various exploration data sets. These are summarised in the section to follow.

15.19.6.1. Geophysical data

A total of 258 anomalies were identified in the southwest of the Lulo Kimberlite Project area and 38 in the northeast. MS believe that there are additional anomalies which were not previously selected.

The southwestern anomalies around the Cacuilo River valley are typically circular and well constrained, and associated with linear northeast-southwest dyke like bodies. MS believed that the northeastern anomalies may not be kimberlitic intrusions but rather appear to be a function of a deep seated magnetic fabric.

15.19.6.2. Sampling data

Sampling has focused on the southwestern anomalies only as this area is associated with the alluvials and the northeastern anomalies were expected to lie beneath a cover of 50m to 80m of Kalahari sands.

MS outlined the sampling methods described in the relevant section above. As of April 2015, the following sampling data had been obtained:-

- 261 soil samples (Se);
- 143 heavy mineral stream samples (Hm); and
- 25 pit samples, although this does not correspond with the monthly reports.

MS concluded that a kimberlite was defined on the KIM result of ilmenites >1,000 and garnets significantly present, whilst a probable kimberlite was defined as ilmenites >100 and garnets present. MS notes that a selection of sample concentrates were sent to Mineral Services Laboratory (MSL) for analysis. Their work is in outlined in Section 15.18.5 and Section 16.18.8. The MSL results are reported and summarised 19 anomalies with the following rating:-

- 8 – too few garnets to determine potential;
- 3 – probably non-diamondiferous;
- 5 – possibly diamondiferous;
- 1 – low diamond potential; and
- 2 – low to medium diamond potential.

MSL analysed the surface textures of the KIMs. They concluded that 96% of the samples contained locally derived KIMs. The surface textures did exhibit extensive abrasion indicating transport, possibly a result of Calonda or river gravel reworking.

MS concluded that due to the high density of anomalies that clearly represent kimberlites, the residual lag of gravels (Calonda, Kalahari and recent) and the widespread occurrence of KIMs, especially ilmenite, may make this technique less effective for locating kimberlites.

The MSL electron micro-probe results indicate that the majority of the garnets are classified as G9 with only two garnets being G10D, with the suffix indicating an origin in the diamond stability field.

This implies a source at shallow depths but high temperature indicating a weak diamond association. None of the chromite grains recovered plot within the diamond stability field.

MS believes that the relatively high percentage of eclogitic garnets (G3 and G4) recovered should also be downgraded from a low to medium diamond potential to a low diamond potential. The company cites experience with other Angolan kimberlites in support of this hypothesis. In response to this, Foundation Resources commented that this could be seen as an upgrading factor, as large, more valuable diamonds are typically associated with eclogitic garnets.

15.19.6.3. Core drilling

MS reviewed the available cores, i.e. 16 of the 37 core drillholes, and the drill logs. The company noted that logging did not include the following:-

- kimberlite alteration;
- textural and structural characteristics;
- mantle and magmatic content; and
- country rock dilution.

In light of this, MS provided an initial classification table for use in the logging of kimberlite going forward (Table 54). MS has presented summarised logs of the core drillholes in Figure 73.

Table 54 : MS classification of kimberlite rock types

ROCK TYPE	ESTIMATED DILUTION	TYPICAL GRAIN SIZE OF OLIVINE MACROCRYSTS	ESTIMATED OLIVINE MACROCRYST CONTENT	RELATIVE KIMBERLITE INTEREST RATING
Recent sediment - sand, silt, gravel	100%	-		
Kalahari - sand, laterite, gravel	100%	-		
Calonda - sand, gravel	100%	-		
Crater facies sandstone (CS)	>95%	Very fine to fine	<1%	3
Bedded resedimented volcaniclastic kimberlite (RVK)	<80%	Fine to very coarse	<15%	1 - 2
Massive volcaniclastic kimberlite (MVK)	<50%	Fine to coarse	<20%	1 - 2
Country rock - Cassange or Xisto Greseso	100%	-		

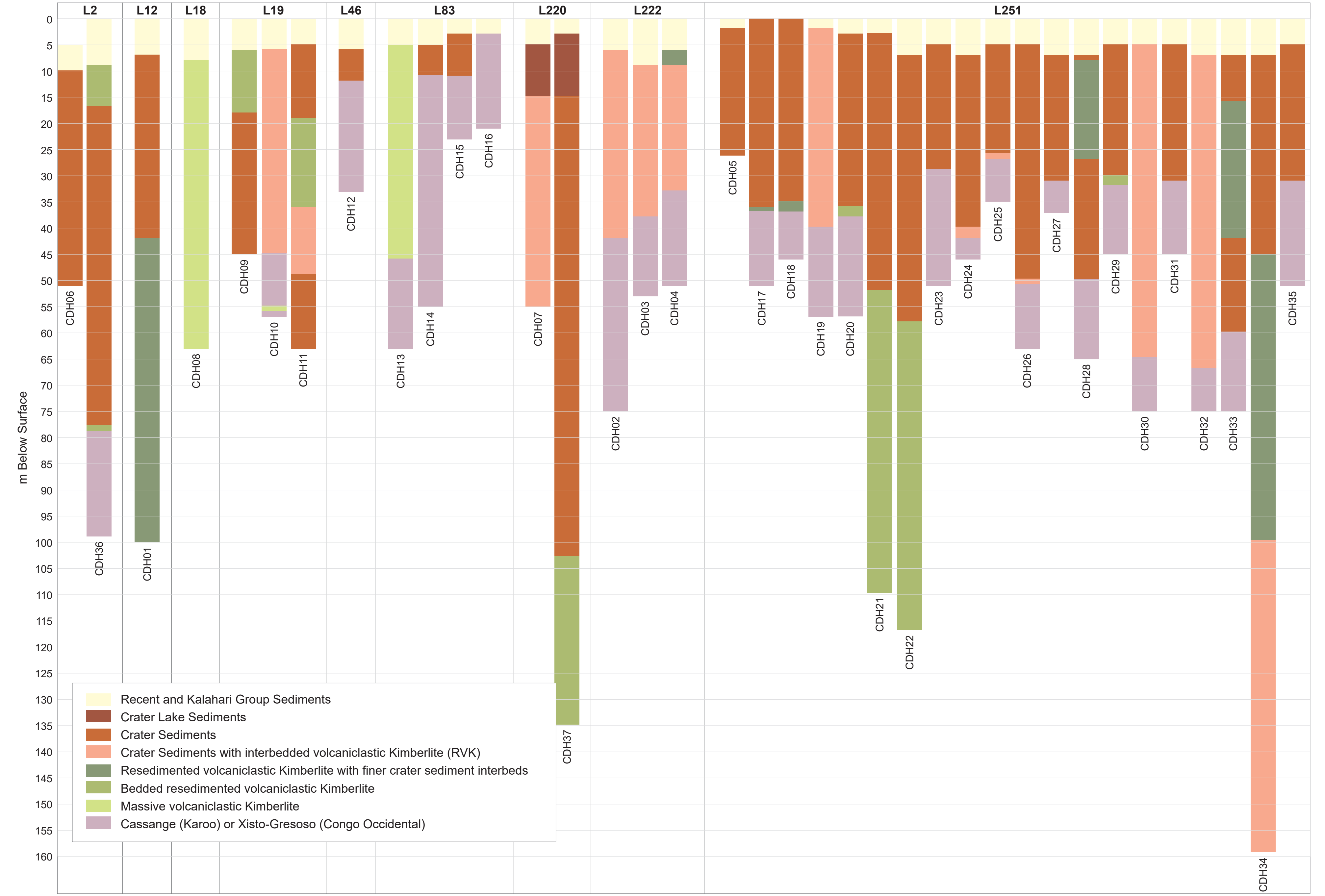
Source: MS

The geology of each of the kimberlite pipes is extremely varied, resulting in a generalised kimberlite stratigraphy being meaningless. This variability of each of the pipes is important to consider on a pipe by pipe basis.

MS proposed a kimberlite facies stratigraphy and nomenclature which is summarised, from the top to the base, as follows:-

- crater lake sediments;
- crater sediments (CS) – crater facies sandstone. Dilution >95%. Fine to very fine olivine macrocrysts, <1% content;
- bedded RVK – Dilution <80%, fine to very coarse olivine macrocrysts, <15% content; and
- massive volcaniclastic kimberlite (MVK) - <50% dilution fine to coarse olivine macrocrysts, <20% content.

Schematic logs of the drill core



Source: MSG

Figure 73

MS believed that some of the drillholes may have stopped short whilst still in crater sediments, and as such were possibly misidentified as Xisto or Cassange. A deeper drillhole may have identified RVK or VK beneath this strata.

RVK and VK in the core appeared to have a large proportion (up to 20%) of kimberlite autoliths. These autoliths appear to be coherent kimberlites. These may have been derived from an older feeder system and may have an improved mineral chemistry.

15.19.6.4. RC drilling

MS noted that 17 drillholes were drilled into four potential kimberlites namely L12, L18, L220 and L251. No diamonds were recovered. Each drillhole was piloted using core and therefore the geology was well known as it was logged from the diamond drill core rather than from the RC chips. MS presented the core logs results schematically in Figure 74.

No down-the-hole (DTH) surveys were conducted and as a result the volumes were theoretical volumes based upon the drillhole diameter, rather than the actual drillhole size. The total volume treated was ~180m^3.

MS commented that only a single drillhole (CDH08, in L18) intersected coarse VK, whilst the other drillholes had significant dilution (50% to 90%) from the fine grained CS.

15.19.6.5. Surface bulk sampling

A total of 14 bulk samples were extracted by LOM from nine kimberlites. The subsampling protocols by lithology resulted in a total of 23 samples being treated. A total of 14 diamonds, cumulatively weighing 7.5cts were recovered from an estimated 12,972t of rock processed.

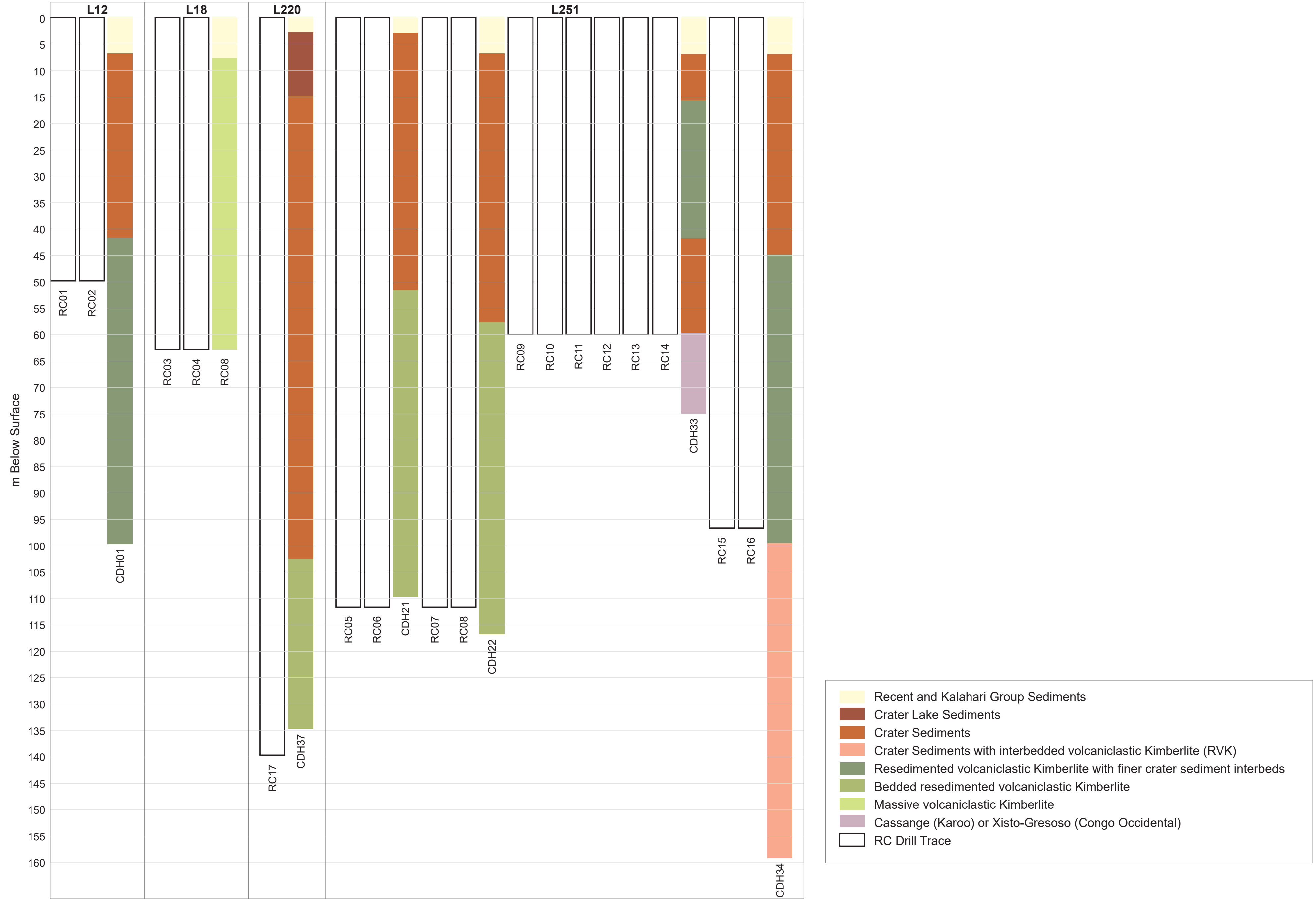
MS analysed the available results according to both potential kimberlite and according to rock type across the different pipes (Table 55 and Table 56).

Table 55 : Bulk sampling results according to kimberlite (pre April 2015)

ANOMALY / KIMBERLITE NAME	NO. SAMPLES	NO. AS DIAMONDIFEROUS
L13	1	0
L15	1	0
L19	1	1
L170	1	0
L220	1	0
L222	1	0
L248	1	0
L251	14	5
L257	2	1
TOTAL	**20**	**6**

Source: MS, 2015

Schematic logs of the RC core



Source: MSG

Table 56 : Bulk sampling results according to rock type

ROCK TYPE	NO. SAMPLES	NO. AS DIAMONDIFEROUS
Kalahari	5	3
Kalahari with minor RVK	2	1
CS with interbedded RVK	7	1
RVK with interbedded CS	2	0
RVK / VK	7	2
TOTAL	**23**	**7**

Source: MS

MS concluded that because each sample penetrated surficial Kalahari and Calonda sediments, and these returned the highest results by rock type, contamination may have been possible. The company notes that the grade estimate of the samples which returned positive results were very low, 0.02cpht to 0.30cpht. These grades confirm the negative RC results.

15.19.7. Mantle Mapper sampling

Mantle Mapping™ is used by MS to better understand the diamond potential of a kimberlite. The method identifies whether the KIMs from a kimberlite plot within the diamond stability field within the mantle, thereby indicating diamond potential. Mantle Mapper is a method developed by MSL to "*quantitatively analyse the abundance and composition of key mantle derived minerals (indicator minerals) in kimberlite. It allows the quick, cost-effective and reliable evaluation of the diamond potential of the host body as well as an assessment of the nature and general prospectivity of the mantle that it has sampled.*" MSL is an SANAS accredited laboratory located in Cape Town, South Africa.

A total of 14 Mantle Mapper samples were taken by MS in April 2015, ten from selected core drillholes and four from deep hand dug pits on specific anomalies. The drill core samples were a composite of multiple samples taken at regular intervals down the drillhole, as were the pit samples. These samples were extracted from nine different anomalies or kimberlites, namely L12, L18, L19, L83, L165, L167, L169, L171, L220, L222 and L251. Some of the samples were subdivided into the different rock type and thus 23 samples were analysed in total. Seven of these samples contained diamonds at low grades, as determined from the bulk sampling results.

The samples are identified sequentially with the prefix "MM". The samples were considered representative of the rock type being sampled including the country rock dilution.

The location of the MM samples are indicated on Figure 68.

15.19.8. Mineral chemistry

The 14 mantle mapper samples of 15kg each were taken to MSL, a SANAS accredited laboratory located in Cape Town, South Africa, for analysis. MSL reviewed the mantle mapper results in comparison to the regional trend shown by the Cucumbi Cluster of kimberlite. Lulo's kimberlites form the northern portion of this cluster.

All previous MSL soil and stream KIM samples were taken near surface and, as a result, may potentially be contaminated from various kimberlite sources. Therefore, these samples could not be used for the reliable determination of diamond potential. The mantle mapper samples, however, were taken at depth from a specific kimberlite body.

The samples were prepared as follows:-

- crushed to ensure maximum liberation in the size +0.30mm-2.36mm;
- sent to Scientific Services (SS) for wet screening at 0.30mm;
- concentration using tetrabromethane at a specific gravity of 2.85g/m^3;
- return to MSL for screening;
- visual picking of KIMs under binocular microscope;
- splitting of KIMs using a riffle splitter until required number obtained;
- splits stripped for quantitative calculation of number of KIMs per kilogram of original sample;
- representative sets of KIMs (total of 2,732 grains) selected, mounted in epoxy and polished; and
- samples sent to the Central Analytical Facility of the University of Stellenbosch for analysis.

The sample preparation method was considered appropriate for the analytical techniques to be used.

Analyses included the following:-

- scanning electron microscopy (SEM-EDS) compositional analysis for major elements; and
- scanning with Zeiss scanning electron microscope.

Quality assurance and quality control (QA/QC) protocols included the insertion of 310 grains into the mineral sequences.

The mineral type and paragenesis of the following minerals were classified on the basis of compositional criteria either published or developed by MSL:-

- pyrope garnet;
- magnesium chromite;
- picro-ilmenite; and
- chrome-diopside.

The major results and conclusions of the MS study, as reported by MS, are as follows:-

- the majority of the peridotitic garnets were classified as G9 (lherzolite). One garnet was classified as G10 (harzburgite) and four additional garnets were classified as G10D, i.e. occurring in the diamond stability field. It can therefore be concluded that although the majority of the garnets are from the upper mantle, they are sourced from shallow depths with high temperatures, and as such, are not from within the diamond stability field. A weak to barren diamond association is suggested;
- the composition of the chromite grains indicate that they too do not originate from the diamond stability field. Therefore, a very low diamond prospectivity is implied;

- the majority of the low chrome garnets are G3 and G4 (eclogites) and have been derived from a shallow eclogite field. Therefore, these do not originate from the diamond stability field. A total of 19 additional garnets were reclassified from G4 and G4D to G1R megacrysts and therefore have no known association with diamonds;
- ilmenite compositions indicate a reducing environment which would have preserved diamonds, had they been present. Ilmenites in this case are megacrysts and therefore are not associated with diamonds;
- the majority of the chrome-diopside grains yielded compositions associated with the derivation from garnet lherzolite. The pressure/temperature (PT) diagram indicates a kinked geotherm whereby the upper portion is relatively unaffected by heating. The cool part of the geotherm only just enters the diamond stability field. Therefore, MSL concludes that there is very limited potential for the sampling of the diamond bearing lithosphere; and
- the pit sample from e165 yielded the maximum number of G10D garnets which have a high association with diamonds. The sample also returned the highest KIM abundance with 99.5% being ilmenites. However, the sample was highly weathered and also taken from a hand dug pit. Therefore, MSL concludes that this may be a sample contaminated by surface or residual material, but should be followed up.

MSL's overriding conclusion was that there was very limited sampling of the mantle within the diamond stability for the 14 kimberlite samples that MSL selected for sampling. MSL notes that the grains may be evidence of a better source within the area which is masked (or diluted) by multiple low interest bodies in the area. Further sampling is required.

LOM notes that the provenance of Type IIa diamonds is currently poorly understood in the diamond industry. Considerable scientific investigation is required to develop an improved understanding, which, given the economic importance of Type IIa diamonds for the Lulo Project, may result in the revision of some of the comments and conclusions in this document which are made on the basis of the existing, limited knowledge.

15.19.9. Sedidrill core drilling

The purpose of core drilling the geophysical anomalies is to confirm or disprove the existence of kimberlite. As described in Section 15.15, four main facies may be present in the Lulo kimberlite pipes, namely; SRVK, PK, RVK and VK. The coarse pyroclastic kimberlite facies are more likely to host diamonds and are hence the focus of the exploration programme. Although the SRVK facies may be diamondiferous, the diamond concentration is more likely to have been diluted in the sediments. Therefore, the success of the drilling is measured on the occurrence of PK, RVK and VK phases.

The Sedidrill drill rig, which arrived on site in June 2016, offered a cost and time effective method of obtaining kimberlite core which is obtained for detailed logging. This Sedidrill drill rig is very mobile and can also reach greater depths than an excavator arm of approximately 6m.

All Sedidrill drillholes include a prefix "SD" in the naming protocol and include the target number, e.g. SD259-004a. The Sedidrill kimberlite / anomaly drilling commenced in July 2016 and has continued until March 2017.

A total of 38 vertical Sedidrill drillholes were drilled into four target kimberlites and a single anomaly. A 76mm diameter drill bit was used with drillholes reaching a maximum depth of 72m (Table 57). A total of 1,138m was drilled using this method. The maximum drillholes depths are included in Table 57.

15.19.10. Rosanstroi core drilling

In order to meet LOM's exploration programme of investigating the priority targets, additional drilling equipment was required. A Kamaz manufactured drill rig was contracted from the company, Rosanstroi, to carry out diamond drilling for kimberlites. This rig arrived on site in November 2016 along with trained operators. This truck mounted rig was able to drill faster and deeper than the Sedidrill rig.

The rig drills core with a diameter of 96mm to a maximum depth of 105m. No further rig specifications were provided by the supplier. Photographs of the rig are presented in Figure 75.

All Rosanstroi drillholes were numbered sequentially with a prefix of RS. They were also numbered according to the target kimberlite or anomaly, e.g. RS/046/01.

A total of 31 RS cored drillholes have been drilled into four kimberlites and four anomalies between November 2016 and 31 May 2017. This amount to 1,673m of drilling. The specifications of the RS drillholes are presented in Table 58. Of the 31 drillholes drilled into the eight targets, five drillholes in four of the targets have returned positive results with respect to pyroclastic kimberlite facies (Table 58).

No detailed core recovery statistics are recorded by the geologists as the drilling is primarily being used to confirm or disprove the existence of kimberlite within an anomaly. As a result of the drilling not being used to define the outline of the kimberlite body, core recoveries are not deemed important. The geologist did confirm that the recoveries were generally close to 100%, nevertheless.

15.19.11. Hanjin core drilling

LOM purchased the Hanjin D&B-Multi drill rig which arrived on site in April 2017. This is a crawler mounted rig which is able to drill deep vertical and angled drillholes. It is powered by a Doosan P086TI, six cylinder 303HP diesel engine. Photographs of the rig are presented in Figure 75. This rig was purchased to delineate kimberlite pipe geology.

All Hanjin drillholes are numbered sequentially with a prefix of HJ. They are also numbered according to the target kimberlite or anomaly, e.g. HJ/248/01.

A total of 10 drillholes were drilled using this rig between April and the end of May 2017. The core diameter used was 60mm. The drillhole coordinates and results are summarised in Table 59. This amounts to 552m drilled into two anomalies and two kimberlite pipes. Of the ten drillholes drilled into the four bodies, five drillholes in three of the targets have returned positive results with respect to pyroclastic kimberlite facies (Table 59).

No detailed core recovery statistics are recorded by the geologists as the drilling is primarily being used to confirm or disprove the existence of kimberlite within an anomaly. As a result of the drilling not being used to define the outline of the kimberlite body, core recoveries are not deemed important. The geologist did confirm that the recoveries were generally close to 100%.

Table 57 : Coordinates and drillhole details of the Sedidrill drillholes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZ. (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE *
SD/018/01	L18	08 December 2016	269,068	8,936,714	1,032	90	0	70.85	Yes
SD/018/02		10 December 2016	269,213	8,936,584	1,030	90	0	23.35	No
SD/018/03		16 December 2016	269,249	8,936,717	1,035	90	0	35.35	Yes
SD/018/04		20 December 2016	269,356	8,936,824	1,038	90	0	20.25	No
SD/018/05		23 December 2016	268,985	8,936,770	1,033	90	0	30.85	No
SD/018/06		30 December 2016	269,047	8,936,615	1,030	90	0	36.85	Yes
SD/018/07		04 January 2017	269,073	8,936,809	1,035	90	0	18.75	No
SD/018/08		14 January 2017	269,162	8,936,642	1,031	90	0	50.55	Yes
SD/018/09		17 January 2017	268,948	8,936,611	1,029	90	0	18.75	No
SD/018/10		22 January 2017	269,044	8,936,517	1,027	90	0	16.85	No
SD/018/11		11 March 2017	269,365	8,936,713	1,036	90	0	23.35	Yes
SD/018/12		16 March 2017	269,215	8,936,814	1,037	90	0	42.95	Yes
SD/019/01	L19	07 March 2017	269,474	8,935,931	1,001	90	0	18.92	Yes
SD/171/01	L171	30 November 2016	287,941	8,923,507	1,082	90	0	48.60	Yes
SD/251/01	L251	21 November 2016	260,956	8,942,591	1,030	90	0	39.80	Yes
SD/259/01	e259	06 September 2016	265,200	8,940,599	1,007	90	0	25.95	No
SD/259/02		09 September 2016	265,585	8,940,609	1,011	90	0	20.30	No
SD/259/03		16 September 2016	265,196	8,941,002	1,015	90	0	38.25	No
SD/259/03-Ab		07 September 2016	265,196	8,941,002	1,015	90	0	5.19	No
SD/259/04		28 September 2016	264,791	8,940,502	1,000	90	0	9.85	No
SD/259/05		01 September 2016	265,202	8,940,212	1,003	90	0	14.30	No
SD/259/06*		30 July 2016	264,799	8,941,003	1,009	90	0	72.65	No
SD/259/07		21 September 2016	265,600	8,941,006	1,015	90	0	40.38	No
SD/259/07 *		11 July 2016	265,598	8,941,005	1,015	90	0	14.19	No
SD/259/08		06 August 2016	265,566	8,940,297	1,006	90	0	35.20	No
SD/259/09		23 September 2016	264,403	8,941,001	1,015	90	0	38.29	No
SD/259/10		25 September 2016	264,379	8,940,614	1,001	90	0	15.65	No
SD/259/11*		29 September 2016	264,807	8,940,379	1,002	90	0	8.14	No
SD/259/12		27 September 2016	264,980	8,940,400	1,003	90	0	23.15	No
SD/259/13*		29 September 2016	264,834	8,940,225	1,002	90	0	9.74	No
SD/259/14		14 October 2016	265,209	8,940,134	1,002	90	0	43.95	No
SD/259/15		19 October 2016	265,160	8,940,125	1,001	90	0	38.25	No
SD/259/16		25 October 2016	265,125	8,940,080	1,001	90	0	45.75	No
SD/259/17		31 October 2016	265,105	8,940,158	1,001	90	0	30.85	No
SD/259/18		03 November 2016	265,154	8,940,158	1,002	90	0	33.55	No
SD/259/19		07 November 2016	265,054	8,940,158	1,000	90	0	29.35	No
SD/259/20		10 November 2016	265,106	8,940,208	1,002	90	0	27.85	No
SD/259/21		14 November 2016	265,054	8,940,208	1,002	90	0	21.85	No
TOTAL								**1,138.**	

Notes:

Coordinate System:- WGS84 UTM34S

*Positive for pyroclastic kimberlite

* - Auger

Table 58 : Coordinates and drillhole details of the Rosanstroi drillholes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZIMUTH (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE*
RS/013/01	L13	20 April 2017	267,676	8,941,685	1,053	90	0	44.50	No
RS/013/02		24 April 2017	267,650	8,941,660	1,053	90	0	35.00	No
RS/013/03		26 April 2017	267,643	8,941,702	1,055	90	0	39.00	No
RS/013/04		29-May-17	267,751	8,941,655	1,050	90	0	63.50	Yes
RS/015/01	L15	08 April 2017			1,037	90	0	105.00	Yes
RS/015/02		17 April 2017			1,039	90	0	84.50	Yes
RS/016/01	e16	22 December 2016			1,010	90	0	36.00	No
RS/016/02		28 December 2016			1,010	90	0	50.00	No
RS/016/03		03 January 2017			1,011	90	0	53.00	No
RS/016/04		07 January 2017			1,011	90	0	53.00	No
RS/016/05		28 March 2017			1,008	90	0	80.00	No
RS/046/01	L46	03 June 2017	269,038	8,934,180	1,008	90	0	63.50	Yes
RS/217/01	e217	28 January 2017			1,078	90	0	80.00	No
RS/217/02		03 May 2017	268,801	8,942,604	1,082	90	0	73.50	No
RS/217/03		10 May 2017	268,839	8,942,503	1,079	90	0	76.00	No
RS/217/04		16 May 2017	268,807	8,942,396	1,083	90	0	73.00	No
RS/242/01	e242	23 May 2017	270,777	8,944,787	1,045	90	0	49.00	Yes
RS/248/01	L248	12 January 2017			992	90	0	65.00	No
RS/248/02		16 January 2017			1,001	90	0	44.00	No
RS/248/03		18 January 2017			1,001	90	0	35.00	No
RS/248/04		20 January 2017			1,000	90	0	38.00	No
RS/248/05		18 March 2017	263,354	8,941,042	998	90	0	40.50	No
RS/248/06		20 March 2017	263,334	8,941,065	997	90	0	23.00	No
RS/259/01	e259	21 November 2016			1,032	90	0	61.00	No
RS/259/02		28 November 2016			1,029	90	0	60.50	No
RS/259/03		05 December 2016			1,032	90	0	66.00	No
RS/259/04		10 December 2016			1,034	90	0	65.00	No
RS/259/05		13 December 2016			1,014	90	0	32.00	No
RS/259/06		14 December 2016			1,008	90	0	23.00	No
RS/259/07		15 December 2016			1,002	90	0	23.00	No
RS/259/08		19 December 2016			1,008	90	0	39.00	No
TOTAL								**1,673.50**	

Notes:

Coordinate System:- WGS84 UTM34S

* Positive for pyroclastic kimberlite

Table 59 : Coordinates and drillhole details of Hanjin drillholes

HOLE NO.	ANOMALY / KIMBERLITE	DATE COMPLETE	X	Y	Z	DIP (°)	AZIMUTH (°)	END OF HOLE (m)	POSITIVE FOR KIMBERLITE
HJ/014/01	e14	30 May 2017	264,293	8,938,560	992	-90	0	85.50	Yes
HJ/014/02		02 June 2017	264,518	8,938,493	993	-90	0	43.50	No
HJ/245/01	e245	29 April 2017	259,938	8,939,624	1,058	-60	180	52.95	No
HJ/245/02		04 May 2017	259,938	8,939,624	1,058	-80	180	49.75	No
HJ/245/03		11 May 2017	259,939	8,939,635	1,058	-60	0	46.75	No
HJ/245/04		15 May 2017	260,100	8,940,087	1,044	-60	283	43.50	Yes
HJ/248/01	L248	20 May 2017	263,345	8,941,060		-60	330	40.50	No
HJ/252/01	L252	05 April 2017	261,234	8,939,890	1,040	-90	0.00	52.00	Yes
HJ/252/02		15 April 2017	261,220	8,939,889	1,041	-60	180	65.80	Yes
HJ/252/03		24 April 2017	261,219	8,939,889	1,041	-45	310	72.55	Yes
TOTAL								**552.80**	

Notes:

Coordinate System:- WGS84 UTM34S

Positive for kimberlite

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Photographs of the Hanjin and Rosanstroi drill rigs

Hanjin drill rig

Rosanstroi drill rig

Hanjin drill rig

Rosanstroi drill rig

15.19.12. Surface bulk sampling

Three kimberlite bulk samples were treated by LOM during 2015. Two of these had been excavated and stockpiled during 2014 and the third was excavated in 2015. The surface bulk samples were taken from L15, L46 and K220. A bulk sample of L41, taken in mid-2016, yielded no diamonds. The results for the 2015 bulk sampling are included in Table 49.

The method and naming scheme is discussed in Section 15.18.13.

15.19.13. Processing and diamond recovery

The bulk samples taken during 2015 were treated by LOM through the production plant (Section 14.28). Two stones were recovered from kimberlite L46 during the 2015 bulk sampling campaign, totalling 1.24cts, for an average stone size of 0.60cts/stone.

15.20. Diamondiferous kimberlites

The greater the number of kimberlites situated within a concession, the greater the probability of finding an economically diamondiferous project. LOM commenced their kimberlite exploration programme with the identification of 248 magnetic anomalies in the west and 38 anomalies in the east. From a high priority target selection, primarily based upon size, 61 targets were selected for further investigation at the start of 2011.

Since then, LOM has been systematically drilling the anomalies and/or kimberlites to confirm or disprove the presence of kimberlite rock at depth. A total of 20 kimberlites / anomalies have been drilled, with three bodies not returning kimberlite intersections (Table 46).

This drilling was preliminary in nature and has provided no indication of the potential economics of these pipes or their potential to yield a declared diamond resource. Ten kimberlites have been sampled for diamonds, as reported in Sections 15.18.12, 15.18.13, and 15.19.12. Four of the pipes namely, L19, L46, L251 and L257 yielded positive results.

No geological modelling has been carried out on these diamondiferous kimberlites as the diamond recoveries were not considered to have sufficient grade to warrant additional work. No estimation of size or volume been carried out. The surface extent, estimated in hectares, was estimated using the extent of the exploration activities and results and / or the size of the magnetic anomaly, when the exploration coverage was limited.

A brief description of the diamondiferous kimberlites follows.

15.20.1. L19

Kimberlite L19 is situated east-southeast of the Lulo Project camp site, in the western section of the Lulo concession (Figure 76). The estimated area of the kimberlite is 10ha.

The kimberlite was confirmed in January 2013 from the 15 pits (EPT226 – EPT240) that were mechanically excavated over the kimberlite. However, a fresh relatively hard red kimberlite with clearly visible olivine and xenoliths was specifically encountered in pit EPT227 at a depth of 2.0m, overlain by an ilmenite-rich laterite horizon.

A total of three core drillholes (CDH09 to CDH11) were drilled vertically through the kimberlite delineating its stratigraphy, which comprises SRVK, RVK and PK.

One bulk sample (KMB03), with a total volume of 95.30m^3 was also collected from the surface of the kimberlite.

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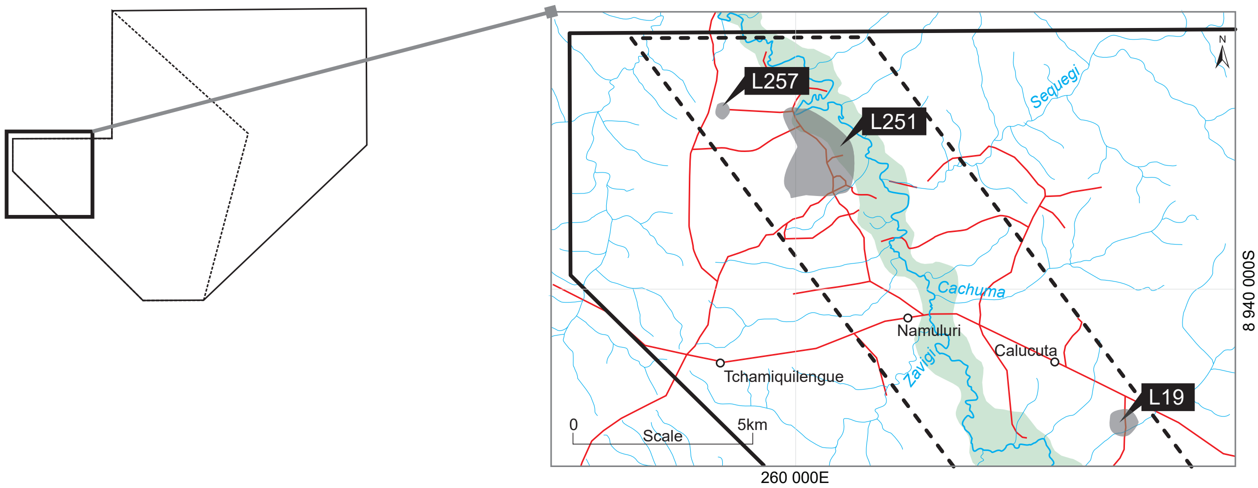
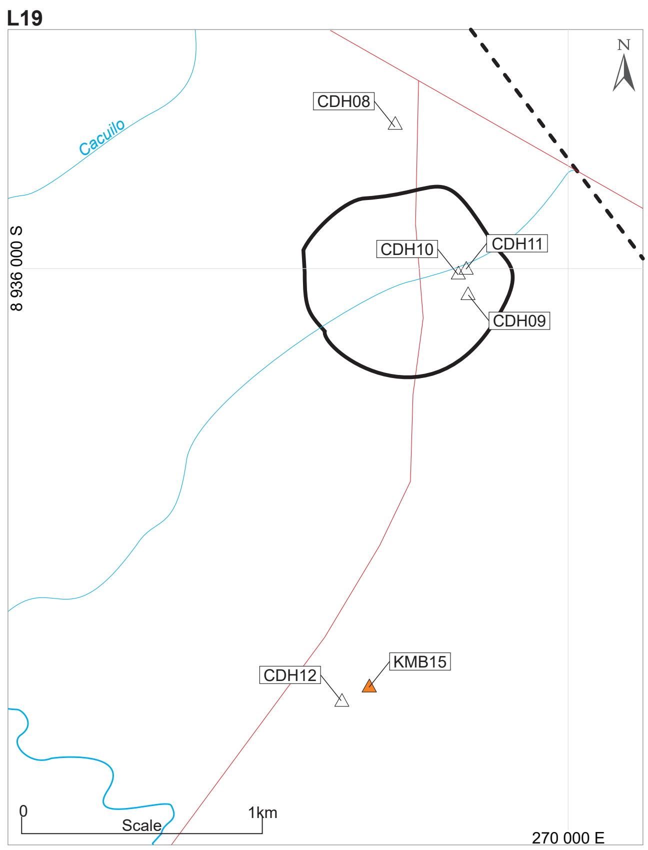
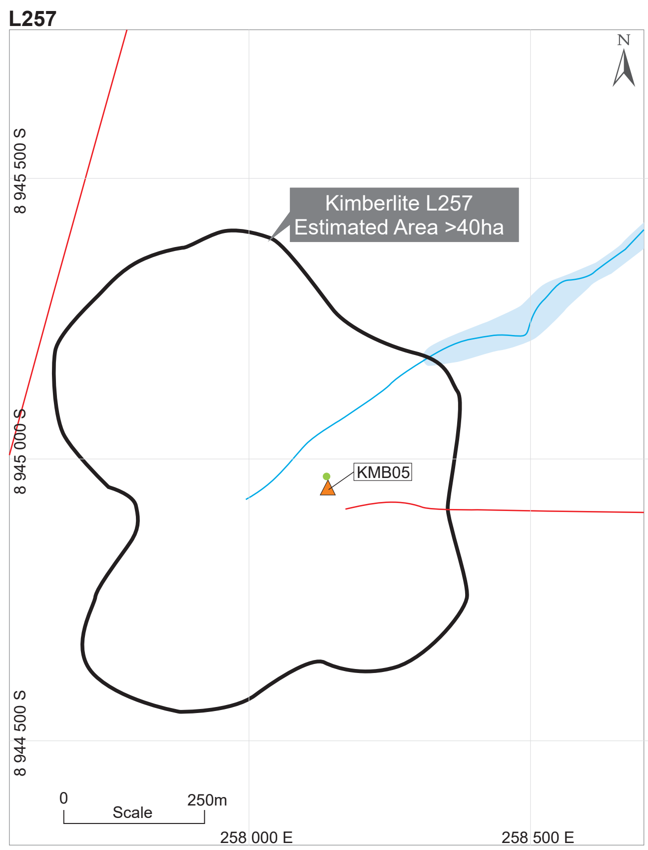
Exploration and mapping results on diamondiferous kimberlites - L19 and L257







- Road
- River
- Infrastructure
- Estimated Area
- Kimberlite Bulk Sample (KMB)
- Alluvial Bulk Sample (BLK)
- Core Hole Drilled (CDH)
- RC Drill Hole (RC)
- Exploration Pit

Source: LOM

A total of 210.0t of bulked kimberlite was subsequently treated at the Lulo bulk sampling plant and one diamond was recovered, weighing 0.6cts (Table 49). It is noted by LOM that the recovered diamond could also be from the ilmenite-rich laterite horizon.

15.20.2. L46

Kimberlite L46 is situated within the Lulo E46 alluvial area in the Cacuilo Valley, approximately 15km southeast of the Lulo camp (Figure 29). The estimated area of the kimberlite is 12ha.

The kimberlite was confirmed in July 2013 by pitting in the vicinity of the E46 alluvial area (Line 2, Pit 57), after drilling of core drillhole CDH12 did not intersect the kimberlite. Further drilling has yet to be conducted to properly delineate its stratigraphy.

A bulk sample (KMB15) with a total volume of 771.37m^3 was taken from the surface of kimberlite L46 in 2015. A total of 1,751.0t of bulked kimberlite was subsequently treated at the Lulo production plant and two diamonds were recovered, weighing 1.24cts (Table 49).

15.20.3. L251

Kimberlite L251 is situated between the Lulo camp and the treatment plant, in the western section of the Lulo concession (Figure 77). The kimberlite was confirmed in May 2011 through pitting (EPT101). The area of the kimberlite is estimated to be greater than 100ha. A total of 72 pits have been excavated to date, revealing a weathered red-purple PK at a depth of 7.5m, capped by a thin layer of hard laterite and overlain by clayey red-yellow sand.

Kimberlite L251 is by far the most explored of the four identified diamondiferous kimberlites within the Lulo Kimberlite Project. A total of 12 RC drillholes (RC05 – RC16) and 19 core drillholes (CDH05, CDH17 – CDH35) having been completed. The stratigraphy of the kimberlite intersected through drilling, comprises SRVK, RVK and PK.

A total of 14 bulk samples (KMB04, KMB06 – KMB10) with a total volume of 4,852.80m^3 were also collected from the surface of the kimberlite. A total of 10,950.00t of bulked kimberlite was subsequently treated at the Lulo plant and 12 diamonds were recovered, weighing 7.10cts (Table 49).

15.20.4. L257

Kimberlite L257 is situated approximately 2.5km west-northwest of the Lulo processing plant (Figure 76). It was confirmed as a kimberlite in April 2014 through a manually excavated pit (P257-1), which revealed a weathered soft purple PK at a depth of 4.2m. The kimberlite is overlain by red-brown sand with weathered sandstone pebbles and ferricrete at the bottom.

Two surface bulk samples (KMB05A and KMB05B) were subsequently excavated from pit P257-1. Pit KMB05A, with an in-situ volume of 175.4m^3, was taken from a depth of 3.8m to 6.5m. KMB05B, with an in-situ volume of 328m3, was taken from a depth of 3.4m to 5.1m. A total of 740.10t of bulked kimberlite was therefore treated at the SML production plant and one diamond was recovered, weighing 0.10cts (Table 49).

The estimated area of the kimberlite is greater than 40ha. However; its stratigraphy has not been delineated as both RC and core drilling have not been conducted on this pipe.

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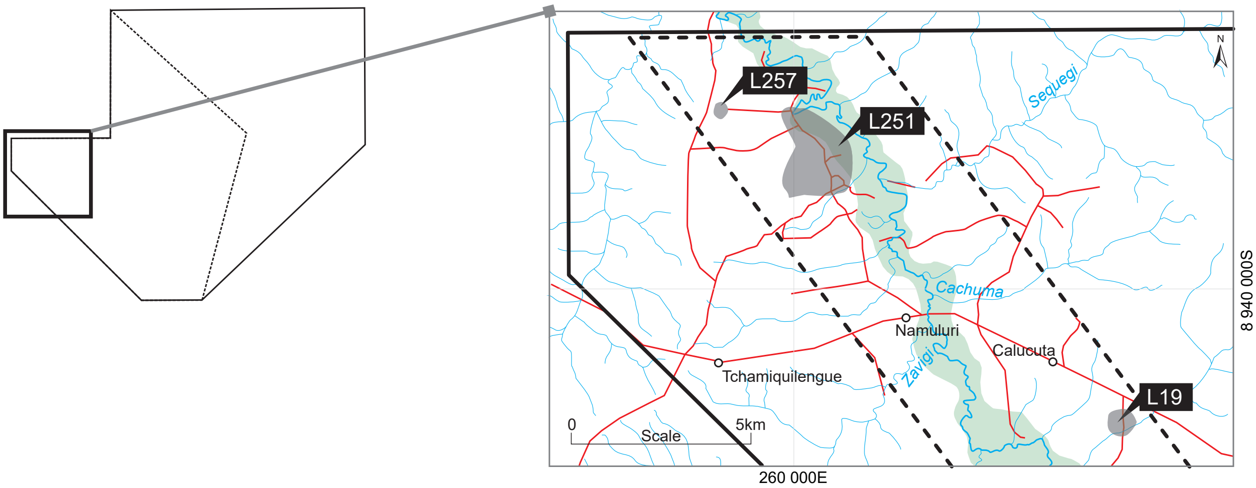
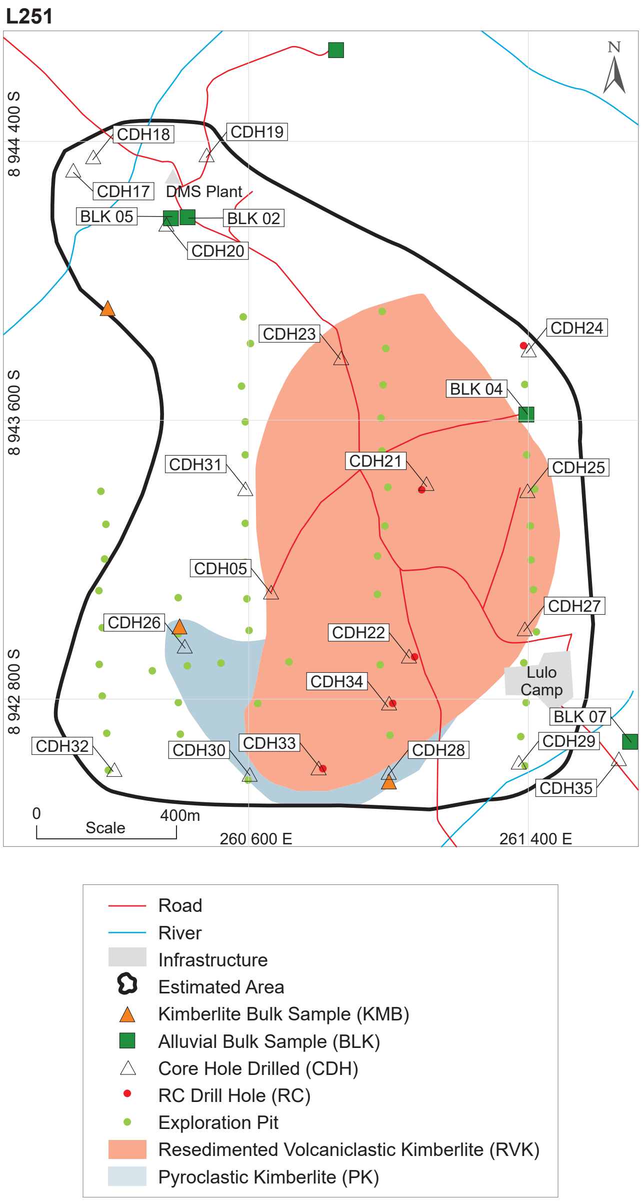
Exploration and mapping results on diamondiferous kimberlites - L251





15.21. GIS

A GIS system was created in 2015 to geographically present the location of the exploration data points in space and in relation to the topography and project boundaries. The GIS system includes both the alluvial and kimberlite results and is discussed in detail in Section 14.21.

15.22. Database management

A Microsoft Access™ database was created in 2015 to incorporate all alluvial and kimberlite exploration results. This database is discussed in detail in Section 14.23.

15.23. Reporting

The onsite reporting of exploration activities and results are included in weekly and monthly reports, where relevant. The reporting protocols used for the Lulo Kimberlite Project are included in the general reporting for SML (Section 14.22).

For the first phase of drilling, each diamond drill hole (CDH) had an associated report detailing all methods used and results achieved, with associated maps and photographs. Each RC hole (RC/LDD) had an associated log and sample interval record sheet. Each kimberlite bulk sample (KMB) had an associated report detailing all methods used and results achieved, with associated maps and photographs.

Since then a summary spreadsheet on drill progress, containing drill location, start and end date and whether the hole intersected kimberlite or gravel, is maintained. This is used to populate the collar and metadata tables in the database. In addition, a daily record of drill advance is kept to reconcile for invoicing purposes.

The core is visually logged at the core shed. Magnetic susceptibility readings and core photographs are also taken. Data is captured into spreadsheets which are then regularly loaded into the Access database. Periodically core is selected for sampling for petrography, minchem and dating. These samples are then submitted to Remote Exploration Services in Cape Town who arrange the analysis.

15.24. Geological modelling

No geological modelling has been undertaken by LOM on any of the kimberlite pipes due to the exploration stage of the project.

15.25. Surveying

Surveying of all pits, drillhole positions and bulk samples is carried out using the method outlined in Section 14.27.

15.26. Diamond resources

No resources have been declared for any kimberlite pipes.

15.27. Environmental aspects and compliance status

The Lulo Kimberlite Project involves the specific kimberlite exploration activities that are focused on identifying the source of the Type IIa stones and the large diamonds being extracted from the Cacuilo River valley and a future kimberlite mine. The Geological and Mining Activities Law (No. 1/92 of January 17) provides information on the mechanism to be followed for the concession of a prospecting licence, the Act also provides details on the duration of the exploration of mineral resources.

15.28. Planned Exploration (2017 to 2021)

The planned exploration entails a multi-faceted approach over the next three years. Each of the different methods is described in the section to follow. The main aims of LOM's exploration are to locate and evaluate kimberlite bodies that may be the primary source of the large percentage of Type IIa and +10.8ct diamonds currently being mined in the Cacuilo River valley.

15.28.1. Core drilling

Core drilling will be undertaken initially on magnetic and electromagnetic anomalies identified during the recent interpretation of the TDEM survey. The purpose of this is to locate the kimberlite/s which are the potential primary source of the large stones being recovered in these alluvial gravels.

The TDEM results have enabled the Lulo geological team to update the ongoing kimberlite drilling program. While three drilling rigs are currently available, the Lulo partners will consider allocating additional resources and/or drill rigs to this program. Kimberlite drilling will continue at Lulo for the remainder of 2017 with the aim of extracting drill core from all of the priority targets (Figure 78) identified from the TDEM results . This systematic drilling program will also include a planned deep hole at the L259 target, when ground conditions permit. The core from this ongoing drilling program will be dispatched to Cape Town, South Africa for laboratory analysis periodically throughout the program.

As detailed in the ASX announcement of 18 July 2017, the laboratory analysis process involves crushing the drill core and extracting kimberlite indicator minerals (including garnet, ilmenite, chrome spinel, chrome diopside and zircon) from heavy liquid concentrates. These indicator minerals are then analysed using an electron microprobe to determine their mineral chemistry.

The mineral chemistry results are in turn used to prioritise likely diamondiferous kimberlite pipes for follow up geological work, including further drilling and bulk sampling to test for diamond content and grade. Future kimberlite bulk sampling programs will have to include processing of large tonnages to get meaningful data as a result of the low-grade, high-value nature of the Lulo diamond resource.

15.28.2. River bulk sampling

Three trenches will be excavated by LOM across the Cacuilo, Zavige and Cachuma rivers to identify which of these rivers are supplying the large diamonds being mined at MB06, MB08 and E46 alluvial area. The results of the trenching will direct the drilling programme of the kimberlite anomalies.

15.28.3. Surface bulk sampling

The aim of the exploration is to locate a coarse kimberlite capable of transporting large diamonds to surface. Any such kimberlites identified from the core drilling will be bulk sampled to test the diamond potential and grade. These samples will be treated at the Lulo bulk sampling plant.

15.28.4. Geophysical survey

An airborne electro-magnetic survey of approximately 1,696km^2 is planned for the northeastern areas of the Lulo Kimberlite Project. The aim of this is to identify anomalies not previously identified in the magnetic data, provide further information on size and morphology of the targets and to assist in compiling a list of kimberlite targets for core drilling.

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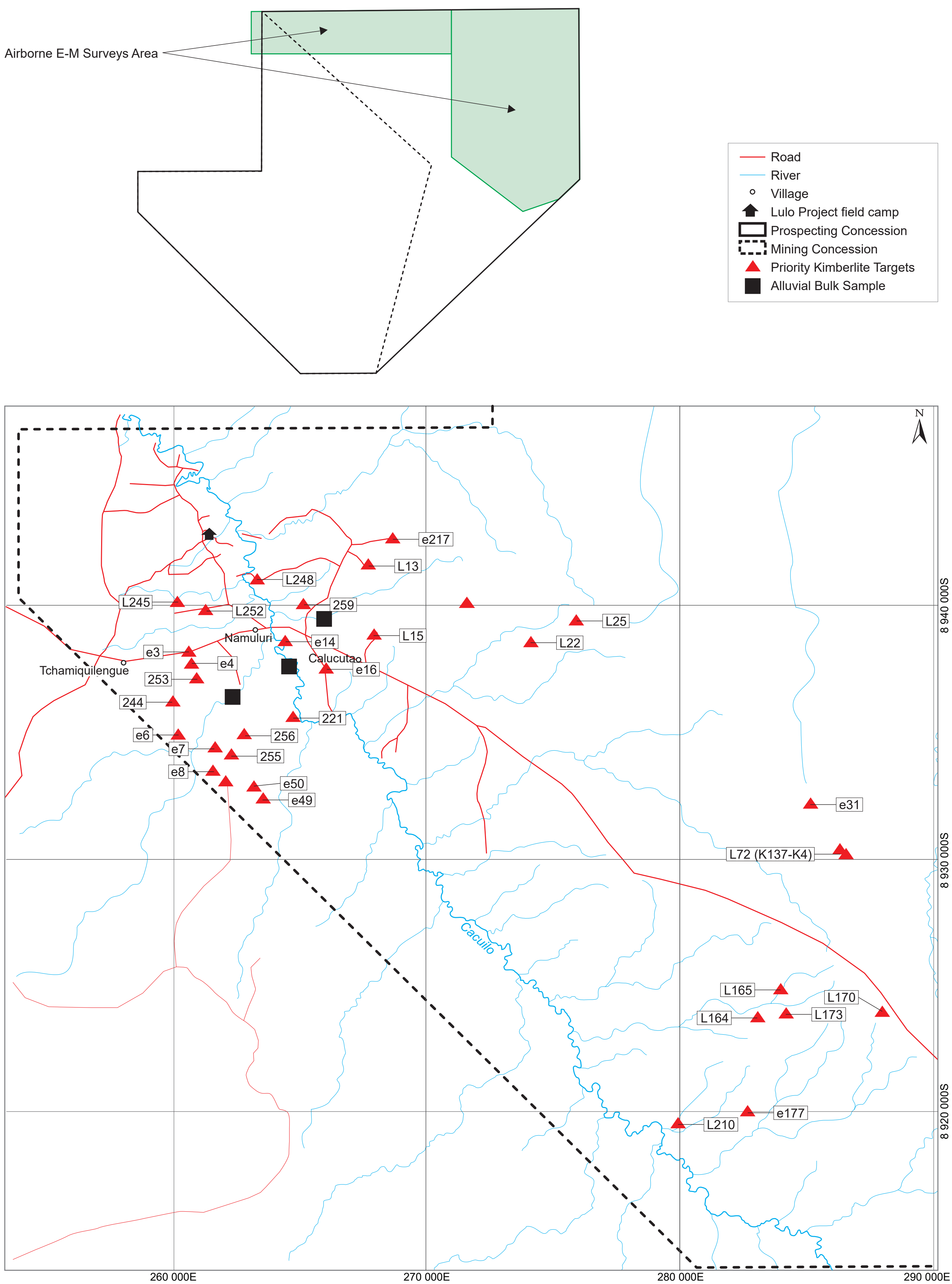
Planned kimberlite exploration (2017 - 2019)



Source: LOM

15.28.5. LDD bulk sampling

LOM proposes to carry out LDD bulk sampling only once a kimberlite with suitable material has been identified from surface bulk sampling. This form of bulk sampling would be used to test the diamond potential at depth within the kimberlite.

15.29. Conclusions

The Lulo Kimberlite Project conclusions may be summarised as follows:

- significant exploration has been conducted within the Lulo Kimberlite Project over the last six years, mainly focused on the western sector of the kimberlite exploration licence area;
- various geophysical surveys and subsequent reviews of the results have identified in aggregate a total of 586 anomalies. Of these anomalies, 38 have been located in the east of the exploration licence area;
- of the identified anomalies, 202 (34%) have been preliminarily explored using one or more exploration methods (Figure 79). Exploration methods implemented have included soil sampling, stream sampling, pitting, RC drilling, core drilling and bulk sampling;
- the results of the exploration to date has confirmed that 52 (9%) of the initial anomalies are kimberlites, 48 (8%) are probable kimberlites and seven anomalies have been confirmed as not being kimberlites (Figure 79);
- five (9%) of the confirmed kimberlites have been demonstrated to be diamondiferous (Figure 79); and
- exploration over the next five years is planned to focus on identifying the primary source(s) of the large, high quality diamonds being recovered by SML in the Cacuilo River mining operation. The exploration will include airborne geophysical surveys, core drilling, surface bulk sampling and LDD drilling where results justify. At present a list of 62 targets are planned for core drilling and sampling for petrography, mineral chemistry and dating. This list will be regularly reviewed based on results received.

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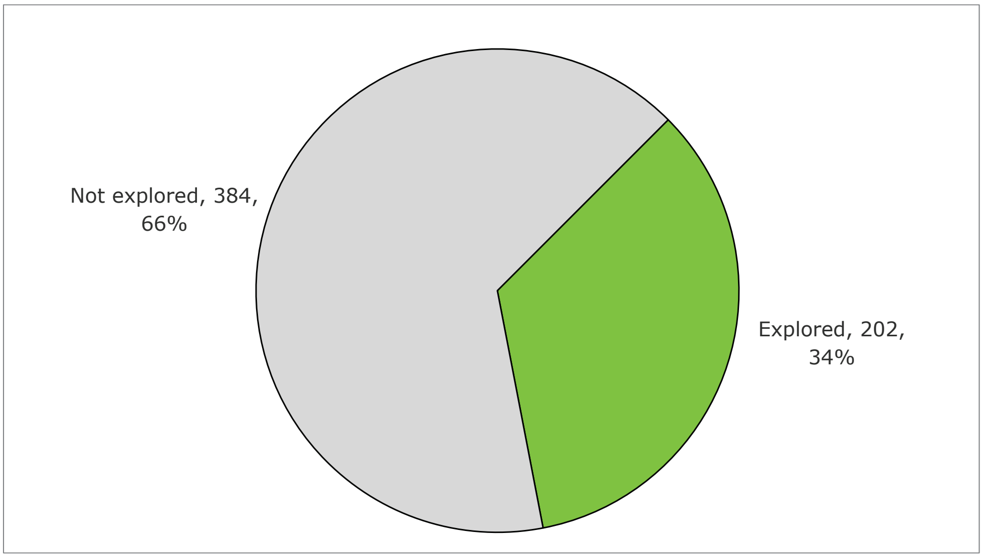
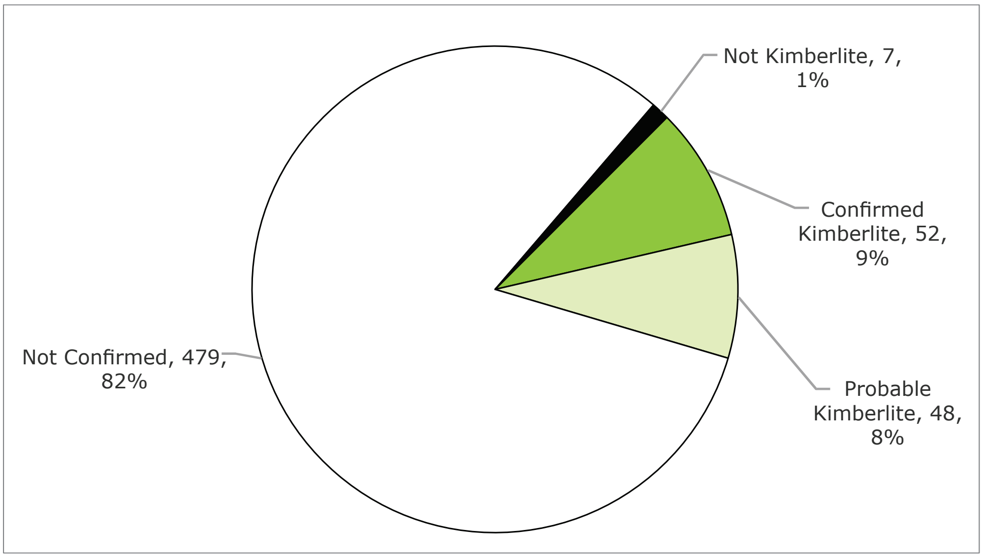
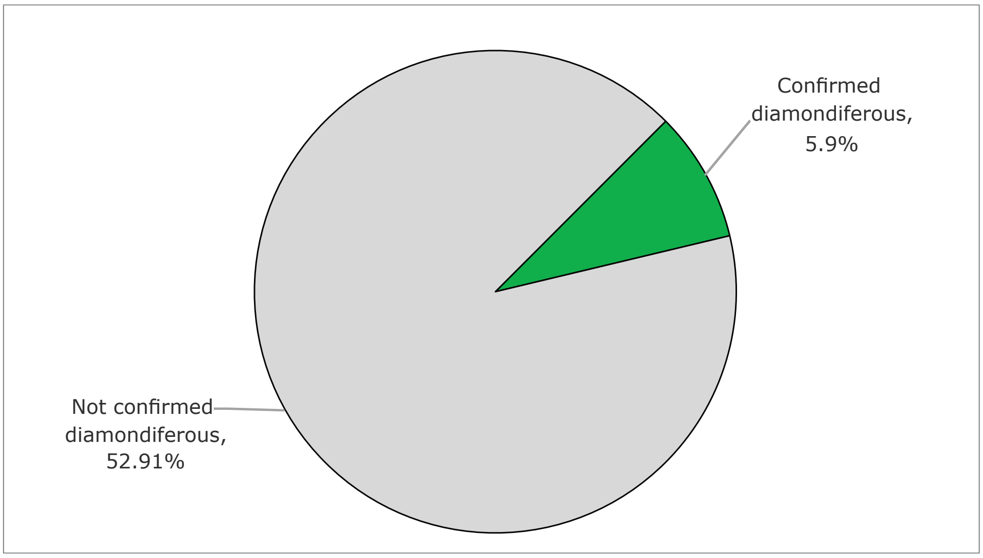
Graph of kimberlite exploration results







Source: LOM, Venmyn Deloitte analysis

16. Botswana country profile

The Botswana country profile has been reviewed and summarised using various publicly available sources of information.

16.1. Political and economic climate

Botswana is a landlocked southern African country bordering Namibia in the west, and Zimbabwe in the east. The country is a unitary republic, and last held national legislative elections in October 2014. There are a number of political parties, with the Botswana Democratic Party (BDP) the current ruling party. The current president, Mr. Ian Khama, is set to step down in early 2018 with Mr. Mokgweetsi Masisi, the current vice president, to be automatically granted the presidency (EIU, 2016). The political outlook is largely positive, with maintained stability (EIU, 2016). Botswana is one of the most politically stable countries in Africa, with success stories in the governance of natural resources, promoting foreign investment and for holding regular and orderly elections (SNL, 2016).

Botswana's good governance has allowed for the revenue generated from diamonds to be used to develop the nation. Botswana has evolved from one of the world's poorest nations to a country with one of the largest GDPs in Africa. Botswana has recently seen advancements in diamond processing, which has greatly benefited the nation and its people (DTC Botswana, 2012).

Botswana's real GDP growth will slow from 4.3% in 2016 to an average of 3.9% between 2017 and 2018 due to decreased copper and diamond production (EIU, 2017). GDP growth in Botswana will be supported by strong construction activity, however a drop in external demand will result in the GDP dropping from 3.9% between 2017 and 2018, to 1.6% in 2019. GDP growth will however recover to an average of 3.6% in 2020 to 2021 (EIU, 2017). Botswana's fiscal deficit will run at an average of 2.4% in the forecast period, as government supports growth in the country. Stricter spending strategies will result in Botswana reducing its deficit to a surplus of 0.2% in 2021 (EIU, 2017). The local Pula currency will continue to weaken against the US Dollar, however it will appreciate against the South African Rand (EIU, 2017).

Moody's Investors Service (Moody's) and Standard & Poor's Financial Services LLC (S&P) provide positive long-term ratings of A2 and A- respectively. The outlook from S&P is negative, while Moody's outlook is stable (SNL, 2017). Political, operational as well as security risks in the country remain low (SNL, 2017).

16.2. Minerals industry

Botswana was the world's leading producer of diamonds by value in 2013, and accounted for 26% of the value, and 18% of the volume, of global diamond production (USGS, 2013). While diamond projects hold the greatest production value in Botswana (2014) (SNL, 2016), soda ash production follows in volume has contributed to 2% of global mined volumes (USGS, 2013). Other mineral commodities produced from Botswana include coal, cobalt, copper, gold, nickel, platinum-group metals, salt, sand and gravel, semiprecious gemstones, and silver (USGS, 2013). Among these commodities, diamonds accounted for 82% of national exports in 2013, followed by copper and nickel at 7.1% and soda ash at 1.1% (USGS, 2013). At the same time, diamond imports (mostly rough) accounted for 28% (USGS, 2013).

The development of the diamond industry in Botswana has been largely associated with the key, long-existing partnership between the government of Botswana and De Beers (Rapaport, 2010). The government of Botswana owns a 15% share of De Beers, the two companies have 50/50 JV in Debswana Diamond Company (Debswana), a mining company in Botswana, as well as the Diamond Trading Company Botswana (DTCB) (Rapaport, 2010). In addition, the Okavango Diamond Trading Company was established by the government of Botswana to undertake the marketing of the government portion of production from Debswana (USGS, 2013).

The establishment of the sorting and trading platform for De Beers' diamonds in Gaborone has been instrumental in bolstering trade for the country, although a limitation to trading in specialty markets has been generated by high production costs (Rapaport, 2010).

16.3. Mineral policy

In Botswana, all mineral rights belong to the state, and are controlled by the Ministry of Minerals, Energy and Water resources (MMEWR) (Republic of Botswana, 2008). It is observed that major mining companies operate with the government holding an equity position, and generally the mineral industry is reported to operate on a free-market basis (USGS, 2013). As previously discussed, the government of Botswana encourages the development of mines, and particularly those that allow for further development of the economy through downstream processing and other commercial enterprises (Republic of Botswana, 2008).

The government of Botswana has highlighted that the new mining code, together with a number of procedural and infrastructure developments, ensures streamlined licencing and security of tenure (Republic of Botswana, 2008). In addition, it is assured that the mining code will allow for the following:-

- security of mining rights as well as throughout the various development stages;
- satisfactory and stable fiscal regimes;
- rights to market products;
- stability in related environmental management legislation; and
- freedom of commercial operations, among others (Republic of Botswana, 2008).

16.4. Institutional and administrative structure

16.4.1. Ministry of Minerals, Energy and Water Resources

The MMEWR has the portfolio responsibility to coordinate development and operational activities in the energy, water and minerals sector. Specific programmes and projects to fulfil these responsibilities are carried out by the Department of Geological Survey, Department of Mines and the Department of Water Affairs. The Botswana Power Corporation and Water Utilities Corporation (a parastatal) is also involved within the portfolio responsibility.

This Ministry has the following responsibilities: -

- formulates, directs and coordinates the overall national policies on minerals, energy and water resources;
- formulates short and long term strategies for implementing the approved national policies and programmes on minerals, energy and water resources;
- provides clean water as a direct means of improving people's lives and an essential input for agricultural, commercial and industrial development; and
- provides effective national leadership and liaises with other related sectors within government and other parastatal, private and international agencies working in the field of minerals, energy and water resources.

16.4.2. Ministry of Environment, Wildlife and Tourism

The overall responsibility for the environment lies with the Ministry of Environment, Wildlife and Tourism (MEWT). The following statutory authorities are also supervised by the ministry and other organisations with portfolio responsibilities related to it:-

- Department of Environmental Affairs;
- Department of Forestry and Range Resources;
- Botswana Wildlife Training Institute; and
- Tourism Board.

16.4.3. Department of Environmental Affairs

The Environmental Impact Assessment Act of 2005 defines the Department of Environment and Conservation as the Competent Authority that is responsible for administering and controlling EIA activities in Botswana. This department has been renamed as the Department of Environmental Affairs (DEA) and the functions previously assigned to the National Conservation Strategy Agency (NCSA) relating to EIA in the country have been assimilated into the DEA.

The overall objective of the DEA is to foster the pursuit of sustainable development by coordinating the protection of the country's environment and the conservation of its natural resources.

16.4.4. Botswana Environmental Assessment Practitioners Association

Botswana Environmental Assessment Practitioners Association (BEAPA) is a non-profit professional organisation registered under the Societies Act. The Board of the Association was established through Section 20 of the Environmental Assessment Act, 2011 as the body corporate that governs the Association. The purpose of the Board is to regulate the quality of EIAs in Botswana through registration and certification of practitioners for both environmental protection and public good.

16.5. Mineral policy and legislative framework

The Botswanan government has an extensive legal framework within which mining, environmental and social aspects are managed. The Botswanan statutory legislation and requirements relevant to the Orapa Are F project and considered as part of this assessment include:-

- the Mines and Minerals Act (Act No.17 of 1999);
- Mineral Rights Tax Act;
- Precious and Semi-Precious Stones (Protection) Act, CAP 66:03;
- Environmental Assessment Act (Act No.10 of 2011);
- Environmental Impact Assessment Regulations, 2012;
- Botswana National Water Master Plan of 1992;
- Water Act of 1968;
- Waterworks Act of 1962;
- Waste Management Act (Act No.12 of 1998);
- Mines, Quarries, Works and Machinery Act (Act No. 20 of 1973);
- Atmospheric Pollution (Prevention) Act of 1971;

- Forest Act of 1968;
- National Monuments and Relics Act (Act No.12 of 2001); and
- Employment Act, 1982 as amended.

The pertinent laws and associated sections therein have been summarised in the sections which follow.

16.5.1. Mines and Minerals Act (Act No. 17 of 1999)

The Act can be summarised with the following statements observed by the Republic of Botswana (2008). In the new Act, the government has abolished the right to a 15% free equity participation in all new mining projects in favour of the optional acquisition of working interest participation as a shareholder. Various licences can be issued, from prospecting to renewal and mining.

In terms of prospecting licences, it is prescribed that 'the applicant must have access to or have adequate financial resources, technical competence and experience to carry out an effective operation(s)' (Republic of Botswana, 2008). Such licences are valid for up to three years with two renewals, each not exceeding two years. However, the prospecting area is reduced by up to half at the end of each renewal. A retention licence can be in effect with respect to an area and a mineral that cannot be mined profitably at the time of application. A consideration is the validity of the licence which cannot exceed three years, and can be renewed only once.

Diamond mining licences are favourably negotiated in good faith, and include all technical, financial and commercial, as well as participatory, considerations pertaining to the project. The validity of a mining licence does not exceed 25 years, and renewal is unlimited. Royalties that are payable on the sales of precious stones are at 10%, and are calculated based on the gross market value of mineral sales at the 'mine gate'. The diamond tax regime is negotiable.

It is clear that the new mines and minerals policy has endeavoured to establish an investor-friendly environment, with efforts to position the country as a favourable mining nation through an efficient and fair administrative and legal structure (Matshediso, 2005).

According to the Mines and Minerals Act, Botswana natives must have 15% working interest participation in mining operations; and only a company incorporated in Botswana may apply for a prospecting licence.

16.5.2. Mineral Rights Tax Act

The Mineral Rights Tax Act provides guidance for the liability of a person or representative to furnish a return within two months of the end of the tax year. The Act lays out the process for submission of the tax returns, as well as the application and approval of extensions. The Commissioner's powers to conduct an assessment, and the rights to object an assessment.

Failure to furnish a tax return, or to furnish the correct tax return for the following reasons:-

- failure to disclose the value of the mineral rights owned by a person;
- claiming for tax exemption for expenditure that was not expended; and
- failure to disclose information on the mineral right that may result in an increase in value of the mineral rights held.

The penalties for the above actions will be imposed by the Commissioner, and shall be in addition to the right to institute criminal proceedings against the offender. Any fines payable on conviction shall be in addition to the penalties provided in the Act.

16.5.3. Precious and Semi-Precious Stones (Protection) Act

Under the Precious and Semi-Precious Stones (Protection) Act, the holder of a prospecting right has the duty to report the discovery of precious stones. Under the Act, the unlawful dealing with or possession of precious stones, as well as the purchase from or sale to unauthorised persons is prohibited.

The requirements under the Act include: selling or disposal of precious stones; keeping records of precious stones transactions; and the possession of a precious stones dealer's licence in order to deal in rough or uncut precious stones. The Act also defines precious stones protection and security areas. The powers of the police to search for rough or uncut precious stones, and powers concerning parcels and packages containing precious stones transmitted by post.

16.5.4. Environmental Assessment Act (Act No.10 of 2011)

The new Environmental Assessment Act has been enacted to provide for an EIA to be used to assess the potential effects of planned developmental activities; to determine and to provide mitigation measures for effects of such activities as may have a significant adverse impact on the environment; to put in place a monitoring process and evaluation of the environmental impacts of implemented activities and to provide for matters incidental to the foregoing.

The Environmental Assessment Act and the Environmental Assessment Regulations (2012) repeal the EIA Act of 2005, and are intended to specifically address environmental authorisations.

The Act focuses on previous gaps in the previous EIA Act of 2005, most notably:-

- the preparation of EIA documentation;
- a review process of Environmental Impact Statements (EISs);
- authorisation of EISs;
- post facto EIAs for projects already implemented; and
- the establishment, management and functions of a Certification Board for EIA practitioners.

Additional applicable mining sectoral requirements as defined by various Acts, Regulations and National planning documentation are listed in Table 60.

Table 60 : Potentially applicable sectoral requirements for Botswana

SECTOR	ACT, REGULATION, BY-LAW OR DOCUMENT	PURPOSE
Water Resources	Botswana National Water Master Plan of 1992 (currently being revised)	Provides a baseline for water resources planning and management.
	Master Plan, 2006	Defines water rights, ownership and use of public water; prohibits pollution, fouling or poisoning of water, and any interference with the flow of a public watercourse.
	Water Act, 1968 (to be revised once new policy is in place)	Provides for the prevention of the misuse and pollution of water through the enforcement of penalties.
	Water Apportionment Board Act (will be repealed once new policy is in place under a new Water Act)	Establishes the Water Apportionment Board, which will be replaced by a Water Resources Council once the new water policy and Act are in place.

SECTOR	ACT, REGULATION, BY-LAW OR DOCUMENT	PURPOSE
Air quality and Pollution Management	Atmospheric Pollution (Prevention) Act, 1971	Controls air pollution from primary sources.
Waste	Waste Management Act, 1998	Provides for the management of controlled and hazardous wastes. Requires the provision of waste management plans, the identification of waste management sites, and the control of groundwater pollution. Responsible for planning, facilitation and implementation of the Waste Management Strategy (1998) and the implementation of the Basel Convention.

Source: 2012 SADC Environmental Legislation Handbook

16.5.5. Environmental Impact Assessment Regulations, 2012.

The Environmental Impact Assessment Regulations of 2012 implement provisions of the Environmental Impact Assessment Act, 2011 with respect to, among other things, procedures for EIAs and public participation, and registration and certification of practitioners.

The regulations also govern the compliance with the code of conduct by practitioners. The schedules to the regulations specify activities which must comply with the requirements of the Environmental Impact Assessment Act, 2011. These regulation schedules set out the framework for the following documents:-

- the project brief;
- the EMP; and
- an Environmental Impact Statement (EIS) and its Terms of reference.

The regulations require that the competent authority must conduct a public hearing (in accordance with section 11 of the Environmental Impact Assessment Act), and invite comments from the public. Section 12 of the Act gives the Department of Environment and Conservation 60 days in which to review the EIS. After their review, the DEA may invite public comment and once it is satisfied that the report is adequate and that the proposed mitigation measures will be effective and sufficient, the DEA will allow for a public review of the final EIA for a period of 28 days.

An environmental practitioner who is registered under the Regulations must comply with the Code of Conduct of Practitioners (Form F of Schedule 4). BEAPA may suspend the registration of a practitioner who fails to comply with the Code of Conduct.

16.5.6. Water Act of 1968

The Water Act of 1968 provides the legislative framework for water management in Botswana. The Act establishes the Water Apportionment Board as the licensing authority. The following principles are established within the Water Act (Kranz et al. 2005):-

- the status of public water;
- the inherent rights of individuals to the use of water;
- the recording, granting, variation, and termination of formal rights to use or impound water or to discharge effluents into it;
- the obligations of those taking water to use it properly; and
- conditions controlling pollution of public water.

Water policy in Botswana is guided by the Botswana National Water Master Plan (NWMP), which was developed in 1991, with reform recommendations made in 2006. The following activities are emphasised in the Master Plan (Kranz et al. 2005; Centre for Applied Research 2010):-

- monitoring of groundwater wellfields to avoid depletion;
- promoting alternative technologies for water management and conservation;
- management and development of water supplies by local communities;
- improving co-ordination amongst Government institutions in water management activities;
- completing an EIA during project feasibility studies; and
- building interconnected water supply schemes to address drought-related issues.

16.5.7. Waterworks Act of 1962

The Waterworks Act (1962) aims to provide for the constitution of water authorities in townships, to confer certain duties and powers upon such water authorities, to provide for the acquisition of existing waterworks and to provide for matters incidental thereto.

16.5.8. Waste Management Act (Act No.12 of 1998)

The Waste Management Act was established by the Department of Sanitation and Waste Management. The Act is responsible for planning, facilitation and implementation of the Waste Management Strategy (1998), and the implementation of the Basel Convention.

16.5.9. Mines, Quarries, Works and Machinery (Act No.20 of 1973)

The Mines, Quarries and Machinery Act provides for the safety, health and welfare of persons engaged in prospection, mining and quarrying operations including any works which are part of and ancillary to mining and quarrying operations and to make provision with respect to the inspection and regulation of mines, quarries, works, and of machinery used in connection therewith, and for matters incidental thereto. The Act repeals the Works and Machinery Proclamation.

16.5.10. Employment Act, 1982 as amended

The Employment Act, of 1982 provides for employment conditions, hours and remuneration for employees. The Act dictates that there shall be a Commissioner of Labour, and the Minister may appoint Public Officers to be labour officers for the purposes of this Act.

The Act in addition makes provision for establishment and termination of employment contracts, as well as the responsibilities of the employer and the employee to this regard. Provisions under the Act also include relocation, prohibition of employment of children, medical examinations, issuing of a recruiter’s licence, and working in remote areas, amongst others.

17. Orapa Area F Kimberlite Project

LOM is the holder of a prospecting licence in the Boteti Sub-district of the Central District of Republic of Botswana (Botswana) (Figure 80). This prospecting licence forms the basis of the Orapa Area F Kimberlite Project (Area F Project or the Project) which is 16.2km² in extent (Figure 80). The Area F Project, and surrounding areas, has been the focus of significant historic active exploration since the mid-1970s following the discovery of the Orapa diamond mine. Exploration has been completed by numerous exploration companies, including Debswana Diamond Company (Pty) Limited (Debswana), which resulted in the discovery of two kimberlites within the Area F Project, both of which have been historically drilled. These kimberlites formed the logical targets for further exploration and evaluation by LOM following the successful awarding of the prospecting licence. In addition to a magnetic anomaly which has been identified from historically flown and processed aeromagnetic data also warrants follow up exploration. Exploration completed by LOM to date included field based ground magnetic, electromagnetic and gravity geophysical surveys followed by MMI geochemical soil sampling. Results of this exploration field campaign culminated in various drillhole targets being identified which are planned to be drilled during 2017.

17.1. Location and access

The Area F Project is located approximately 40km due east of the town of Orapa within the Central District, approximately 20km southwest of Sua Pan of the Makgadikgadi Salt Pans, in northeastern Botswana (Figure 80 and Figure 81). The Area F Project is approximately 375km due north of the capital city of Gaborone. More specifically the Area F Project is located within the Boteti Sub-district of the Central District, whose principle town is the town of Letlhakane, 25km due southwest. The main city of Serowe, the seventh largest city of Botswana and capital of the Central District, is approximately 160km due southeast which is situated along the tarred A14, which connects directly with Letlhakane. Serowe acts as both the administrative and commercial central of the Central District (Figure 80).

Access to the Area F Project is primarily via road after having flown into either the Sir Seretse Khama International Airport (IATA: GBE), Botswana's premier airport in the capital city of Gaborone, or the Francistown International Airport in Francistown (IATA: FRW), Botswana's second largest city. The Sir Seretse Khama International Airport serves as the hub for Air Botswana, the flag carrier of Botswana, and is serviced by frequent daily domestic flights and direct international flights to various major destinations in Africa. The Francistown International Airport has a single daily international connection to Johannesburg, South Africa, with numerous daily domestic flights. Francistown is the nearer of the two cities to the Orapa Area F Kimberlite Project, from which the tarred A30 is driven westward for approximately 195km, from which the Project is accessed, and serviced, by variously unmaintained roads and gravel tracks.

The nearest tarred airport to the Area F Project is the private Orapa Airport (IATA: ORP) located 48km west, within the Orapa Game Park, bordering the Orapa Diamond Mine owned by Debswana. The nearest towns to the Area F Project are the small mining towns of Letlhakane (35km southwest by road) and the closed town of Orapa (41km west by road) (Figure 81). Francistown, Botswana's second largest city, is the nearest major Botswanan centre to the project, 195km east thereof by road, whilst the Central District capital city of Serowe is 220km south by road. The national capital of Gaborone is 535km south of the Area F Project (Figure 80).

17.2. Ownership

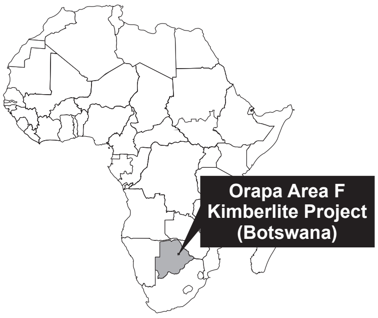
LOM is the current holder of Prospecting Licence No. 265/2015 awarded by the Ministry of Minerals, Energy and Water Resources. Application was made under a public tender process for available tenements in the area, which was awarded on 22 September 2015. It is valid for a period of three years commencing on 1 October 2015 and ending on 30 September 2018.

Transfer of the amended prospecting license from Lucapa Diamond Company (Pty) Limited was made effective into the name of locally registered Lucapa Diamonds (Botswana) (Pty) Limited on 29 March 2017. LOM owns 100% of the Area F Project through its 100% ownership of the locally registered Lucapa Diamonds (Botswana) (Pty) Limited.

Venmyn Deloitte.

Lucapa Diamond Company

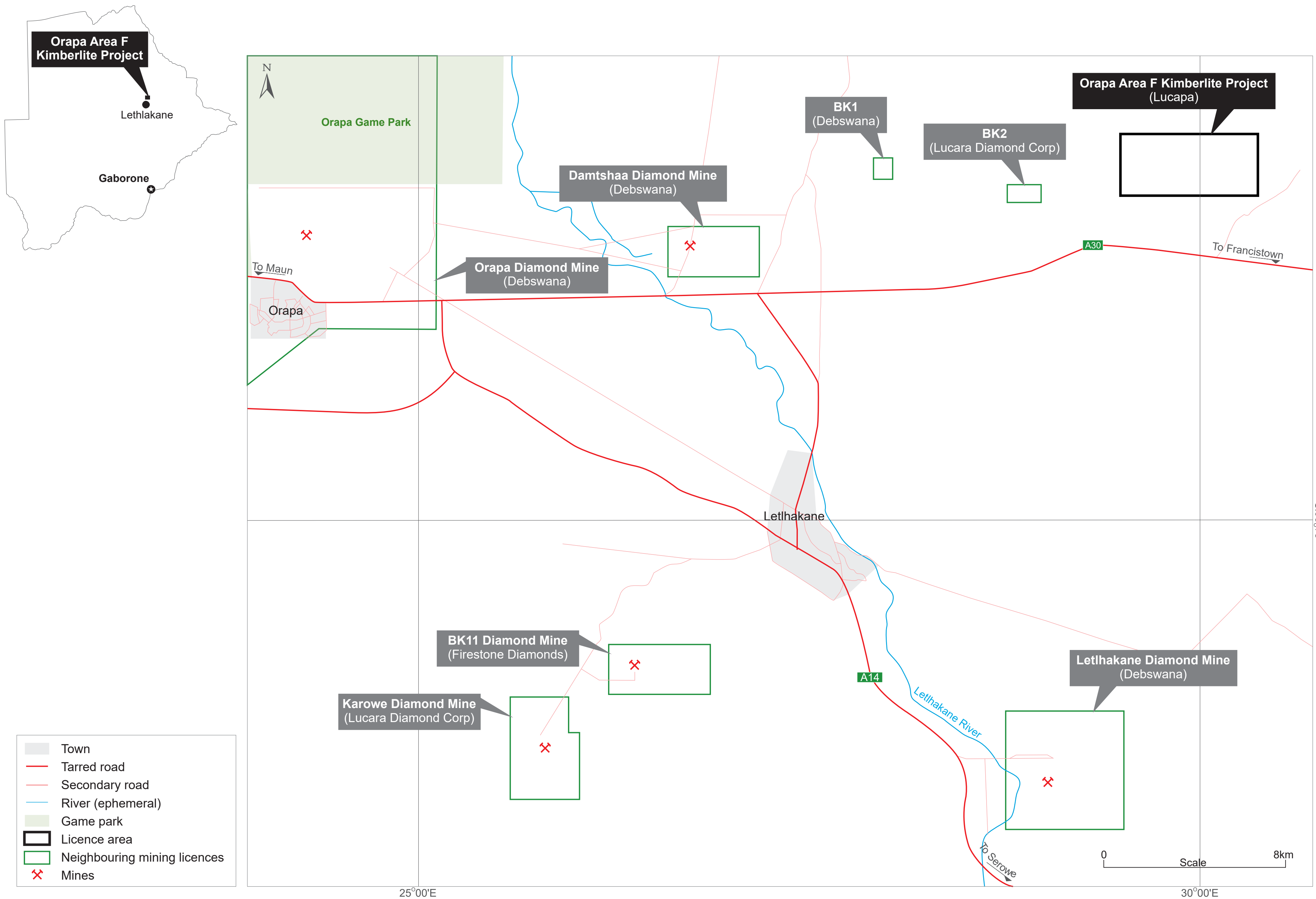
Regional locality and infrastructure of the Area F Project in Botswana



Main Roads
Railway
Country Borders
Pans/Wetlands
Capital City
Main Towns
Other Towns
Main Rivers
National Parks & Reserves
District Boundary
Project Area
Diamond Mines

Source: Venmyn Deloitte

Location of the Area F Project in relation to local infrastructure and adjacent mines



Source: Venmyn Deloitte

17.3. Mineral tenure

LOM has been awarded Prospecting Licence No. 265/2015 by the Ministry of Minerals, Energy and Water Resources through the Department of Mines on behalf of the government of Botswana. Application was made under a tender process for available tenements in the area which was awarded on 22 September 2015. It is valid for a period of three years commencing on 1 October 2015 and ending on 30 September 2018.

Prospecting Licence No. 265/2015 allows LOM the exclusive right to prospect for precious stones over the full 16.2km² within the Central District of Botswana. The licence is dictated by five state generated points, each joined by straight lines to form a four cornered rectangular licence shape (Table 61).

Table 61 : Point coordinates of Area F Project exploration licence

CORNER	GEOGRAPHIC COORDINATES		AREA (km²)
	LATITUDE (S)	LONGITUDE (E)	
A	21°15'46.94"	25°42'54.65"	**16.2**
B	21°15'46.80"	25°45'14.47"	
C	21°15'47.23"	25°46'25.72"	
D	21°17'13.31"	25°46'25.03"	
E	21°17'13.63"	25°42'54.79"	

Source: LOM

17.4. Surface rights

LOM does not own any surface rights over the Area F Project. The surface rights are understood to be classified as Tribal Land by the Government of Botswana.

17.5. Royalties

Due to the exploration status of the Area F Project, no royalties are payable to the State.

17.6. Material contracts

There are no material contracts to the Area F Project.

17.7. Other legal issues

Venmyn Deloitte is unaware of any other legal issues pertaining to the Area F Project.

17.8. Climate

The climate of this northeastern area of the Kalahari Desert is regarded as sub-humid, rather than semi-arid with the dry season during the cold season, i.e. the coldest six months of the year. The climate is generally hot with an average annual rainfall of 363mm at Letlhakane, which falls almost entirely in the summer months in the form of intense thunderstorms from October through to April, peaking in January. Summer maximum temperatures are high, generally >30°C, whilst winter days are mild and the nights cold (often <10°C) with occasional ground frost. High diurnal ranges are experienced in all seasons. The climate does not impede any of the existing mining operations of the region, all of which continue year round.

17.9. Topography

The Area F Project is located on the northern fringes of the Kalahari Desert, a large sub-humid sandy savannah which covers much of Botswana as well as parts of neighbouring Namibia and South Africa. This draping of Kalahari sands across the region has resulted in a generally flat topography with an average elevation of ~1,000mamsl which slopes very gently from the south (highest point of 1,008mamsl) to the north (lowest point of 980mamsl) toward the Makgadikgadi depression.

The valley of the ephemeral Letlhakane River, which flows toward the Makgadikgadi Depression, passes some 18km to the southwest of the property, which together with the salt pans of the Makgadikgadi depression (20km northeast) are the only notable physiographic features in the immediate area.

17.10. Vegetation

The Area F Project is located on the northern fringe of the Kalahari Desert, which by some definitions is not considered as a true desert due to it supporting a dense ground cover. The area is characterised by a sandy savannah which supports a variety of trees, shrubs and grasses. These trees and shrubs are predominantly mopane that favour the alkaline soils which are shallow and not well drained. The Mopane tends to form thickets with intervening grassy patches.

The natural vegetation has been altered, often to extreme levels, by many years of intense, largely uncontrolled, livestock grazing, with limited arable farming.

17.11. Local resources

The Area F Project is located within the Central District which is one of the largest of Botswana's districts (Figure 80) in terms of area (147,730km²) and population (~640,000 in 2011) with a population density of 4.3/km². The majority of the population live in the east and southeast thereof in larger population centres such as Palapye and Serowe (Figure 80). The nearest towns to the Area F Project are the small mining towns of Letlhakane and Orapa (Figure 81), whilst Francistown, Botswana's second largest city, is the nearest major Botswanan centre to the project, 195km east thereof by road (Figure 80).

The area has a significant history of diamond mining dating back to 1971 when operations first started at the nearby Debswana owned Orapa Mine, one of the largest diamond mines in the world. The commencement and operation of various other mines in the area, including Damtshaa, BK11, Karowe and Letlhakane (Figure 81), has resulted in the establishment of a qualified and experienced labour base and service providers existing in the immediate area. As such, the economy of the Central District, and Botswana as a whole, is founded upon diamond mining. This has been complimented by other mines, such as the major Ni-Cu mining operations at Tati Nickel, near Francistown, which have further added to the supply of labour with mining related skills.

The towns of Orapa and Letlhakane act as the mining centres of the region which are both considered as advanced towns, from which most day to day supplies and services can be sourced. Any Project personnel would be housed either temporarily onsite or in Letlahakane which has limited, yet developed infrastructure including shops and markets, a clinic, primary schools and banking. The closed town of Orapa is privately owned by Debswana, which owns and operates the Orapa, Damtshaa and Letlhakane mines (Figure 81). What cannot be sourced from Letlhakane can be sourced from Serowe or Francistown, both of which are advanced cities. As would be expected, infrastructure is less developed in the more rural regions of the area, with virtually no infrastructure existing onsite, other than basic unmaintained gravel tracks and paths which service the Project area (Figure 82).

No major rivers occur in the Project area, with only a weakly developed network of ephemeral streams draining the Project area during period of heavy rainfall, with the Letlhakane River (Figure 81) the nearest major ephemeral river of the area. Water demand for the existing diamond mines is sourced from an aquifer at the contact of the Ntane Sandstone Formation and the overlying Karoo basalt, an aquifer which has successfully supplied the mines since production started in the region.

The electricity generation and reticulation of the Central District is the responsibility of the national power supplier, Botswana Power Corporation (BPC), whose national grid extends to service the various mines of the region, as well as the towns of Orapa or Letlhakane. The Boteti Sub-district has adequate communications infrastructure with parastatal telecommunications service provider, Botswana Telecommunications Corporation (BTC), providing land based telecommunications lines. Mobile phone coverage in the area is available from multiple service providers.

17.12. Site infrastructure

The Area F Project itself is primarily utilised for communal agricultural land, mainly for livestock grazing with limited arable farming. No infrastructure exists onsite, aside from a small cattle kraal and a limited network of unmaintained tracks and paths which were originally created during previous Debswana exploration activities to access the BK14 and BK38 kimberlite targets (Figure 82).

17.13. Regional geological setting

The target commodity and style of mineralisation of the Area F Project are diamondiferous kimberlites (Figure 13) of the Orapa Kimberlite Field (Figure 83). The Orapa Kimberlite Field is situated on the northern edge of the Central Kalahari Karoo Basin along which the Karoo succession dips gently to the south-southwest and off-laps against Precambrian rocks which occur at a shallow depth within the Makgadikgadi depression. The Karoo succession in this area has been condensed with a total thickness of around 600m, and has been best preserved in west-northwest to east-southeast oriented grabens.

The presence of the large kimberlite mines in central and south central Botswana (Figure 83) is an indication that the Archaean Zimbabwe Craton (2.7Ga) underlies Botswana to a major extent which is the basement of the Orapa Kimberlite Field. The position of the southeastern edge of the Angolan Craton is uncertain, and is thought to be marginal along the northwestern margin of Botswana. Previous kimberlite exploration has located and identified several non-diamondiferous kimberlites in this region which would support this notion.

As a result of the Area F Project being located along the northern fringes of the Kalahari Desert, bedrock of the region has been covered by a layer of wind-blown Kalahari sand (Figure 83). The geology of this Kalahari region is generally poorly understood due to this extensive sand cover of the Kalahari Formation and lack of outcrop exposure, as is evident when observing the regional geology of Botswana (Figure 83). The Kalahari Formation covers most of Botswana (Figure 83), increasing in depth from east to west. This Formation comprises Tertiary to Quaternary surficial deposits consisting of semi- to unconsolidated gravel, calcareous and siliceous sand, sandy clay, calcrete, silcrete and aeolian sand. The succession is complex, being characterized by rapid changes in lithology, both laterally and vertically. As a result, exposure is very poor, and as such geological interpretations and geological exploration relies primarily on geophysics and drilling to a large extent. Figure 84 illustrates the sub-Kalahari geology of Botswana which has been interpreted from geophysics and drilling.

In the nearby Letlhakane area, bedrock has been concealed by several metres of aeolian sand of the Kalahari Group, reflecting the area's position on the edge of the Tertiary Kalahari Basin, whilst to the south and west of the Orapa Kimberlite Field, bedrock may be overlain by as much as 40m of semi-consolidated to unconsolidated Kalahari Group sediments. Any rocks close to surface have generally been extensively calcretised and silcretised due to prolonged exposure on a late Tertiary erosion surface (the African Surface) which approximates to the present day land surface.

17.14. Local geological setting

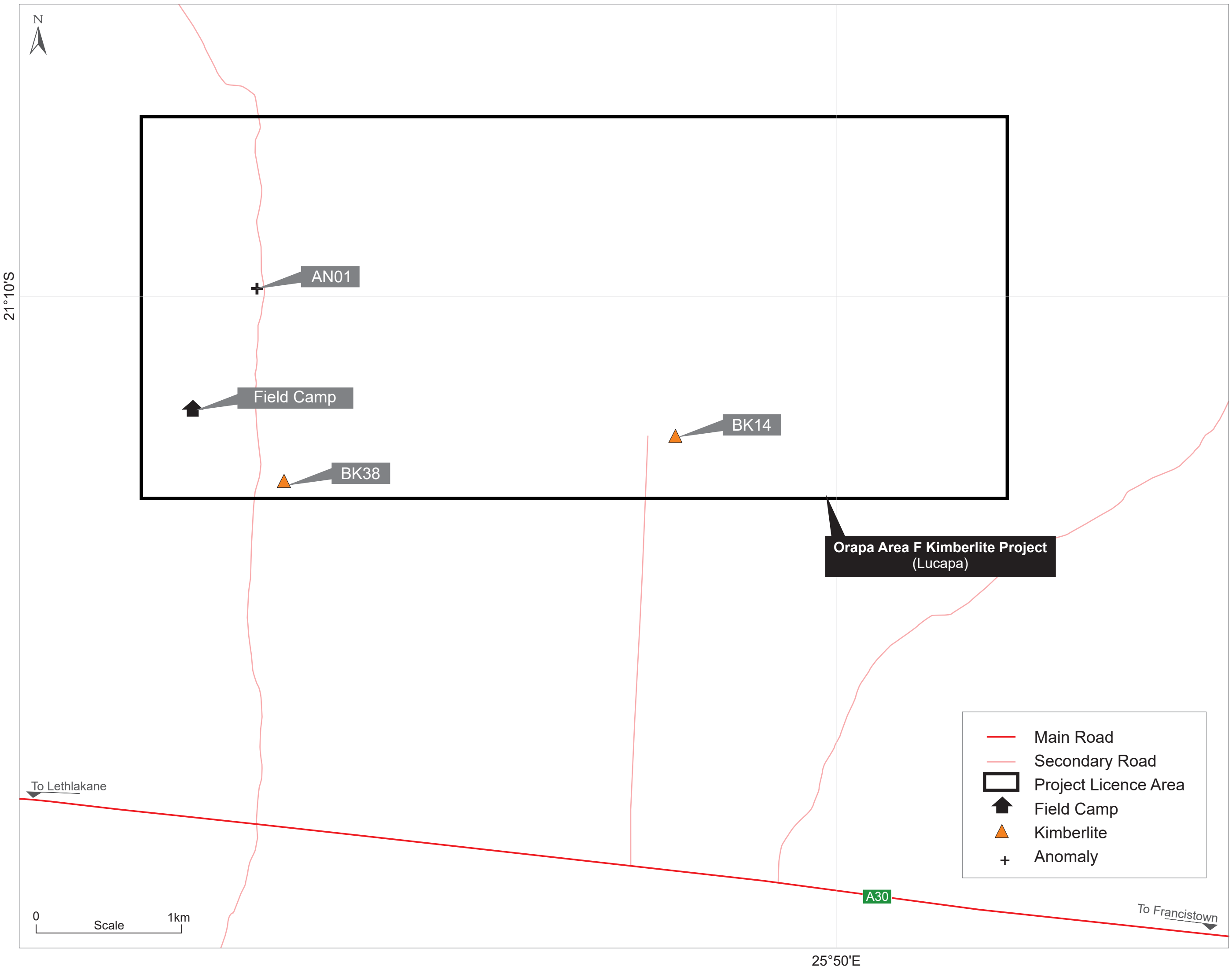
The geology of the Area F Project is dominated by Karoo basalts with the suggestion of some Karoo sandstones occurring to the north of the Project (Figure 85) as outcrops of the Central Karoo basin have been recorded as outcropping in the area exposing lower Karoo and Ecca sandstones and shales that are overlain by mudstones and in turn by Stormberg Formation basalts (Figure 85).

The country rock at the nearby neighbouring Karowe diamond mine has been documented as sub-outcropping flood basalt of the Stormberg Lava Group. These extensive lavas are Lower Jurassic in age (180Ma) and underlie much of central Botswana. They represent numerous lava eruptions which initially extruded onto the undulating surface of a condensed sequence of Upper Carboniferous to Triassic sedimentary rocks of the Karoo Supergroup, represented by the sandstones of the Ntane Formation (Figure 85). The underlying Ntane Formation represents aeolian/desert deposits that were laid down in a terrestrial basin.

Venmyn Deloitte.

Lucapa Diamond Company

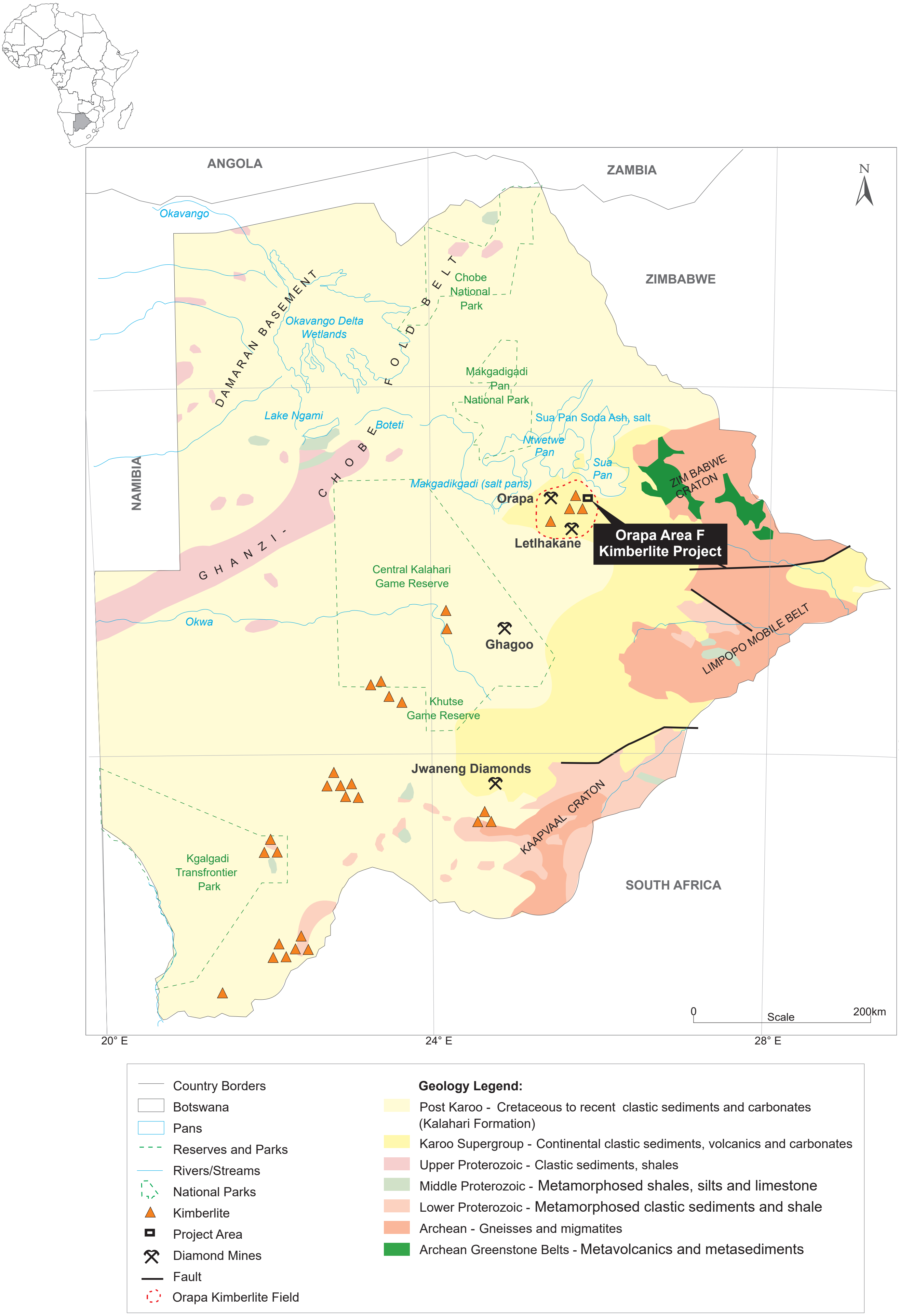
Site infrastructure of the Area F Project



Orapa Area F Kimberlite Project Exploration Camp

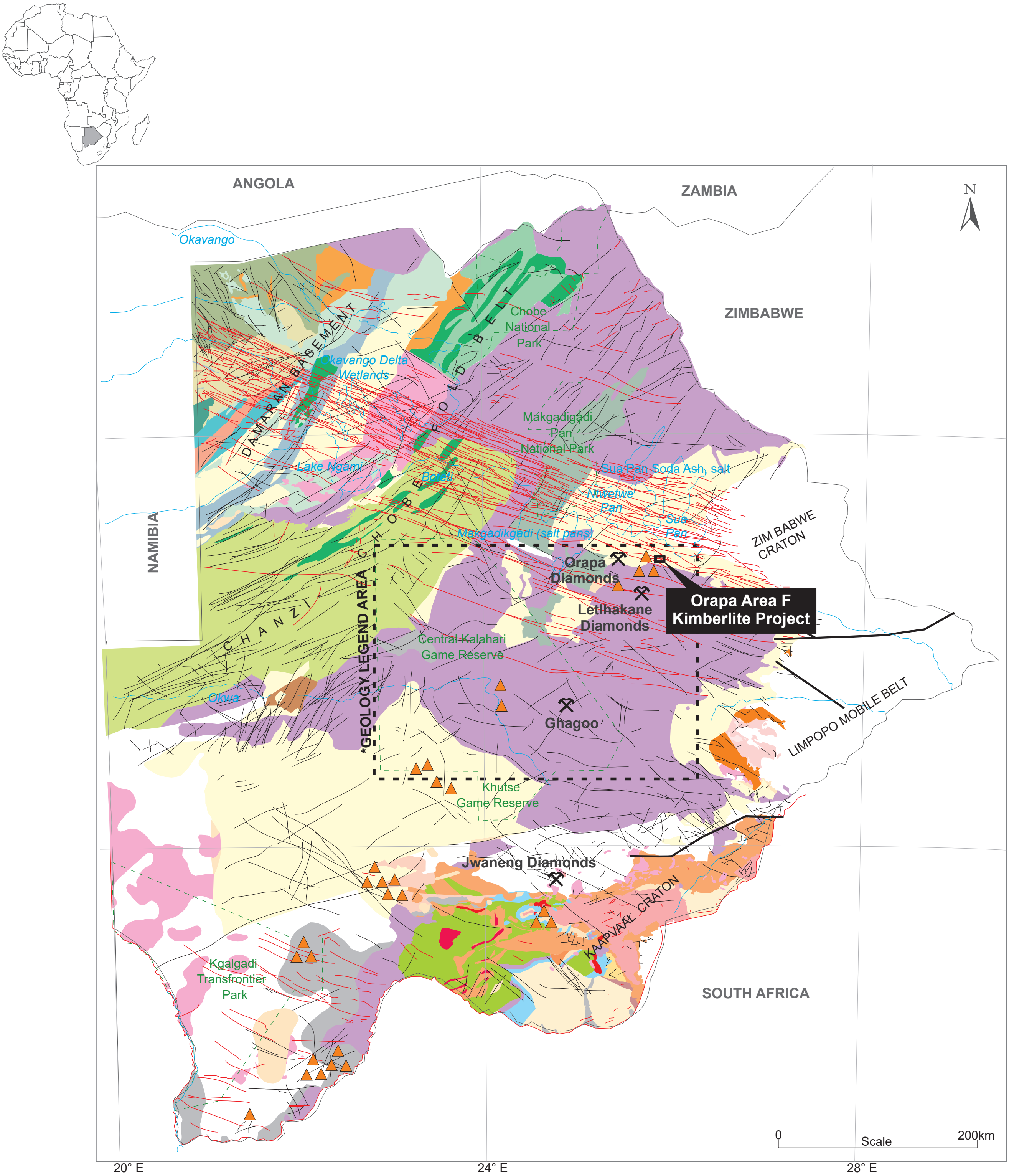
Sandy savannah vegetation in vicinity of BK14

Regional geology of Botswana



Source: ESIPP SADAC

Sub-Kalahari geology of Botswana



- Country Borders
- Botswana
- Pans
- Reserves and Parks
- Rivers/Streams
- National Parks
- Area of kimberlites
- Project Area
- Diamond Mines
- Fault
- Dykes

- Geology Legend Area

Stormberg Basalts:
- Basalts with subordinate sandstones and limestones in the Bobonong area

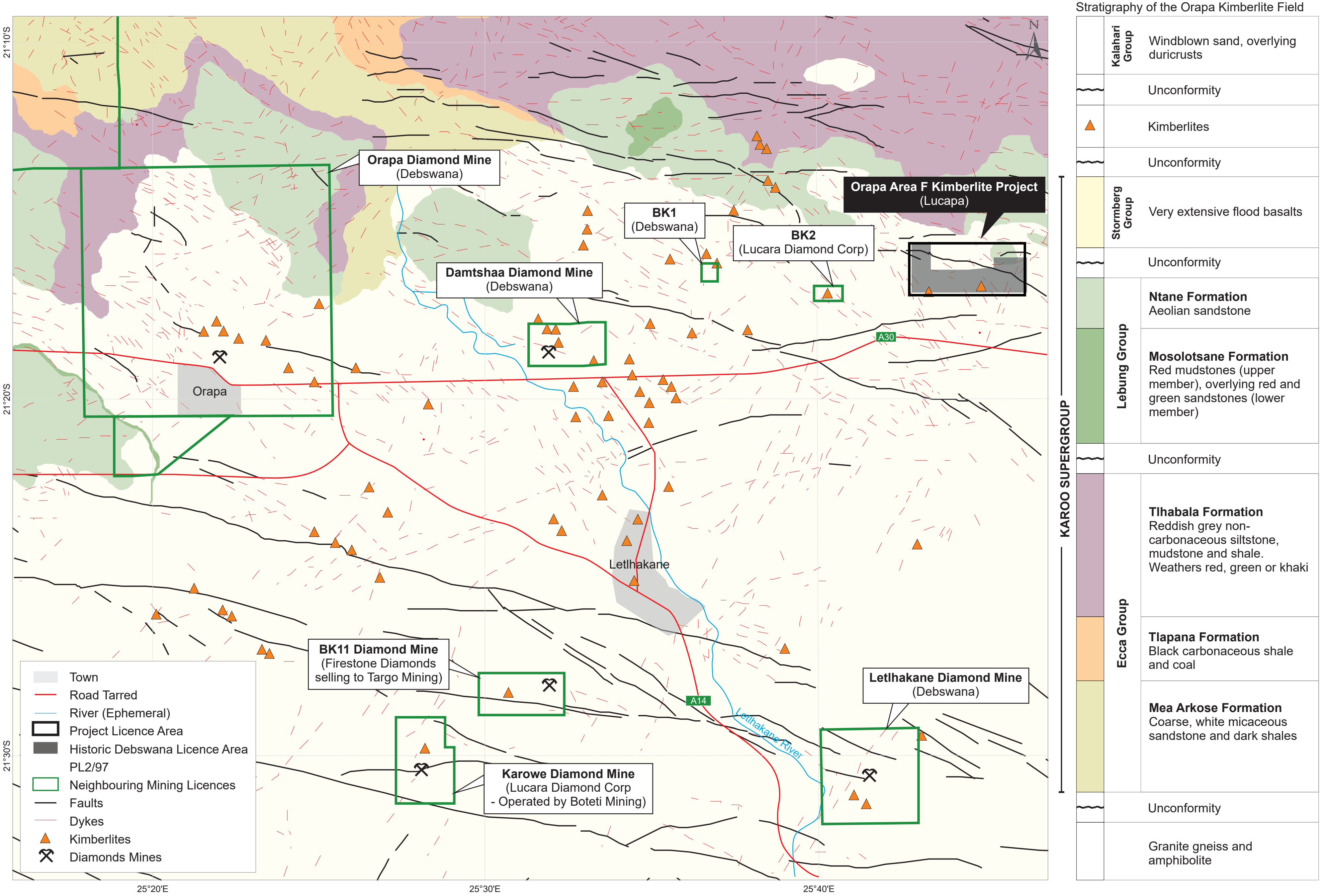
Ntane Sandstones:
- Sandstones and subordinate shalers mudstones and marlstones

Mosolotsane Formation:
- Predominantly carbonaceous mudstones and coal seams

Kgwebe Formation:
- Quartz-feldspar porphyries, diabases sandstones and tuffs

Basement Complex:
- Undifferentiated acid and intermediate volcanics and subdordiante metasediments
- Basic metavolcanics and subordinate metasediments

Local geology map of the Orapa Area F Kimberlite Project



Source: Venmyn Deloitte

Figure 85

These sandstones are comprised predominantly of monotonous pink, buff and white, fine to medium grained sandstones with occasional thin layers of mudstone and siltstone. The Ntane Formation (Figure 85) is the principle aquifer of the region, with the aquifer portion represented by the baked and fractured upper contact zone with the overlying basalt of the Stormberg Group. The regional stratigraphy of the Orapa Kimberlite Field is presented in the geology legend of Figure 85.

The Mosolotsane Formation, underlying the Ntane Formation, comprises intercalated reddish, medium to fine grained sandstones, siltstones and mudstones (Figure 85). This Formation is believed to have been deposited in a fluvial terrestrial environment. The sandstone layers can reach up to 10m in thickness and can potentially provide limited quantities of water, although the transmissivity of these sediment is generally low.

This relatively simple stratigraphy is complicated by numerous large faults (Figure 84 and Figure 85), which cut through the region. West-northwest to east-southeast trending faults tend to dominate, although north-northwest to south-southeast and north-northeast to south-southwest trending faults are also developed. These faults act as conduits for water flow as well as resulting in horst and graben features which can provide for shallower intersections of the sandstone formations, and create hydraulically isolated or partly isolated compartments. This complex pattern of block faulting has resulted in the basalts lying adjacent to the older sedimentary rocks in places.

The Orapa Kimberlite Field includes at least 83 known kimberlite bodies (Figure 83 and Figure 85), each varying in size from insignificant dykes to the 110ha diamondiferous AK1 kimberlite, today exploited by the Orapa Mine, under Debswana, which lends its name to the Orapa Kimberlite Field. All kimberlites are of post-Karoo age. Of the 83 known kimberlite intrusions, five (AK1, BK9, DK1, DK2 and AK6) have been, or are currently being mined, with a further five (BK1, BK11, BK12, BK15 and BK16) recognized as potentially economic deposits (Figure 85). In addition, numerous kimberlites are the subject of current investigation, including the two known kimberlites within the Area F Project (Figure 82 and Figure 85).

The Area F Project is largely underlain by Karoo basalts with a large dolerite dyke identified from aeromagnetic data which trends west-northwest to east-southeast through the northern parts of the Area F Project. The Area F Project is located approximately 4km east of the BK02 kimberlite which has been bulk sampled by Lucara Diamond Corp., and contains three primary targets, two known kimberlites, namely BK38 and BK14 as well as a further anomaly, AN01, each of which warrant further investigation (Figure 82 and Figure 85).

17.14.1. BK14 kimberlite

The BK14 kimberlite is a known kimberlite which was discovered by Debswana during the 1990s through an extensive exploration field campaign across the greater area. Analysis of the historical soil sampling data indicated a strong heavy mineral anomaly of the coarse and fine ilmenites recovered, extending to the north-west of the pipe, a pattern which is not replicated in the garnet plots.

The pipe is approximately 4.3ha in surface area which has been described as a blue/green tuffisitic kimberlite breccia. BK14 was delineated by Debswana through an initial limited LDD campaign in April 2005 consisting of four LDD drillholes and three delineation percussion drillholes. A basic understanding as to the geometry of BK14 is understood, although never modelled, with downhole lengths logged per drillhole. The true and complete widths are unknown as the majority of the drillholes were stopped in kimberlite.

The four LDD drillholes were drilled to obtain bulk samples for macro diamond sampling after a grade of 0.1ct/m^3 had been postulated by Debswana in 1999. No diamonds were recovered during this bulk sampling campaign with no documented relationship between sample recovery and grade, nor was any bias identified which could have occurred due to preferential loss/gain of fine/coarse material.

17.14.2. BK38 kimberlite

BK38 is a known kimberlite which was discovered by Debswana during a later phase of exploration in the Orapa area during the early 2000s. Upon original target delineation, two inclined drillholes were drilled which intersected the pipe. The results indicated it to potentially be <0.5ha in areal extent which likely represents a blow of a dyke. It is hoped that further exploration of this kimberlite may reveal undiscovered extensions and potential drill targets. No significant heavy mineral anomalies can be observed in the soil sampling data over the BK38 locality with only a weak linear magnetic signature present.

17.14.3. AN01 anomaly

AN01 is a magnetic anomaly which has been identified from the 1VD processed detailed aeromagnetic data flown by De Beers in the late 1990s. It is less clear in the total field data as it has been partially masked by a strongly magnetic dolerite dyke to the north, and hence may have been originally overlooked and not selected as a target by Debswana. No significant heavy mineral anomalies have been identified near to AN01.

17.15. Historical ownership and activities

The Area F Project has historically been owned and explored by a number of diamond exploration companies under previously issued prospecting licences (Table 62), each of which variously covered the current day extent, or portion thereof, of the 16.2km² Prospecting Licence No. 265/2015.

Table 62 : Historical ownership of the Orapa Area F Kimberlite Project

DATE FROM	DATE TO	COMPANY	PROSPECTING LICENSE No.	AREA (km²)	DETAILS
Unknown		Debswana	PL16/86 and PL17/86	Unknown / no details	
01 October 1990	30 September 1997		PL39/90	990	Area reduced in 1993 and 1995. Relinquished PL16/86 and PL17/76
01 April 2000	31 March 2005	De Beers Botswana	PL2/97	70	JV between Kukama African Diamonds and De Beers
10 January 2004	30 September 2007	Firestone Diamonds	PL055/2004	387.84	Northern part of the tenement reduced to five sections. No data available from this period.
01 July 2009	30 June 2012	Monak Ventures	PL647/2009	10.05	Monak a 90% owned subsidiary of Firestone Resources. No data available from this period.

Source: LOM, Venmyn Deloitte analysis

17.16. Historical exploration and mining

Following the discovery of the Orapa Kimberlite Field in the early-1970s by De Beers Consolidated Mines Limited (De Beers) and the opening of the Orapa Diamond Mine in 1971, intense exploration was undertaken across the greater region. The majority of this initial exploration was completed by De Beers in partnership with the State through variously formed entities, including Debswana Diamond Company (Pty) Limited (Debswana) and De Beers Prospecting Botswana (Pty) Limited (Debot) (Table 62). This led to the discovery of 83 known kimberlites today, including the two kimberlites occurring within the Orapa Area F Kimberlite Project.

No historical mining has been undertaken on the Area F Project.

17.17. Previous exploration - De Beers / Debswana (pre 2015)

Kimberlites, BK38 and BK14, were identified by Debswana following the completion of a heavy mineral sampling campaign by Debswana across the greater area. The targets were refined with the completion of an airborne geomagnetic survey (Figure 86).

17.17.1. PL2/97 heavy mineral surveys

Heavy mineral exploration surveys were completed in *c.*2004 across the whole of PL2/97 (Figure 85) which was covered by a reconnaissance sampling grid of 1,000m. This reconnaissance sample density ensured that at least one sample was collected per square kilometre. Sampling densities were increased to 200m intervals, and detailed sampling at 50m was carried out over smaller portions where results deemed it necessary. Highlighted results included:-

- 1,000m grid:- a total of 81 samples were collected and 5,153 grains were recovered. The majority of the grains were ilmenite (77%) and garnet (22%). No distinct anomalies were noted; and
- 200m grid:- completed across approximately 90% of PL2/97. A total of 1,739 samples were collected and 41,225 grains were recovered. The majority were ilmenite (79%) and garnet (20%). The grains recovered in the north were relatively higher in ilmenite than in the south, however there were no well-defined heavy mineral anomalies over these kimberlites. This southern area was characterised by higher counts of indicator minerals with a distinct anomaly visible at BK14 which matched with a distinct magnetic target.

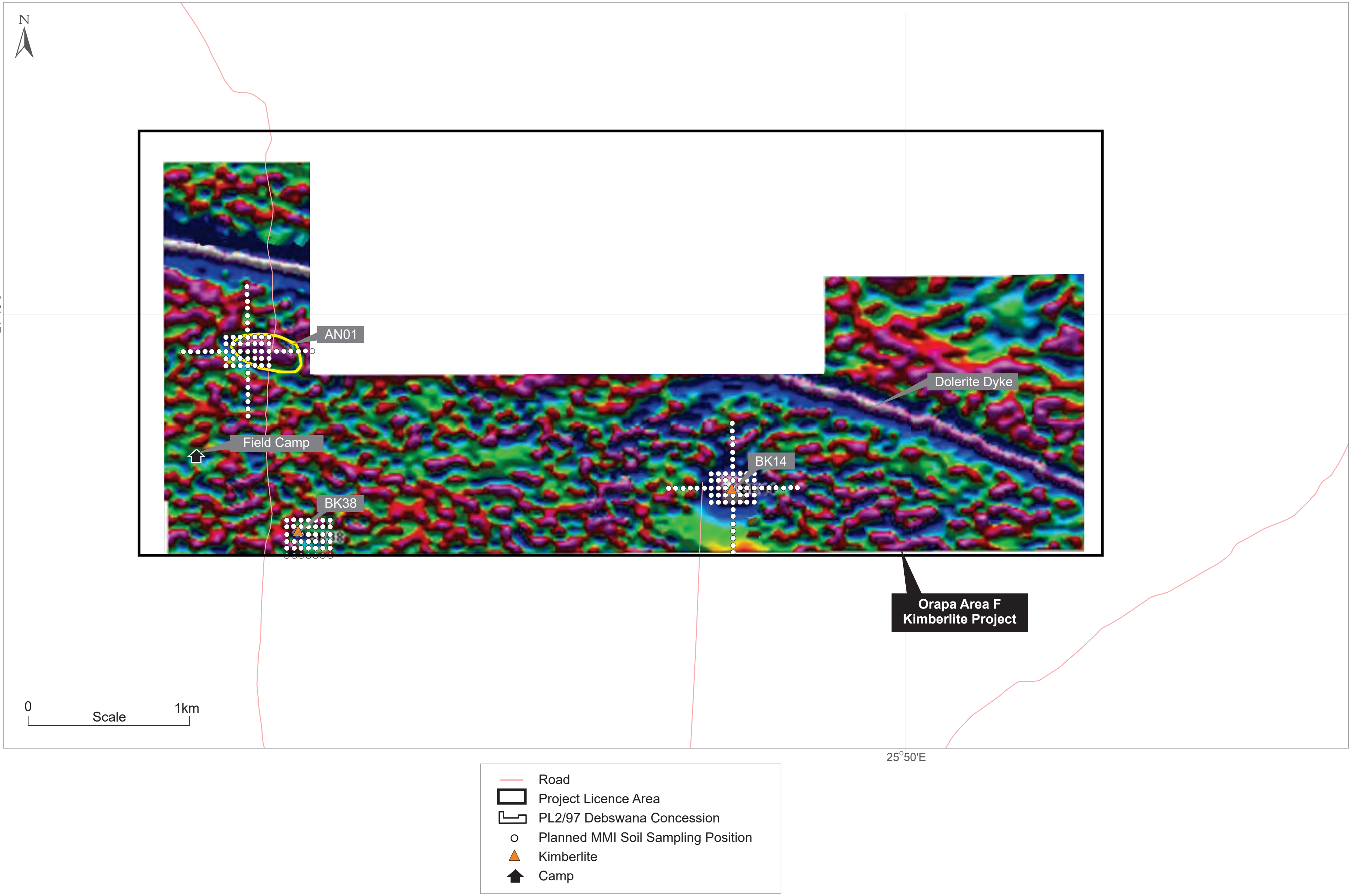
Reconnaissance samples were collected using the continuous scoop sampling method with sample volumes typically <20ℓ of screened material per sample. Follow-up samples were collected at specified grid points and comprised 40ℓ of unscreened sample. All samples were screened into the required size fractions (generally between 2.0mm and 0.4mm) at washing stations and concentrated using Du Toit jigs. The concentrates were acidised and further concentration was carried out using a DMS machine and/or bromoform heavy liquid separation. Sample concentrates were analysed for kimberlitic heavy minerals at the De Beers sorting laboratory in Lobatse.

17.17.2. Electron microprobe analyses

Electron-microprobe analyses of selected indicator-mineral grains were carried out at the De Beers Group Mining and Exploration Analytical Services Unit in Johannesburg, South Africa. A total of 261 garnets, 18 spinel analyses and 2,554 ilmenites were available for analysis from PL2/97 with only one clinopyroxene grain analysed. Highlighted results included:-

- spinel:- these were classified as moderate to high-MgO (5wt% to 17wt%) mantle-derived varieties (Figure 87). Two spinel grains had high-Cr_2O_3 (>60wt%) concentrations and sufficiently low-TiO_2 concentrations to plot within the diamond-inclusion/intergrowth window. This scenario is not supported by the MgO data;
- ilmenites:- these were mostly classified as mantle-derived. The ilmenites displayed a range of MgO concentrations with most plotting between 3wt% and 15 wt% (Figure 88). The Cr_2O_3 contents ranged between 0wt% and 5wt%, with most plotting above 1wt%. Most of the ilmenites appeared to be of metasomatic origin;

Processed geomagnetic survey data of the Orapa Area F Kimberlite Project

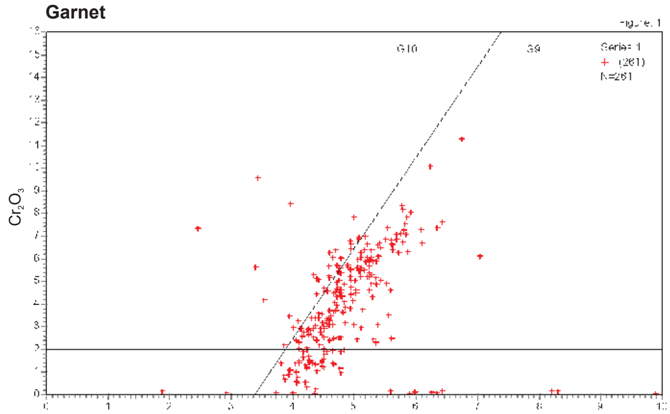


Note: No legend available for geomagnetic hardcopy source data

Source: LOM

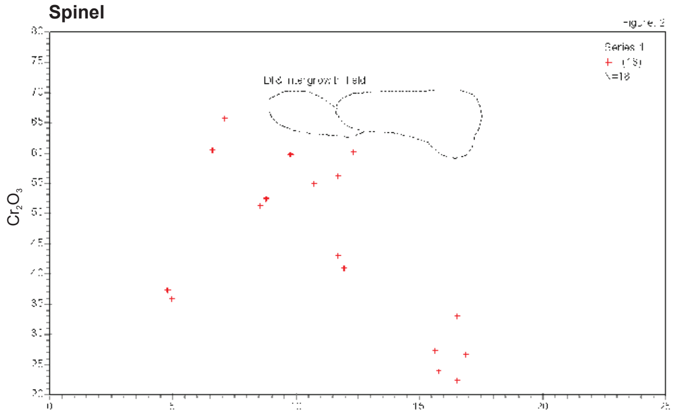
Debswana mineral chemistry electron microprobe analysis for PL2/97

Garnet



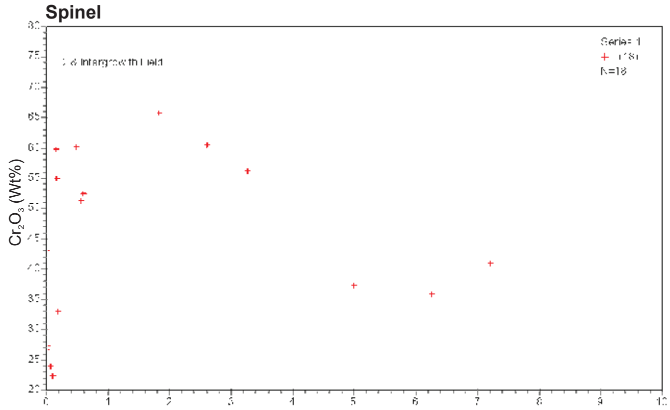
CaO (Wt %)
Fields after Gumey (1989)

Spinel



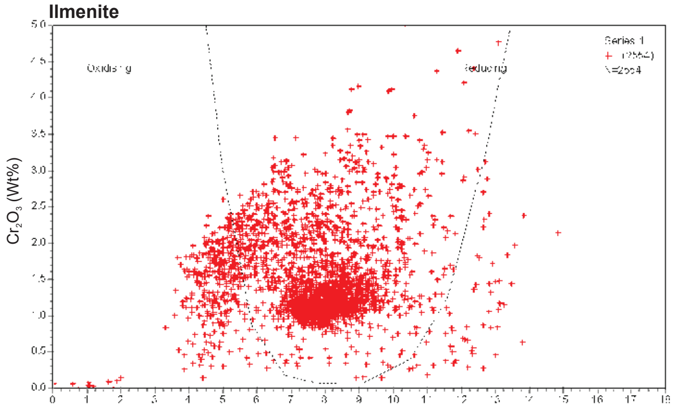
MgO (Wt%)
Fipk e et al (1995)

Spinel



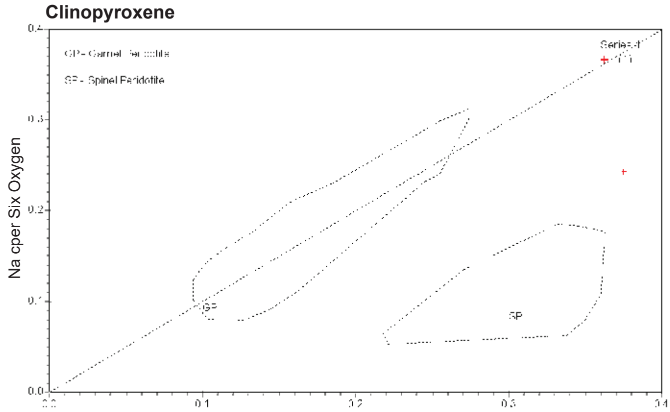
TiO_2 (Wt %)
Fields Modified after Fipke et al (1995)

Ilmenite



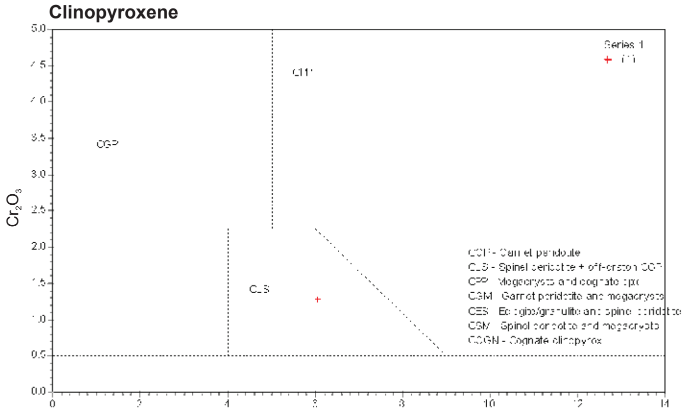
MgO (Wt%)
Haggerty (1975)

Clinopyroxene



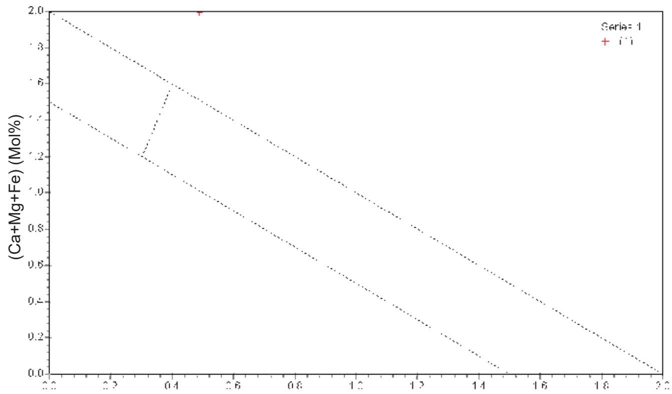
Cr+Al per Six Oxygen
Sobolev (1992)

Clinopyroxene



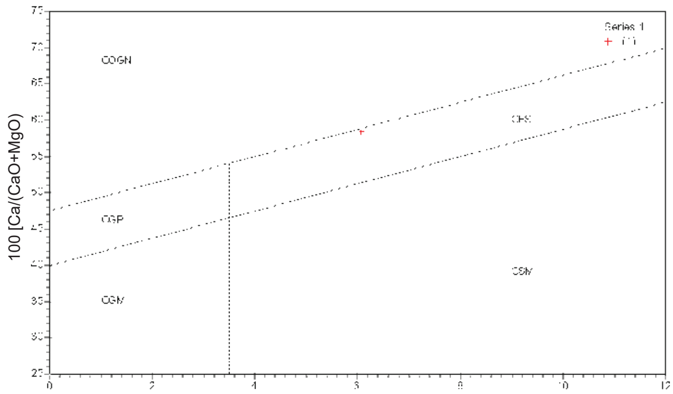
Al_2O_3
Fields after Ramsay (1992)

Clinopyroxene



2Na (Mol%)
Fields after Ramsay (1992)

Clinopyroxene



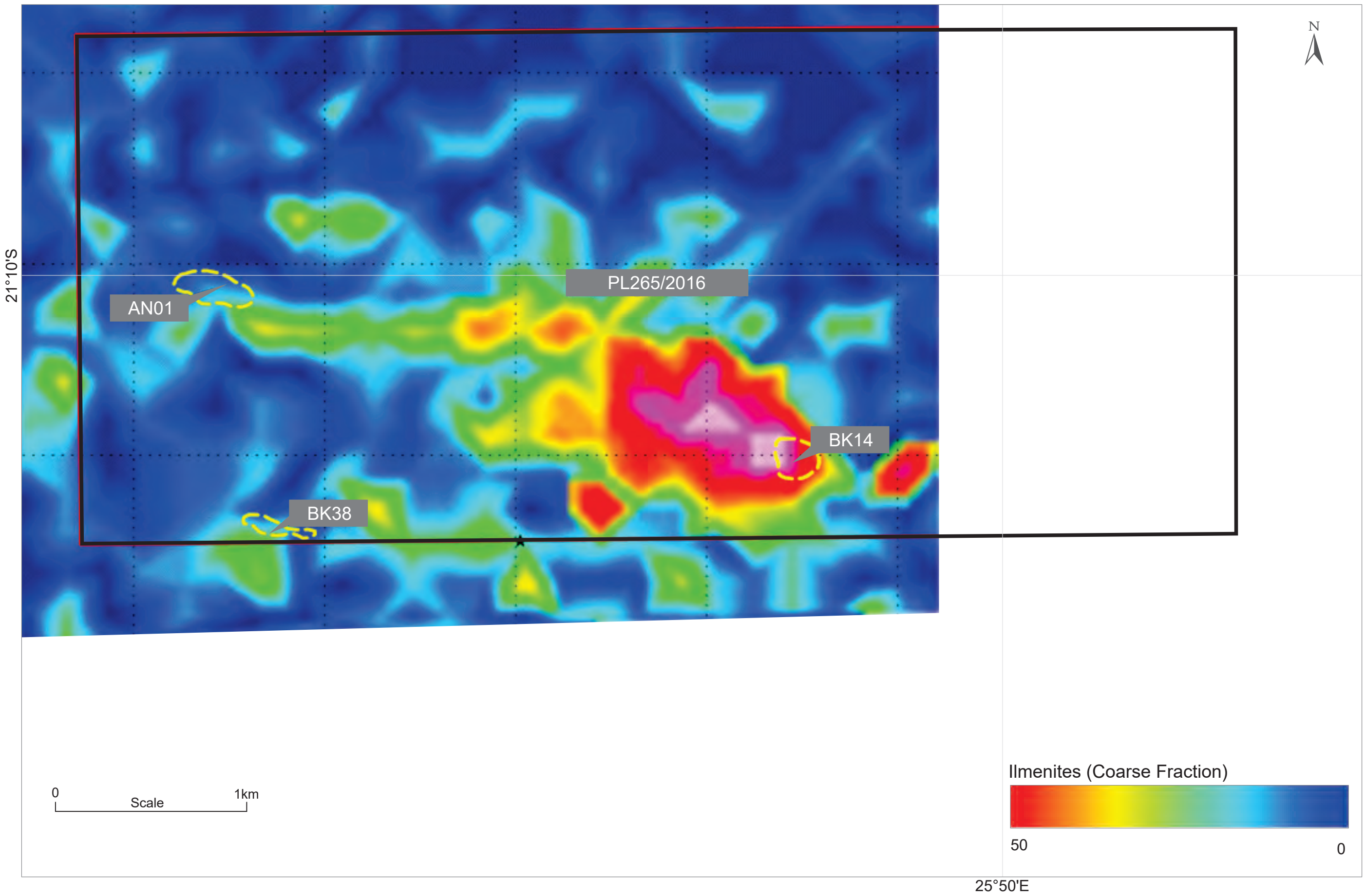
Al_2O_3
Fields after Ramsay (1992)

Venmyn Deloitte.

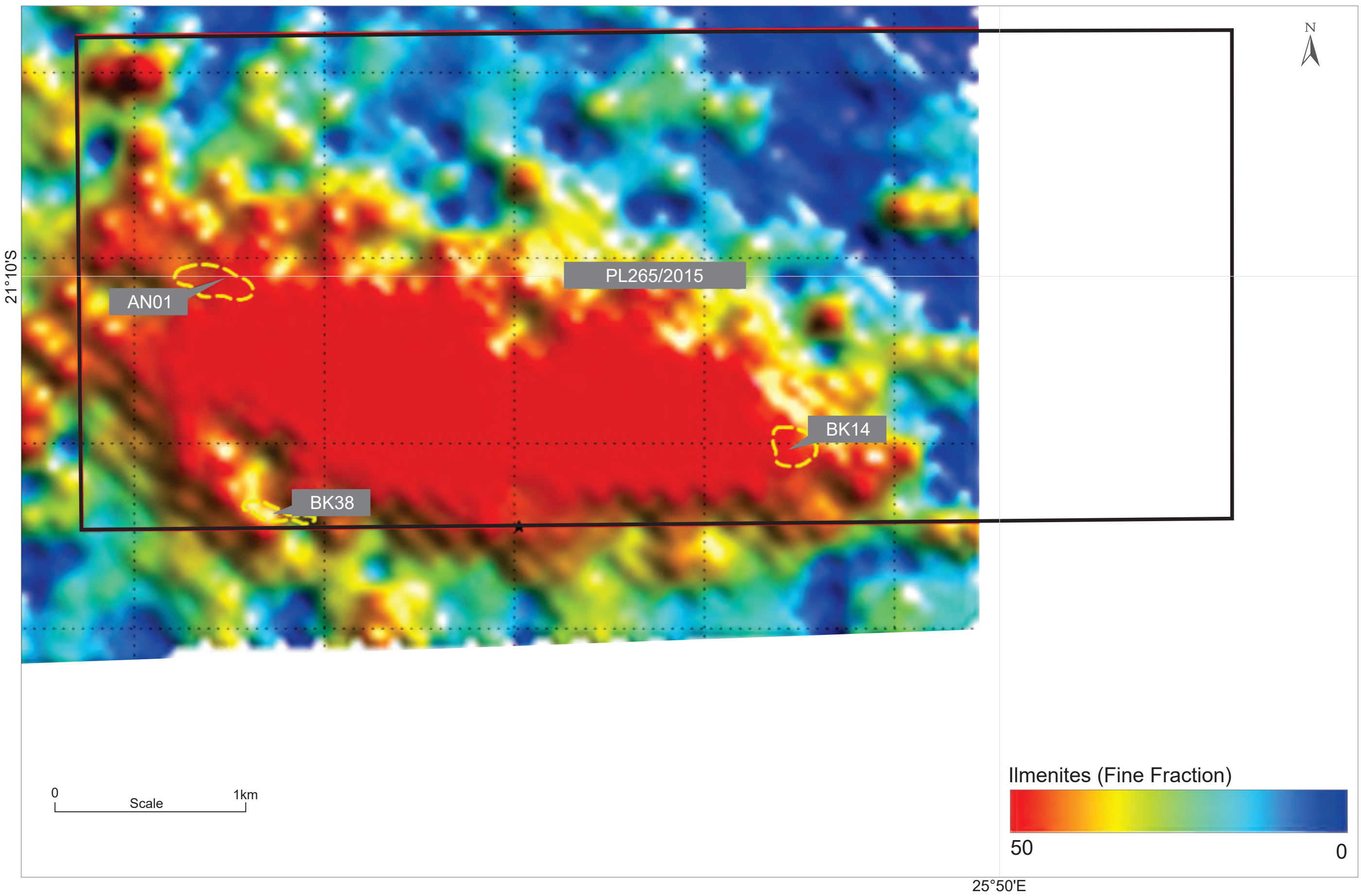
Lucapa Diamond Company

Gridded ilmenite plots from historical Debswana heavy mineral sampling campaign

Historical Heavy Mineral Sampling – Coarse Ilmenite Gridded Plot



Historical Heavy Mineral Sampling – Fine Ilmenite Gridded Plot



Source: LOM

- garnets:- these were predominantly CaO-saturated varieties with Cr_2O_3 contents ranging between 0wt% and 11wt% (Figure 89). Most of the garnets were peridotitic (lherzolitic-G9) varieties. Pyroxenitic-derived garnets (G5), megacrysts (G1 and some G5) and a very small population of eclogite-derived (G4) garnets were discernible. The pyroxenitic and megacrystic (discrete nodule) garnets displayed compositions intermediate between those of the lherzolitic and eclogitic populations. Two sub-calcic grains also displayed low-Cr_2O_3, which were likely derived from metapelitic and/or granulitic assemblages, commonly found in crustal xenoliths. Less than 31 garnet grains (or <12% of the total garnet population that was analysed) were classified as high-chrome, sub-calcic G10 varieties and are potentially of prime interest in terms of diamond prospectivity; and
- clinopyroxenes:- single clinopyroxene grain classified as kimberlitic (Figure 87) and was most likely derived from a spinel-peridotite xenolith.

17.17.3. Geophysics

Based on the results of the heavy mineral survey and microprobe results, Debswana completed a detailed airborne follow-up survey which eliminated the need for ground magnetic surveys over selected anomalies. Most targets were drilled from the airborne data. In addition, high resolution ground geophysics were also conducted which consisted of large gravity megablocks as well as smaller delineation surveys over known and recently discovered kimberlites. Magnetic, gravity and electromagnetic (EM) delineation surveys were also conducted, as follows:-

- airborne magnetic survey:- high resolution airborne magnetics was conducted by geophysical airborne contractor (Figure 86) Excalibur using a Crop Duster aircraft. Flight line spacing was 100m for the high resolution and 50m for the ultra-high resolution surveys. Ground clearance was 20m, tie line spacing at 250m and sample spacing at 6m. Data collected was Total Field Magnetics and horizontal gradient with two wing-tip mounted caesium vapour sensors and elevation data with real-time differential GPS and laser altimeter. The entire PL2/97 was covered and has been sourced in hard copy; and
- ground gravity survey:- conducted around known kimberlite clusters, some outside of PL2/97. The megablock surveys were conducted using Scintrix CG3 and CG5 gravimeters, typically at 100m line spacing and 50m station spacing. For the delineation surveys, the resolution was increased to 50m line spacing and 25m station spacing. A Leica SR500 series Differential GPS was used to record station and elevation data.

17.17.4. BK 14 LDD bulk sampling

Results from the heavy mineral sampling campaign and geophysical surveys justified BK14 being bulk sampled in 2005. The objective of the BK14 bulk sampling campaign was to recover 100t from four 12” LDD drillholes (Figure 90). As part of this drilling campaign, three pilot or delineation percussion drillholes were drilled prior to the commencement of the bulk sampling LDD drilling campaign (Table 63).

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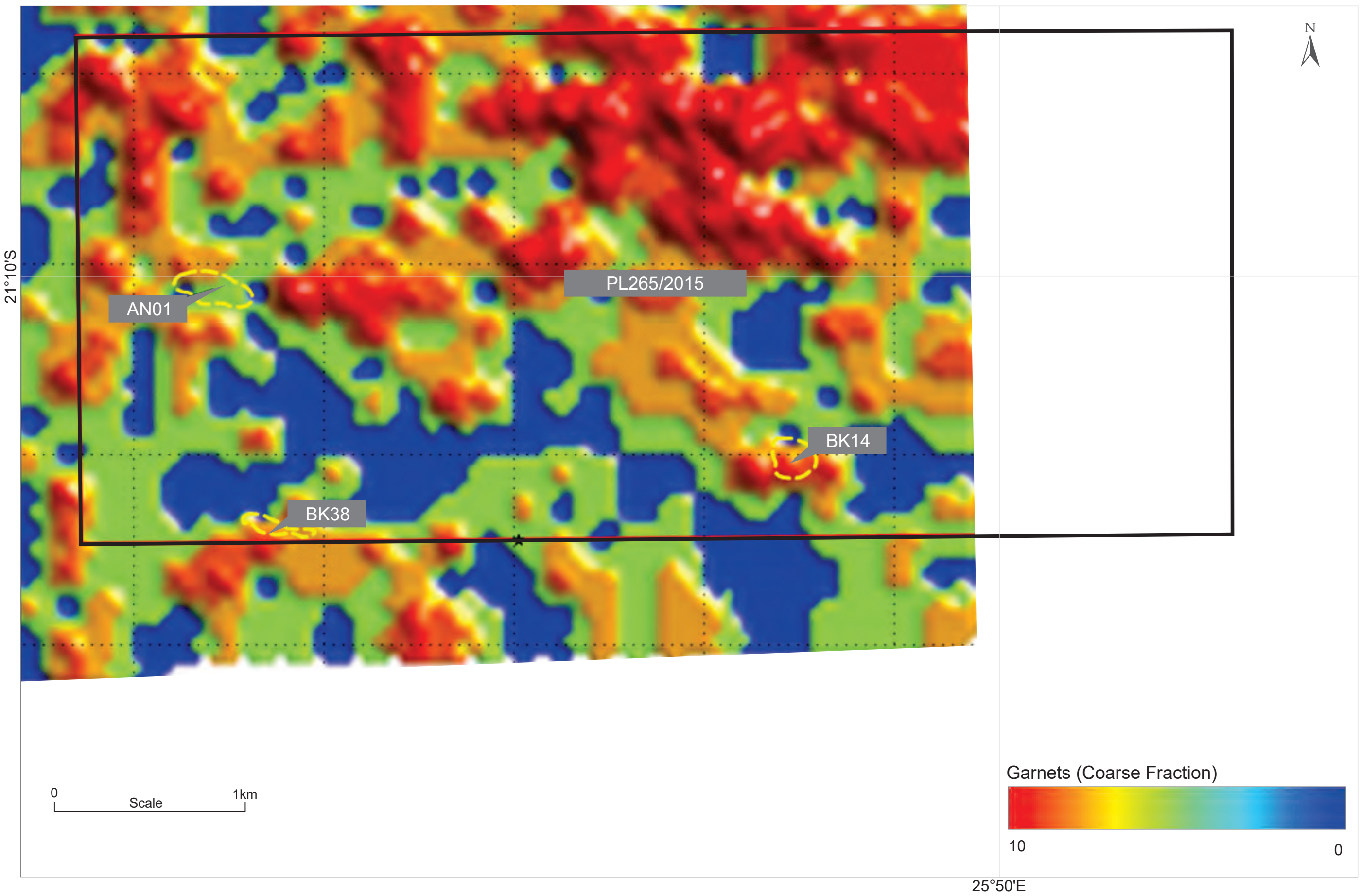
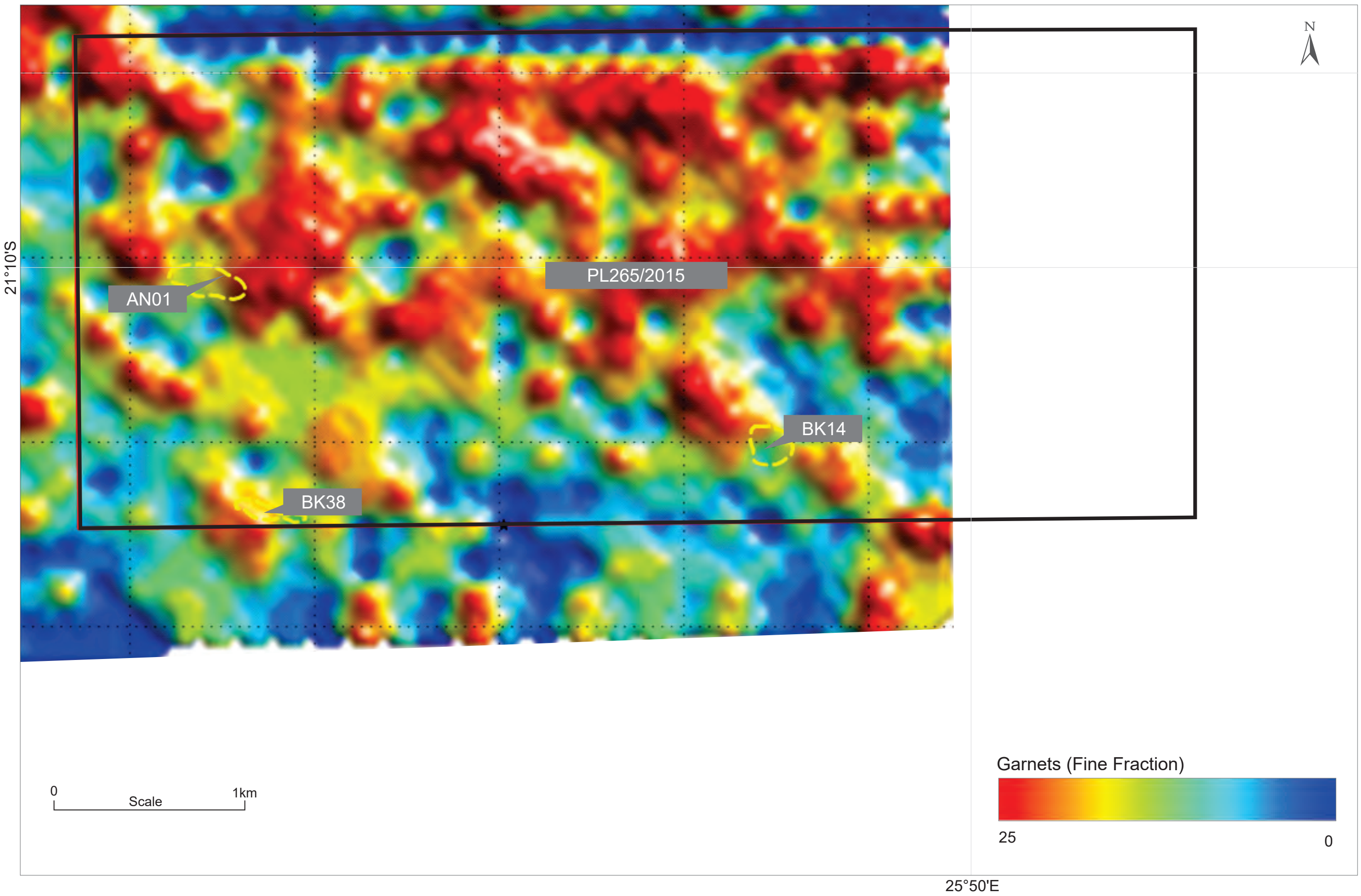
Gridded garnet plots from historical Debswana heavy mineral sampling campaign

Historical Heavy Mineral Sampling – Coarse Garnet Gridded Plot



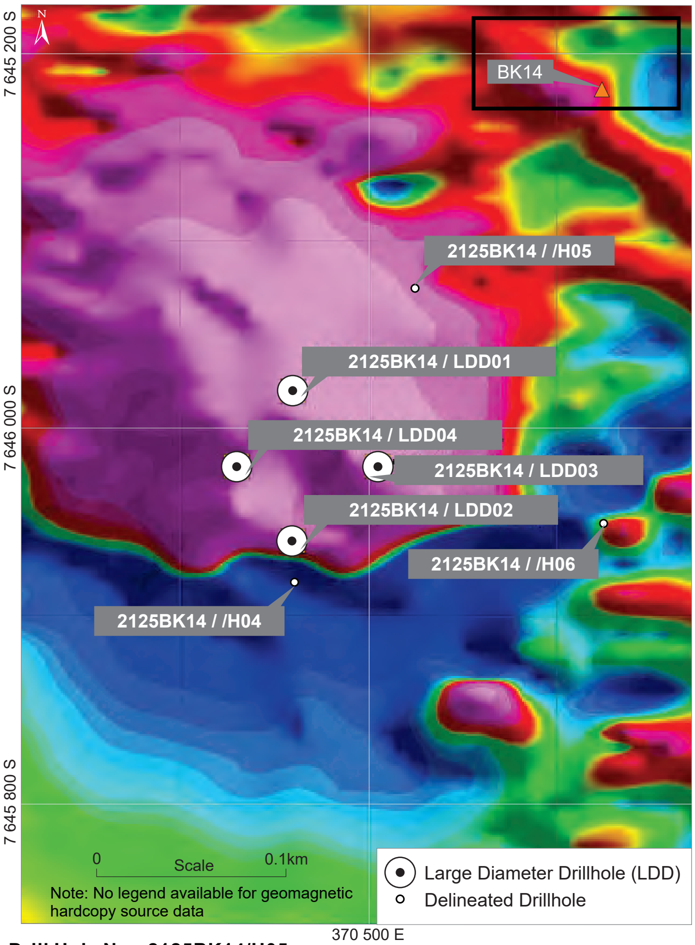
Historical Heavy Mineral Sampling – Fine Garnet Gridded Plot



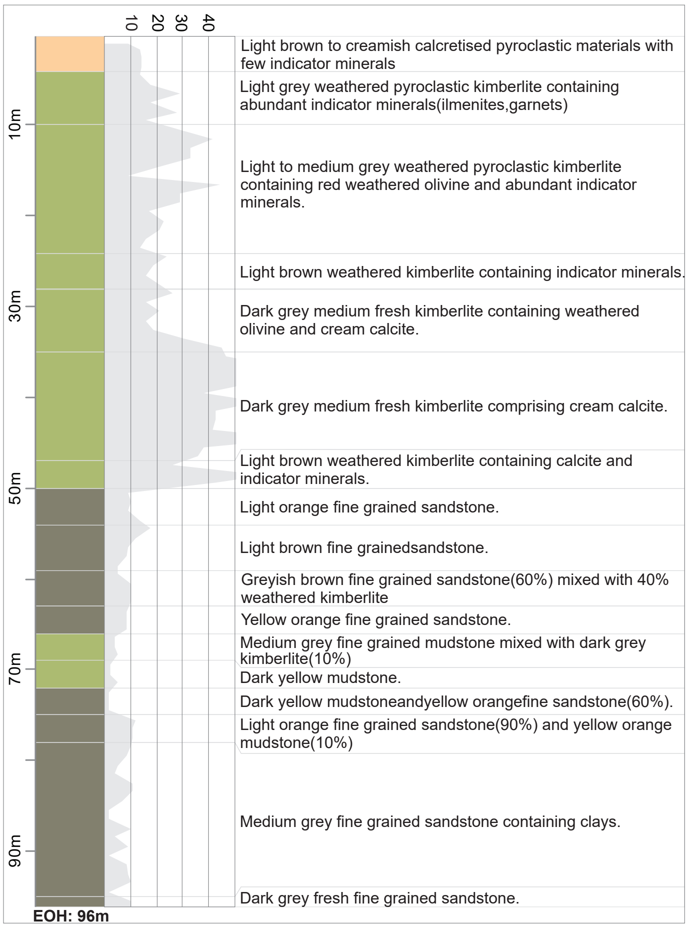
Source: LOM

BK14 drillhole localities and delineation percussion drillhole logs

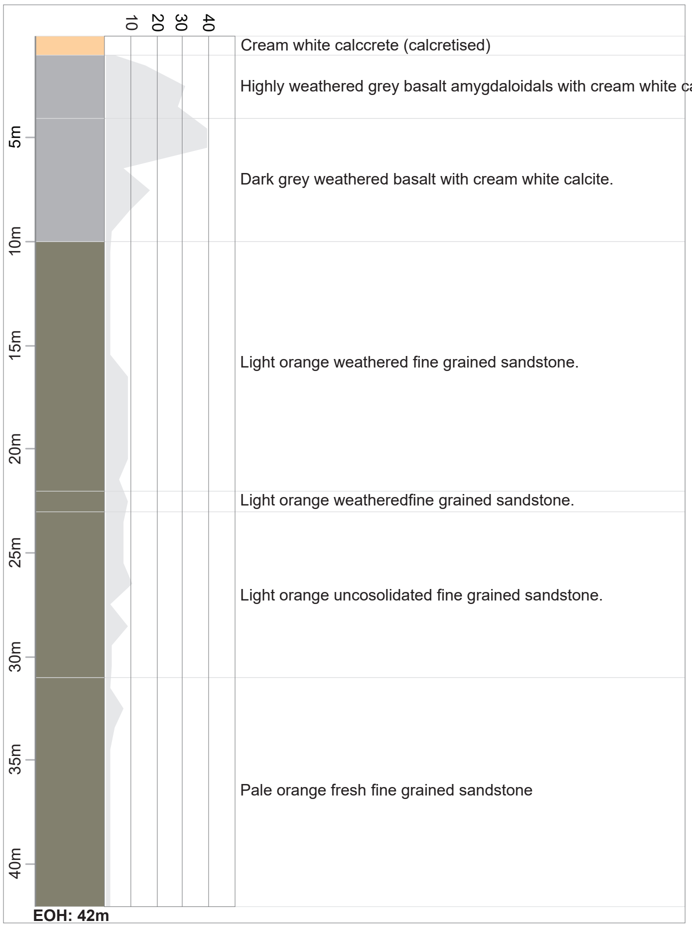
BK14 Drillhole Localities



Drill Hole No.: 2125BK14/H04



Drill Hole No.: 2125BK14/H05



Drill Hole No.: 2125BK14/H06

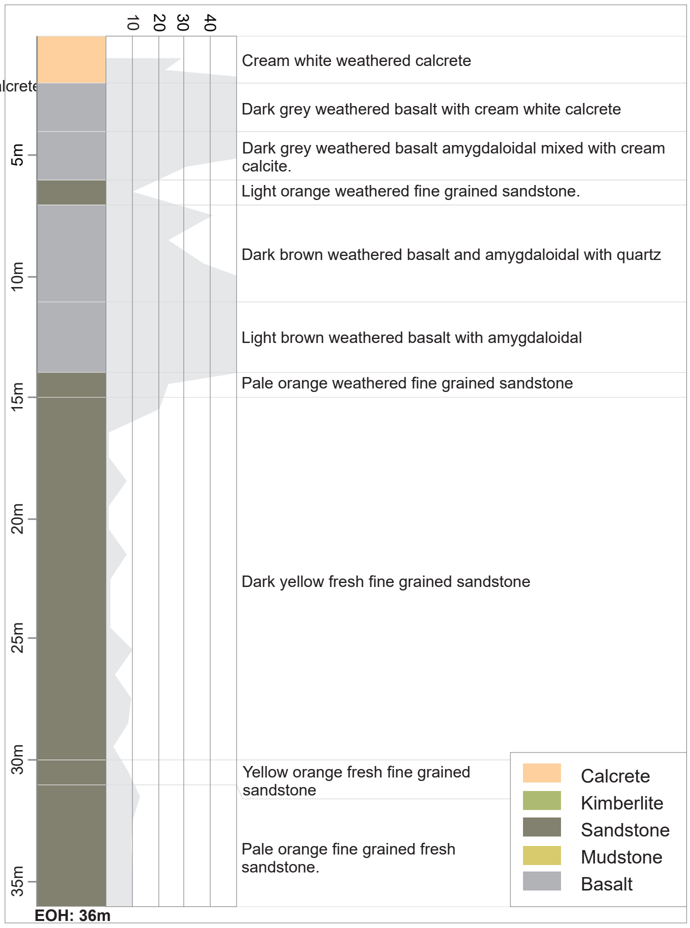


Table 63 : BK14 LDD bulk sampling drillhole details

DRILLHOLE No.	UTM ZONE 35S (WGS84) X (EAST)	Y (NORTH)	Z	DIP	AZ.	TYPE	SIZE	PURPOSE	EOH (m)
2125BK14/H01	Historical percussion drillholes drilled previously on PL2/97 for which no information is available.								
2125BK14/H02									
2125BK14/H03									
2125BK14//H04	370,459	7,645,923	986	-90	0	Percussion	6.5"	Delineation	96
2125BK14//H05	370,523	7,646,078	985	-90	0				42
2125BK14//H06	370,626	7,645,956	984	-90	0				36
								Sub-Total	174
2125BK14/LDD01	370,460	7,646,020	992	-90	0	Reverse Flood Air Assist (RFAA)	12"	Bulk Sampling	174
2125BK14/LDD02	370,460	7,645,940	986	-90	0				150
2125BK14/LDD03	370,505	7,645,980	981	-90	0				144
2125BK14/LDD04	370,430	7,645,980	985	-90	0				150
								Sub-Total	618
								TOTAL	**792**

Source: LOM

Each of the LDD drillholes (Figure 91 and Figure 92) was drilled by means of a 12" tricone drill bit using the reverse flood air assist (RFAA) method in order to ensure the best possible sample recovery and sample quality. Drillhole collars for each of the LDD drillholes have been relocated in the field by LOM. The detailed adopted sampling protocols and sample preparation techniques have not been sourced, however it is apparent that the entirety of all drilled kimberlite material was bulk bagged (Table 64). Shaker tables were fitted with 1.47mm aperture screens.

Table 64 : BK14 LDD bulk sampling lithological and sampling details

DRILLHOLE №	LITHOLOGY DESCRIPTION	SAMPLE INTERVAL	DRILLED MATERIAL (kg)	KIMBERLITE SAMPLED (kg)
2125BK14//H04	4m thick calcrete of the Lower Kalahari Group above the kimberlite. Dark grey kimberlite characterised by an abundance of ilmenites, garnets and chrome diopsides. Ntane sandstone intersected at 50m. Hole terminated at 96m in Ntane sandstone.	No sampling completed on the percussion drillholes		
2125BK14//H05	Lower Kalahari one metre above kimberlite. Drillhole completed at 42m in Ntane sandstone after intersecting a thin (1 to 10m) weathered basalt layer			
2125BK14//H06	Two meters of Lower Kalahari calcrete overlies a weathered basalt (2m to 14m). Ntane sandstone intersected at 14m. Drillhole terminated at 36m in Ntane sandstone.			
2125BK14/LDD01	Highly weathered calcretised brownish basalt rich kimberlite exposed. With depth the kimberlite becomes greyish and fresh.	10m to 174m (11 bulk bags)	27,642	13,111
2125BK14/LDD02	Five meters of Lower Kalahari calcrete overlies kimberlite. Bulk sampling commenced at 10m depth. Drillhole stopped at 150m in kimberlite.	10m to 150m (9 bulk bags)	26,049	11,487
2125BK14/LDD03	Three meters of Lower Kalahari calcrete overlies kimberlite. Ntane sandstone intersected at 135m. Drillhole terminated at 144m.	10m to 144m (10 bulk bags)	24,737	12,770
2125BK14/LDD04	Five meters of Lower Kalahari calcrete overlies a reddish brown weathered kimberlite. Kimberlite becomes greenish and fresh with depth to the end of the hole at 150m.	10m to 150m (12 bulk bags)	24,721	14,003
TOTAL			**103,149**	**51,371**

Source: LOM

LDD bulk sampling drill logs (2125BK14/LDD01 & LDD02)

LDD bulk sampling drill logs (2125BK14/LDD03 & LDD04)

Details pertaining to the adopted geological logging techniques have not been sourced. However, the geological logging protocols are likely to have been acceptable given Debswana's position as one of the leading diamond explorers and miners in the industry. As such, the historically completed logging (Figure 91 and Figure 92) is regarded to have been completed to a qualitative level of detail sufficient to support a geological model and potential Diamond Resource estimate.

The relationship between the drilling orientation and the known orientation of the kimberlite is considered not to have introduced any sampling bias. The macro diamond recovery results from the four LDD sampled drillholes (Table 63 and Table 64) were considered disappointing by Debswana with no diamonds recovered. No known sample compositing was used. No further work was completed on the BK14 kimberlite.

17.17.5. BK38 delineation drilling

BK38 is a known kimberlite which was discovered by De Beers during a later phase of exploration in the Orapa area during the early 2000s. Reference to two inclined drillholes (type and exact location are unknown) were drilled which intersected the pipe, the results of which indicated it to be <0.5ha in size and is considered by LOM to likely be a blow on a dyke. Nothing further is known from this short drilling campaign.

17.17.6. Security

No details pertaining to historical exploration site and sample security are available.

17.17.7. De Beers/Debswana conclusions

Upon relinquishment of PL2/97, Debswana concluded that the geology was complex and poorly understood and was exacerbated by the unknown thicknesses of the Karoo basalts. The widespread occurrence of indicator mineral soil anomalies, and the mineral chemistry of these grains, indicated a high probability for additional diamondiferous kimberlites to occur in the area.

Debswana further noted that not all heavy mineral clusters had been satisfactorily explained and that the influence of the drainage of the Letlhakane River required consideration. Indicator mineral halos around some of the known kimberlites were obvious, however a comparison with high resolution magnetic data could provide possibilities to resolve other anomalies.

A credible explanation still requires hypothesising to account for the transportation of these minerals from the adjacent, surrounding known kimberlites. The most plausible such theory, as considered by Debswana, is that there has been extensive movement of heavy minerals throughout the Orapa area, and as such the whole area may have been "contaminated" by grains derived from the known diamondiferous kimberlites, spread by aeolian and fluvio-lacustrine processes. Determining the true mineral chemistry signature of grains derived from possible new kimberlites within the licence area has not been successful to date. Unless otherwise proven, it was the opinion of Debswana that it remains that there are certainly additional kimberlites still to be discovered in the greater area. Despite several decades of exploration, the origin of these grains remains unresolved to this day.

17.18. Previous exploration - Firestone Diamonds plc / Monak Ventures (Pty) Limited (2009 – 2015)

After the relinquishment of PL2/97 by Debswana / De Beers Botswana in 2005 (Table 62), Firestone Diamonds plc, and later Monak Ventures (Pty) Limited, a 90% subsidiary of Firestone Diamonds, were awarded prospecting licence PL647/2009 over the Area F Project. No data is available from this period of ownership, nor is it apparent that any significant exploration was conducted during this time. Upon the lapsing of PL647/2009 in June 2012, the Ministry of Minerals, Energy and Water Resources, through the Department of Mines, rescinded the licence from Monak Venture and Firestone Diamonds. Following this, a "Call for Application" was opened in June 2015 for Prospecting Licence No. 265/2015, which was subsequently awarded to LOM.

17.19. Recent exploration (2015)

Post the issuance of Prospecting Licence No. 265/2015 to LOM, a detailed historical exploration data search and capture campaign was undertaken. This included visiting the Geological Survey of Botswana and the Geophysics Department of the Botswana International University of Science and Technology (BIUST) from which hard copy results of all historical geophysical and sampling data was sourced, with the relevant heavy mineral sampling data captured into a spatial MapInfo database.

This data included various processed airborne magnetic and electromagnetic datasets, data which only covered the western portion of the Orapa Area F Kimberlite Project.

This data was captured by LOM's technical consultants, Foundation Resources, from the hard copies that had been archived by the Geological Survey of Botswana. The resultant geophysical dataset was provided to Geophysics AEGIS (Botswana) Pty Limited (Aegis Geophysics) for plotting and interpretation (Figure 86), the results of which formed the basis of the exploration currently being undertaken by LOM on site.

17.20. Current exploration (2016)

In accordance with the issuing of Prospecting Licence No. 265/2015, the subsequent proposed prospecting programme was detailed and aggressive in nature in order to realise value to the already existing work from previous prospecting activities. LOM defined an initial proposed exploration field program which was conducted through a comprehensive prospecting programme with deliverables that have led to the identification of various drillhole targets. These will be drilled in the fourth quarter of 2017 in order to further evaluate and assess the potential of a diamond resource in the Area F Project in the most efficient, beneficial and timely manner. Following interpretation of the data sourced by the Geological Survey of Botswana, a modified work programme was completed by LOM in consultation with Aegis Geophysics as part of the field work phase of the Year 1 programme for 2016. In addition, the exploration field work was completed in collaboration with the Geophysics Department of BIUST that provided some of the requisite field equipment, as well as to allow for field training opportunities to some of the current students and training field technicians.

As planned, and confirmed by the results of the sourced historical geophysical datasets, the exploration work programme focussed on the three main targets, the known kimberlites BK14 and BK38 along with the magnetic target AN01. Magnetic target AN01 had been identified in the 1VD processed aeromagnetic dataset that had been extracted from an historical De Beers Botswana Prospecting report. The work programme also tested for previously undiscovered potential extensions to the kimberlites. The programme included conducting field based ground magnetic, electromagnetic and gravity geophysical surveys followed by an MMI geochemical soil sampling (Figure 86), which Aegis Geophysics completed in October 2016. The planned data spacing, orientation and distribution of the exploration was sufficient to yield unbiased sampling results which refined and established follow-up exploration drill targets. A summary of the completed field exploration campaign is presented in Table 65.

Table 65 : Summary of the completed field exploration of the Area F Project

BLOCK No.	AREA (ha)	SURVEY TYPE		LINE SPACING (m)	STATION SPACING (m)	TOTAL LINE km's	TOTAL STATIONS	MMI SAMPLES
BK14	75	Field Geophysics	Gravity	50	25	21	651	-
			Ground EM		25	21	651	-
			Ground Mag		5	21	3,171	-
		Soil Geochem MMI		-	-	-	-	63
Sub-total						63	4,473	63
BK38	15	Field Geophysics	Gravity	25	10	21	651	-
			Ground EM		10	21	651	-
			Ground Mag		5	21	1,281	-
		Soil Geochem MMI		-	-	-	-	42
Sub-total						63	2,583	42
AN01	125	Field Geophysics	Gravity	50	25	26	1,066	-
			Ground EM		25	26	1,066	-
			Ground Mag		5	26	5,226	-
		Soil Geochem MMI		-	-	-	-	76
Sub-total						78	7,358	66
TOTAL						**204**	**14,414**	**181**

Source: LOM, Venmyn Deloitte analysis

17.20.1. Geophysical surveys

Aegis Geophysics completed all the ground based geophysical surveys for which no line cutting was required. The survey was conducted on three grids over each of the target blocks to collect magnetic, electromagnetic and gravity geophysical results with lines spaced 25m to 50m apart. A Leica 1200 Differential Global Positioning System (DGPS) was used to locate the specified corners of each grid, the ends of each of the survey lines and the midpoint, or other line of sight, stations along a given survey line.

A 100m chain, together with the Leica DGPS was used to assist in marking the individual stations along a line. Each station was marked with a small peg with flagging attached. Flagging's were marked every 100m which recorded the line and station number, with each flagged station surveyed with the Leica 1200 DGPS system to record X, Y, Z coordinates to sub-metre accuracy.

17.20.1.1. Ground magnetics

The ground magnetic surveys were conducted using a GEM Overhauser (GSM-19W) walking magnetometer, as well as standard magnetometers, all with omni-directional GPS sensors. Two systems were used as roving units with the third placed as a base station to monitor for diurnal variations. The operator set the roving magnetometers to record a reading every one second, which, with normal pacing to keep the sensor stable, equated to a reading each one to two metres, depending on the ease of moving through the bush at any given place.

The line spacing used was 50m for the BK14 and AN01 blocks and 25m on the BK38 block (Table 65). The results for each of the blocks have been overlain with the gravity and electromagnetic results as presented in Figure 93 and Figure 94.

Venmyn Deloitte.

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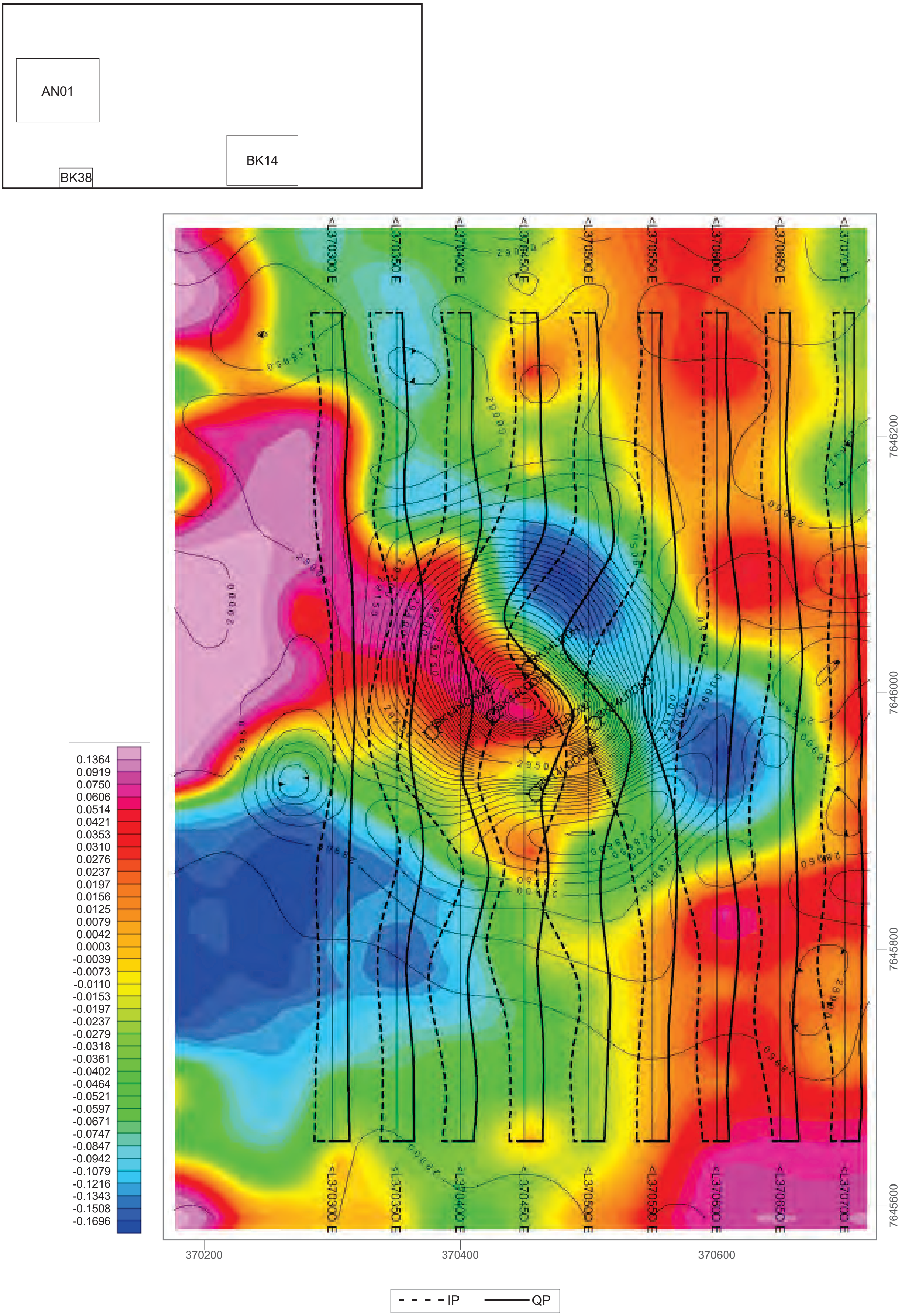
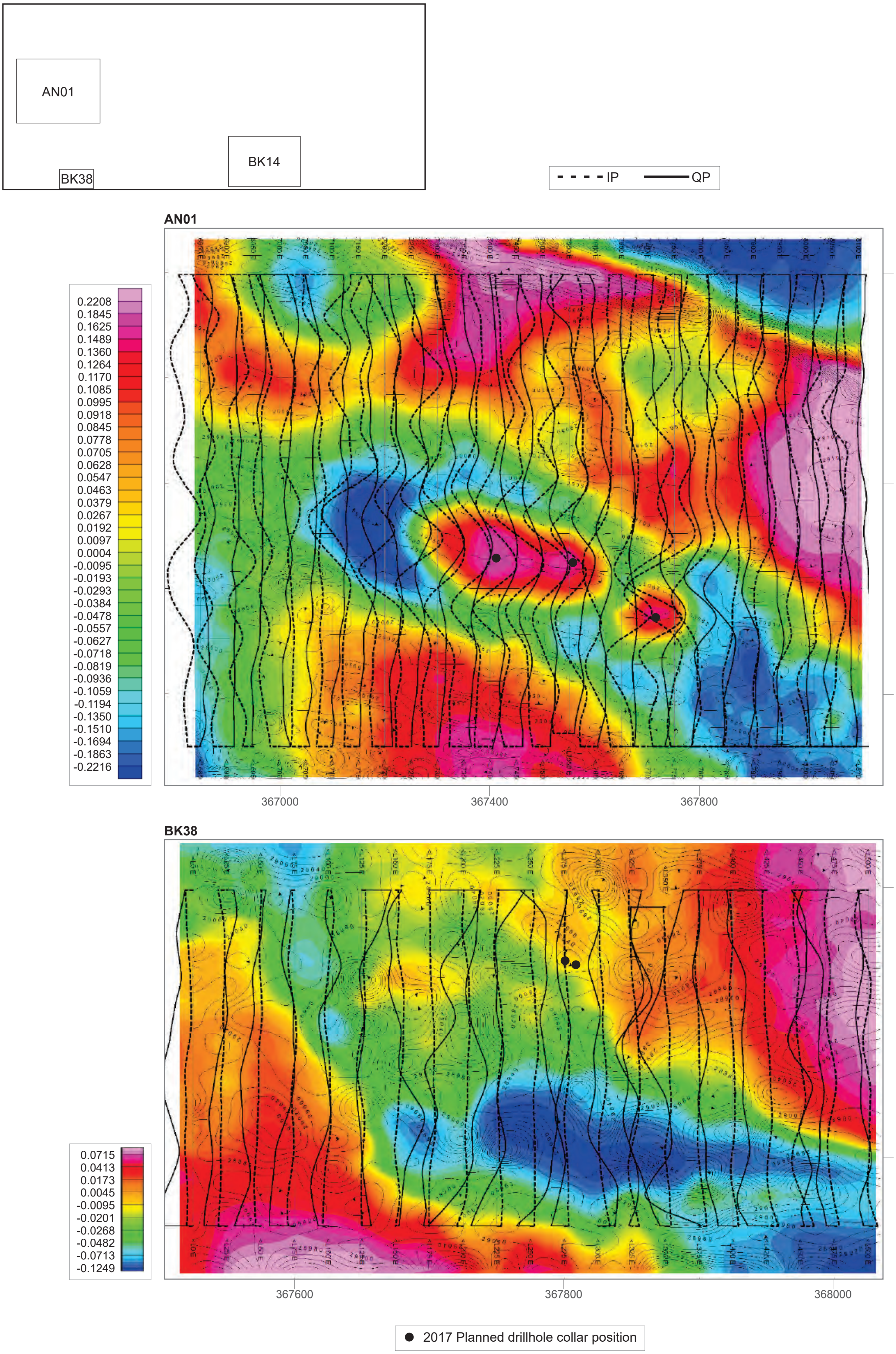
Combined magnetic, gravity and electromagnetic results for BK14



Combined magnetic, gravity and electromagnetic results for BK38 and AN01



Source: LOM

17.20.1.2. Ground electromagnetics

A horizontal loop electromagnetic (HLEM) survey was conducted across each target grid using a PROMIS 10 3-component digital HLEM system to record the frequency domain electromagnetic data. The unit was made available by BIUST. The survey was undertaken by BIUST students under the supervision of Aegis Geophysics, this in order to further develop and train the geophysical surveying skills within Botswana.

This system can measure up to 10 frequencies from 110Hz (deepest seeking) to 56kHz (shallowest measurements) and can use cable lengths of 20m to 400m. The target grids were surveyed with cable lengths and frequency ranges suitable to the station interval required and the depths of investigation that made most sense to the model (Table 66). Station spacing and cable length have been reduced for the survey on BK38 due to its smaller size. The results for each of the blocks have been overlain with the gravity and magnetic results as presented in Figure 93 and Figure 94.

Table 66 : Electromagnetic survey specs for the target blocks

BLOCK No.	CABLE LENGTH (m)	TRANSMITTING FREQUENCIES (Hz)	STATION INTERVAL (m)
AN01 BK14	100	440; 880; 1,760; 3,520; 7,040; 14,080	25
BK38	50	880; 1,760; 3,520; 7,040	10

Source: LOM, Venmyn Deloitte analysis

17.20.1.3. Ground gravity

A ground gravity survey was completed across each block using a Scintrex CG-5 gravimeter. Each gravity survey point location was measured using a Leica GPS1200 High Performance Global Navigation Satellite System (GNSS) to sub-decimetre accuracy.

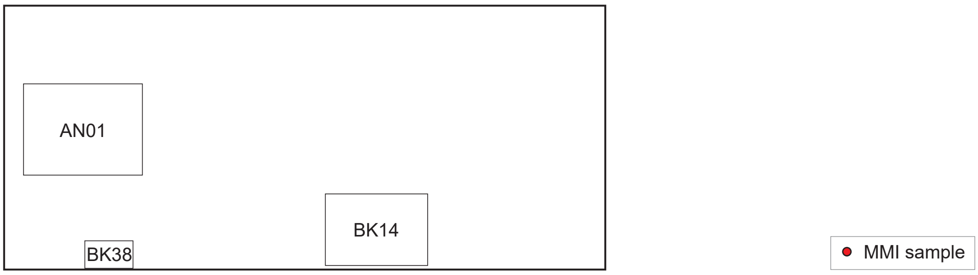
Gravity and survey readings were collected at 25m station intervals across the AN01 and BK14 blocks and at 10m station intervals across the BK38 block. The gravimeter recorded between 50 and 80 stations per day on a continuous grid.

Daily repeat stations were recorded to confirm data quality and accuracy in addition to recording the morning and evening base station readings to account for any daily drift that may occur. Results confirmed that the dataset was accurate with no drifts encountered. The results for each of the blocks have been overlain with the magnetic and electromagnetic results as presented in Figure 93 and Figure 94.

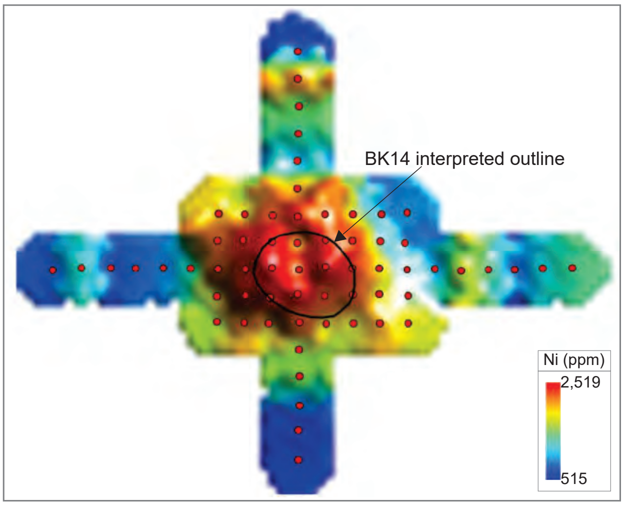
17.20.2. MMI geochemistry soil sampling

Upon completion of the ground based geophysical surveys, Aegis Geophysics completed a Mobile Metal Ion (MMI) soil geochemical sampling campaign over each of the three target blocks. A total of 174 representative MMI samples were planned for collection, but which culminated in 181 being collected (Table 65) after other target areas had subsequently been identified. The localities of the MMI sample positions are plotted in Figure 95 which were recorded using a Leica 1200 DGPS. Each sample collected involved a four-step sequence:-

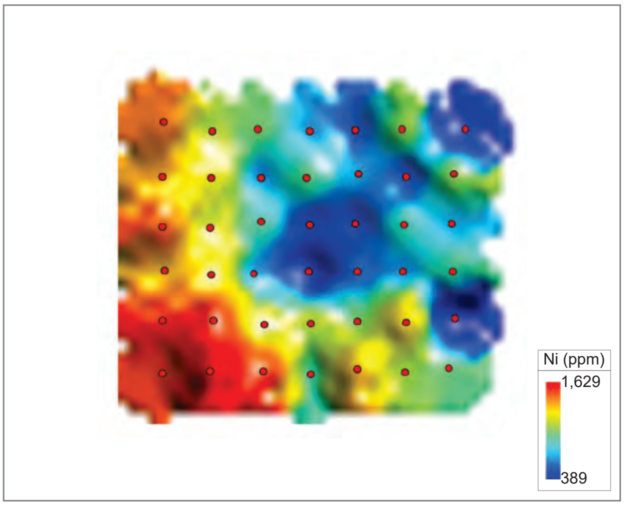
Gridded MMI Ni analyses



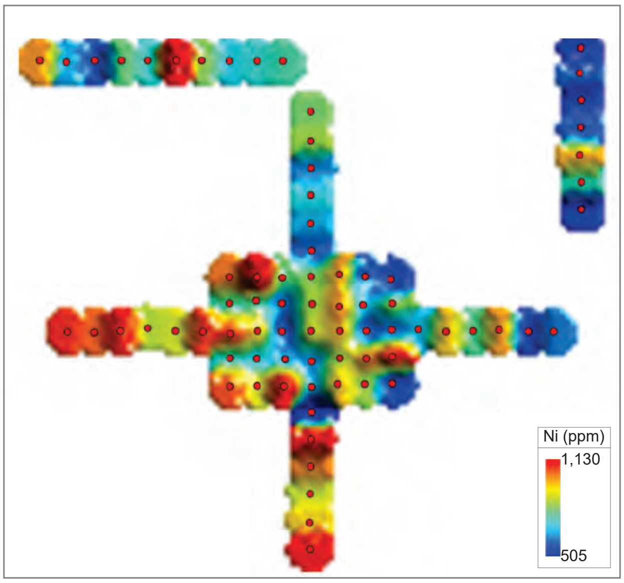
BK14



BK38



AN01



Source: LOM

- a hole was excavated to a depth of 30cm to 50cm;
- a plastic scoop, or one's hands, was then used to collect a nominal 400g soil sample;
- the 400g sample was placed in a durable sample bag and sealed and labelled accordingly. No sample sieving was done; and
- biodegradable tape was fixed to the bottom of each hole after sampling, and labelled with the unique sample number. The hole was then filled in with the tape length long enough to extend out of the hole. This allows for the exact MMI sample site to be relocated should this be necessary.

Samples were bagged and dispatched to Australia for analysis at the SGS Australia (Pty) Limited (SGS Australia) Perth laboratory, a member of the Société Générale de Surveillance Group (the SGS Group), a laboratory which is accredited by the National Association of Testing Authorities, Australia (NATA) (accreditation number 2562). The MMI samples were analysed for 52 elements where in many instances the values yielded were below reliable detection limits. No duplicate field samples were collected with no umpire laboratory appointed to conduct check analyses.

The data acquired over the known BK14 kimberlite was used to calibrate and compare the chemistry of the BK38 kimberlite and AN01 anomaly. Results of the Ni analyses, which all plotted above the reliable laboratory detection limit, are presented in Figure 95.

17.20.3. Time-domain electromagnetic sounding (BK14)

Given the low amplitude HLEM responses recorded on the north-south lines (Section 0), it was decided to complete a test survey of time-domain electromagnetic (TDEM) sounding across BK14. The TDEM sounding was done in an attempt to map the 3D profiles of the body and determine if more diagnostic information about the host lithologies and the kimberlite pipe itself could be derived.

The survey parameters chosen and used to record the data at 50m station intervals is presented in Table 67. The data was processed with the profiles of apparent resistivity's generated for each survey line and frequency.

The results of the TDEM sounding are presented in Figure 96. The TEM47 data from the 50m x 50m transmitter loop on Line 7,646,000N, E-W (Table 67) recorded data to a depth of approximately 150m. The data indicates that BK14 "blew out" through the upper 75m over a distance of about 200m (Figure 96), as noted by the HLEM data (Figure 93). It is apparent that the maximum depths of exploration limit using these survey parameters was in the order of 300m below surface.

Table 67 : BK14 TDEM sounding survey parameters

LINE No.	LINE LENGTH (m)	TRANSMITTER	STATION INTERVALS	LOOP	FREQUENCIES (Hz)
7,646,000N, E-W	750	TEM47	50m	50m x 50m	62.5; 25 and 6.25
			50m	100m x 100m	25 and 6.25
		TEM57	50m	100m x 100m	25 and 6.25
370,450E, N-S	1,000	TEM47	50m	100m x 100m	25 and 6.25

Source: LOM, Venmyn Deloitte analysis

17.20.4. Exploration results

The results of the 2016 field based ground magnetic, electromagnetic and gravity geophysical surveys and the MMI geochemical soil sampling are summarised in Table 68 which should be read in conjunction with Figure 93, Figure 94, Figure 95 and Figure 96.

Table 68 : Summary of the 2016 LOM Area F Project exploration field campaign

TARGET	MAGNETIC	ELECTROMAGNETIC	GRAVITY	TDEM	MMI GEOCHEM
BK14	Shows a classic magnetic dipole.	Shows a clear conductor corresponding with the magnetic dipole.	Data is complex due to a strong regional east-west trend. A weak high is present corresponding with the likely location of the pipe as defined by existing drillholes.	Suggestion of a conductive lithology underlying a more resistive upper 100m sequence. The maximum depths of exploration limit is approximately 300m below surface.	Shows an extensive Ni anomaly directly over the body with a limited dispersion halo to the north-west. This feature is not clearly replicated in other of the other elements analysed.
BK38	Shows a highly irregular pattern with a weak and indistinct east-west fabric in the area of the known kimberlite.	Shows a weak conductor in the area of the known kimberlite. The size of the gravity low and EM conductor suggests a body larger than currently defined.	A clear east-west orientated gravity low in the area of the known kimberlite, which appears to have some significant width to it near the centre of the block, suggesting that it may be a blow on a kimberlite dyke.	N/A	No discernible pattern as noted in BK14. A few samples of high Ni are present in the SW of the BK38 block.
AN01	Shows a double-lobed west-northwest to east-southeast trending oval magnetic dipole.	Shows a distinct double-lobed conductive feature.	Well separated, double-lobed gravity high replicating the double-lobed feature as identified from the magnetic and EM datasets.	N/A	No discernible pattern as noted in BK14.

Source: LOM, Venmyn Deloitte analysis

17.21. Database management

Aegis Geophysics were contracted to complete this Phase 1 field campaign, the results of which were provided in GeoSoft databases which have been combined with the MMI results in a single Microsoft Access project database. There were no adjustments to any historical data captured.

17.22. Geological modelling

No known geological modelling has previously, or currently, been undertaken on the kimberlites of the Orapa Area F Kimberlite Project. At BK14, the TDEM sounding successfully delineated the kimberlite, which has already been historically drilled, but has never been modelled in 2D or 3D.

17.23. Surveying

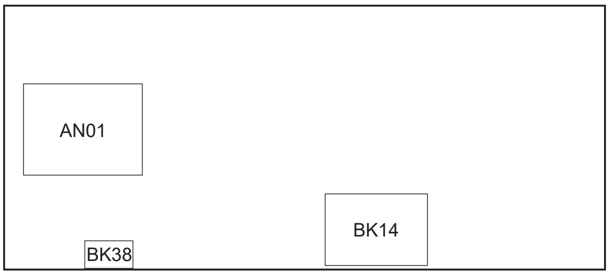
Surveying during the 2016 exploration field campaign was conducted by Aegis Geophysics using a Leica 1200 DGPS which is accurate to within 10cm. The adopted project coordinate system is Zone 35S of the Universal Transverse Mercator (UTM) conformal projection using the World Geodetic System 1984 (WGS84) datum.

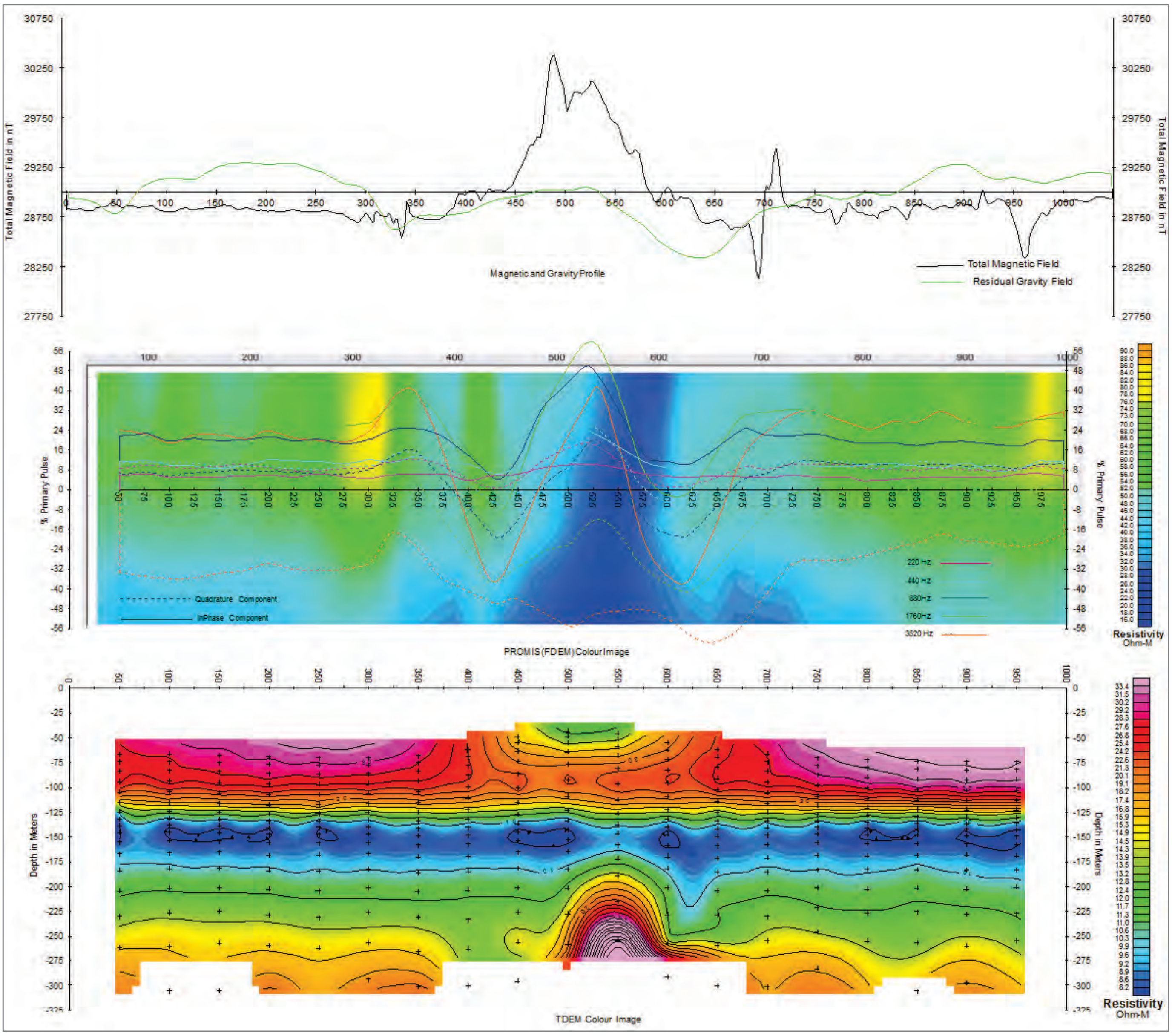
17.24. Diamond production

No production has ever taken place at the Orapa Area F Kimberlite Project.

Venmyn Deloitte. Lucapa Diamond Company

BK14 TDEM 7,646,000 (east to west) line results





17.25. Diamond Resources

No Diamond Resources have ever been estimated for the Orapa Area F Kimberlite Project.

17.26. Audits and Review

No historic sample trails audits or reviews have been completed on the Orapa Area F Kimberlite Project.

17.27. Environmental aspects and compliance status

An EMP was submitted to the Ministry of Minerals, Energy and Water Resources (Department of Mines) during the course of 2015 in support of a prospecting right application, covering Block F. Subsequent to this, Prospecting Licence No. PL265/2015 was awarded to LOM on 22 September 2015 by the Department of Mines, granting exclusive rights to prospect for precious stones in the Licence area for a period of three years. The Licence is valid from 1 October 2015 until 30 September 2018.

The approved EMP identified that no Critical Biodiversity Areas (CBA) had been mapped on the site. Drilling may result in temporary localised impacts on groundwater, however, this impact will be of low significance. The EMP highlights that there are no known cultural or heritage features in the application area. Should any artefacts be uncovered during the course of the project, all finds must be immediately reported to the Department of Mines.

The EMP has identified that the impacts to soils will be of minor disturbance and vegetation may need to be cleared for access tracks and drill sites. This impact is reported by LOM to be of low significance.

It should be noted that a separate EIA process will need to be undertaken for the process of application for a Mining Right.

17.27.1. Recommendations arising from the approved EMP

The State requires that a comprehensive EIA be submitted as part of the application for a Mining Licence. This EIA should form part of the Project Feasibility Study Report. On the granting of a Mining Licence, the State will require that the Mining Right holder make adequate on-going financial provision for compliance with its environmental obligations described in the EIA.

LOM has calculated a minimum expenditure of BWP24,230,200 for the programme of prospecting activities over a three year period. It is notable, the larger expenditures in years two and three will only be incurred if positive results are achieved in each of the preceding years.

According to the legislative requirements of Botswana, an EIA must contain the following minimum requirements:-

- project description and motivation;
- description of the pre-mining environment (geology, climate, topography, soil, land use, ecology, animal life, old and current mining operations, surface water, ground water, air quality, noise and vibration, archaeological and cultural aspects, sensitive landscapes and protected areas, visual aspects, regional and socio-economic infrastructure);
- detailed project description;
- an EIA (by phase – construction, operational, decommissioning, residual impacts);
- an EMP; and
- a documented consultation process.

17.28. Planned Exploration (2017)

Following the successful completion of the 2016 field exploration campaign, the geophysics successfully delineated the BK14 and BK38 kimberlites, with BK38 indicting potential for a blow on the previously identified dyke. In addition, the geophysics identified a high interest target at AN01 which has some features of an expected kimberlite body. It has a well isolated dipole with a double-lobed gravity high and indications of a moderately conductive EM feature (Table 68).

These geophysical results for BK38 and AN01 have warranted a follow-up delineation drilling campaign program over these two target bodies. At BK14, the TDEM sounding successfully delineated the kimberlite, which has already been historically drilled (Table 63 and Table 64), and as such no further drilling has been planned at BK14.

Drilling at BK38 and AN01 is planned for the fourth quarter of 2017, which will include drilling three vertical diamond core drillholes on the well-defined magnetic, gravity and EM anomaly at AN01 and an additional two angled drillholes at BK38 to obtain additional information for this kimberlite.

17.29. Conclusions

The conclusions with reference to the Area F Project are summarised as follows:-

- due to the extent of the historical and recent exploration completed over the Area F Project, and the Orapa Kimberlite Field as a whole, the Area F Project can be considered as an advanced exploration project. Various campaigns of heavy mineral sampling, geophysics, electron microprobe analyses, delineation drilling and bulk sampling have historically been completed. This resulted in the delineation of three kimberlite targets (the known kimberlites BK14 and BK38 along with the magnetic target AN01). Results from the 2016 field exploration campaign, completed by LOM, refined these kimberlite targets;
- the widespread occurrence of indicator mineral soil anomalies, and the mineral chemistry of these grains, indicates the potential for additional kimberlites to occur in the area. The use of high resolution airborne magnetic data, together with gravimetric surveys (currently being completed) may increase the potential for refining these targets;
- Debswana historically noted that not all heavy mineral clusters had been satisfactorily explained over PLL2/97 (which incorporated the current extent of the Area F Project) and that the influence of the drainage of the Letlhakane River required consideration. A comparison of indicator mineral halos with high resolution magnetic data could still define additional targets. However, Debswana were unable to determine the true mineral chemistry signature of those grains derived from possible new kimberlites at the time;
- a clearly defined and comprehensive exploration campaign was completed by LOM in 2016, the results of which warranted a drilling campaign across the BK38 and AN01 kimberlite targets with the intention of eventually evaluating and developing a potential Diamond Resource in the most efficient, beneficial and timely manner; and
- AN01 is considered by LOM to be the primary target due to it having been historically overlooked by Debswana. This was due to its magnetic anomaly being less clear in the geophysical total field data as it has been partially masked by a strongly magnetic dolerite dyke to the north. In addition, the historical bulk sampling of BK14 had yielded a zero grade whilst the historical delineation drilling of BK38 concluded it to likely be a <0.5ha blow on a dyke.

18. Signatures

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Appendix 2 : Glossary and abbreviations

TERM	EXPLANATION
Aeolian	Formed or deposited by the action of the wind.
Alluvial	Diamond deposits which are located in sediments transported by river systems.
Alluvial diamond	Diamond associated with alluvial material (a secondary source).
Anomaly	A physical feature or measured value different to the expected norm which outlines a zone of potential exploration interest but not necessarily of commercial significance.
Arkose	A detrital sedimentary rock, specifically a type of sandstone containing at least 25% feldspar.
Artisinal	Small scale informal non-mechanical mining operations.
Autolith	A fragment of a previously crystallized portion of rock enclosed in material from the same magma which solidified later.
Barren	Kimberlite/lamproite which does not contain diamonds.
Boart	Shards of non-gem-grade/quality diamonds.
Bottom cut-off screen size	Smallest screen opening which separates ore to be processed for diamonds with fines to be discarded.
Bulk sample	Large sample which is processed through a small-scale plant, not a laboratory
Calcrete	Superficial gravels cemented by secondary calcium carbonate.
Carat	Unit of weight for diamonds, 0.2g = 1 carat.
Conglomerate	A coarse-grained sedimentary rock composed of rounded fragments embedded in a matrix of cementing material such as silica.
Country rock	The rock which encloses a mineral deposit, igneous intrusion, or other feature.
Craton	A large stable block of the earth's crust forming the nucleus of a continent.
Density	Measure of the relative "heaviness" of objects with a constant volume, density = mass/volume (g/cm^3).
Diamond	A metastable allotrope of carbon, where the carbon atoms are arranged in a variation of the face-centered cubic crystal structure called a diamond lattice.
Diamond grade	The content of diamonds, measured in carats, within a volume or mass of rock. Usually measured in cpt, cpht, ct/m^3,$ct/100m^3$ or ct/m^2.
Diamond value	The estimated average value of diamonds from the deposit, quoted in USD/ct.
Diamondiferous	Kimberlite/lamproite containing or yielding diamonds for mining.
Dilution	Waste which is mixed with ore in the mining process.
Dip	The angle that a structural surface, i.e. a bedding or fault plane, makes with the horizontal measured perpendicular to the strike of the structure.
Dyke	Intrusive igneous rock vertically or subvertically emplaced.
Eclogite	A metamorphic rock consisting of pyroxene omphacite and pyrope-rich garnet.
Electromagnetic	A geophysical technique whereby transmitted electromagnetic fields are used to energise and detect conductive material beneath the earths surface.
Estimation	The quantitative judgement of a variable.
Exploration	Prospecting, sampling, mapping, diamond drilling and other work involved in the search for mineralisation.
Fault	A fracture in earth materials, along which the opposite sides have been displaced parallel to the plane of the movement.
Feasibility Study	A definitive engineering estimate of all costs, revenues, equipment requirements and production levels likely to be achieved if a mine is developed. The study is used to define the economic viability of a project and to support the search for project financing.
Ferrosilicon	Heavy liquid used in Dense Media Plant.
Garnet	A silicate mineral. The magnesium-rich variety, pyrope, is commonly found in kimberlites.
Geophysics	A section of earth science that employs the principles and methods of physics.
Glovebox	Sealed box which is used to sort diamonds
Graben	A depressed block of land bordered by parallel faults.
Gravel	An unconsolidated accumulation of particles larger than sand (pebbles or cobbles).
Harzburgite	A plutonic rock of the peridotite group consisting largely of orthopyroxene and olivinea plutonic rock of the peridotite group consisting largely of orthopyroxene and olivine.
Heavy minerals	Minerals with a density that is greater than 2.9 g/cm^3, most commonly referring to dense components of siliciclastic sediments.
Hydraulic fractionation	A well-stimulation technique in which rock is fractured by a pressurized liquid.
Ilmenite	An oxide mineral commonly found in kimberlites.

TERM	EXPLANATION
In situ	In its original place within unbroken rock, most often used to refer to the location of the mineral resources.
Indicator minerals	A suite of resistant minerals with an origin and mode of occurrence similar to diamond, that can be indicative of the presence of primary diamond deposits.
Inferred Diamond Resource	That part of a diamond resource for which tonnage, grade and average diamond value can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified by geological and/or grade continuity and a sufficiently large diamond parcel is not available to ensure reasonable representation of the diamond assortment. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill drillholes that may be limited or of uncertain quality and reliability.
Intrusion	A body of igneous rock which has forced its way through pre-existing rocks.
JORC Code	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.
Kimberlite	An ultra basic rock defined as a porphyritic alkalic peridotite containing phenocrysts of olivine and phlogopite. Occurs as dykes or as characteristically carrot-shaped pipes.
Lamproite	Highly alkaline volcanic or subvolcanic rock characterised by the presence of unusual potassium and titanium minerals. Mafic and ultramafic lamproites may host diamond.
Laterite	A cemented, residuum of weathering, generally leached in silica with a high alumina and. or iron content and often containing rounded pisolites.
Lherzolite	A coarse grained rock consisting of 40 to 90% olivine along with significant orthopyroxene and lesser calcic chromium rich clinopyroxene.
Liberation	Release of diamonds from the host rock through processing.
License, Permit, lease or other similar entitlement	Any form of license, permit, lease or other entitlement granted by the relevant Government department in accordance with its mining legislation that confers on the holder certain rights to explore for and/or extract minerals that might be contained in the land, or ownership title that may prove ownership of the minerals.
Lithologies	The description of the characteristics of rocks, as seen in hand-specimens and outcrops on the basis of colour, grain size and composition.
Macrocryst	A relatively large crystal occurring in a mineral deposit, usually defined as one between 0.5mm and 10mm in size.
Matrix	Fine grained rock which supports larger clasts or pebbles.
Mineable	That portion of a resource for which extraction is technically and economically feasible.
Mineral	Naturally occurring element or compound of non biological origin, having an ordered atomic structure and characteristic chemical composition, physical properties and crystal form.
Mineral asset(s)	Any right to explore and / or mine which has been granted ("property"), or entity holding such property or the securities of such an entity, including but not limited to all corporeal and incorporeal property, mineral rights, mining titles, mining leases, intellectual property, personal property (including plant equipment and infrastructure), mining and exploration tenures and titles or any other right held or acquired in connection with the finding and removing of minerals and petroleum located in, on or near the earth's crust. Mineral Assets can be classified as Dormant Properties, Exploration Properties, Development Properties, Mining Properties or Defunct Properties.
Mineral Reserve	The economically mineable material derived from a Measured and/or Indicated Mineral Resource. It is inclusive of diluting materials and allows for losses that may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction is reasonably justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proved Mineral Reserve.
Mineral Resource	A concentration of material of economic interest in or on Earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well constrained and portrayed geological model. Mineral Resources are subdivided, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated and Measured categories.
Mineralisation	The presence of a target mineral in a mass of host rock.
Olivine	A silicate mineral commonly found in igneous rocks.
Overburden	The alluvium and rock that must be removed in order to expose an ore deposit.

TERM	EXPLANATION
Paleochannel	An old river bed formed at a time when the geology and climate of an area was different, with generally higher rainfall. Subsequent changes have seen the river bed, which would be mostly sand and gravels, buried by further sediment cover.
Parcel	A collection of diamonds of various sizes made available for sale as a single package.
Peridotite	A dense, coarse-grained plutonic rock containing a large amount of olivine, believed to be the main constituent of the earth's mantle.
Pitting	One meter diameter pits dug by hand in order to identify geological structures and provide grade estimates.
Pothole	Cylindrical pit formed in the rocky channel of a turbulent stream.
Primary deposit	With reference to the deposition of diamonds, these deposits include kimberlite pipes, dykes, blows and fissures as well as lamproites.
Prospect	A deposit with potential for eventual economic extraction.
Pyroclastic	Detrital volcanic material that has been explosiveley ejected from a volcanic vent.
Sandstone	A fine to very coarse grained arenaceous sedimentary rock consisting of silicate group minerals eg. Sand.
Secondary Deposit	Any sort of earth material that has accumulated through the action of wind, water, ice or other agents.
Sedimentary	Formed by the deposition of solid fragmental material that originates from weathering of rocks and is transported from a source to a site of deposition.
Shale	A fine grained argillaceous sedimentary rock consisting of clays.
Silcrete	An indurated soil duricrust formed when surface sand and gravel are cemented by dissolved silica.
Size frequency distribution	Graph which plots the number of carats in each of the sieve size fractions as a cumulative fraction of the total diamond production of that sample. The graph can also be plotted on log / log axes to form a straight line.
Slimes	The fraction of tailings discharged from a processing plant after the valuable minerals have been recovered.
Slimes dam	A storage facility for all waste products from the processing plant.
Sort house	Area of the plant where final recovery and sorting of diamonds takes place.
Special stones	Diamond greater than or equal to 10.8cts
Stockpile	A store of unprocessed ore or marginal grade material.
Stone size	Average size of the diamonds, expressed as carats/stone.
Stones	Diamonds
Stripping	Removal of waste overburden covering the mineral deposit.
Stripping ratio	Ratio of ore rock to waste rock measured in tonnes.
Tailings	Finely ground rock from which valuable minerals have been extracted by milling. However, these may still contain very small quantities of the economic mineral.
Terrace	An external, raised, open, flat area in a landscape such as a park or graben.
Tonnage	Quantities where the tonne is an appropriate unit of measure. Typically used to measure quantities of ore and waste material mined, transported or milled.
Trap site	A confined area within a river system where diamonds accumulate.
Trenching	Making elongated open-air excavations for the purposed of mapping and sampling.
Unconformity	a surface of contact between two groups of unconformable strata.
Volcanic	Igneous rocks that have reached or nearly reached the earth's surface before solidifying, for example lavas.
Xenolith	An inclusion of a pre-existing rock into an igneous rock.
Yield/Recovered grade	The actual grade of ore realised after the mining and treatment process.

ABBREVIATION	EXPLANATION
%	Percent
°C	Degree Celsius
ADT	Articulated Dump Truck
AIM	Alternative Investment Markets
Area F Project	Orapa Area F Kimberlite Project
ASAIMM	Associate of the South African Institute of Mining and Metallurgy
ASX	Australian Securities Exchange
AusIMM	Australasian Institute of Mining and Metallurgy
AVE.	Average
B.Sc.	Bachelor of Science degree
B.Sc. (Hons)	Bachelor of Science Honours degree
B.Tech	Bachelor's Degree in Technology
BDP	Botswana Democratic Party
BEAPA	Botswana Environmental Assessment Practitioners Association
Botswana	Republic of Botswana
BSS	Bottom screen size
Cand. Eng.	Candidate Engineer
CBA	Critical Biodiversity Areas
CDH	Core drillhole
CDI	Conductivity Depth Inversion
Cm	Centimetre
Consulmet	Consulmet (Pty) Ltd
Cpht	Carat per hundred tonnes
CPR	Competent Persons Report
CS	Crater sediments
CSD	Corpo Seguranca Diamantes
ct	Carat
ct/m^3	Carat per cubic metre
ct/st	Carat/stone
De Beers	De Beers Consolidated Mines Limited
DEA	Department of Environmental Affairs
Debo	De Beers Prospecting Botswana (Pty) Ltd
Debswana	50/50 JV between the government of Botswana and De Beers
DGPS	Differential Global Positioning System
Diamang	Companhia de Diamantes de Angola
Dip. Bus. Man	Diploma in Business Management
DMS	Damelin Management School / Dense media separator
DRB	Diamond Retail Benchmark
DTC	Diamond Trading Company
DTH	Down-the-hole
DTM	Digital terrain model
EIA	Environmental Impact Assessment
EIS	Environmental Impact Study
EMP	Environmental Management Plan
Endiama	Empresa Nacional de Diamantes de Angola
Env. Sci.	Environmental Science
EPT	Excavator pits
EVTE	Estudo de Viabilidade Técnico-Económica
FEL	Front end loader
FeSi	Ferrosilicon
FGSSA	Fellow of the Geological Society of South Africa
Firestone Diamonds	Firestone Diamonds plc
Foundation Resources	Foundation Resources (Pty) Ltd
Fugro	Fugro Airborne Surveys
FVD or 1VD	First Vertical Derivative
G.D.E	Graduate Diploma in Engineering
g/cm^3	Grams per cubic centimetre
g/m^3	Grams per cubic metre
G3 or G4	Eclogitic garnet
G9	Pyrope garnet

ABBREVIATION	EXPLANATION
GDP	Gross Domestic Product
Geol.	Geology
GIS	Geospatial Information System
GNSS	Global Navigation Satellite System
grn	Grain
Ha	Hectare
HK	Hypabyssal kimberlite
HLEM	Horizontal loop electro-magnetic
Hm	Heavy mineral stream samples
IDV	Independent Diamond Valuers (Pty) Ltd
JSE	Johannesburg Securities Exchange
JV	Joint venture
kg	Kilogram
KIMs	kimberlitic indicator minerals
km	Kilometre
km^2	Square kilometre
KMB	Kimberlite bulk sample
kVA	Kilo Volt Amps
kW	Kilo Watt
LDD	Large diameter drilling
Lefika Diamonds	Lefika Diamonds (Botswana) Proprietary Limited
LOM	Lucapa Diamond Company Limited
Lonrho	Lonrho Mining Ltd
LSX	London Stock Exchange
m	Metre
M.Sc.	Master's degree in Science
m^3	Cubic metres
m^3/h	Cubic metres per hour
Ma	Million years
mamsl	Metres above mean sea level
MB	Mining block
Mct	Million carats
MGM	Ministry of Geology and Mines
MGSSA	Member of the Geological Society of South Africa
Min.Eng	Mining Engineering
mm	Millimetre
MMEWR	Ministry of Minerals, Energy and Water resources
MoE	Ministry of Environment
Monak	Monak Ventures (Pty) Ltd
MPLA	Movimento Popular de Libertação de Angola
MRA	Mining Right Application
MS	Mineral Services
MSAIMM	Member of the South African Institute for Mining & Metallurgy
MSL	Mineral Services Laboratory
MVA	Mega Volt Amps
MVK	Massive volcaniclastic kimberlite
MWiMSA	Member of the Women in Mining South Africa organisation
Nare	Nare Diamonds Ltd
NCSA	National Conservation Strategy Agency
No.	Number
NWMP	National Water Strategy Master Plan
NYSX	New York Stock Exchange
Okavango Diamond Company	a rough diamond marketing company owned by the government of Botswana
PK	Pyroclastics kimberlite
Pr.Sci.Nat	Professional Natural Scientist
PT	Pressure / temperature
QA/QC	Quality Assurance / Quality Control
RC	Reverse circulation
Reg. No.	Registration number

ABBREVIATION	EXPLANATION
ROM	Run of mine
RTK	Real time accuracy
RVK	Re-sedimented volcaniclastic kimberlite
SACNSP	South African Council for Natural Scientific Professions
SANAS	South African National Accreditation System
SD	Sedi drillholes
Se	Soil sample
SEM-EDS	Scannining Electron Microscope - Energy Dispersive X-Ray Spectroscopy
SFD	Size frequency distribution
SML	Sociedade Mineira do Lulo, Lda
Sodiam	Sociedade de Comercialização de Diamantes de Angola
Sonangol	Soceidade Nacional de Combustiveis de Angola
SS	Scientific Services
t	Tonne
t/m^3	Tonnes per cubic metre
TDL	Trimble Tactical Data Link
TLB	Tractor loader backhoe
TMB	Trial mining block
TMI	Total magnetic intensity
tph	Tonnes per hour
TSS	Top screen size
TSX	Toronto Stock Exchange
UNITA	União Nacional para a Independência Total de Angola
USD	United States Dollar
USD/ct	United States Dollar per carat
USDm	Million United States Dollars
Venmyn Deloitte	Venmyn Deloitte (Pty) Limited
VK	Volcaniclastic kimberlite
XRT	X-ray transmissive
Z Star	Z Star Mineral Resource Consultants (Pty) Limited

Appendix 3 : Competent Persons Certificate

Name of Staff: Catherine Anne Telfer
Position: Associate, Minerals Industry Advisor and Competent Person
Name of Firm: Contracting to Venmyn Deloitte, a subsidiary of Deloitte Consulting South Africa (Pty) Limited
Address: Building 33, Woodlands Office Park, Woodmead, Johannesburg
Profession: Geologist
Date of Birth: 23 August 1969
Years with Firm/Entity: 25
Nationality: South African

Membership in Professional Societies

CLASS	PROFESSIONAL SOCIETY	YEAR OF REGISTRATION
Member (Reg. No. 400049/02)	The South Africa Council for Natural Scientific Professions	2002
Longstanding Member	Australasian Institute of Mining and Metallurgy	1996
Member	Geological Society of South Africa	1992
Fellow	Geological Society of South Africa	2010

Detailed Tasks Assigned

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
2017	Rockwell Diamonds Inc.	Diamonds	Valuation of the Niewejaarskraal Diamond Project, Northern Cape, South Africa.
	Keaton Energy	Coal	Independent Competent Persons Report on the Vanggatfontein Mine and five other coal exploration assets for issue on the JSE.
	Jupiter Mines Limited	Manganese	Independent Competent Persons Report on the company's share of the Tshipi Borwa Mine in accordance with the JORC and VALMIN Codes.
2016	Lucapa Diamond Company Limited	Diamonds	Independent Competent Persons Report on the company's diamonds assets located in Angola and Botswana for publication on the ASX.
	Rand Refinery	Gold	Design and management of drilling and sampling programme within and surrounding their refinery to identify any potential loss of gold through the floor. Estimation of the potential gold losses.
	Midamines	Diamonds	Compilation, verification and presentation of historical and recent information on alluvial diamond project in the DRC into an investor friendly document.
2015	Keaton Energy	Coal	Independent Competent Persons Report on the Vangatfontein Mine and Sterkfontein Project for issue on the JSE.
	Continental Coal	Coal	Review of resource statement for mineral asset valuation of Continental Coal's coal assets for business rescue practitioner.
	Haohua Energy International Resource Co. Limited	Coal	Review of resource statement for valuation of Coal of Africa Limited's coal assets.
	Namakwa Diamonds Limited	Diamonds	Independent review of recent production data in comparison to resource statement pertaining to Kao Mine in Lesotho.
	Rand Refinery	Gold	Independent review of the quarterly stocktakes from a technical perspective. Review of sampling methods and laboratory practises.
	Gem Diamonds Limited	Diamonds	Independent review and signoff on the resources and reserves pertaining to Letseng Mine, Ghaghoo Mine and GO136 Project.
2014	Pembani Group	Coal	Independent Review of the Pembani Coal Carolina operation.
			Working with Deloitte SA Strategy and Innovation to formulate a business turnaround strategy for Pembani Coal Carolina.
			Independently signing off the Resources and Reserves of Pembani Coal Carolina.
			Working with Deloitte SA Corporate Finance to perform a due diligence of three operating export coal mines in South Africa owned by a multinational company.
2014	Rand Refinery	Gold	Independent review of the procedures within the refinery.

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
			Independent review of procedures within the smelter.
			Independent review of the year end stocktake from a technical perspective.
	Gem Diamonds Limited	Diamonds	Independent review and signoff on the resources and reserves pertaining to Letseng Mine and the Ghaghoo Project.
	Namakwa Diamonds Limited	Diamonds	Independent review and signoff on the resources pertaining to Kao Mine in Lesotho.
	Gem Diamonds Limited	Diamonds	Independent review and signoff on the resources and reserves pertaining to Letseng Mine in Lesotho and the Ghaghoo Project in Botswana.
	Unimin African Resources Limited	Diamond, Iron Ore, Lithium	Independent Competent Persons Report on the Material Mineral Assets of Unimin African Resources Limited located in South Africa and Namibia. (Unpublished)
2013	Consolidated African Diamonds South Africa Investments (Pty) Limited	Diamonds	Independent technical statement and resource estimate on the Panfontein Diamond Project.
	Continental Coal Limited	Coal	Independent Competent Persons Report on the Material Mineral Assets of Continental Coal Limited, including three operating mines and 11 exploration projects located in South Africa and Botswana.
	Coal of Africa Limited	Coal	Independent Review and Gap Analysis of the Makhado Project Feasibility Study.
	Coal of Africa Limited	Coal	Independent Competent Persons Report on the Makhado Project in Soutpansberg, South Africa.
	Keaton	Coal	Independent Review of the Xceed Resources Competent Persons Report.
	Coal of Africa Limited	Coal	Preparation of Independent Experts Report of the company's coal assets in relation to a potential transaction between the company and an international investor.
	Namakwa Diamonds Limited	Diamonds	Technical Resource Statements for the company's main projects in South Africa and Lesotho.
2012	Nedbank Limited	Diamonds	High level due diligence and fatal flaw analysis on Gem Diamonds Limited's Letseng Mine's expansion project.
	Gem Diamonds Limited	Diamonds	NI43-101 report on operating diamond mines in Australia and Lesotho and development project in Botswana.
	Coal of Africa Limited	Coal	Design of Best Practise Guidelines for Exploration
	Coal of Africa Limited	Coal	Preparation of CPR on their Soutpansberg Coal Assets.
	MBAC Fertiliser Corporation	Rare Earths	Preliminary Economic Assessment and NI 43-101 Report on the Araxa Project, Brazil.
	Standard Atlantic	Rare Earths	Resource review of the Buru Hill Deposit, Kenya.
	Coal of Africa Limited	Coal	Competent Persons Report and valuation of Coal of Africa's South African coal assets for a London Main Board Listing, including two operating mines and 8 exploration projects at various stages of development.
	SEW Trident	Coal	Technical Review and Valuation of the Ikoti Coal Project.
			Technical Review, resource declaration and valuation of the Nkomati Coal Project.
2011	Tanzanian Royalty	Gold	Update on the resources for the Masonga, Luhwaika and Igunda Projects in Tanzania.
	Namane Energy Limited	Coal	Competent Persons Report on the Temo Coal Project for Listing on the JSE.
	Sudor Coal	Coal	SAMREC compliant short-form Technical Resource Statement of their Coal Projects in Bethal, Mpumalanga
	Dunrose Investments 244 (Pty) Limited	Coal	JORC Compliant Resource Statement for the Colenso Coal Project, KZN
	Namane Resources Limited	Coal	Competent Persons Report in their Waterberg Coalfield Assets for the JSE.
	UltraTech Cement	Coal	Detailed due diligence and valuation of all Xstrata's Mpumalanga Coal Assets for potential purchase by UltraTech Cement.
	Miranda Coal Pty (Limited)	Coal	SAMREC compliant short-form Technical Resource and Valuation Statements for six exploration properties.
2010	Namakwa Diamonds	Diamonds	Competent Persons Report on their Diamond Assets in Africa.
	Sekoko Resources	Coal	Update of Independent Mineral Resource Statement
	Worldwide Coal Carolina (Pty) Limited	Coal	Update of Independent Mineral Resource Statement
	Gem Diamonds Limited	Diamonds	Preparation of independent resource and reserve statements for all diamond projects and operating mines in Africa, southeast Asia and Australia.
2009	Tanzanian Royalty	Gold	Preparation of a NI43-101F report on the Kigosi Project (in progress).

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
	Pangea Diamondfields plc	Diamond	Preparation of Independent Resource Statements for their alluvial diamond projects in DRC and South Africa.
	Worldwide Coal Carolina	Coal	Preparation of Independent Mineral Resource Statement and audit of exploration results on behalf of ABSA Capital
	Gem Diamonds Limited	Diamonds	Update of independent resource and reserve statements for all diamond projects and operating mines in Africa, southeast Asia and Australia.
	Sekoko Resources	Coal	Preparation of an Independent Mineral Resource statement for the company's Waterberg Projects.
2008	Pioneer Coal	Coal	Competent Persons Report on their coal assets for listing on the JSE.
	Trans Hex Group	Diamonds	Competent Person Report on the company's Angolan assets.
	Pangea DiamondFields plc	Diamonds	NI43-101 report on 10 diamond projects in 4 African countries.
	Gem Diamonds Limited	Diamonds	Preparation of independent resource and reserve statements for all diamond projects and operating mines in Africa, southeast Asia and Australia.
2007	Espirito dos Santos (Portuguese Bank)	Diamonds	Competent Persons Report and Valuation of two diamond mines and a number of exploration projects situated in northeastern Angola.
	Gem Diamonds Limited	Diamonds	High level due diligence and valuation report on Gope Project
	Standard Bank plc	Coal	Due diligence on the Maamba Colliery, Zambia
	Pangea DiamondFields plc	Diamonds	Independent exploration audit on the Dimbi Project, Central African Republic
	Trade & Investment KwaZulu Natal (via Mintek)	Coal	Assessment of the remaining coal resources in KwaZulu Natal and the identification of projects for further development (In progress)
2006	International Ferro Metals	Chromite	Independent audit of resource and reserve statements.
	Letseng Diamonds Limited	Diamonds	CPR for listing of Gem Diamonds
	JCI, Matodzi & Investec	Diamonds	Update of Competent Persons Report on Letseng Diamonds
	Carbon Technologies	Diamonds	Plant verification report on the Laser Recovery Unit.
	Carbon Technologies	Diamonds	Prospectivity and geological mapping report on Grasfontein.
	Pangea DiamondFields plc	Diamonds	AIM Listing document for 9 projects in 4 African countries.
	Trans Hex Group	Diamonds	Competent Persons Report on the Middle Orange Operations.
2005	Eyesizwe Coal (Pty) Limited	Coal	Due diligence of reserves and resources of all Kumba Resources' coal mines required as part of a BEE transaction.
	Eyesizwe Coal (Pty) Limited	Coal	Due diligence of reserves and resources of Sasol Mining's Twistdraai Colliery required as part of a BEE transaction.
	JCI, Matodzi & Investec	Diamonds	Competent Persons Report on Letseng Diamonds
	LionOre International	Nickel	Technical Report on the Tati Nickel Mine in National Instrument format for Canadian Stock Exchange
	Energem	Diamonds	Technical Report on the Koidu Project in National Instrument format for Canadian Stock Exchange
	Two private and one listed company	Diamonds	Preparation of Report for AIM on 18 projects in five African countries
2004	LionOre International Limited	Nickel	Due Diligence on the Nkomati Nickel Mine.
	Dwyka Diamonds	Diamonds	Prospectivity Report on Blaauwbosch Mine
	Dwyka Diamonds	Diamonds	Technical due diligence and valuation report on Dancarl Diamonds for the sales bid to De Beers
	Rosy Blue NV	Diamonds	Field exploration and prospectivity report on property.
	SouthernEra Resources	Diamonds, Platinum	Independent valuation of 22 exploration properties and mining operations located in five African countries
	Sudor Coal (Pty) Limited	Coal	Competent Persons Report and Valuation to be used in the raising of finance for a new coal project in Bethal, South Africa
	Tangent Coal (Pty) Limited	Coal	Technical and Valuation Report for a new project in the Free State, South Africa
2003	Transvaal Ferrochrome	Ferrochrome	CPR and Listing Document for ASX
	Anglo American Corporation	Platinum	Valuation of Zimbabwe platinum deposit

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
	Aquarius Platinum	Platinum	Due Diligence on Everest South Project
	Mineral rights owner	Coal	Evaluation of mineral rights potential
	Metallon	Gold	Valuation and due diligence on gold mine
	Hernic Ferrochrome	Chromite	Capital Gains Tax Valuation on Hernic
	Hernic Ferrochrome	Chromite	Capital Gains Tax Valuation on Ilitha Project
2002	Mining company	Platinum	Independent technical and financial competent persons report and valuation on a platinum dump retreatment project
	Anglo Platinum	Platinum	Independent valuation report on selected platinum group metal properties located in the Pilanesberg area

Key Qualifications

Mrs Telfer has had extensive experience in the valuation and technical due diligence of mining and mineral projects in South Africa, and in Africa as far north as Egypt. She has written and compiled a large number of Competent Persons Reports for both local and international stock exchanges. She has represented the Geological Society of South Africa's disciplinary committee with respect to the implementation of the SAMREC Code and the JSE Listing Rules. Mrs Telfer's particular areas of expertise are in the coal and diamond industries where she has been involved in projects ranging from exploration management through to the development and valuation of projects and mining operations. A detailed list of the project she has completed and their respective dates are tabled above.

Education

DEGREE/DIPLOMA	FIELD	INSTITUTION	YEAR
B.Sc	Geology	University of the Witwatersrand	1991
B.Sc (Hons)	Geology	University of the Witwatersrand	1992
Dip.Bus.Man	Diploma in Business Management	Damelin College	1996

Employment Record

POSITION	COMPANY	JOB DESCRIPTION	DURATION
Associate	Electromin Consulting cc	Independent consultant contracting to Venmyn Deloitte (Pty) Limited	2017 - present
Senior Manager and Advisor	Venmyn Deloitte (Pty) Limited	Venmyn Rand was bought out by Deloitte Consulting South Africa (Pty) Limited in November 2012. Employment transferred to new entity in similar capacity.	2012 - 2017
Consultant & Director (2001 – 2002) (2003 – 2012); Shareholder (2006 – 2012)	Venmyn Rand (Pty) Limited	Part of the consulting team with the majority of assignments being Competent Persons Reports, Due Diligences and valuations. Also undertaking capital gains tax, mineral rights, projects and mine valuations and geological exploration work in the coal mining industry. Projects worked on include:- • Valuation of mineral projects; • Market studies; • Independent Competent Persons Reports for listings on London, Johannesburg and Australian Stock Exchanges; • Qualified Persons Reports in the form of NI43-101 for various Canadian Stock Exchanges; • Calculation and sign off of resources in multiple mineral commodities; • Advising clients on exploration programme development and implementation; • Advising clients on compliance documentation; • Orebody modelling in Surfer®; • Compilation of international and local databases on mining costs, small mining operations, etc.;	2000 - 2012

POSITION	COMPANY	JOB DESCRIPTION	DURATION
		• Management of a number of coal exploration drilling programmes; • Assessment of compliance of CPR's for the Disciplinary Committee of the GSSA; and • Presentations on compliance and valuations of mineral projects for Venmyn Deloitte's Course on International Reporting Rules and Valuation Standards in the Minerals Industry.	
Consultant (Non-Executive Director to Venmyn Rand (Pty) Limited until April 1999)	Sole proprietor in own consulting business	• Techno-economic evaluation of the Ferreira Opencast Coal Reserve, Ermelo, for Wholetrade 1 (Pty) Limited; • Advising on, managing and undertaking geological work on various coal exploration drilling programmes • Modelling of coal reserves and resources and coal quality variations; • Development of mining plans & Mineral rights investigations;; • Ore reserve auditing for DRD, Blyvooruitzicht, Buffelsfontein, West Wits and Crown gold mining; • Digitising of assay plans for DRD; and • Competent Persons Report on the non-gold assets of JCI Gold and Consolidated African Mines for the JSE;	1998 - 2000
Director and Consultant	Venmyn Rand (Pty) Limited	Techno-economic evaluations of mining and minerals project for the company and Technical Advisers Reports for JSE listings. Specific projects included:- • Merger between Western Areas Gold Mine (North Section) and Randfontein Estates Gold Mine; • Disposal of Lindum Reefs Gold Mine to Randfontein Estates Gold Mine; and • Technical Advisers Report and Valuation of the Abu Tartur Phosphate Mining and Chemical Complex, Egypt.	1997 - 1998
Minerals Management Consultant	Resources Division Rand Merchant Bank	Techno-economic evaluations of mining and minerals project for the company and Technical Advisers Reports for JSE listings. Also involved in the research, valuation and management of the technical aspects of RMB Resources' mining investment project. Specific projects included:- • Techno-economic valuation of various coal projects and management of exploratory drilling programmes; • Independent opinion on the input parameters and cashflow model for the agreement between Knights Gold Mining Company and Witwatersrand Gold Mining Company; • Independent Competent Persons Report on the proposed disposal by Benoni Gold Holdings of Benoni Gold Mining Company to East Rand Proprietary Mine; • Mineral rights investigations in South Africa and in Africa; • Research and evaluation of various African exploration projects; • Independent Valuation of the merger between DRD, Blyvooruitzicht, Buffelsfontein Gold Mines and South Wits Project; • Independent Valuation of the merger between Harmony and Unisel Gold Mines; and • Technical Advisers Report on the Randgold Resources listing.	1996 - 1997
Mineral Project Analyst	Venmyn Rand (Pty) Limited	Involved in 90% of Venmyn Rand's consulting projects over the last five years. Gained skills in data collation, data analysis, geostatistics, ore	1992 - 1996

Venmyn
Deloitte.

POSITION	COMPANY	JOB DESCRIPTION	DURATION
		reserve modelling, ore reserve calculation, mineral rights searches, graphical presentation of technical data, mine valuations and techno-economic cashflow modelling over a wide range of minerals and deposit types for clients ranging from miners to investors.	

Languages:

English: Excellent
Afrikaans: Good

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Telfer
_________________Date: 23 July 2017
Full name of associate: Catherine Anne Telfer

Name of Staff: Andrew Johan de Klerk
Position: Senior Manager & Exploration Manager
Name of Firm: Venmyn Deloitte (Pty) Ltd, a subsidiary of Deloitte Consulting South Africa (Pty) Ltd
Address: Building 33, The Woodlands Office Park, 20 Woodlands Drive, Woodmead, Sandton
Profession: Exploration Geologist
Date of Birth: 6 December 1979
Years with Firm/Entity: Joined February 2012
Nationality: South African

Memberships in Professional Societies

CLASS	PROFESSIONAL SOCIETY	YEAR OF REGISTRATION
Member (No. 14004)	Geostatistical Association of South Africa (GASA)	2014
Member (No. 706289)	The South African Institute of Mining and Metallurgy (SAIMM)	2013
Member (No.400030/11)	The South African Council for Natural Scientific Professions (SACNASP)	2010
Member (No. 965220)	Geological Society of South Africa (GSSA)	1998

Detailed Tasks Assigned

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
2017	Keaton Energy Holdings Limited	Coal	Preparation of a Competent Person's Report on the coal assets of Keaton Energy in a JSE/SAMREC compliant format.
	Tewoo Group Co.,Ltd	Manganese	Compilation of an Independent Mineral Asset Valuation on the Distant Star Manganese Mine in South Africa.
	Namdeb Diamond Corporation (Pty) Ltd	Diamonds	Mining expert review and technical audit of Namdeb's Oranjemund Diamond Area 1 Diamond Mine in Namibia.
2016	Lucapa Diamond Company Limited	Diamonds	Preparation of a Competent Person's Report on the diamond asset of Lucapa Diamond Company located in Angola and Botswana.
	Haohua Energy International (Hong Kong) Resource Company Limited	Coal	Independent Valuation Report on the Haohua Energy International shareholding of the Coal of Africa Limited coal assets in South Africa
	Gold One Group Limited	Gold	Preparation of a Competent Person's Report on the Gold One Group Limited various mineral assets and company shareholdings, in support of an intended listing on the Hong Kong Stock Exchange (HKEx).
	Credit Suisse AG	Gold	Conduct an Independent Expert Review of Sibanye Gold Eastern Operations (Pty) Ltd's Burnstone Project Life of Mine Plan.
	Xtract Resources plc	Gold	Preparation of a Competent Person's Report and Economic Assessment on the results of a Definitive Feasibility Study for the Manica Gold Project in Mozambique.
	Midamines S.a.r.l.	Diamonds	Prospectivity assessment and Mineral Resources assessment of an alluvial diamond project in the Democratic Republic of the Congo
	Deloitte Audit S.a.r.l. Luxembourg	Iron Ore	Mining expert review and technical audit of ArcelorMittal's key iron ore and coal operations in Liberia, Canada and the United States.
2015	Kimberley Diamonds Limited	Diamonds	VALMIN Compliant Mineral Asset Valuation and JORC Compliant Mineral Resources and Reserve Report.
	Manhattan Corporation Mining Services (Pty) Ltd	Gold	Technical review and scoping assessment of the Gravelotte Gold Mine in the East Rand Goldfield of the Witwatersrand Basin, in order to complete and Feasibility Study.
	Xtract Resources plc	Copper	Provide independent exploration review services and QA/QC procedures and protocols, together with a Mineral Resource estimate, for the O'Kiep Copper Company Carolusberg and O'Kiep copper tailings storage facilities at Springbok in the Northern Cape Province of South Africa.
	Samancor Chrome Limited	Chromium	Full evaluation of the Mineral Resource and Reserve estimation and underlying exploration information of Samancor's chromite projects across South Africa.
	Deloitte Rwanda Limited	Natural Gas	Complete a commercial and techno-economic assessment of the unconventional gas of Lake Kivu in Rwanda, and its pilot phase exploitation through Kibuye Power Limited KP1 gas platform including the capacity to generate electricity.

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
	Molopo South Africa Exploration and Production (Pty) Ltd	Natural Gas & Helium	Independent technical due diligence of a series of natural gas and helium tenements of the Virginia Gas Field in the Free State Province of South Africa held by White Rivers Exploration (Pty) Ltd.
	Impala Platinum Holdings Limited	Platinum	Prioritised review of various operational expenditure commodities for the Impala Platinum mines on the Western Limb of the Bushveld Complex, South Africa (ongoing).
	Molopo South Africa Exploration and Production (Pty) Ltd	Natural Gas & Helium	Co-compilation of the Molopo South Africa NI 53-101 Form 1 Gas Report (the first such compliant gas report ever submitted to the Johannesburg Stock Exchange).
	MCC MAC Cojy Diamond (Pty) Ltd	Gold and Diamonds	Geological prospectivity assessment, prioritisation and economic valuation of 97 gold and diamond mineral assets across the African continent.
	Molopo South Africa Exploration and Production (Pty) Ltd	Natural Gas & Helium	Compilation of an exploration procedures and protocols manual specific to exploring and evaluating the natural gas and helium of the Virginia Gas Field in the Free State Province of South Africa.
	Simeka Capital Holdings (Pty) Ltd	Chromium	Planning, implementation, oversight and audit of a chromium exploration programme on the Memor Mining (Pty) Ltd Langpan Chromium mine on the western limb of the Bushveld Complex, Limpopo Province, South Africa.
	L.M. Engineering (Pty) Ltd	Ni & PGE's	Technical assessment and economic valuation of a mining concession in the North-West Province of Zambia.
	Deloitte LLP	Gold	Onsite mining expert review and audit of Polyus Gold International Ltd's Natalka Gold Mine in the Tenkinsky District within the Magadan Oblast of the Far Eastern Federal District of the Russian Federation.
			Mining expert review and audit in Moscow, Russia of NordGold N.V.'s West African gold mining operation in Guinea (Lefa Mine) and Burkina Faso (Taparko and Bissa Mines).
2014	Frontier Rare Earths Limited	Rare Earth Elements	Preparation of an NI 43-101 Independent Technical Report and Economic Assessment on the results of a Preliminary Feasibility Study for the Zandkopsdrift REE and Mn by-product Project in South Africa.
	Future Coal (Pty) Ltd	Coal	Mineral Asset Valuation on a series of producing and advanced exploration coal assets in KwaZulu-Natal, South Africa.
	Deloitte LLP	Gold	Mining expert review and audit of Polyus Gold's Natalka and Verinskoye exploration and mining operations in Sibiera, Russia.
	Dawnmin Africa Investments (Pty) Ltd	Tin and Tantalite	Competent Person and joint compilation of an independent competent persons report on the Uis Tin Mine in central Namibia.
	Kombat Copper Incorporated	Copper	Preparation of an NI 43-101 Independent Technical Report and Economic Assessment on the results of a Preliminary Economic Assessment for the Kombat Copper Mine in Namibia.
	Greenflash Trading 251 (Pty) Ltd	Offshore Marine Phosphates	Planning, implementation and management of an offshore marine phosphate exploration drilling, logging and sampling campaign in South Africa.
2013	Unimin African Resources Ltd	Pegmatite Rare Metals	Competent Person and joint compilation of an independent competent persons report on a series of pegmatite rare metal (Ta, Nb, Li & Cs) deposits in central Namibia.
	Ashkari Resources (Pty) Ltd	Chromium	Independent technical review and valuation of the Zimbabwe Alloys Chrome assets situated along the Great Dyke of Zimbabwe.
	Great Western Minerals Group Ltd	Rare Earth Elements	Project Manager and compilation of an NI 43-101 Independent Technical Report and Economic Assessment on the results of a Feasibility Study for the Steenkampskraal REE Project, South Africa.
	The Pula Group International, LLC	Uranium	Independent technical review and valuation of a uranium exploration concession within the Selous Karoo Basin of southern Tanzania.
	Anglo African Capital (Pty) Ltd	Tin	Complete an independent exploration review service and resource estimation and resultant reporting thereof for their slimes dam exploration programme in South Africa.
	Jubilee Platinum plc	Platinum	Advice for listing requirements on JSE and compilation of necessary compliant listing documents.
	CESC India	Coal	Independent technical and commercial review on the Resource Generation Waterberg coal project.
	Gold One International (Pty) Ltd	Gold	Competent Person and compilation of a technical CPR and independent valuation for an exploration project in northern Mozambique for transaction listing purposes on the JSE.
2012	Deloitte LLP	Gold	Mining expert review and audit of Polyus Gold's mining operations procedures and protocols in Siberia, Russia.
	National Mining Corporation	Au & Base Metals	Planning, implementation, management and resultant interpretation of two exploration programmes running concurrently with a feasibility study in Ethiopia.
	Pinette (Pty) Ltd	Base Metals	Planning, advising and auditing of an exploration programme targeting mineralisation in the Kalahari Copper Belt of Botswana.

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
	Zyl Mining (Pty) Ltd	Coal	Planning, implementation and overall management of an ongoing exploration programme in the Nongoma Coal Field of South Africa.
	Coal of Africa Limited	Coal	Implementation advisor and auditor of an ongoing exploration programme in the Soutpansberg Coal Field of South Africa.
	Razita Mining Resources (Pty) Ltd	Precious and base metals and bulk commodities	Compilation of a series of prospectivity reports detailing a variety of commodities across a range of properties.
	Argosy Minerals Limited	Coal	Exploration advisor for prospecting application to the Swazi Ministry involving compilation of report/presentation.
	Aura Integrated Energy Resources Ltd	Coal	Technical assessment and exploration planning for a greenfields exploration project within the Anambra Coalfield of Nigeria.
	Groothoek Coal Mining Company (Pty) Ltd	Coal	Project manager, exploration advisor and auditor of an exploration campaign, and resultant resource estimation and public reporting thereof.
	Pertex Development Inc.	Cu-Co	Technical assessment of a series of greenfields Cu-Co exploration concessions within the Central African Copperbelt of the Democratic Republic of the Congo.
	Minergy Resources Ltd.	Fe	Implementation advisor and auditor of an ongoing exploration programme in the Soutpansberg Coal Field of South Africa.
	Government of Uganda	Cu-Co	Technical assessment and valuation of a defunct Cu-Co mine and tailings retreatment project in Uganda.
	L.M. Engineering Ltd	Ni & PGE's	Technical assessment and valuation of an exploration project in the North-West Province of Zambia.
	Razita Mining Resources (Pty) Ltd	Mn	Technical assessment and valuation of an operating Mn mine in the Northern Province of South Africa.
	Polyus Gold	Au	IFRS Audit reviewing mine plans, stockpiles, gold in circuit, stripping costs and laboratory tests in Siberia, Russia.

Key Qualifications:

Andrew de Klerk graduated from Rhodes University in 2001, since which he has gained 15 years experience in the geological exploration and mining industry. Andrew has worked on a broad-scaling range of exploration and mining projects and commodities worldwide including precious metals, base metals, diamonds, coal and uranium. His first field job was in 2003 which led Andrew on to pursuing a geological exploration career in which he began consulting in 2006. This ultimately resulted in Andrew managing his own exploration geological field consulting company before deciding to join Venmyn Rand (now Venmyn Deloitte) so as to advance his industry career skillset by marrying his exploration skills with the in-house Venmyn Deloitte mineral asset valuation and financial skills.

Andrew's areas of speciality include the implementation of QA/QC standards and protocols for exploration programs, exploration program and budget management and guidance, database management, project management (PEA, Scoping, PFS and DFS), data interpretation and public reporting of resultant mineral assets. To this end Andrew has been involved in, and personally completed, a range of CPR's for various company public listings for which he has stood as a Competent Person. With the worlds "easy to find" mineral deposits largely and historically discovered Andrew's main interests lie in exploring for unique and challenging mineral deposits using a combination of traditional and modern techniques.

Education

DEGREE/DIPLOMA	FIELD	INSTITUTION	YEAR
B.Sc.	Geology & Environmental Science	Rhodes University	2000
B.Sc. (Hons)	Geology	Rhodes University	2001
G.D.E., Environmental Engineering	Engineering	University of the Witwatersrand	2008

Employment Record

<table>
<tr><th colspan="2">POSITION</th><th>COMPANY</th><th>JOB DESCRIPTION</th><th>DURATION</th></tr>
<tr><td>Senior Manager</td><td rowspan="2">Exploration Manager</td><td rowspan="2">Venmyn Deloitte (Pty) Ltd</td><td>Similar technical responsibilities as previous positions within Venmyn.
Tasked with overall project responsibility for wide ranging projects and commodity types in various global jurisdictions.</td><td>June 2015 - Present</td></tr>
<tr><td>Manager</td><td>Venmyn Rand (Pty) Ltd was bought out by Deloitte Consulting South Africa (Pty) Ltd in November 2012. Employment transferred to new entity in similar capacity.</td><td>Nov 2012 – May 2015</td></tr>
<tr><td colspan="2">Exploration Manager & Mineral Industry Advisor</td><td>Venmyn Rand (Pty) Ltd</td><td>Head exploration geologist tasked with planning, implementing and managing exploration programmes.
Project management (PEA's, Scoping, PFS and DFS).
Data interpretation and database management.
Mentorship of geologists. In-house and client training.
Public reporting to the stock exchange standards and client liaising.
Mineral Asset Valuations of mineral projects;
Market studies;
Due diligence technical assessments & prospectivity reviews;
Advising clients on compliance documentation;
Orebody modelling and interpretation in GeoSoft Target™; and
Presentation on Compliance and Reporting of exploration projects for Venmyn's course on International Reporting Rules and Valuation Standards in the Minerals Industry.</td><td>Feb 2012 – Nov 2012</td></tr>
<tr><td colspan="2">Managing Director</td><td>Prime Resources Geological (Pty) Ltd</td><td>Responsible for the daily management of this geological consulting business
Planning, in-country execution and management of various exploration programs for a variety of commodities worldwide including phosphates in Angola, gold in Mali and Ghana, as well as gold in Serbia.
Technical due diligence assessments of various projects at differing stages of development.
CPR compilation for public listing purposes (e.g. gold in Cote d'Ivoire).
Project reporting adhering to various requirements.</td><td>Mar 2011 – Jan 2012</td></tr>
<tr><td colspan="2">Senior Exploration Geologist & Senior Environmental Scientist</td><td>Prime Resources (Pty) Ltd</td><td>Planning, execution and management of various exploration programs for a variety of commodities worldwide.
Technical due diligence assessments of various projects at differing stages of development.
Management of various environmental engineering and EIA studies.
Project reporting adhering to various requirements.</td><td>Oct 2007 - Feb 2011</td></tr>
<tr><td colspan="2">Senior Exploration Geologist</td><td>Caracle Creek International Consulting Inc.</td><td>Planning, execution and management of various exploration programs for a variety of commodities around South Africa.
Head (consulting) geologist at an operating opencast gold mine on the West Rand of South Africa.
Project reporting adhering to various requirements.</td><td>Feb 2006 – Sept 2007</td></tr>
<tr><td colspan="2">Project Geologist</td><td>Eersteling Gold Mining Company</td><td>Planning, execution and field management of two dual running exploration programs for PGM's and Au.
Involved in all such phases setting up stake holder relations, managing QA/QC, various contractors, geological logging, sampling etc.
Database management and geological interpretation.
Project reporting.
Guided GSSA and university field trips through project areas.</td><td>Mar 2004 – Jan 2006</td></tr>
<tr><td colspan="2">Field Geologist</td><td>Tawana Resources NL</td><td>Drill rig management of a diamond exploration program.
Geological logging and management of bulk sample collection.
Daily running of diamond Flow Sort machine.
data collection, management and interpretation.
Hand picking diamonds from final concentrates.
Project reporting.</td><td>Oct 2003 – Mar 2004</td></tr>
<tr><td colspan="2">Field Surveyor</td><td>Longdin & Browning</td><td>Sent around the United Kingdom using a range of surveying equipment to correct/confirm the previous topographic contouring of the countryside and cities of Wales and England.</td><td>Feb 2003 – Jun 2003</td></tr>
</table>

Languages

English: Excellent (written and reading)
Afrikaans: Good (written and reading)

Certification

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

____________________________Date: February 2017
Full name of staff member: Andrew Johan de Klerk

Venmyn
Deloitte.

Addendum – Lulo Diamond Resource

The attached Venmyn Deloitte report *Independent Competent Persons Report on the Angolan and Botswanan diamond assets of Lucapa Diamond Company Limited* includes a classified, depleted and reconciled JORC classified inferred alluvial diamond resource for Lulo, as at 31 May 2017 (Table 1), which was calculated solely for the purposes of the report.

This resource included in the Venmyn Deloitte report was independently estimated on a depletion and addition basis by Z Star Mineral Resources Consultants (Pty) Ltd of Cape Town, South Africa. It updates the classified, depleted and reconciled Lulo alluvial diamond resource dated 31 January 2017 (See Lucapa ASX announcement 27 March 2017) (Table 1).

The updated report primarily reflects mining depletion in the four months between 31 January 2017 and 31 May 2017, during which time 91,746 bulk cubic metres was treated and approximately 5,800 carats of diamonds recovered. Gross diamond sales revenues of US$11.7 million were achieved during this period.

Classified, Depleted & Reconciled Lulo Alluvial Diamond Resource as at 31 May 2017								
Inferred	**Area (m^2)**	**Insitu volume (m^3)**	**Grade ($stns/m^3$)**	**Cts/stn**	**Stones**	**Carats**	**Insitu grade ($cphm^3$)**	**Modelled value (US$)**
Total	**1,158,100**	**603,700**	**0.06**	**1.13**	**37,370**	**42,200**	**6.99**	**$1,215**
Classified, Depleted & Reconciled Lulo Alluvial Diamond Resource as at 31 January 2017								
Inferred	**Area (m^2)**	**Insitu volume (m^3)**	**Grade ($stns/m^3$)**	**Cts/stn**	**Stones**	**Carats**	**Insitu grade ($cphm^3$)**	**Modelled value (US$)**
Total	**1,167,300**	**606,600**	**0.07**	**1.07**	**45,200**	**48,200**	**7.95**	**$1,246**
Notes:	$cphm^3$: carats per 100 cubic metres; $Stns/m^3$: stones per cubic metre							
	Special stones are not excluded in the modelling stage, in terms of size or assortment							
	Average realised sales may be significantly higher in value than the modelled values shown above							
	Bottom screen size: effective -1.5mm							

Table 1: Inferred and depleted Lulo alluvial Diamond Resource as at 31 May 2017

As noted in the ASX announcement of 16 October 2017, the Lulo partners are conducting ongoing pitting and auger drilling programs around the highest-value diamond areas at Lulo, Mining Blocks 6 and 8, to expand the Lulo diamond resources and thus continue the targeted four-year rolling inferred resource of the alluvial diamond mining operations.

The work referred to above in the 16 October 2017 ASX announcement is not included in the JORC classified inferred alluvial diamond resource as at 31 May 2017 (Table 1) which, as previously stated, was prepared for the purposes of the Venmyn Deloitte report only.

However, this work will be included in a scheduled update of the Lulo JORC diamond resource planned for early 2018, with the aim of maintaining the rolling four-year inferred resource.

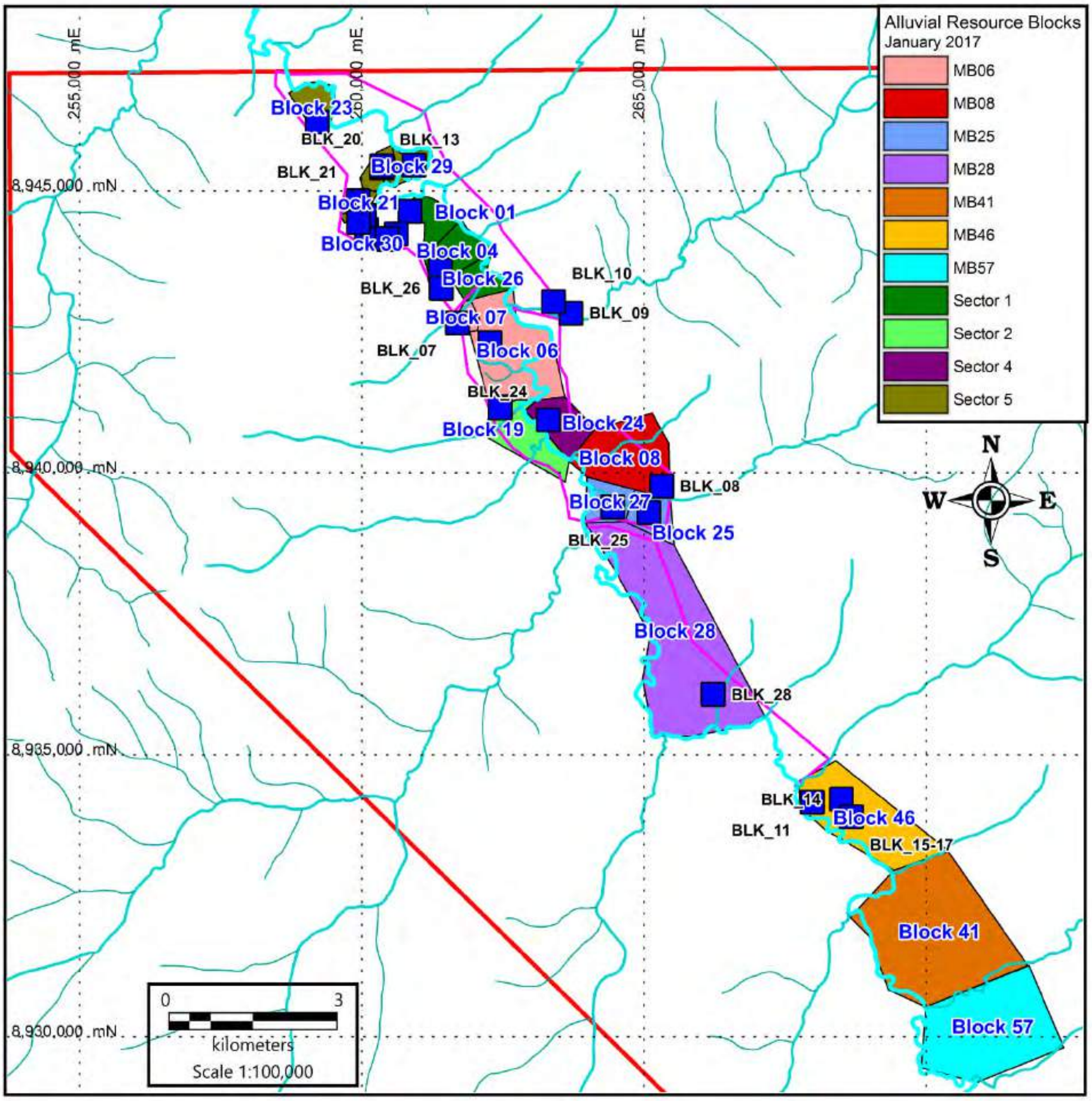
Competent Person's Statement

Information included in this report on the Lulo Inferred Alluvial Resource is based on and fairly represents information and supporting documentation prepared, compiled and supervised by Albert Thamm MSc FAusIMM (CP), who is a Corporate Member of the Australasian Institute of Mining and Metallurgy. Mr Thamm is a Director of Lucapa Diamond Company Limited. Mr Thamm 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 Thamm and consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

Information included in this announcement that relates to the stone frequency, grade and size frequency valuation and validation in the alluvial resource estimate is based on and fairly represents information and supporting documentation prepared and compiled by Sean Duggan (Pri.Sci.Nat 400035/01) and David Bush (Pri.Sci.Nat 400071/00). Messers Duggan and Bush are Directors and employees of ZStar Mineral Resource Consultants (Pty) Ltd, of Cape Town, South Africa. Both hold qualifications and experience such that they qualify as members of a Recognised Overseas Professional Organisation (ROPO) under relevant ASX listing rules. Mr Duggan and Mr Bush have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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 Duggan and Mr Bush consent to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

Appendix 1

Mining Block and JORC Diamond Resource Map



Appendix 2

Reporting of diamond exploration results and diamond resource estimates for the Lulo Project

– JORC Code (2012) requirements –

Depleted, Inferred alluvial diamond resource as at 31 May 2017
Sampling Techniques and Data

Criteria	**JORC Code Explanation**	**Lucapa Commentary**
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• Bulk sample results were reported to JORC 2012. The bulk samples were collected from surface excavations using an excavator and trucks. For alluvial samples overburden of Kalahari sand and alluvial sand and silt were stripped and basal alluvial gravel exposed. The gravels together with some underlying basement material (<30cm) was excavated. • The current sampling is grade control by nature and generally is seeking to identify diamondiferous lithologies. Samples are relatively large (typically >100m^3) and by their nature are representative. • Diamonds occur in very low concentrations in most lithologies. They also occur as discrete crystal particles and these must be physically separated and recovered to determine grade. Individual diamonds are unique and their value depends on factors including size, shape, colour and clarity. Large samples (tens to hundreds of tonnes) are required to identify the presence of commercial diamonds. Samples in the order of tens to hundreds of thousands of tonnes are required to establish reliable grade and value for diamond deposits
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.).*	• Drilling using a Sedidrill auger drill rig has been used to supplement pitting to map the location and thickness of the gravels. • The auger drills 4" (100mm) diameter holes. • Material is recovered from the auger flights and used to measure depth and thickness of the gravels.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Material is recovered from the auger flights and used to measure depth and thickness of the gravels. • Gravel sample is recovered using an excavator. Sample area is visually inspected and all gravels excavated to basement. • No relationship appears to exist between sample recovery and grade. All material within the sampled interval is collected for treatment.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant*	• Drilled material is recovered from the auger flights and used to measure depth and thickness of the gravels • Sample pits are lithologically logged and measured to determine volumes. • Logging is semi-quantitative with edge thicknesses measured of the entire pit. Pits are photographed, but the photography is not systematic. • All excavated faces of the pits are logged

Criteria	JORC Code Explanation	Lucapa Commentary
	intersections logged.	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not core. No sub-samples are taken. All material excavated is processed to recover diamonds. • Most of the samples are excavated dry and all material is taken. • The sampling and sample preparation are identical to those that would be used for mining and are considered appropriate for this type of sampling. • Samples are disaggregated during excavation and washed through a scrubber. The process is identical to that which would be used for mining and results are considered representative. • Sample size is appropriate for the material being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• Samples are processed through a Dense Media Separation (DMS) plant. Recovery in the size fractions used on the plant is considered total. • Samples are processed through the Company's DMS Plant, with an XRT coarse recovery stream (since Dec 2016), to produce a concentrate. Diamonds are recovered from the DMS concentrate using a Flowsort x-ray sorting machine followed by visual sorting. • DMS efficiency is monitored using density beads
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No verification of sample data at an independent facility has been undertaken due to the very large size of the samples. • A total of 1,694 stones weighing 1,796 carats from 23 representative bulk samples from 23,290m^3 treated volume were utilised. • In addition, 64 production records with a mined volume of 307,900m^3 from which 21,680 stones were recovered has also been used in the estimate. • Twinned holes not applicable • Entry of primary data has been checked and loaded into a sampling spreadsheet. • Assay data are not adjusted
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sample sites were located using a hand held GPS with a nominal accuracy of about 5m. More recent samples have been measured using a differential GPS with an accuracy of <5cm. • The grid system is WGS84 Zone 34L • Topographic control uses Digital Terrain Models collected during aeromagnetic surveys. In pit measurements are recorded with tape measures. • See Appendix 1 for location of mining blocks.

Criteria	JORC Code Explanation	Lucapa Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Data in this report comes from individual pits where all the material from that pit has been, or will be processed. • The pit spacing is currently related to exploration and is appropriate for Diamond Resource estimation. • Sample compositing has not been applied
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The samples are considered spot samples within an alluvial body. • Insufficient data exists to determine whether sample bias is present but given the nature of the body, bias is considered unlikely. Independent review opines the bulk samples are considered representative.
Sample security	• *The measures taken to ensure sample security.*	• Sample stockpiles are located near the company's processing facility and are guarded by armed security personnel at all times. • Security of processing and diamond recovery is monitored by company and Angolan State Diamond Security personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques are industry standard and audits or reviews have been undertaken to validate the maiden Diamond Resource.

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 1994 legislation covering the Angolan diamond industry stipulates that only ENDIAMA (Empresa Nacional de Diamantes de Angola, the State Diamond Company) or joint ventures with ENDIAMA, can hold diamond mining rights awarded by the Council of Ministers. • Under the terms of the Lulo Joint Venture Association Agreements, separate titles are granted for alluvial and kimberlite mining. The exploration for both alluvials and kimberlites on the Lulo Concession is a requirement under the Act. • The Angolan Government Gazette, dated 24 December 2007, authorized the formation of a Joint Venture for the exercise of prospecting, evaluation and mining of secondary (alluvial) diamond deposits. These rights were granted for a maximum period of five years. Should the Joint Venture wish to extend the agreement beyond five years, then 50% of the Concession would be relinquished. The equity distribution is: ENDIAMA 32%, Lucapa Diamond Company Ltd 40%, Rosas e Petalas S.A. 28% • The Joint Venture's Alluvial licence was extended for two years to 25 May 2016. The application to extend Kimberlite Licence for two years until 25 May 2016 was also granted to the concession by the Angolan Ministry of Mines.

Criteria	JORC Code Explanation	Lucapa Commentary
		• A new 10 year alluvial mining title was awarded at the end of July 2015 creating "Sociedade Mineira Do Lulo, LDA." ("SML") an Angolan incorporated company with which Lucapa Diamond Company Ltd has a 40% beneficial interest. • SML will be able to apply for 2 further 10 year mining license extensions and a final 5 year extension if the conditions of the mining license are adhered to.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Limited exploration has been undertaken by state controlled entities. • Parts of the area have been exploited by artisanal miners – no records of this work are available.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Significant diamond bearing alluvial systems, of Mesozoic to Recent ages overlie a major, but relatively poorly explored, kimberlite field. The kimberlite pipes intrude flat-lying Karoo sediments within the Lucapa Graben. The kimberlite field is believed to be the source of the alluvial diamonds.
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.*	• Auger drilling for gravel location mapping has taken place to supplement pitting in areas where gravel is too deep for access by excavator. • The sample pits are surface excavations and other data required in the code is not material and its exclusion does not detract from the understanding of the report. • Bulk sampling results were reported in toto. • No material information has been excluded.
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 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.*	• No weighting, averaging, grade truncations 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	• *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,*	• Results quoted are from surface pits. For the alluvial sample, the entire gravel horizon was sampled. • Non-drillhole, in pit sampling, not applicable length concepts.

Criteria	JORC Code Explanation	Lucapa Commentary
	true width not known').	
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 mineralisation with scale and north points are included with the text of the report at Appendix 1.
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.*	• Previously reported drilling, pitting and bulk sampling data were used to site bulk sample pits. The collar locations of drill holes, exploration pits and bulk samples are shown on diagrams within the Z Star report
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.*	• Further excavation and processing of material from the length of the Cacuilo River valley and its major tributaries is planned and ongoing results will be reported on completion.

Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Lucapa Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data, in particular diamond quantity, assortment & size frequency distribution (SFD) and value, cross checked between different CP's. • The bulk sampling dataset is small compared to other forms of exploration data. • External data validation has occurred.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit by the Competent Person was undertaken in January 2015
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	• Geology mapped in bulk sample pits and gravel thicknesses are estimated from separate systematically excavated and hand dug pits and auger drill holes surrounding the bulk sample sites. • The data are thickness and type, facies and relative age, and carats per hundred cubic

Criteria	JORC Code explanation	Lucapa Commentary
	• *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	metres recovered or stones per cubic metres recovered. • Geostatistical methods have been applied to the estimation of gravel thickness only. They are difficult to apply/not applicable other parameters as alluvial diamond concentrations are pure nugget effect. • Gravel thickness and stones per cubic meter are the controlling factors in guiding the Diamond Resource estimate • Sedimentary gravel facies (types) and contacts affect both the grade and continuity of the diamondiferous gravel zones.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• Each gravel zone is delineated in plan from bulk sample and smaller hand dug or excavated pits to determine lateral extent. Gravel thickness are measured directly from pits and trenches.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Estimation of gravel thickness and variability as well as recovered stones per cubic metre are the standard industry methods for alluvial diamond estimation. • On completion the estimate was reconciled against 29 months actual mining and recovery. • There are no by-products. • There are no deleterious by-products. • Block model interpolation is applied to gravel thickness only, in blocks where data is sufficient to support this. • Geology is assumed to be continuous across the separate gravel/conglomerate horizons as demonstrated by adjacent pits either hand dug or excavated. • The only pertinent variables are stones per cubic metre and volume. These are not assumed but measured. • The planar and vertical distribution of gravels controls the geological extent of the Diamond Resource estimate. • Reconciliation is the primary method of validation, the bulk samples and zone estimates are reconciled against mining production. Recovered average stone size is reconciled against bulk sampled stone size and grade (stones/cubic metre) as well as in-situ volume are the reconciled factors. • Grade capping is not an applicable concept. • The Diamond Resource estimate does take account of mining production data.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Estimates are of bulked or in-situ cubic meters to negate the effect of moisture. • Global density of 2.11 was applied to the gravel volume in all estimation areas.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Refer to diamond section below.
Mining factors	• *Assumptions made regarding possible mining*	• None applied to the Inferred Diamond

Criteria	JORC Code explanation	Lucapa Commentary
or assumptions	*methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Resource. The Diamond Resource is reported in-situ, depleted and reconciled for mining to end May 2017 • Based on modelled SFD the total value estimate is US$51.27 million dollars (A$64.90 million @ an exchange rate of US$0.79 to A$1). Note: actual prices received have been materially higher.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The production plant has been the sampling plant since late 2013 The same metallurgical factors i.e. bottom screen size, apply to sampling and production . An XRT diamond recovery unit was added in December 2016
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Mining is underway, with continuous rehabilitation of mining areas taking place. • Reasonable prospects for eventual economic extraction are based on results to date. The Diamond Resource is under actual extraction.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density measurements were performed using the Archimedes method. • Alluvial estimation methods use volume, not density as industry practice. • The methods applied are industry practice. • Bulk density is not assumed but measured.

Criteria	JORC Code explanation	Lucapa Commentary
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence*	• Classification was based on numerous factors including; Modelled assortment, Modelled size frequency distribution,

Criteria	JORC Code explanation	Lucapa Commentary
	in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Number of samples, Geological continuity, Mining reconciliation. The amount of carats and stones recovered so far and values obtained in commercial sales by tender. • The resultant Diamond Resource estimation reflects the Competent Person's view of the deposit and is classified as "Ïnferred".
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The Diamond Resource estimate was peer reviewed by an internal second competent person, (Dr J. A. Grills, Pr.Sci. Nat.) and externally by Albert. G. Thamm, FAusIMM, CP(Management)
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Diamond Resource estimate has been tested by reconciliation between the model and mining reconciliation and diamond sales, over a period of 29 months. • Geostatistical methods have been applied to estimates of gravel thickness but not to any other variable. • Both recovered stone size and grade (as stones per cubic meter) reconcile well within an inferred resource classification and mining over 29 months. • The Diamond Resource estimates are not global, but zonal within district gravel zones, as reported. • The Diamond Resource estimate has been reconciled with production data

Estimation and Reporting of Diamonds and Other Gemstones

Criteria	JORC Code Explanation	Lucapa Commentary
Indicator minerals	• *Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.*	• Indicator grains are not relevant to alluvial grade estimates. • Indicators are useful primarily in kimberlite exploration.
Source of diamonds	• *Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.*	• The diamonds reported have a variety of sizes, shapes and colours. The diamonds were recovered from alluvial gravels in the Cacuilo River valley. These are essentially fanglomerates and braided stream sediments. At Lulo the primary, kimberlitic source of the diamonds are believed to be kimberlites located within the Lulo Concession. • Secondary diamonds are believed to be sourced from nearby sub-cropping kimberlite intrusions which have been eroded and have shed

Criteria	JORC Code Explanation	Lucapa Commentary
		diamonds into elevated terraces and pediments, older than the current Cacuilo River.
Sample collection	• *Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (e.g. large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).* • *Sample size, distribution and representivity.*	• Samples reported are bulk samples of alluvial gravels. The samples are designed to determine whether the units sampled are diamondiferous and to what extent. The samples are also designed to determine stone size distribution and eventually diamond values. • Lucapa and its JV partners are conducting exploration activities to locate diamondiferous lithologies. The sample size, distribution and representivity are appropriate for this activity.
Sample treatment	• *Type of facility, treatment rate, and accreditation.* • *Sample size reduction. Bottom screen size, top screen size and re-crush.* • *Processes (dense media separation, grease, X-ray, hand-sorting, etc.).* • *Process efficiency, tailings auditing and granulometry.* • *Laboratory used type of process for micro diamonds and accreditation.*	• Samples are processed through a DMS plant. The plant uses a 420mm diameter cyclone and has a nominal head feed treatment rate of 150 tonnes per hour. The plant is not accredited. • Samples are disaggregated during excavation and washed through a scrubber. The bottom screen size is 1.2mm (slotted) (1.5mm effective) and the top size is 55mm. • The recovery process involves DMS separation, X-ray sorting of the heavy concentrate and hand sorting of the X-ray concentrate. An XRT unit is used to process the 18-55mm fraction. • Larger diamonds are characterised using a ZVI Yehuda F1000 Colorimeter. • SML are processing the material through a DMS plant with an XRT coarse recovery stream. Processing efficiency has been demonstrated in density bead recovery tests. Tails auditing and granulometry studies have not been completed. • Microdiamonds are not reported.
Carat	• *One fifth (0.2) of a gram (often defined as a metric carat or MC).*	• Reported as carats.
Sample grade	• *Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.* • *The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.* • *In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).*	• Sample grade is quoted in the text in units of stones per cubic metre, carats per stone and carats per 100 cubic metres for alluvials. • For the purposes of estimation stones per hundred cubic metres are reported. • A nominal 2.11 tonnes per cubic metre is ascribed to the alluvial gravels and weathered kimberlite. Limited density measurements have been made and the use of an "average" density is considered appropriate for the stage of exploration. • The table in the report reports average carats per stone and carats per 100 cubic metres. • Stone frequency (stones per cubic metre), stone size (carats per stone) is used to derive sample grade (carats per 100 cubic metres).
Reporting of Exploration Results	• *Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.* • *Sample density determination.* • *Per cent concentrate and undersize per*	• Exploration results are reported in summary (ASX LOM: Maiden Diamond Resource at Lulo; 15 December 2015). • The density for alluvials and has been determined at 2.11 tonnes per cubic metre. This number was measured for previous samples and has been applied throughout. • Percent concentrate and undersize have not been measured and are not considered material

Criteria	JORC Code Explanation	Lucapa Commentary
	sample. • *Sample grade with change in bottom cut-off screen size.* • *Adjustments made to size distribution for sample plant performance and performance on a commercial scale.* • *If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.* • *The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated.*	to the understanding of this report. • Variation in grade with changes in bottom cut-off screen size has not been determined. Lulo's original and smaller plant was considered to be a pilot plant and the plant parameters were the same as would have been used in a commercial plant. The second and larger 150tph plant was commissioned in November 2013 and this plant is used for the commercial alluvial production as well as treatment of bulk samples. • Geostatistical studies on diamond parameters have not been undertaken because of the relatively small number of diamonds recovered and uncertainties of using this data for alluvial deposits. • The total weight of diamonds recovered is reported in the text as are the upper and lower cut-off sizes.
Grade estimation for reporting Mineral Resources and Ore Reserves	• *Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.* • *The sample crush size and its relationship to that achievable in a commercial treatment plant.* • *Total number of diamonds greater than the specified and reported lower cut-off sieve size.* • *Total weight of diamonds greater than the specified and reported lower cut-off sieve size.* • *The sample grade above the specified lower cut-off sieve size.*	• Diamond Resources are included in the report. See text above. No Diamond Reserves are reported.
Value estimation	• *Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.* • *To the extent that such information is not deemed commercially sensitive, Public Reports should include:* o *diamonds quantities by appropriate screen size per facies or depth.* o *details of parcel valued.* o *number of stones, carats, lower size cut-off per facies or depth.* • *The average $/carat and $/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.* • *The basis for the price (e.g. dealer buying price, dealer selling price, etc.).* • *An assessment of diamond breakage.*	• Value estimates are based on recoveries from a commercial scale DMS plant. Total liberation methods have not been employed. • Value has been modelled from SFD and assortment • Much of the detailed or individual diamond valuation data is considered commercially sensitive from a marketing perspective and cannot be released in advance of sale. • Broad details of the parcel valuations are included in the text. • The bottom cut-off used is the same as the plant – 1.2 mm slotted screen (1.5mm effective). • Values are reported in US and/ or Australian Dollars. • The price quoted is the average sale price per carat. • No significant diamond breakage was recognised. • Average modelled value is US$1,215 per carat. • Average value achieved in commercial sales during 2016 was US$2,983 (A$3 776). • Sales price quoted are commercial dealer buying prices. • Stone size frequency analysis and value were modelled by:

Criteria	JORC Code Explanation	Lucapa Commentary
		D. E. Bush Pr. Sci. Nat. Principal Mineral Resource Analyst (Z*) David E Bush is a graduate of Ecole Nationale Supérieure des Mines de Paris, France, with a DEA in Geostatistics (1990); an MSc DIC in Mineral Exploration from Imperial College, London, England (1984) and a BSc (Hons) degree in Geology from the University of the Witwatersrand, South Africa (1980). He has in excess of twenty years' experience in geostatistical mineral resource estimation and classification. A significant proportion of this experience has been directly related to diamond deposits. He is currently a director of Z Star Mineral Resource Consultants (Pty) Ltd. and a member of the Geostatistical Association of South Africa. David qualifies as a competent person as defined in the "South African Code for Reporting of Mineral Resources and Ore Reserves" (SAMREC) and is registered as a Geological Scientist with the South African Council for Natural Scientific Professions (Registration No. 400071/00). S. P. Duggan *Pr. Sci. Nat.* Principal Mineral Resource Analyst (Z*) Sean Duggan graduated in 1984 with a BSc degree in Geology, in 1985 with a BSc Honours degree in Geochemistry, both from the University of Stellenbosch, South Africa and in 1994 was awarded an MSc degree in Mining Engineering (Geostatistics) from the University of the Witwatersrand. He has been directly involved in the estimation and classification of mineralised placer deposits for the last 30 years and base metal deposits specifically for 6 years. He is a member of the Geological Society of South Africa, the Geostatistical Society of South Africa and is registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (Registration No. 400035/01). He is currently a Principal Mineral Resource Analyst and Director of Z Star Mineral Resource Consultants (Pty) Ltd.
Security and integrity	• *Accredited process audit.* • *Whether samples were sealed after excavation.* • *Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.* • *Core samples washed prior to treatment for micro diamonds.* • *Audit samples treated at alternative facility.* • *Results of tailings checks.* • *Recovery of tracer monitors used in sampling and treatment.* • *Geophysical (logged) density and particle density.* • *Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.*	• There has been no accredited process audit. • Samples were monitored by armed guards after excavation and the process operation was monitored by Angolan State Diamond Security personnel. • Diamonds recovered are stored in a locked vault or in vaults in Sodiam's secure offices in Luanda • Microdiamonds were not processed. • No audit samples were collected because of the size of the bulk samples. • Tailings have not been checked. • Tracer monitors were used in sample treatment with tracer recovery in all tested size fractions >95% for tracers of density 3.5 g/cc. • Geophysical densities were not determined. • Gross validation of weights with hole volume and density is not considered appropriate for the stage of exploration.
Classification	• *In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.*	• Sufficient diamonds have been recovered to allow Lucapa to quantify the commercial uncertainty in stone size frequency (SFD), stone size, assortment and diamond grade, at Inferred Resource level. • In addition SFD and stone size as modelled has reconciled against 24 months of commercial scale alluvial mining. • The special stones are not excluded in the modelling stage, either in terms of size or assortment. • The size frequency distribution model is based on all the stone data. • As diamond market conditions change, the modelled value and realised values will be different.