# ASX RELEASE 18 October 2017

**ASX Code: POZ** 



# Breakthrough GPR Survey technology a 'Gamechanger' at the Blina Diamond Project, WA

#### **HIGHLIGHTS**

- A breakthrough **Ground Penetrating Radar (GPR)** survey at the Blina Diamond Project indicates as yet untested alluvial trap sites with the potential to host high grade or bonanza grade diamond deposits within the ancient gravels. Numerous high quality targets have been generated.
- This latest **GPR technology** uses state of the art modern electronics to deliver a fast and inexpensive method to generate both bedrock and gravel diamond trap site targets.
- Some of this recent GPR data correlates closely to historic pitting and exploration data observations of the prospective bedrock-cover contact, which indicates the modern GPR is calibrated and operating correctly, Sections A to E are examples.
- The 100% owned POZ Minerals Blina Diamond Project in the West Kimberley region of WA covers a 40 km long diamond bearing palaeo-channel named Terrace 5. The channel drains the central section of the previously mined Ellendale diamond field which is renowned as a globally significant source of rare fancy yellow diamonds. The POZ Terrace 5 ground has previously produced significant quantities of diamonds, including fancy yellows.
- The Company's GPR survey, has generated numerous targets including the Channel 1 Target which is over 3,000 metres long and from 100 to 200 metres wide, modelled target gravels lie under only 3 to 5 metres of cover. It is a diamondiferous channel with previous sampled grades up to 6.03 carats per hundred tonnes. The target requires systematic bulk sampling which has not occurred to date.
- The Pothole Target is over 800 metres long and from 50 to 170 metres wide. Modelled
  target gravels lie under only only 3 to 5 metres of cover. This target could be an ancient
  waterfall, pothole or scour and represents a large and highly prospective alluvial trap
  site.
- There are numerous additional targets which can be modelled from the GPR data and which will continue be identified leading up to the bulk sampling/trial mining program.
- Blina Project Mining licenses M04/466 and M04/467 were recently granted and an historic Mining Agreement has been secured with the Bunuba Dawangarri Aboriginal Corporation (POZ ASX Announcement dated 16 October 2017) who represent the Traditional Owners for this area.
- Permitting is underway to commence bulk sampling and trial mining operations in 2018.



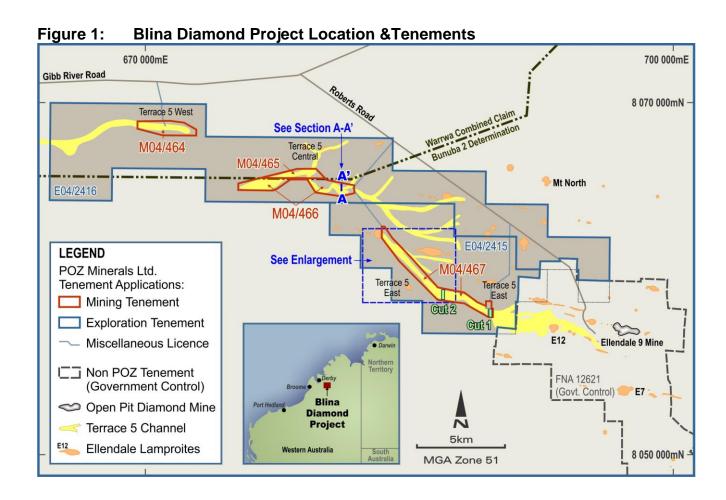
#### 1.0 Introduction

The Blina Diamond Project in the Ellendale Diamond Province of WA's Kimberley Region is 100% owned by POZ Minerals Limited ('POZ' or the 'Company'). The project consists of four mining leases and two exploration leases (E04/2415 is granted) within an area of 161 km², situated 100km east of Derby.

POZ recently announced it had secured a Mining Agreement with the Bunuba Dawangarri Aboriginal Corporation ('Bunuba'), the Traditional Owners for the southern part of the Blina Diamond Project area, and this has led to the grant of mining leases M04/466 and M04/467 which lie at the heart of the project. It is the intention of the Company to conduct bulk sampling and trial mining operations on these permits in 2018.

A diamond bearing alluvial palaeochannel named Terrace 5 extends over some 40km of the POZ project area, with channel widths from 200m to 500m. Diamonds recovered from the Terrace 5 gravels are considered large, with an average stone size of around 0.4 carats. Most stones are of gem quality. The largest diamond recovered to date from Terrace 5 weighed 8.44 carats (from BLBS082)<sup>1</sup>, with stones larger than two carats common.

The key to exploring the Terrace 5 diamondiferous channel is to find the best alluvial trap sites which are most likely to host the highest diamond grades, these trap sites usually occur around the sediment/bedrock interface. POZ Minerals has completed a ground geophysics survey using the latest in Ground Penetrating Radar (GPR) technology and the Company believes we now have a fast and inexpensive breakthrough technique which can discover these trap sites and their highly prospective diamondiferous gravels.





There has been over \$30 million spent over the last 30 years on the Blina Diamond Project groundholding by companies including the Ashton JV, De Beers, Kimberley Diamond Company NL (KDC), and GEM Diamonds. POZ is now the beneficiary of a vast amount of historic data from this previous work and has compiled this information into a modern database which can be assessed using 3D modelling software.

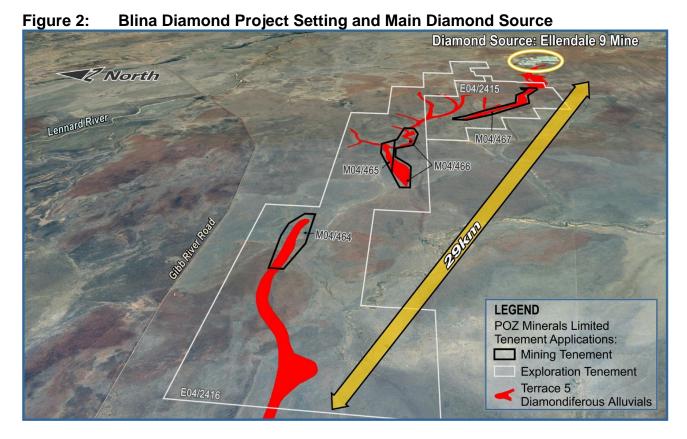
POZ has merged historic drilling, trenching, bulk sampling, trial mining, indicator mineral sampling and geophysical data with the latest state of the art GPR data to generate high grade alluvial diamond trap site targets on proven diamondiferous channels for bulk sample testing and trial mining scheduled to commence in 2018.

#### 2.0 Terrace 5 Diamond Sources

The Ellendale lamproite field (which includes the POZ Blina Project area) is one of the largest lamproite fields globally and many of the pipes have proven to be diamondiferous, with the Ellendale 4 (E4) and Ellendale 9 (E9) pipes having been commercially mined.

The E9 mine (currently not producing) immediately adjacent to the Blina Project was reported in 2014 to be the world's leading source of rare fancy yellow diamonds and to have contributed an estimated 50% of the global supply of these yellows.<sup>1</sup>

Previous trial mining of the Blina Project Terrace 5 alluvial gravels at Cut 1 and Cut 2 (Figure 1) in 2005-6 indicated that the diamonds recovered included a significant proportion of fancy yellow stones, particularly in the larger stone sizes. This indicates that an important source of the Terrace 5 diamonds is most likely from the erosion of the E9 lamproite pipe, which has these fancy yellow diamonds as its signature stone type.



The amount of erosion of the E9 pipe (and other diamondiferous pipes) is important as the more erosion which has occurred, the greater the number of alluvial diamonds which could have flowed into the Terrace 5 alluvial channels.



The amount of erosion from E9 is speculative, but the terrain around the Mount North lamproite pipe (emplaced at roughly the same time as E9) which lies just ten kilometres north-east of E9 has been eroded by 'at least 90 metres' according to GSWA Bulletin 132<sup>2</sup>.



Mount North lamproite pipe: indicating surrounding level of erosion since emplacement

#### 3.0 Terrace 5 Diamonds

Some of the larger diamonds recovered from the 2005 Terrace 5 trial mining (Cut 1 and Cut 2 on Figure 1) are shown below. All stones in this image are heavier than 2 carats with the largest being 8.4 carats, a significant proportion of the larger diamonds are fancy yellows. All of these diamonds were recovered from what is now granted POZ mining lease M04/467. Full details of this trial mining are included in the POZ ASX Release dated 9 October 2015<sup>1</sup>.



Some of the diamonds recovered from what is now POZ granted mining lease M04/467. Largest stone 8.4 carats.

With the 2015 closure of the Ellendale 9 mine, this supply of fancy yellows ceased and POZ believes Terrace 5 could become a significant new source for these highly sought after fancy yellow diamonds.

### 4.0 Exploration Model and Targeting Methodology

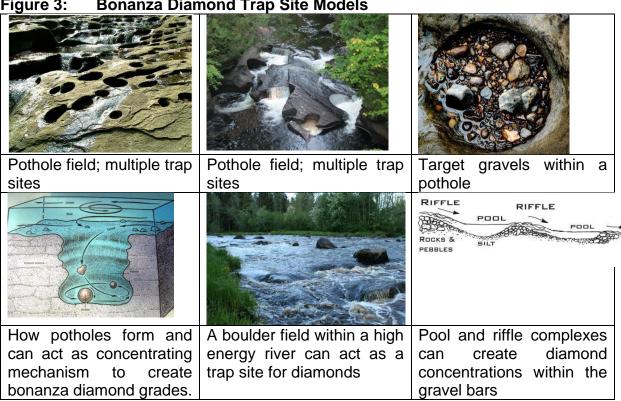
The aim of the Blina exploration program is to discover commercial concentrations of alluvial diamonds within the ancient Terrace 5 gravels. Alluvial diamonds are not spread evenly in rivers, they concentrate in alluvial trap sites within the channel and it is these areas which have the potential to host the highest grade or bonanza diamond deposits.



These types of high grade diamond trap sites do not follow the ancient river bed in one consistent strand, instead they are often specific to spot locations and may vary in diameter from a few metres to hundreds of metres. The best trap sites occur in areas that had fast flowing (high energy) water and can include pot holes, scours, gullies, riffles, bars, boulder fields or any other mechanism which can cause diamonds to become trapped and concentrated. This is usually where the alluvial gravels interface with the bedrock in the bottom of the river and in bedrock topographic lows.

The following images give examples of the types of trap sites which, in a diamondiferous river (as Terrace 5 was), can concentrate bonanza grades of diamonds. These are how our targets may have looked when they formed (circa 5 to 22 million years ago) in the Miocene epoch, prior to being covered and preserved by other fluvial sediments and eventually windblown sand.

Figure 3: **Bonanza Diamond Trap Site Models** 



These trap sites make excellent targets for bulk sample testing and POZ is currently working to identify these targets through the use of historic exploration data together with modern geophysics in the form of Ground Penetrating Radar.

#### 5.0 **POZ Ground Penetrating Radar Survey**

Earlier in the year, geophysical consulting group CORE Geophysics Pty Ltd conducted a ground penetrating radar (GPR) geophysical survey over the company's mining lease applications. GPR is a very powerful technique for shallow investigations such as POZ is planning (2 to 10 metres). The aim of this survey was to define both gravels and the bedrockcover contact and thus discover alluvial trap sites within bedrock lows which have the potential to host high grade or bonanza diamond deposits.



The technique works by transmitting a pulse of radar energy into the ground and then recording the strength and the time required for the return of the reflected signal. A series of pulses over a single area make up what is called a scan. Reflections are produced whenever the energy pulse enters a material with different electrical conductivity properties and can be an excellent way to map the bedrock-cover contact which is so important when targeting alluvial trap sites. Operator controlled variations to signal frequency allow depth penetration to be adjusted.<sup>3</sup>



POZ Chairman Jim Richards and geophysicist Mathew Cooper conducting the GPR Survey at Blina in 2017. GPR tool is the yellow 'snake' to front. DGPS carried by operator.

### 5.1 The Significance of the Latest Generation of GPR

The search for a geophysical technique to target alluvial trap sites at the Blina Project has been going on for the last thirty years and can be considered the 'holy grail' of exploration for this particular project.

Various geophysical techniques at Blina have been tested, but no method has previously proven to be reliable, including detailed GPR trials by KDC in 2002. The geophysical company report on that survey in July 2002 stated:

"...we conclude that present GPR systems are not suitable for mapping palaeochannel locations beneath pindan (wind blown) sands in this area. This situation may change if GPR systems noise levels are further reduced in the future..." SenseOre Services Pty Ltd Report to Kimberley Diamond Company on Ground Penetrating Radar Trials at The Ellendale Project dated July 2002. A66802

This situation has now changed and the latest GPR systems have been transformed in a number of ways:

- 1. The use of modern electronics has allowed vastly improved signal acquisition rates which in turn have dramatically reduced signal to noise ratios.
- 2. Modern computing power and algorithms have radically enhanced filtering of noise and data modelling, which now produce clearer and less 'noisy' subsurface images.
- 3. Modern equipment will now allow signal transmission and data acquisition from a flexible 'snake' approximately 6m in length with accurate positioning obtained by DGPS contained in a back pack carried by the operator. In 2002, ground had to be cleared to allow for a towed sled which required environmentally destructive ground clearances, which was more expensive and much slower.
- The use of accurate LIDAR height surveys incorporated into the GPR interpretations give far superior relative bedrock RL modelling. POZ has this LIDAR data over the entire project area.



This enormous leap in GPR technology from 2002, when the previous GPR survey took place at Blina, as compared to the POZ GPR survey in 2017, is illustrated in Figure 4.

Figure 4: POZ Minerals GPR Survey May 2017 versus GPR Survey 2002

# **POZ Minerals GPR Survey at Blina May 2017** Kimberley Diamond Company Survey at Blina in 2002 Operator carries a DGPS and drags the GPR Ground sled on cleared track to transmit 'snake' behind him which transmits a signal and signal and acquires data. acquires return data. Data acquisition was triggered by a Radar receiver for continuous data acquisition survey wheel KDC GPR Survey data reported July 2002, collected over Terrace 5 just east POZ GPR Survey 2017, Terrace 5, Section B. of Cut 2. The data is noisy and contains Clean data allows interpretation of bedrock too much interference to be usable contact and modelling of gravel targets



#### 6.0 POZ Minerals GPR Survey Results a 'Gamechanger'

POZ believes the recent GPR surveying at Blina to be a ground-breaking success. New targets have been identified which indicate numerous exciting and as yet untested alluvial diamond prospects. Some of this recent GPR data correlates closely with original pitting and exploration data observations of the prospective bedrock contact, which indicates the modern GPR is calibrated and working correctly, and gives further confidence in the newly generated targets; Sections A to E are examples.

The highest priority POZ targets are in channels that have previous pitting operations with historic diamond grades which could be considered commercial, depending on pricing. However, these new POZ targets indicate the previous work may have missed the best spots, as the new GPR targets indicate far better trap sites than the original diamondiferous pit areas, and thus the new POZ targets could contain diamond grades which far exceed the historic pit grades. See Sections A to E.

The GPR data allows for the modelling of both bedrock and gravel targets, which the GPR picks out as an electrical contrast. The best targets are those where the bedrock lows and indicated gravels coincide. The interpretation of these targets has relied upon not only the GPR data, but also the extensive historic exploration database of drilling, pitting, bulk sampling, geophysics and diamond recovery which POZ has captured and modelled using 3D geological software. It is the use of this *combined* data which POZ believes is the key to exploration success at Blina.

The following plan and cross sections (Figure 5 and Sections A to E) show some of this data and indicates the ability of the latest GPR to model the all-important bedrock contact. Of particular interest is the western end of Terrace 5 East (Figures 1 and 5) where shallow cover, good historic diamond grades from pitting and excellent GPR results all coincide to deliver some highly prospective targets, most notably:

### 6.1 Pothole Target (Figure 5, Sections B & C)

The Pothole Target is over 800 metres long and from 50 to 170 metres wide, with modelled target gravels lying under only only 3 to 5 metres of cover, and is a part of the broader 'Channel 1 Target'. The Pothole Target was missed by bulk sample pit BS6, and interestingly the pit log shows the bedrock-alluvium contact dipping downwards to the north, towards the Pothole Target, as could be expected when approaching a trap site.

This highly prospective feature could be an ancient waterfall, pothole or scour. The fact that pit BS6 did recover some diamonds even though it was not within the trap site makes the Pothole Target especially prospective. This target requires systematic bulk sampling which has not occurred to date.

#### 6.2 Channel 1 Target (Figure 5, Sections D & E)

The Channel 1 Target is over 3,000 metres long and from 100 to 200 metres wide, modelled target gravels lie beneath only 3 to 5 metres of cover (Sections B, C, D and E). It is a diamondiferous channel with previously sampled grades up to 6.03 carats per hundred tonnes. The target is interpreted as a deeper channel within the Terrace 5 system and requires systematic bulk sampling which has not occurred to date.

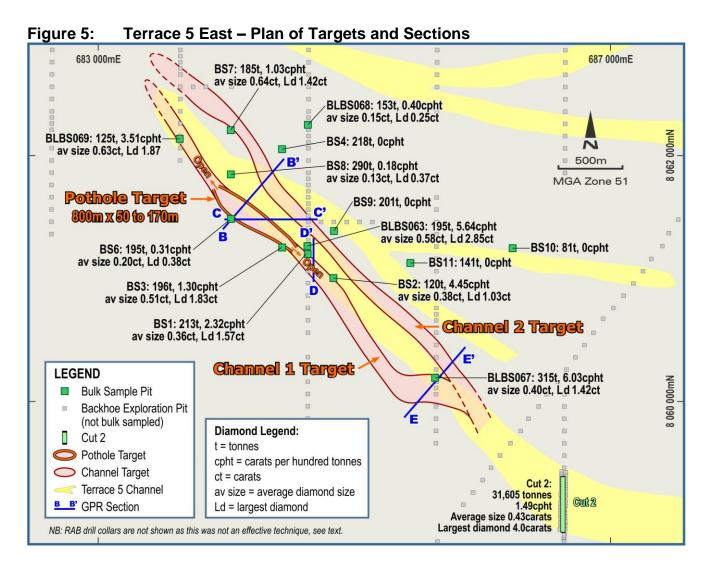


## 6.3 Channel 2 Target (Figure 5, Sections B, C & E)

The Channel 2 Target is over 3,000 metres long and from 60 to 100 metres wide, modelled gravels lie beneath only 3 to 5 metres of cover. No sampling has occurred within this channel despite surrounding (shallower) pits returning diamond grades of up to 5.64 carats per hundred tonnes.

#### 6.4 Other Targets

Most of the POZ mining lease areas have been covered by the new GPR surveying, with line spacing roughly every 200 metres. There are numerous other targets which can be modelled from this GPR data and which will continue to be identified and further defined leading up to the bulk sampling/trial mining program. One of these targets is in Central Terrace 5 (Figure 1 and Section A) where a 400 metre wide unsampled channel target shows up well on the GPR; this target was missed by bulk sample pit BLBS057 just 65 metres to the south, which returned a good grade of 6.47 carats per hundred tonnes (largest diamond 1.47 carats) from gravels which appear shallower and less prospective than the GPR-defined target.

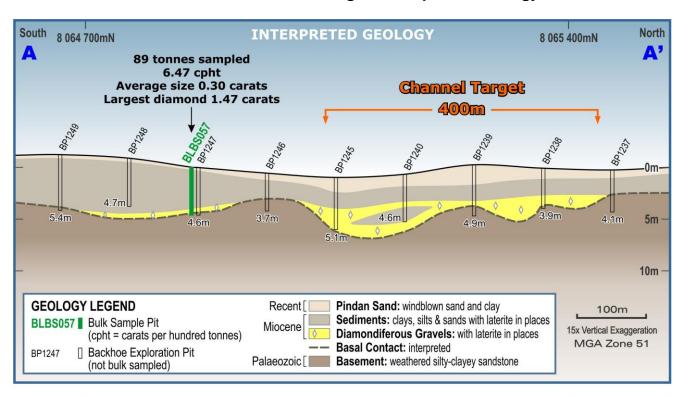


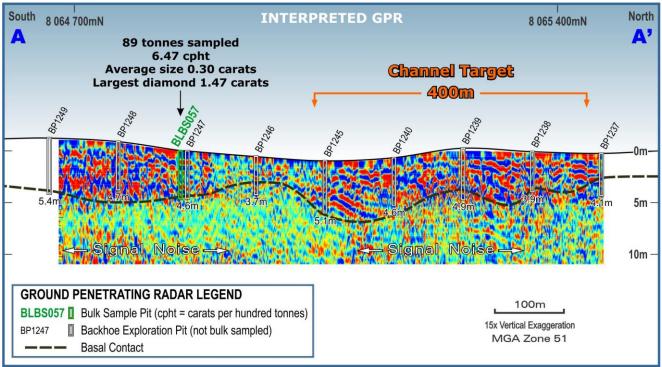
On the sections below, coherent GPR signals are where the blue and red traces show some lateral continuity, data of this nature can be interpreted with greater geological confidence. Some of the deeper GPR data displays greater signal noise indicating a lack of reflectors and this has been annotated on the sections.



This data noise could be as a result of increased clay content, increased water saturation of clays, an undefined physical change in the bedrock, or just a physical limitation of the machine in that particular circumstance. In Sections A to E, the bedrock appears to be above these areas of signal noise, so this is not a material factor in these areas. On the sections below, gravels have been interpreted from GPR data, pit logs and drilling logs.

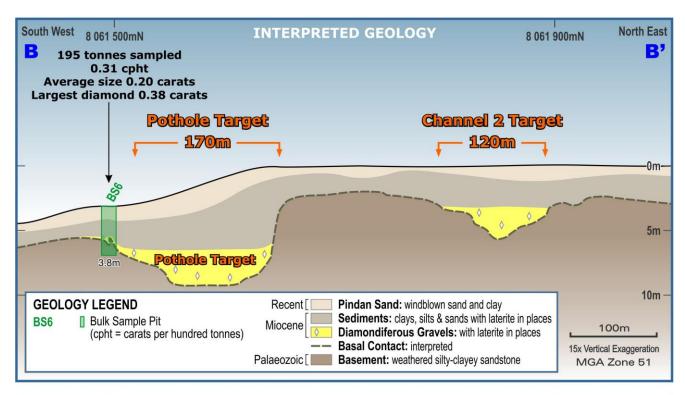
Section A: 'Terrace 5 Central' Channel Target – Interpreted Geology and GPR

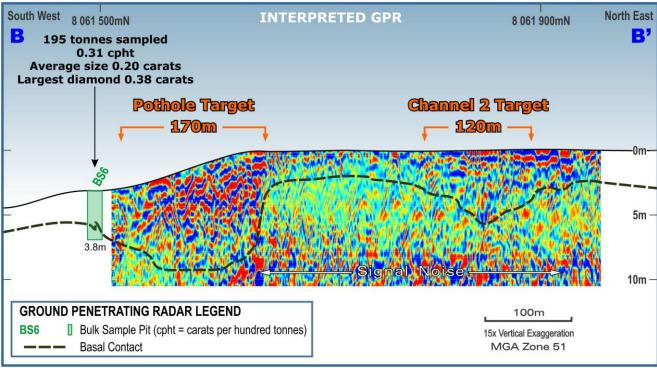






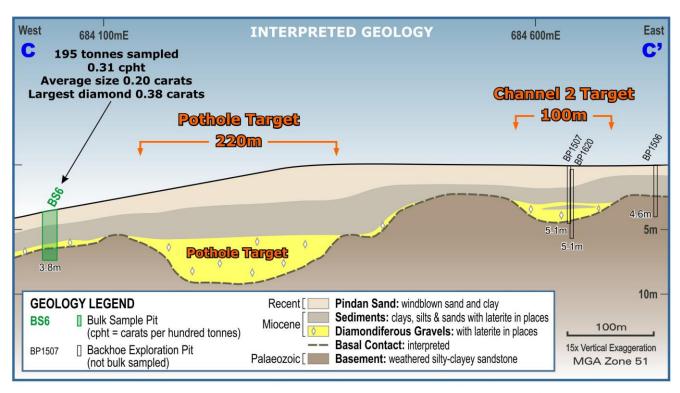
Section B: Pothole and Channel 2 Targets - Interpreted Geology and GPR

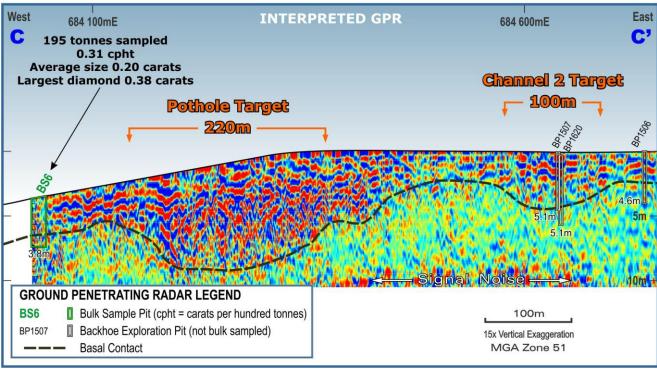






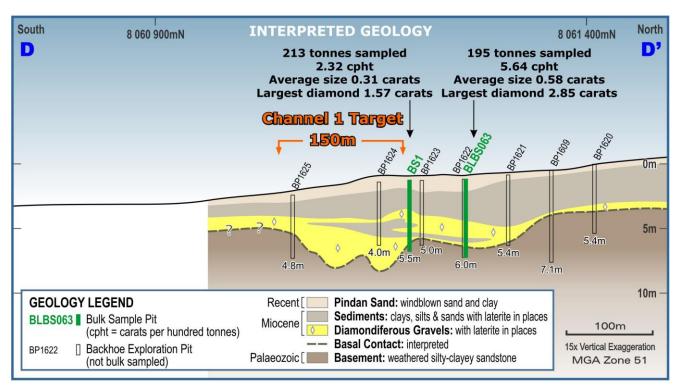
Section C: Pothole and Channel 2 Targets-Interpreted Geology and GPR

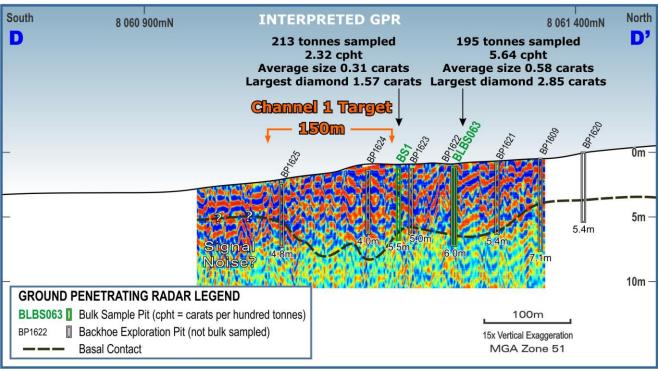






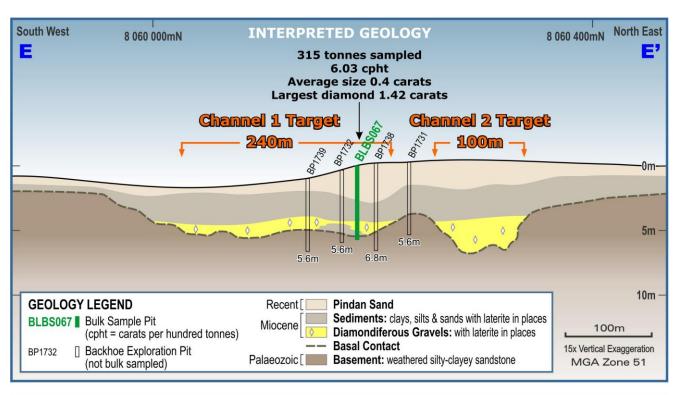
## Section D: Channel 1 Target - Interpreted Geology and GPR

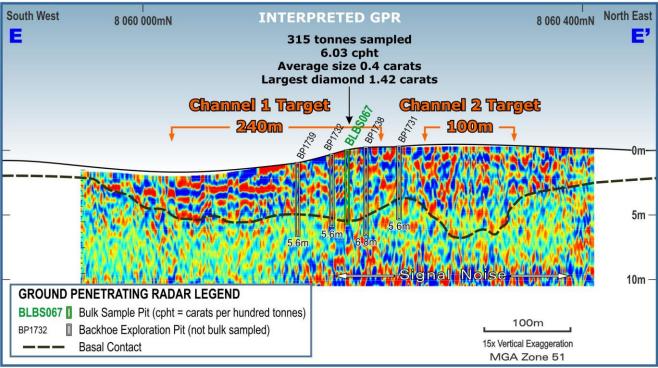






Section E: Channels 1&2 Targets - Interpreted Geology and GPR





# 6.5 GPR Survey Summary

It is still early days in the testing of GPR at Blina and even better results may well be achieved once variations to antennae frequency and other settings are factored in to cater for local variations in groundwater and lithology.



The GPR data is not always consistent with the bedrock-cover contact as interpreted using the original pitting data at Blina. This may be because of incorrect logging due to the gravel clasts closely resembling the weathered bedrock from which it is derived. The original exploration pit logging was not done in situ due to safety constraints of running overburden sands within a narrow trench; this constraint would have made geological interpretation more difficult.

When there is more groundwater or deeper cover (for instance in the area to the east of Cut 2), the GPR appears to be less effective, probably due to signal attenuation from clays within the Quaternary and Miocene cover.

The usefulness of the RAB drilling over the area has been largely discounted by previous explorers and by POZ as a method of mapping the bedrock-cover interface. This is because much of the gravel target is made up of clasts of material derived from the bedrock itself; the destructive nature of RAB drilling makes it virtually impossible to definitively differentiate between RAB chip samples that are derived from gravels/cover or from bedrock.

POZ's methodology is to use GPR to target specific alluvial trap sites on palaeo-topographic lows. Some of these targets may not work due to the geological reasons outlined above, but with systematic bulk sampling, those trap sites that do work can be quickly defined leading to the delineation of economic diamond deposits some of which could have bonanza grades.

### 7.0 Bulk Sampling and Trial Mining of Targets

The Company proposes to systematically sample the target gravels using an excavator at depths of between one and seven metres; a bulldozer, excavator and trucks would be used to remove overburden where required. The resultant gravel samples would be treated in an on-site alluvial recovery plant consisting of a trommel, sizing screens, Dense Media Separation (DMS) unit and X-ray Sortex. The target areas with the best and most consistent grades would then transition to trial mining, the Company intends to secure all necessary permitting for this to seamlessly occur in 2018.

The whole operation will closely resemble the Blina Diamonds NL operation carried out in the area in 2005 and 2006 (Figure 6). The main difference being, the POZ sampled areas will be defined using the breakthrough GPR imagery combined with all the historical Terrace 5 data.

Figure 6: Terrace 5 Exploration Pitting and Trial Mining in 2005



Exploration pitting at Blina using an excavator



The 50 tonne per hour DMS plant operated by Blina Diamonds NL in 2005



Terrace 5, Cut 2 in 2005, POZ Minerals is targeting shallower trap sites (1-7 metres) 900 metres downstream (west) from this site.



2.25 carat fancy yellow diamond (owned by POZ) mined from the adjacent former Ellendale Mining Lease, indicating the type of source diamond targeted by POZ at Terrace 5.

#### 8.0 Grant of Tenements

The most effective way to conduct the major earth moving project operations required is by having fully permitted mining leases which allow for the extraction of the large tonnages needed for bulk sampling and allowing for the immediate transition to trial mining. POZ believes that should a commercial diamond mining operation be possible on the project area, it is most likely to be hosted within the areas now covered by our mining leases.

POZ Minerals Limited has recently secured a Mining Agreement with the Bunuba Dawangarri Aboriginal Corporation ('Bunuba'), the Traditional Owners for the southern part of the Blina Diamond Project area (POZ ASX Release dated 16 October 2017).

This historic Mining Agreement has allowed the grant (on 13 October 2017) of Mining leases M04/466 and M04/467 which are the two key licenses at the heart of developing the Blina Diamond Project.





Members of the Bunuba Dawangarri Aboriginal Corporation meeting with POZ Chairman Jim Richards and geologist Michael Denny during a field trip to site on 4 and 5 May 2017.

#### 9.0 Lookahead

The Company is currently involved in target definition, planning and permitting activities with the aim of conducting bulk sampling and trial mining operations at Blina in 2018. For operational reasons, it is planned to only conduct earth moving and treatment during the dry season (April to December).



# Phase 1 2017 – Target Definition, Planning and Permitting

- Research previous data on Terrace 5 diamonds to gain an understanding into stone size distributions and valuations. This is very important in assessing the economics of any potential diamond deposit.
- Generate a JORC Exploration Target for the Terrace 5 gravels.
- Further analysis of existing GPR and historical data to generate further alluvial targets for bulk sampling operations. Ongoing.
- Hiring of personnel.
- Fauna and flora survey. This has already been commissioned and is underway.
- Further GPR survey(s) for better target resolution.
- Preparation of a bedrock RL prospectivity map showing the ancient relative height levels of the palaeo-river systems. This will assist in targeting the most prospective areas which were higher energy alluvial systems. Ongoing.
- Conduct a heritage clearance survey with Traditional Owners, a detailed notice of this survey has been given to the BDAC group.
- Liason with other stakeholder and government groups for their input into planning and permitting. Ongoing.
- Full operational pemitting for bulk sampling and trial mining operations in 2018 includes an on-site alluvial treatment plant consisting of a trommel, sizing screens, Dense Media Separation (DMS) unit and x-ray Sortex.
- Establish security protocols and procedures for diamond handling.
- Permitting for an on-site camp.

# Phase 2 2018 (May to December): Bulk Sampling, Trial Mining and Potential Diamond Sales

- Set up a project camp with ablutions and other facilities, probably on the site of the old Blina camp.
- Set up an alluvial treatment plant close to sampling operations.
- Start systematic bulk sampling operations of priority targets.
- Commence trial mining operations on best and most consistent grades.
- Conduct diamond sales should commercial production be achieved.

Phase 2 is contingent upon permitting and financing, but the above summary does provide a realistic operational timeline for the Company.

#### 10.0 Blina Project Summary

The Company believes the Blina Diamond Project has excellent potential to deliver commercial grades on what would be a relatively simple, low capital cost and operating cost alluvial mining process. Much of the exploration risk has already been accounted for given the positive results of previous exploration and the successful recovery of significant quantities of very high quality diamonds from the channels.



The highly successful GPR survey may well prove to be a game changer for this project by quickly and inexpensively defining the highest quality targets. The added upside of discovering bonanza grades within these newly defined trap site targets is the most exciting factor for the project.

With mining leases now granted, the Company looks forward to rapidly progressing this quality project with bulk sampling and trial mining operations to commence in 2018.

Jim Richards Executive Chairman

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The information in this report that relates to previously reported exploration results is based on information compiled by Mr. Jim Richards who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr. Richards is a Director of POZ Minerals Limited. Mr. Richards 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 Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Richards consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

**Appendix A**Bulk Sample Results from POZ Minerals Limited tenements

Bulk Sample ID	Accessi on Number	mE MGAz51	mN MGAz51	Date	Sample Weight (tonnes)	Diamond grade (carats per hundred tonnes)	Average diamond size (carats)	Largest Stone (carats)	Screen Size (mm)
BLBS003	a51360	666138	8068899	1997	117	0.95	0.10	0.60	-10.0 to +1.0
BLBS004	a51360	666138	8065109	1997	132	0.16	0.11	0.20	-10.0 to +1.0
BLBS005	a51360	671288	8068459	1997	180	3.50	0.45	5.12	-10.0 to +1.0
BLBS005A	a51360	671180	8068493	1997	320	2.32	0.44	2.34	-10.0 to +1.2
BLBS005N	a51360	671083	8068662	1997	268	1.35	0.33	0.68	-10.0 to +1.2
BLBS005S	a51360	671308	8068299	1997	218	0.17	0.18	0.17	-10.0 to +1.2
BLBS006	a51360	666638	8066459	1997	150	0.04	0.02	0.03	-10.0 to +1.2
BLBS011	a78278	677138	8065559	1997	no record	n/a	n/a	n/a	n/a

<sup>&</sup>lt;sup>1</sup>Further detailed information including the Table 1 (JORC Code, 2012 Edition) and references are available on the POZ ASX Release dated 9 October 2015: click here

<sup>&</sup>lt;sup>2</sup> Bulletin 132 (Geological Survey of Western Australia); The kimberlites and lamproites of Western Australia by A.L. Jaques, J.D. Lewis and C.B. Smith.

<sup>&</sup>lt;sup>3</sup> http://www.geophysical.com/whatisgpr.htm

<sup>&</sup>lt;sup>4</sup> SenseOre Services Pty Ltd Report to Kimberley Diamond Company on Ground Penetrating Radar Trials at The Ellendale Project dated July 2002. A66802



Bulk Sample ID	Accessi on Number	mE MGAz51	mN MGAz51	Date	Sample Weight (tonnes)	Diamond grade (carats per hundred tonnes)	Average diamond size (carats)	Largest Stone (carats)	Screen Size (mm)
BLBS012	a78278	677138	8065759	1997	no record	n/a	n/a	n/a	n/a
BLBS013	a78278	675138	8066659	1997	no record	n/a	n/a	n/a	n/a
BLBS020	a54883	671775	8068531	1997	167	0.20	0.17	0.22	-10.0 to +1.2
BLBS021	a54883	670047	8068777	1997	142	0.07	0.10	0.10	-10.0 to +1.2
BLBS022	a54883	665638	8067759	1997	263	0.47	0.31	0.74	-10.0 to +1.2
BLBS023	a54883	665888	8067159	1997	185	0.58	0.54	0.58	-10.0 to +1.2
BLBS024	a54883	672143	8068429	1997	69	1.36	0.47	0.82	-10.0 to +1.2
BLBS025	a54883	672433	8068029	1997	160	0.03	0.05	0.05	-10.0 to +1.2
BLBS026	a54883	673193	8067639	1997	137	barren	n/a	n/a	-10.0 to +1.2
BLBS027	a54883	672648	8068299	1997	250	0.34	0.22	0.39	-10.0 to +1.2
BLBS028	a54883	675958	8065299	1997	259	1.42	0.25	0.55	-10.0 to +1.2
BLBS029	a54883	678108	8065909	1997	308	1.88	0.30	1.01	-10.0 to +1.2
BLBS030	a54883	671688	8068599	1997	476	1.41	0.20	0.65	-10.0 to +1.2
BLBS031N	a54883	679121	8066100	1997	170	2.45	0.19	0.16	-10.0 to +1.2
BLBS032	a54883	672148	8068619	1997	129	1.05	0.15	0.47	-10.0 to +1.2
BLBS034	a54883	677048	8065789	1997	176	0.85	0.21	0.39	-10.0 to +1.2
BLBS035	a54883	668168	8068709	1997	142	0.51	0.18	0.31	-10.0 to +1.2
BLBS050	a61480	679642	8066562	1999	205	0.02	0.04	0.04	-10.0 to +1.0
BLBS051	a59998	679392	8065553	1999	153	3.29	0.39	1.23	-10.0 to +1.0
BLBS052	a59998	679642	8065146	1999	125	5.06	0.42	2.40	-10.0 to +1.0
BLBS053	a61480	681876	8065117	1999	155	0.14	0.21	0.21	-10.0 to +1.0
BLBS054	a61480	683635	8064150	1999	130	0.67	0.12	0.44	-10.0 to +1.0
BLBS055	a61480	685632	8063862	1999	52	1.71	0.12	0.75	-10.0 to +1.0
BLBS057	a64924	681130	8064858	1999	89	6.47	0.30	1.47	-10.0 to +1.0
BLBS060	a59998	680130	8064939	1999	45	0.47	0.08	0.08	-10.0 to +1.0
BLBS061	a62589	689635	8057947	2000	220	9.82	0.47	2.58	-10.0 to +1.5
BLBS063	a64924	684636	8061260	2000	195	5.64	0.47	2.85	-10.0 to +1.5
BLBS064	a62589	687639	8058856	2000	145	1.52	0.30	0.75	-10.0 to +1.5
BLBS065	a62589	688639	8058604	2000	140	2.57	0.40	1.01	-10.0 to +1.5
BLBS066 N	a62589	686636	8059221	2000	310	4.04	0.40	1.86	-10.0 to +1.5
BLBS067 N	a62589	685632	8060189	2000	315	6.03	0.40	1.31	-10.0 to +1.5
BLBS068	a61480	684640	8062247	2000	153	0.40	0.40	0.25	-10.0 to +1.5
BLBS069	a64924	683639	8062133	2000	125	3.51	0.13	1.87	-10.0 to +1.5
BLBS070	a78278	682380	8064650	2000	75	0.33	0.03	0.14	-10.0 to +1.5
BLBS070	a62589	691040	8057854	2000	185	1.20	0.13	1.76	-10.0 to +1.5
	a62589								
BLBS072	a62589	690638 690116	8057405 8057716	2000	160	0.39	0.21	0.30	-10.0 to +1.5 -10.0 to +1.5
BLBS073	a62589		8057716	2000	120	0.13	0.16	0.16	
BLBS074	a62589	689135	8058405	2000	125	1.01	0.42	0.54	-10.0 to +1.5
BLBS075N	a64735	688171	8059009	2000	110	3.60	0.40	0.91	-10.0 to +1.5
BLBS076		690337	8058676	2000	146	2.26	0.41	1.94	-10.0 to +1.5
BLBS077	a64735	690835	8058630	2000	170	2.34	0.50	1.32	-10.0 to +1.5
BLBS080	a78278	690337	8057150	2004	151	0.66	0.14	no record	-10.0 to +1.5
BLBS082A	a78278	691030	8057150	2004	243	1.18	0.42	1.38	-10.0 to +1.5
BLBS082B	a78278	691030	8057150	2004	380	4.41	1.52	8.44	-10.0 to +1.5
BLBS083	a78278	686630	8059130	2004	210	2.19	0.21	0.58	-10.0 to +1.5
BLBS083A	a78278	686630	8059130	2004	160	11.11	0.47	2.51	-10.0 to +1.5
BLBS086	a78278	689737	8058155	2005	130	3.62	0.20	0.43	-10.0 to +1.5
BLBS087	a78278	689760	8058471	2004	120	5.38	0.20	0.84	-10.0 to +1.5
BLBS135	a74960	693751	8060778	2006	64	barren	n/a	n/a	-10.0 to +1.5
BLBS136	a74960	693749	8060786	2006	170	0.02	0.03	no record	-10.0 to +1.5
BLBS143A	a74960	689990	8057470	2006	144	0.48	0.08	no record	-10.0 to +1.5
BLBS143B	a74960	689990	8057467	2006	217	barren	n/a	n/a	-10.0 to +1.5



Bulk Sample ID	Accessi on Number	mE MGAz51	mN MGAz51	Date	Sample Weight (tonnes)	Diamond grade (carats per hundred tonnes)	Average diamond size (carats)	Largest Stone (carats)	Screen Size (mm)
BLBS143C	a74960	689985	8057474	2006	30	0.63	0.19	no record	-10.0 to +1.5
BLBS257	a78728	690667	8058129	2006	163	2.33	0.95	3.14	-10.0 to +1.5
BS1	a64924	684638	8061196	2001	213	2.32	0.31	1.57	-12.0 to +1.4
BS2	a64924	684838	8061001	2001	120	4.45	0.38	1.03	-12.0 to +1.4
BS3	a64924	684438	8061249	2001	196	1.30	0.51	1.83	-12.0 to +1.4
BS4	a64924	684438	8062049	2001	218	barren	n/a	n/a	-12.0 to +1.4
BS6	a64924	684038	8061481	2001	195	0.31	0.20	0.38	-12.0 to +1.4
BS7	a64924	684038	8062204	2001	185	1.03	0.64	1.42	-12.0 to +1.4
BS8	a64924	684038	8061844	2001	290	0.18	0.13	0.37	-12.0 to +1.4
BS9	a64924	684843	8061383	2001	201	barren	n/a	n/a	-12.0 to +1.4
BS10	a64924	686238	8061243	2001	81	barren	n/a	n/a	-12.0 to +1.4
BS11	a64924	685439	8061123	2001	141	barren	n/a	n/a	-12.0 to +1.4

 $\it NB: Pits \ prefaced \ with \ BS \ were \ Diamond \ Ventures \ NL$ 



# Appendix B JORC Code, 2012 Edition – Table 1

This Table 1 summarises work done between 1995-2008 on POZ Minerals' Blina Diamond Project. The companies undertaking this work were Kimberley Diamond Company NL (KDC), Blina Diamonds NL, Diamond Ventures Exploration Pty Ltd, and Kimberley Resources NL. POZ will not tabulate geochemical results as the Company deems these are not material to POZ's alluvial diamond exploration model or strategy.

The accession reports summarised in this document are a42864, a47812, a51360, a54883, a57833, a59481, a59998, a61480, a62589, a64735, a64924, a66802, a69826, a70125, a72738, a74960, a77881, a78278, a86615, and a93271

**Section 1 Sampling Techniques and Data** 

Criteria	JORC Code Explanation	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.	Bulk Samples: Sample sizes range from 68 tonnes to 476 tonnes. All pits were dug to just below the bedrock/gravel interface. A small Heavy Media Separation (HMS) plant was used to process samples; samples were initially (1995-1998) transported off site for processing, and later (1999 onwards) processed in an on-site laboratory before being transported off site. HMS plant performance was monitored using density tracers with a specific gravity equivalent to diamond.  During the 1996 season concentrate was screened into a number of size fractions (-1mm, +1-2mm, +2-3.5mm, +3.5-7mm and +7-10mm). All fractions were passed over a high intensity magnetic separator and the more magnetic ironstone removed and discarded.  In the 1995-1999 seasons the non-magnetic, +1mm fractions were crated and trucked to Remote Systems in Malaga for x-ray sorting. The non-magnetic, +0.8-1mm fraction was passed through heavy liquid (tetrabromoethane) and diamonds recovered under a binocular microscope. The +1mm non-magnetic fractions were through an X-ray Sorting machine (Sortex) and the resulting concentrates visually checked for diamonds.
	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 Samples: Gravel samples were collected using a bulldozer or a 35t excavator. The sample was processed at +1.0mm to 10.0mm (1996), +1.2mm to 10.0mm (1997) or +1.5mm to 10.0mm (1999 onwards) screens. Sample was then passed through a Heavy Media Separation (HMS) plant to produce a concentrate, the non-magnetic proportion of which was placed through an X-ray Sortex machine and the resulting concentrate examined using binocular microscopes to identify diamonds.  Diamond Ventures bulk samples BS1 to BS11 were screened at +1.4mm to -12.0mm.  From the 1999 season onwards the HMS plant operated with a screen size from 1.5mm lower cutoff to 16mm top cut-off.



Criteria	JORC Code Explanation	Commentary
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.).	Drill techniques used at the Blina Diamond Project include: aircore (AC), rotary air blast (RAB), and Bauer (wide diameter) drilling. Samples were geologically logged and the geology recorded. In some drillholes an HMS sample or a geochemical sample was collected from the interpreted basal contact. POZ does not deem these geochemical or HMS samples as being material to the Company's diamond exploration model or strategy, and as such is not collating or reporting on these data.  Although not a drilling technique, 677 Bedrock Interface Samples and 710 exploration pits were completed by previous operators at the Blina Diamond Project. These were dug with a 35 tonne excavator and ranged in depth from 0.5m to 12m. All pits were geologically logged, with particular attention paid to alluvial gravels overlying the basal contact. In selected pits the geologist collected an HMS sample to test for diamonds and diamond indicator minerals.
	Method of recording and assessing core and chip sample recoveries and results assessed	Logged by on-site geologist and recorded on paper drill logs
Drill sample Recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples	Not recorded
	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.	Not applicable.
	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.	Not applicable.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Geological logging is quantitative in nature. Photos of some bulk sample sites were collected and are available to POZ.
	The total length and percentage of the relevant intersections logged	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not reported.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	POZ believes size screening, HMS mineral separation, and X-ray Sortex processing of samples is an industry-appropriate sample preparation technique for alluvial diamonds.
Sub Sampling Techniques and	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable.
Sample Preparation	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.	Not recorded.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	POZ believes the sizes of the bulk samples are appropriate for the material being sampled, but the number of samples for the style of mineralisation (alluvial diamonds) is inappropriate, as diamond distribution can be highly inhomogeneous in alluvial gravels.



Criteria	JORC Code Explanation	Commentary		
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Sample size screening, HMS separation, and X-ray Sortex processing, are industry standard processes for diamond recovery from a concentrate.		
Quality of assay data and laboratory tests	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.	A66802: KDC Ground Penetrating Radar (GPR) study In July 2002 a GPR survey was conducted by SensOre Services at KDC's Ellendale project to determine whether the technique could be used to rapidly obtain detailed information on palaeochannel locations. The surveys were conducted using a GSSI SIR-20 GPR data acquisition system together with a 200 MHz GSSI antenna and 35MHz and 70MHz Radarteam antennas. Data acquisition was triggered by a survey wheel, and a Garmin e-map GPS was connected to the SIR-20 to record position on some lines. Background removal was via a 501 trace median filter and automatic gain control was applied.  POZ Minerals GPR survey In May 2017 POZ Minerals contracted Core Geophysics to undertake an UltraGPR system survey of the Blina diamondiferous palaeogravels. 25MHz to 80MHz transmitters and real time receivers with a 32,000 stacking rate were used.  The UltraGPR system comprises a 6m 'snake' towing a radar receiver in front of a radar transmitter, connected by dipole antennae. Data is transmitted via Bluetooth to a handheld DPA device, and location is obtained via backpack DGPS.  Data processing involves: zero time correction; gaining; dewowing; removal of signal ring down; band pass filtering; velocity analysis (depth); and migration. Tree interference was removed using a 2S FFT filter.		
	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.	HMS plant performance was monitored using density tracers with a specific gravity equivalent to diamond. Tracer recoveries are not tabulated in accession reports, however accession report a51360 (Kimberley Diamond Company Combined Annual Report C420/1995 for the period 24/2/1996 – 23/2/1997) states "tracer recovery rarely fell below 100%."		
	The verification of significant intersections by either independent or alternative company personnel.	Not applicable.		
Verification of	The use of twinned holes.	Not applicable		
sampling and assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data has been extracted from the WAMEX database Accession Reports and ASX Reports as referenced. These data sources are from publicly listed companies complying with statutory reporting obligations and are deemed appropriate.		
	Discuss any adjustment to assay data.	Not recorded.		
Location of Data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Most sample sites were captured by hand-held GPS, with the exception of Bauer drillholes which were captured by DGPS. Many bulk sample sites are visible in Google Earth, and correspond well with their reported coordinates.		
	Specification of the grid system used.	Grid system is MGA94_51		



Criteria	JORC Code Explanation	Commentary
	Quality and adequacy of topographic control.	The terrain is generally flat. Topographic control is available with some of the associated data and is deemed sufficient for this level of exploration result reporting.
	Data spacing for reporting of Exploration Results.	Sample locations are shown in attached figures and sections
Data spacing and distribution	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.	Not applicable.
	Whether sample compositing has been applied.	Not applicable.
Orientation of data	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Not applicable.
in relation to geological structure	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.	No sampling bias is known or expected.
Sample Security	The measures taken to ensure sample security.	Not recorded.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not recorded.



**Section 2 Reporting of Exploration Results** 

Criteria	JORC Code Explanation	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.	Mining Lease Applications M04/464, M04/465, M04/466 and M04/467 were applied for by POZ Minerals Limited. M04/464 and M04/465 are on the not determined Warrwa native claim. M04/466, M04/467 and 5% of M04/465 are on the determined Bunuba 2 claim. All Mining Leases are 100% held by POZ Minerals with no encumbrances.
	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 tenements have been applied for in the name POZ Minerals Limited with no other holders. There are no known impediments to obtaining a license to operate in the area, other than Native Title. M04/466 and M04/467 were granted on 13/10/2017 pursuant to a Mining Agreement the conditions of which are summarised in the POZ ASX Release dated 16 October 2017. M04/464 and M04/465 are not granted
Exploration done by other parties		A number of companies have previously completed exploration in the Ellendale Field. The following is a summary of this work.
		Ashton Joint venture (1976-1988) Initial regional drainage diamond exploration program discovered Ellendale 4 (E4) pipe. Follow-up geophysical surveys discovered 40 more pipes; bulk sampling revealed significant diamond grades at E4 and E9.
		Stockdale Prospecting Limited (1987-1993) Regional loam sampling; airborn multi-spectral scanning; aeromagnetics; ground magnetics; SIROTEM; drilling; bulk sampling.
	Acknowledgment and appraisal of exploration by other parties.	<b>Diamond Ventures/Ellendale Resources/Auridiam (1994-1997).</b> Accession report a64924. Initial JV flew detailed low-level aeromagnetic survey, discovering five new lamproite pipes; bulk testing of pipes.
		Kimberley Diamond Company Limited (KDC) (1994-2004). Accession reports a42864, a47812, a51360, a54883, a57833, a59481, a59998, a61480, a62589, a64735, a64924. Airborn EM and magnetics with follow-up ground magnetics; gravity surveys; AC drilling to discover and delineate the Terrace 5 palaeodrainage gravels; exploration pitting and bedrock interface sampling; large-diameter drilling and bulk sampling; geochemical (termite nest and AC spoil) sampling programs; GPR trial; regional regolith mapping and Landsat imagery.
		<b>KDC-Blina Diamonds NL (2004)</b> Accession report a69826.  Drilling of Falcon geophysical targets; heavy mineral sampling; termite mound geochemical sampling.
		Blina Diamonds NL (2005-2008) Accession reports a70125, a72738, a74960, a77881, a78278, a86615, a93271.



Criteria	JORC Code Explanation	Commentary
		Cut 1 and Cut 2 bulk samples; detailed aeromagnetic and ground magnetic surveys; AC drilling; bulk sampling and trenching; 1m and 2.5m Bauer rig drilling; geochemical, microdiamond, and indicator mineral sampling; excavator exploration test pitting.
Geology	Deposit type, geological setting and style of mineralisation.	The Blina Diamond Project is a diamond-bearing palaeogravel with diamonds believed to be mainly derived from the Ellendale 9 lamproite pipe.
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:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • dip and azimuth of the hole  • down hole length and interception depth  • hole length.	See:  Appendix A (Bulk samples: sample number, accession number, easting, northing, date, sample weight, diamond grade, average diamond size).  Appendix B (test pits: sample number, accession number, easting, northing, mRL, dip, total depth)
	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.	All grades are reported as per the original results.
Data aggregation methods	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.	Not applicable.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable.
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.	Refer to Figures, Sections and Appendix A in body of text.



Criteria	JORC Code Explanation	Commentary
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.	All grades are reported as per the original results.
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.	No other substantive exploration data is known.
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	See Para 9.0 Lookahead in body of text