

## **ASX Announcement**

30 January 2020

# **DECEMBER 2019 QUARTERLY ACTIVITIES REPORT**

#### VICTORIAN GOLD PROJECTS

- Maiden diamond drilling Stage One program commenced at the Castlemaine Gold Project
- Exceptional initial assay results received high-grade intersection at hole MU19DD04 of 1.42m @ 261.3g/t Au from 100.32 which includes a visible gold intersection containing 0.17m @ 1,916g/t
- IP and ground magnetic surveys and a 3D structural model also completed at the Castlemaine Gold
- Collaborative research project with CSIRO "Mapping Geochemical Gradients at the Wattle Gully Gold Deposit" completed in December 2019

## PILBARA GOLD PROJECTS

- New zone of gold nuggets discovered at DOM's Hill Gold Project
- High priority gold anomaly defined at Marble Bar Gold Project
- Further sampling at Marble Bar Gold Project locates gold in rock chip samples

#### **CORPORATE**

- Dual Listing on the Frankfurt Stock Exchange
- Placement of 20 million ordinary fully paid shares and 20 million attaching options to Canadian listed explorer Novo Resources Corp and Eric Sprott to raise \$8m post period (ASX: KZR 15 January 2020)

## Kalamazoo Resources Ltd

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Figure 1: Kalamazoo Project Locations

## **VICTORIAN GOLD PROJECTS**

During the December Quarter Kalamazoo Resources Limited ("Kalamazoo" or the "Company") progressed its Victorian gold exploration strategy based upon its high-grade target deposit model.

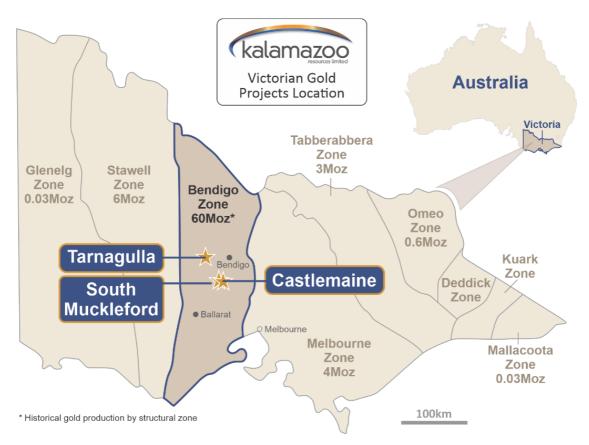


Figure 2: Victorian Gold Project's Location

#### Castlemaine Gold Project (EL6679, EL6752 and ELA7112)

#### Ground Geophysical Surveys & 3D Model Development

Kalamazoo engaged Planetary Geophysics to conduct detailed Induced Polarisation (IP) and ground magnetic surveys of the top ten highest ranked prospects which commenced in the September 2019 Quarter. These geophysical surveys were completed during the December 2019 Quarter without incident (ASX: KZR 23 October 2019) and involved approximately 36.9 and 448 line kms of IP and ground magnetic survey lines respectively, spread across the top ten ranked prospects. These geophysical surveys successfully achieved the aim of mapping the sub-surface geology and identifying potentially gold mineralised fault/fold structures for follow-up diamond drill testing (Figure 3).

Notably, there have been no ground geophysical surveys conducted within the Castlemaine Gold Project since the 1960's and the area is only covered by broad, regional-scale aeromagnetic and ground gravity data. The application of modern ground geophysical survey techniques to high ranking prospects is a key feature of Kalamazoo's exploration strategy. This is in keeping with the Company's philosophy of conducting exploration in a "smarter", low impact, reconnaissance-style methodology that minimises any disturbance to the environment and the local Community. These activities essentially reduce the amount of ground disturbance and exploration drilling required to effectively explore a prospective area.

From all available datasets a 3D structural model was also completed for the high priority Pine Plantation area which has been used to design a Stage One, 10 hole, diamond drilling program referred to below which commenced during the Quarter (Figure 4; ASX: KZR 8 November 2019). This is an important step in the exploration programme as understanding the 3D structural framework is critical for targeting gold mineralisation.

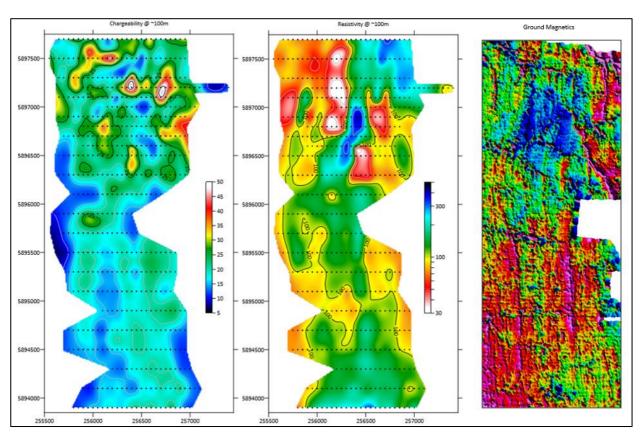


Figure 3: Plan view examples of the IP survey results (Chargeability and Resistivity at 100m depth below the surface) and Ground Magnetic image for the northern prospects identified within EL006679.

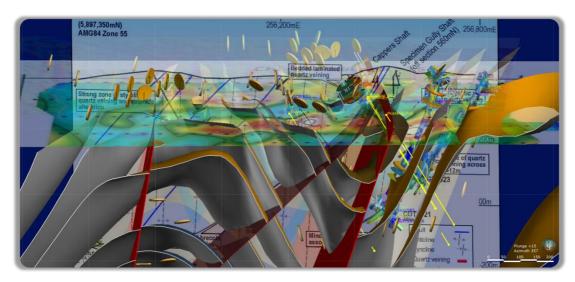


Figure 4: Example East-West cross-section view (looking north) of the Pine Plantation 3D structural geology model with historical drill holes, IP survey results and proposed drill holes (Image credit: PGN Geoscience)

#### Maiden Diamond Drilling Program

Kalamazoo announced on 21 October 2019 that the maiden 10,000m diamond drilling contract was awarded to Deepcore Drilling. The program will be completed in two stages, with the initial Stage One consisting of a 4,000m program designed to test the encouraging results and interpretations of the extensive ground geophysical surveys and 3D structural modelling (ASX: KZR 23 October 2019), located within the private Pine Plantation.

Four holes of Stage One for a total depth of 1,782.3m were completed during the reporting period without incident (Table 1; Figure 5). Assay results received for hole MU19DD004 recorded an exceptional high-grade gold intersection of 1.42m @ 261.3 g/t Au from 100.32m (ASX: KZR 23 December 2019) over a wider than interpreted interval which includes a visible gold intersection containing 0.17m @ 1,916 g/t Au (ASX: KZR 19 December 2019 Table 2, Figure 6). This high-grade, visible gold-bearing quartz vein is only part intersected and highly oblique to the drill core axis and as such, its true width and accurate orientation cannot currently be ascertained. The implications of the results from MU19DD04 to Kalamazoo's current gold exploration targets and model are yet to be determined and will be the focus of further investigations.

This 'visible gold style' mineralisation is different to the nearby sulphide-rich mineralisation intersected in MU19DD02 which included a best assay result of **0.8m @ 19.4 g/t Au** (ASX: KZR 19 December 2019). The distance between these two drill holes is approximately 85m.

A further eight to ten diamond drill holes are scheduled for Stage One which is expected to take ten weeks to complete. Stage Two drilling consists of a further ~8,000m and is expected to start in the June 2020 quarter dependent upon receiving the requisite permits.

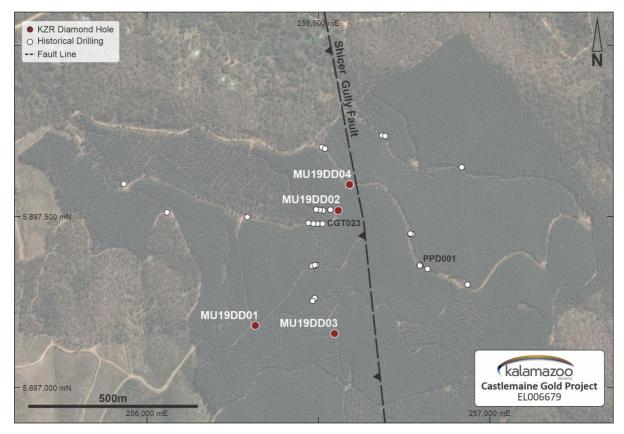


Figure 5: Plan view location map of the first four diamond drill holes of the Stage 1, 4,000m diamond drilling program within the private Pine Plantation in EL6679 (MU19DD01 to MU19DD04)



Figure 6: Photo of fine grained (sub-mm) disseminated visible gold and associated arsenopyrite intersected in MU19DD04 from 100.32m. Length of core shown is approximately 6cm.

Hole ID	Easting MGA94 Z55	Northing MGA94 Z55	RL	Dip (deg.)	True Azimuth (deg.)	Total Depth (m)	Prospect
MU19DD01	256316	5897181	433	-50	105	484.7	Mustang
MU19DD02	256558	5897517	414	-65	85	446	Mustang
MU19DD03	256557	5897157	425	-54	85	500	Mustang
MU19DD04	256596	5897589	434	-63	90	351.6	Mustang

Table 1: Diamond Drill Collar Program

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Detection Limit (g/t)
MU19DD01				NSA	0.01
MU19DD02	319.8	320.6	0.8	19.4	0.01
MU19DD03				NSA	0.01
MU19DD04	100.32	101.74	1.42	261.3	0.01
including	100.32	100.49	0.17	1,916	0.01
including	100.49	100.76	0.27	70.6	0.01
including	100.76	101.25	0.49	4.1	0.01
including	101.25	101.74	0.49	49.7	0.01

Table 2: Summary of Drill Assays

## CSIRO Innovations Connections Scheme

The collaborative minerals research program with the CSIRO "Mapping Geochemical Zonation Patterns at the Wattle Gully Gold Deposit" was completed during the reporting period (ASX: KZR 20 December 2019). Outcomes of the study determined that Al-rich white mica and Fe-rich chlorites are consistently found around the Wattle Gully Gold Mine – this feature is potentially a very powerful took for exploration, as the white micas are preserved in the saprolite (weathered rocks). CSIRO's data predicts that alteration halos around the mineral zonation patterns in the area could be detected by low cost gridded soil sampling over the saprolite at 100 meters spacing (in contrast to the detection of the ore zone which would require gridded sample spacing of less than 20 meters).

## South Muckleford Gold Project (EL6959 & ELA7021)

The South Muckleford Gold Project consists of granted Exploration Licence EL6959 (~93km²) and one Exploration Licence Application EL7021 (~68km²) which once granted, will collectively cover 161km². It is conveniently located just 20km west of the Castlemaine Gold Project.

This project covers the highly prospective regional Muckleford Fault and adjacent historical workings to the west as well as the southern strike extent of the Union Hill Gold Mine (Figure 7). The project contains numerous historical gold workings coincident with prospective 2<sup>nd</sup> and 3<sup>rd</sup> order faults associated with the regional Muckleford Fault. The historical gold workings reveal linear trends indicative of lines of lodes/reefs similar to those that are found in the nearby Castlemaine Gold Project.

The Maldon goldfield is the  $7^{th}$  largest Victorian goldfield with historical production of >1,975,000oz (>56 t) and 317,000oz (9t) of primary and alluvial gold, respectively<sup>1</sup>. This goldfield is of a similar setting, age, Ordovician host rocks and structurally controlled mineralisation style as other Bendigo Zone (Central Victoria) gold deposits.

Exploration activities have included continued compilation and review of the substantial historical open file exploration and mine production records to assist with initial target area selection for follow-up field investigations. Field reconnaissance exercises conducted to date have confirmed that the surface of EL006959 consists largely of in-situ soils and regolith material meaning it is highly amenable to the use of soil geochemistry surveys which have subsequently been planned and scheduled to commence in the March 2020 Quarter.

<sup>&</sup>lt;sup>1</sup> Phillips, G.N., 2010 Victorian Gold Province, Australia: a contemporary exploration Guide. GeoScience Victoria Special Publication.

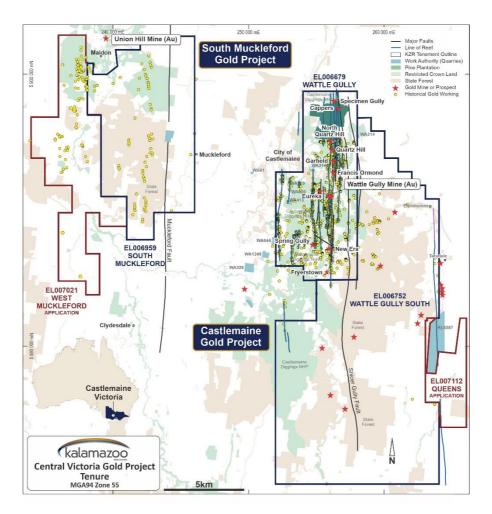


Figure 7: Castlemaine and South Muckleford Gold Project locations

## Tarnagulla Gold Project (EL6780)

Exploration activities were undertaken during the quarter which included desktop studies and historical data compilations with plans for field reconnaissance and validation exercises to commence in the March 2020 Quarter.

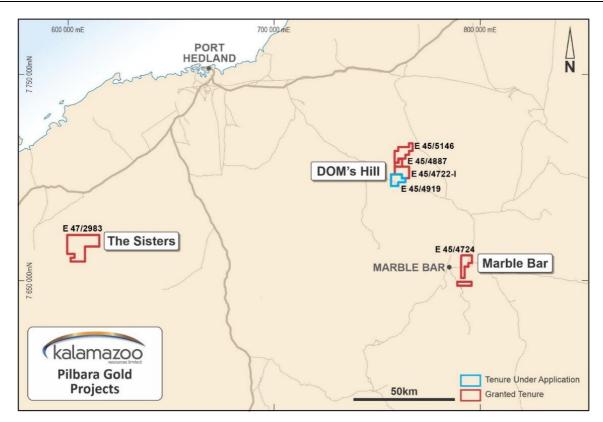


Figure 8: Location of Sisters, DOM's Hill and Marble Bar Gold Project Tenements

## DOM's Hill Gold Project (E45/4722, E45/4887, EL45/5146 and ELA45/4919)

Recently granted exploration licence E45/5146 (granted 16 October 2019) covers the extension of the greenstone sequence to the north of the adjoining E45/4887. A reconnaissance field investigation including metal detecting activity was undertaken during the quarter within E45/5146 and E45/4722 by a consulting geologist to Kalamazoo, accompanied by an experienced prospector (ASX: KZR 2 December 2019).

Verified nugget location details are listed in Table 3 and photographs are shown in Figure 9. Gold nuggets were discovered at two locations within E45/5146 and five locations within E45/4722 (Figure 10).

Nugget ID	Prospect	Tenement	Easting	Northing	
			MGA94_Z50	MGA94_Z50	
NUGG01	White Quartz Hill	E45/5146	765068	7713139	
NUGG03*	Singer	E45/4722	760544	7704590	
NUGG04	Singer	E45/4722	760792	7704449	
NUGG05	Regional	E45/4722	763864	7701910	
NUGG06	Regional	E45/4722	763836	7701934	
NUGG07	Regional	E45/4722	764267	7700195	
NUGG08	White Quartz Hill	E45/5146	764758	7713172	

Table 3: Nugget location details, DOM's Hill

<sup>\*</sup>NUGG03, the largest, weighed 1.9g and is 1.3cm in length

Prospectors had previously located nuggets within E45/5146 and E45/4722 under Section 40E permits. These locations were not verified or resampled during the field investigation reported here, however they do fall proximal to areas previously metal detected and reported by Kalamazoo – sites BR NUGGB, D, F and Singer (ASX: KZR 17 November 2017). All locations are shown in Figure 10.

No outcropping sources for the gold have yet been located. As for the previous discoveries within E45/4722 the irregular shapes of the nuggets suggest that they have not been transported a significant distance. The nuggets described in this release are owned by Kalamazoo.

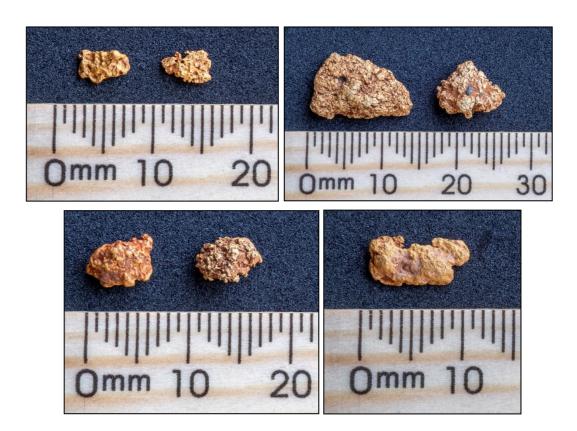


Figure 9: (from top left) NUGG01, 08, 03, 04, 05, 06, 07

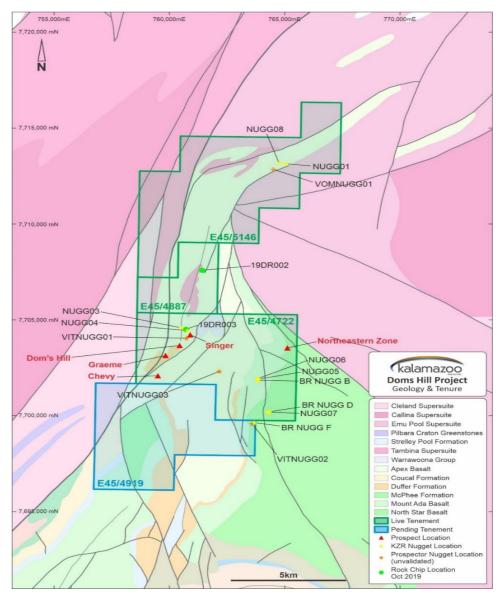


Figure 10: Nugget and rock chip locations - DOM's Hill

The Heritage Agreement with the relevant Native Title Claimant Group for E45/5146 was also executed during the period, following which the tenement proceeded to grant.

## The Sisters Gold Project (E47/2983, 80% interest in mineral rights other than lithium)

No field work was undertaken at the Sisters Gold Project during the reporting period.

## Marble Bar Gold Project (E45/4724, 100% mineral rights other than lithium)

An initial reconnaissance soil sampling program was completed at Marble Bar during the September quarter with results received and reported in the December Quarter (ASX: KZR 9 October 2019). The program identified a high priority soil gold anomaly in the southern area of E45/4724. Gold values peak at 261ppb (0.26ppm) in an anomalous zone stretching over 500m along an east-west grid line. A single point anomaly of 104ppb Au (0.1ppm Au) is located on a line one kilometre to the south (Figures 11 and 12).

Additional soil and rock chip sampling were completed during the December Quarter to follow up the soil gold anomaly defined in the southern portion of E45/4724. An infill soil traverse was completed midway between the two original one kilometre spaced lines at 100m spacing along the traverse (Figure 12). Fourteen rock chip samples, mainly of quartz veining, were taken at various locations with results announced (ASX: KZR 2 December 2019).

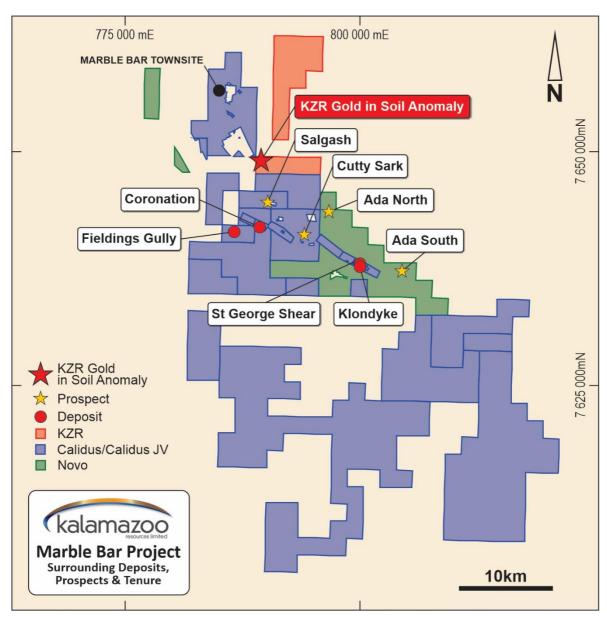


Figure 11: Location of Marble Bar Project

Soil gold results were generally lower than 10ppb, with a maximum of 12ppb, while pathfinder elements were also correspondingly low.

Two rock chip samples of quartz veining returned anomalous gold values of 0.55 g/t and 0.15 g/t.

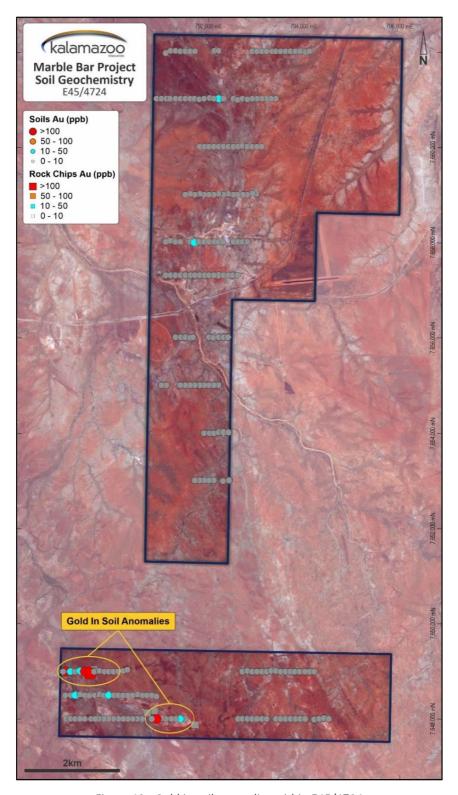


Figure 12: Gold in soil anomalies within E45/4724

## **CORK TREE COPPER PROJECT**

No work was undertaken during the Quarter.

The project area is strategically located in the Doolgunna region, which hosts Sandfire Resources' (ASX: SFR) DeGrussa and Monty Copper Mines and the Thaduna Copper deposit, Enigma Copper prospect and Horseshoe Lights Copper-Gold mine. Kalamazoo believes the region to be prospective for copper and potentially lead-zinc mineralisation.

#### **CORPORATE**

The Company had cash of \$0.6 million at 31 December 2019.

Post period, the Company announced it had finalised a placement of AUD\$8m with Canadian listed gold explorer Novo Resources Corp and Eric Sprott with each party subscribing to 10 million Kalamazoo shares at \$0.40 per share. Subject to approval by shareholders at a General Meeting to be held on 24 February 2020, each share issued under the placement will have an attaching option, exercisable at \$0.80 within 18 months of the date of issue.

As part of the placement terms, Novo's Dr. Quinton Hennigh has been appointed to Kalamazoo's Technical Advisory Committee.

The Company also received a further \$1 million instalment payment for the sale of the Snake Well Project post 31 December 2019.

The Company is due a total of \$4 million in cash in remaining instalments by 31 December 2020.

The Company also commenced a dual listing on the Frankfurt Stock Exchange during the reporting period. The Company's shares are traded on this exchange under the code "KR1".

## For further information, please contact:

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## TABLE 2 TENEMENT INFORMATION IN ACCORDANCE WITH LISTING RULE 5.3.3

Project / Tenement ID	State	Status	Interest at start of quarter	Interest at end of quarter	Notes		
PILBARA PROJE	PILBARA PROJECT						
E47/2983	WA	Granted	80%	80%	80% interest in minerals other than lithium.		
E45/4722	WA	Granted	100%	100%			
E45/4724	WA	Granted	100%	100%	100% interest in minerals other than lithium.		
E45/4887	WA	Granted	100%	100%			
E45/4919	WA	Application	-	-			
E45/5146	WA	Granted	-	100%			
CORK TREE PRO	JECT						
E52/3042	WA	Granted	100%	100%			
E52/3514	WA	Granted	100%	100%			
E52/3515	WA	Granted	100%	100%			
E52/3540	WA	Granted	100%	100%			
CASTLEMAINE PROJECT							
EL006679	VIC	Granted	100%	100%			
EL006752	VIC	Granted	100%	100%			
EL007112	VIC	Application	-	-			
TARNAGULLA PROJECT							
EL006780	VIC	Granted	100%	100%			
SOUTH MUCKLEFORD PROJECT							
EL006959	VIC	Granted	100%	100%			
EL007021	VIC	Application	-	-			

## About the Victorian Gold Projects

Kalamazoo's newest gold assets are the Castlemaine gold projects, which cover almost all the historical Castlemaine Goldfields, the South Muckleford project and the Tarnagulla project. The project areas are located approximately 100 kilometres northwest of Melbourne and are well serviced by a network of roads, railway and air services. The project area lies within easy distance of the major regional population centres of Ballarat and Bendigo. It consists of two granted exploration licences and two exploration licence applications. Castlemaine was one of the richest gold fields in Victoria, having produced 5.6 million ounces from both alluvial and underground sources. The Castlemaine Goldfield is a north trending mineralised zone approximately 10km long and 4km wide, located within the highly mineralised Bendigo-Ballarat zone of the Lachlan Fold Belt.

#### About the Pilbara Tenements

Kalamazoo acquired between 80% and 100% equity in three highly prospective gold projects in the Pilbara during 2018. The tenements have the potential to host significant gold mineralisation and are located in highly prospective locations within close proximity to some of the Pilbara's most exciting developing gold projects.

#### About the Cork Tree Project

Kalamazoo's copper asset is the Cork Tree Project, located 830km north east of Perth, 120 kms north-north west of Wiluna and 160 kms north east of Meekatharra, in the Mid-West region. The project can be accessed from Meekatharra via the Great Northern Highway, then the graded Neds Creek Station road. It consists of four granted exploration licences. Sandfire's DeGrussa ore processing facility lies some 30km west of the project area.

#### **Competent Persons Statement**

The information for the Victorian Projects is based on information compiled by Dr Luke Mortimer, a competent person who is a Member of The Australian Institute of Geoscientists. Dr Mortimer is an employee engaged as the Exploration Manager Eastern Australia for the Company and 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 of Exploration results, Mineral Resources and Ore Reserves'. Dr Mortimer consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

The information in this release relating to the exploration data for all Western Australian projects is based on information compiled by Mr Lance Govey, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Govey is an employee of BinEx Consulting who is engaged as the Exploration Manager Western Australia for the Company. Mr Govey 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 of Exploration Results, Mineral Resources and Ore Reserves'. Mr Govey consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

## Forward Looking Statements

Statements regarding Kalamazoo's plans with respect to its mineral properties and programmes are forward-looking statements. There can be no assurance that Kalamazoo's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Kalamazoo will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Kalamazoo's mineral properties. The performance of Kalamazoo may be influenced by a number of factors which are outside the control of the Company and its Directors, staff and contractors.