

31 October 2018

## SEPTEMBER 2018 QUARTERLY ACTIVITIES REPORT

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**Kalamazoo Resources (ASX: KZR) (“Kalamazoo”) is pleased to report on its September 2018 quarter activities:**

### **Wattle Gully**

- Kalamazoo holds a 70km<sup>2</sup> Exploration Licence (EL006679) containing the entire Wattle Gully Gold Project and the surrounding Castlemaine Goldfield in Victoria. A second 218km<sup>2</sup> exploration licence (EL006752) was applied for with both overlying major sub-parallel faults.
- The Castlemaine Goldfield produced 5.6Moz\* of gold across its life and is one of the richest gold fields in Australia with only minor exploration activity occurring over the past decade with limited effective drilling below 400m.
- Significant potential to apply modern exploration techniques as applied nearby at Kirkland Lake Gold’s (ASX:KLA) Fosterville gold mine and Catalyst Metals (ASX:CYL) Tandarra gold project.
- Database reconciliation now complete.
- Exploration and drilling program for 2019-20 well advanced.

\* Willman et al 2002, Geology Survey Victoria, Report 121

### **Pilbara**

- Kalamazoo has commenced planning of a soil sampling and rock chip program, mapping and further geophysical modelling to identify likely drilling target areas.
- The Company is continuing to test the potential for conglomerate-hosted gold below Mt Roe Basalts (which has been prolific in the region).

### **Snake Well**

- Following the successful drilling campaign designed to test for the gold lode structure, a detailed review has commenced of the Mixy gold lode to identify potential down-plunge and along strike extensions of the known high-grade gold zones.
- Review commenced to identify shallow high-grade gold targets, along the Mixy shear to the east and Calisi 1 and Calisi 2 zones to the west.

### **Cork Tree**

- Programme of Works for upcoming drill program approved by the Department of Mines, Industry Regulation and Safety. A Heritage Survey was also completed during the quarter with respect to the anticipated drilling program.

### **Corporate**

- After the Wattle Gully acquisition, a number of Board changes were completed.
- Baillieu Holst, one of Australia’s leading financial advisory firms has been appointed to assist Kalamazoo with its growth plans.

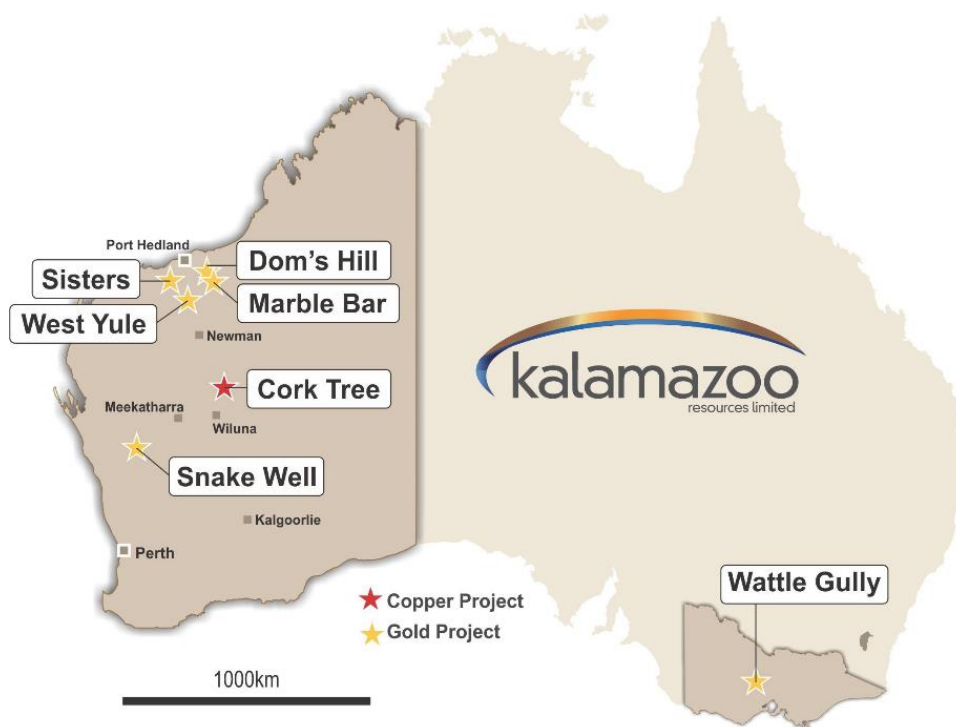


Figure 1: Location of Kalamazoo Projects

## WATTLE GULLY PROJECT – CASTLEMAINE GOLD FIELD

Kalamazoo was granted Exploration Licence EL006679 covering the Wattle Gully Gold Project, near the town of Castlemaine, in Victoria (ASX: KZR 20 June 2018) (Figure 2 & 3). This licence lies immediately east and south of the town of Castlemaine and covers almost the entire historic Castlemaine Goldfield with a total area of 70km<sup>2</sup>. Kalamazoo also made a further exploration licence application EL006752 ("Wattle Gully South"), to the east and south of the granted tenement, covering an area of 218km<sup>2</sup> which includes regional geological structures known to be associated with gold potential.

Wattle Gully adds a significant gold project to Kalamazoo's portfolio, at an extremely low cost. The asset is in a supportive mining region which is becoming increasingly active with significant exploration and development success across multiple projects including Fosterville, Tandarra and Costerfield.

Strategically, the Castlemaine region is well supported with a number of gold processing plants within 80km haulage distance of the Wattle Gully Gold Project.

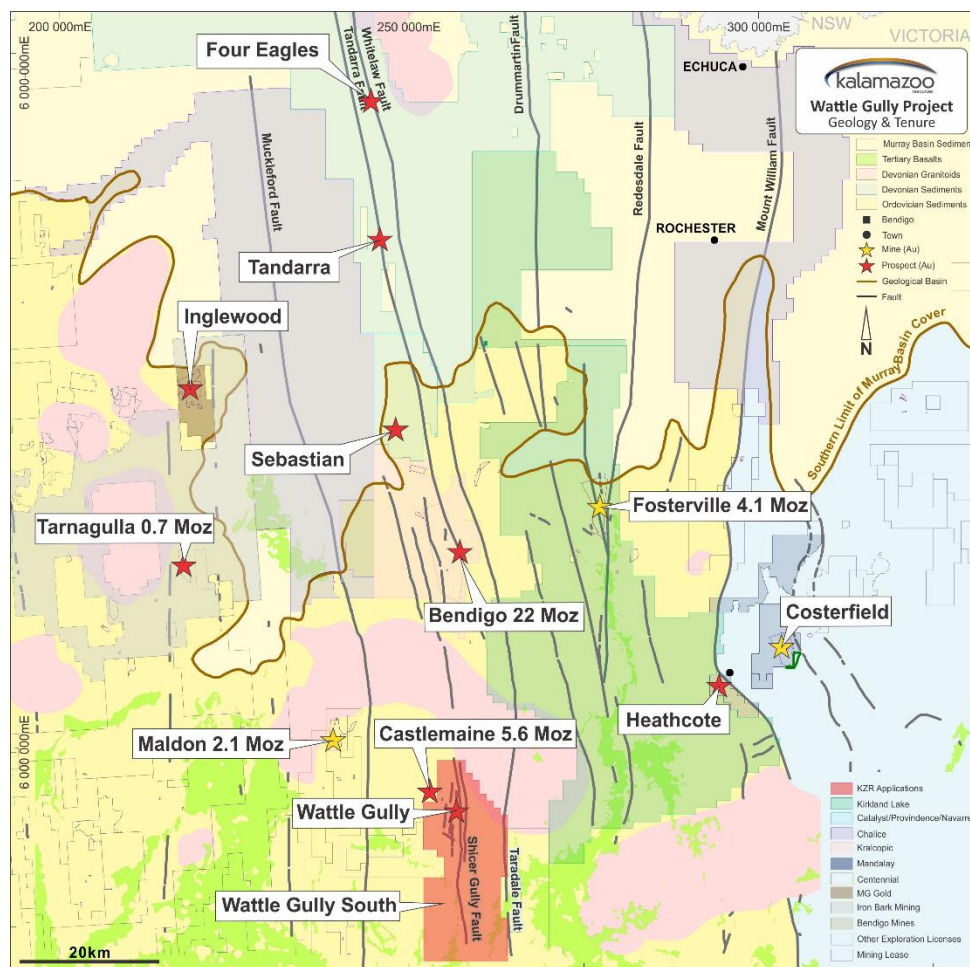


Figure 2: Regional Geology, Structures, Gold Projects and Wattle Gully Project Tenements

The nearby Ballarat Goldfield was the second largest goldfield in Australia and Castlemaine was the next richest goldfield in Victoria, having produced 5.6 million ounces since 1851 from both alluvial and underground sources. Previous mining and exploration at Castlemaine targeted shallower areas primarily within 400m of the surface.

The recent exploration success that has been achieved by Kirkland Lake Gold (ASX: KLA) at the Fosterville Gold Mine demonstrates the substantial gold prospectivity that the Victorian systems can possess at depth (Fosterville Mineral Reserves increased approximately 247% from December 31, 2016 to 1.7Moz @ 23.1g/t – refer to ASX: KLA 3 May 2018). Successful exploration north of Wattle Gully along the Whitelaw Fault Corridor by companies such as Catalyst Metals (ASX: CYL), Navarre Minerals Limited (ASX: NML), Hancock Prospecting Pty Ltd and others has also resulted in a number of significant new gold discoveries such as Sebastian North, Tandarra and Four Eagles .

The recent deep drilling success by the Canadian listed Mandalay Resources Ltd (TSX: MND) beneath its operating Costerfield gold-antimony mine is very encouraging for Kalamazoo as it lies to the north east of the Castlemaine Goldfield (Figure 2). Centennial Mining Limited (ASX: CTL) is operating its Porcupine Flat gold processing facility at Maldon, only 20km to the northwest of Wattle Gully.

Unlike the other major gold projects in the Bendigo Zone, the Castlemaine Goldfield has not been subjected to the same depths of drilling. Kirkland Lake's Fosterville Gold Mine is being profitably mined at depths of more than 800m with reports that the mineralised shoots are typically 4m to 15m thick, 50m to 150m up/down dip and 300m to 1,500m+ down plunge, and have average grades of 5-10g/t Au, with individual assays up to 60g/t Au\*.

\*refer to Kirkland Lake Gold Website: <http://www.klgold.com/assets/operations-and-projects/australia/operations/fosterville-mine/default.aspx>

The majority of gold produced from the Castlemaine Goldfield was alluvial (4.7Mozs) and is considered to be one of the richest alluvial gold fields on earth. Hardrock underground mining produced an estimated 0.9Mozs of gold across four known lines of reefs, which were mined to a maximum depth of approximately 400m (Table 1).

In comparison to the other fields within the Bendigo Zone, the Castlemaine Goldfield has not been tested comprehensively at depth leaving open the prospect of repetitions of mineralisation at deeper levels.

	Castlemaine	Bendigo	Ballarat	Fosterville
Size (Moz)	5.6	22	10	~5
No. historic shafts	1700	5500	? (100's)	-
Lines of reef	4	17	3	?
Age (Ma)	445	445	445	380
Major mineralisation type	Fault	Saddle	Fault	Fault
Minor mineralisation type	Saddle	Fault/spur	Saddle	?
Host lithology	Sandstone	Shale	Sandstone	Shale
Depth (km)	0.4	1.5	~1.0	1.2
Repetitions	?	Yes	Yes	Yes
Ore host	Quartz	Quartz	Quartz	Sulphide/Quartz

Table 1: Comparison of Victorian Gold Regions

(Modified after Ballarat - Annual Qualified Persons Report for the Ballarat Gold Mine, Australia for the Year Ended 31 March 2017, Petrie *et al.* and Fosterville – Report on the Mineral and Mineral Reserves of the Fosterville Gold Mine, 2017, for Kirkland Lake Gold Ltd, Fuller *et al.*)

EL006679 is valid for an initial period of five years with a minimum expenditure commitment of \$265,000 over five years. Subsequently, Kalamazoo has applied for a second, larger tenement, EL006752, located east and south of the previously granted Wattle Gully tenement (Figure 3).

Kalamazoo has been able to secure the project's 200GB+ database, including 3D models of various deposits and the entire drill core farm. The replacement value of this dataset is estimated by Kalamazoo to be more than \$20 million.

Modern exploration techniques, for example gravity and seismic surveying, have not been utilised within the project area but have proven to be very effective at Kirkland Lake's Fosterville Gold Mine and the potential to apply these tools at Castlemaine is being evaluated.



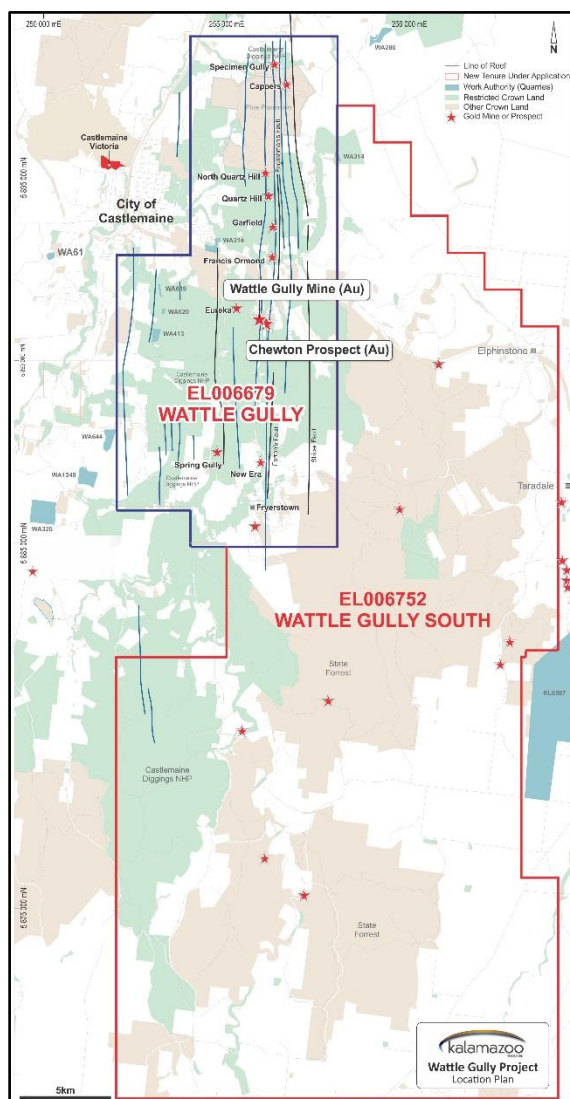


Figure 3: Tenement location of Wattle Gully (Granted) and Wattle Gully South (Application)

## Prospective Areas of Interest

An initial review of the Castlemaine Goldfields by Kalamazoo confirmed that the Wattle Gully, North Quartz Hill, Eureka, Vineyard and Cappers/Shellback projects were important sources for gold production (Figure 4). The initial focus will be on these areas for their potential to develop exploration targets, most likely at depth, via a dedicated technical review which is well underway.

Kalamazoo believes the combination of new exploration techniques and the knowledge that will be derived from the analysis of the extensive database and core farm will permit the company to outline an effective exploration strategy to identify areas with high grade gold potential.

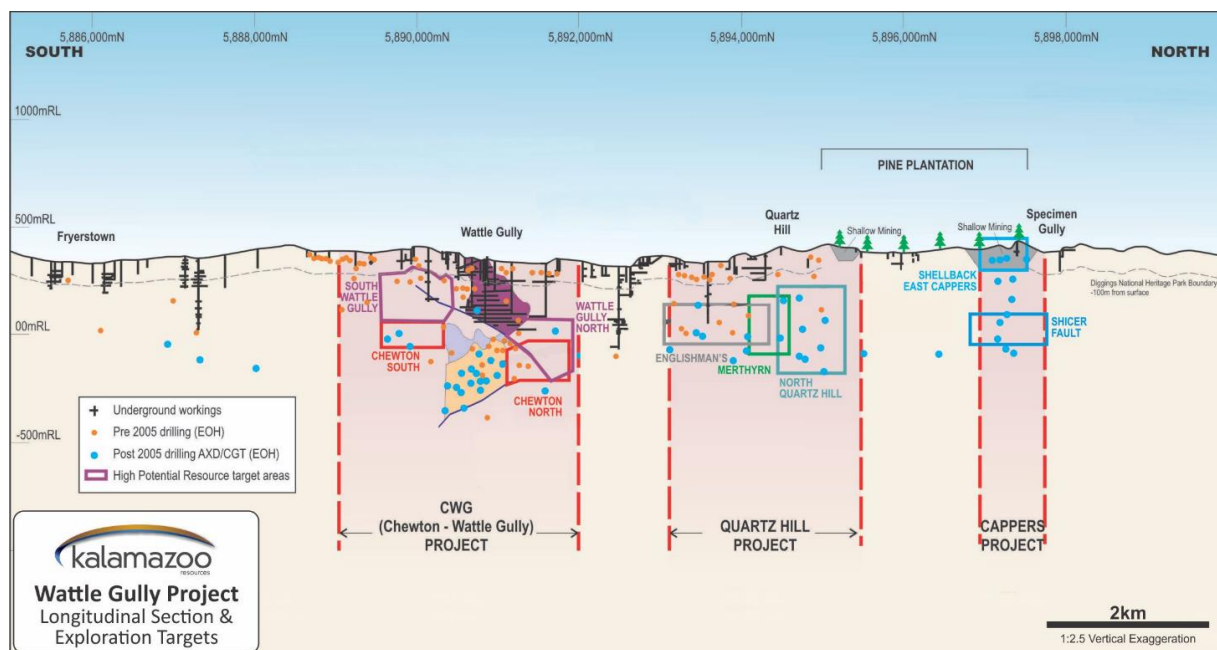


Figure 4: Long Section of the Wattle Gully Project Area and gold prospects  
(Modified from ASX: CGT AGM 2009 Presentation)

## Planned Work Program

The consolidation and validation of the substantial Castlemaine Goldfield database is now complete and enables Kalamazoo to:

- Complete a technical review to establish exploration target(s);
- Refine the geology and structural controls to gold mineralisation;
- Develop the appropriate exploration practices and techniques suitable for this style of mineralisation; and
- Drill test identified target areas.

## PILBARA GOLD PROJECTS

During 2018 Kalamazoo acquired between 80% and 100% equity in three highly prospective gold projects in WA's Pilbara region. The projects have the potential to host significant gold mineralisation and are located close to some of the Pilbara's most exciting gold projects.

### DOM's Hill Gold Project (E45/4722, E45/4887, ELA45/4919 and ELA 45/5146)

The DOM's Hill Gold Project consists of two granted tenements and two exploration license applications located 110km south east of Port Hedland within the Archaean East Pilbara Region (Figure 5). The project is considered prospective for a range of gold, nickel, cobalt and base metal

deposits. Past exploration has highlighted the potential for shear hosted lode gold mineralisation with a number of advanced targets within the project including DOMs Hill and the North-East Zone.

The DOM's Hill Gold Project contains an array of exploration targets ranging from advanced prospects with significant gold grade intersections through to grass roots conceptual targets.

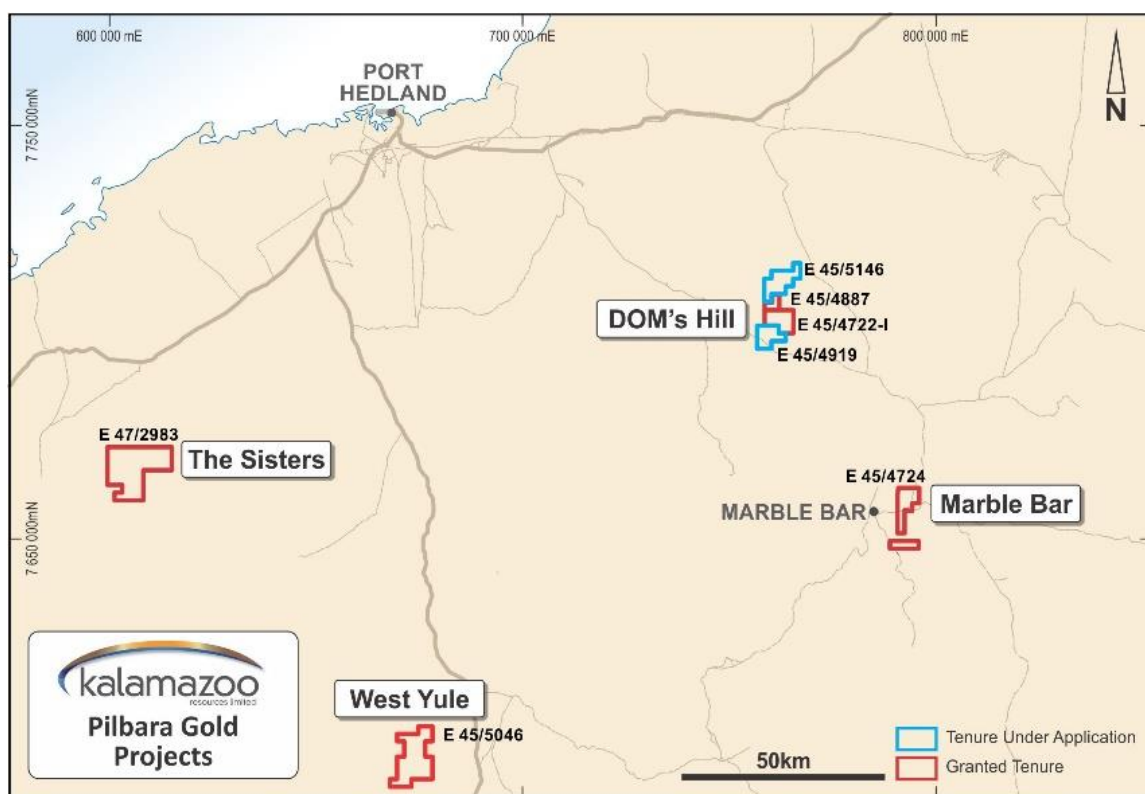


Figure 5: Location of Sisters, DOM's Hill and Marble Bar Gold Project Tenements

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

The Sisters Gold Project is a granted 136km<sup>2</sup> exploration licence located 100km south west of Port Hedland (Figure 6) and is prospective for epigenetic gold mineralisation associated with the Mt Wohler Shear, a prospective splay of the gold mineralised Mallina Shear Zone.

There is no reported systematic exploration along this prospective shear. The Project is partly underlain by Mallina Formation sediments, host to recent nugget discoveries by Arrow Minerals (ASX: AMD 7 November 2017) (formerly Segue Resources) in the adjacent tenement E47/3476. Kalamazoo re-assayed of soil samples initially collected by Sayona Mining for lithium exploration, and defined a gold-in-soil anomaly over 3km along the Wohler Shear Zone corridor (ASX: KZR 23 November 2017). The anomaly is open to the north-east and south-west (Figure 7).



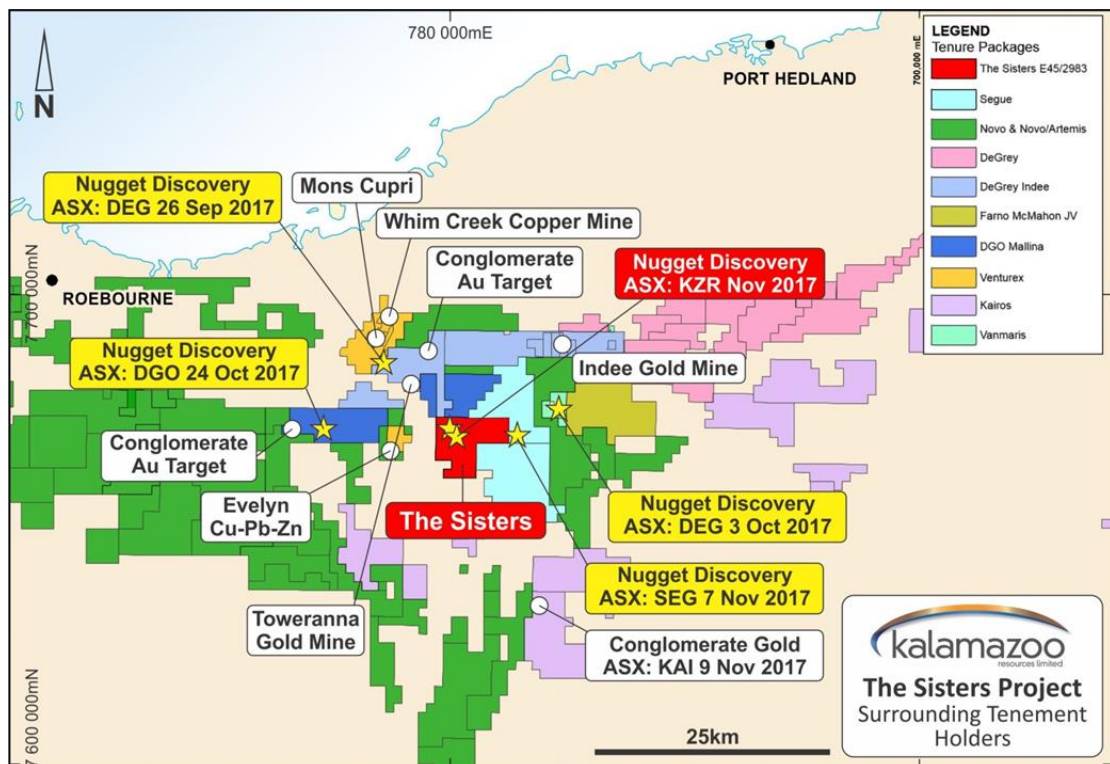


Figure 6: The Sister's Project and surrounding tenements

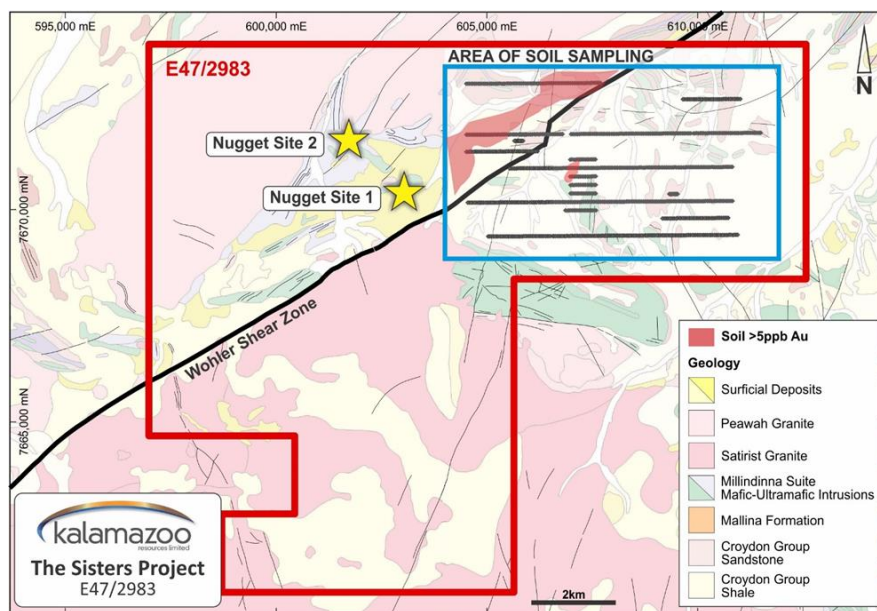


Figure 7: Sisters Project geology, soil sampling coverage and location of nuggets





## **Marble Bar Gold Project (100% interest in mineral rights other than lithium over EL45/4724)**

The Marble Bar Project comprises one granted tenement of 48km<sup>2</sup> located 6.5km east of Marble Bar and 11km north-west of ASX-listed Calidus Resources' Klondyke Gold Project located within the Warrawoona Gold project area.

The southern boundary of E45/4724 is adjacent to Calidus' tenement E45/4555 which contains the high grade Klondyke Gold deposit. Approximately 12km of the prospective Warrawoona Formation stratigraphy occurs within E45/4724. The tenement straddles the western intrusive contact of the Archaean Mt Edgar Batholith and the adjacent basalts, amphibolites and ultramafic units of the Warrawoona Formation. Major northerly trending arcuate regional structures traverse the project.

Calidus Resources Limited (ASX: CAI) commenced an aggressive resource definition and exploration program focused on the Warrawoona Project, located 21km south east of Marble Bar in June 2017. Calidus has consolidated much of the Warrawoona greenstone belt for the first time and recently announced a combined JORC (2012) Indicated and Inferred Mineral Resource of 712,000oz within its Klondyke project area (ASX: CAI 18 December 2017).

Kalamazoo's review of the data for the Marble Bar tenement indicates it contains a sheared meridional greenstone belt over which there has been very little reported gold exploration despite the large number of small gold leases throughout the larger area (e.g. Haoma Mining NL) and the mines on-strike to the south (Klondyke Gold Limited (ASX: KLD)). The Warrawoona Formation units within E45/4724 are poorly explored and justify a systematic gold exploration program. There is great potential for previously unknown gold occurrences in the favourable and structurally modified zones in the mafics/ultramafics.

Kalamazoo will continue with a managed exploration program in the Pilbara, principally for gold, centered on:

- A soil sampling and rock chip program, mapping and further geophysical modelling to identify target areas;
- Identifying target areas prioritised for further exploration, most likely drilling; and
- Continuing to test the potential for conglomerate-hosted gold below Mt Roe Basalts (which has been prolific in the region).

## **SNAKE WELL GOLD PROJECT – Mixy Gold Lode**

The completed drilling program tested for extensions of the high grade Mixy lode along almost 500m of strike, east to west, and down dip to 350m below surface (Figure 8). Shearing, alteration and veining were observed in five of the six holes giving a strong indication that the Mixy main zone structure continues and remains open at depth and along strike to the east and west.

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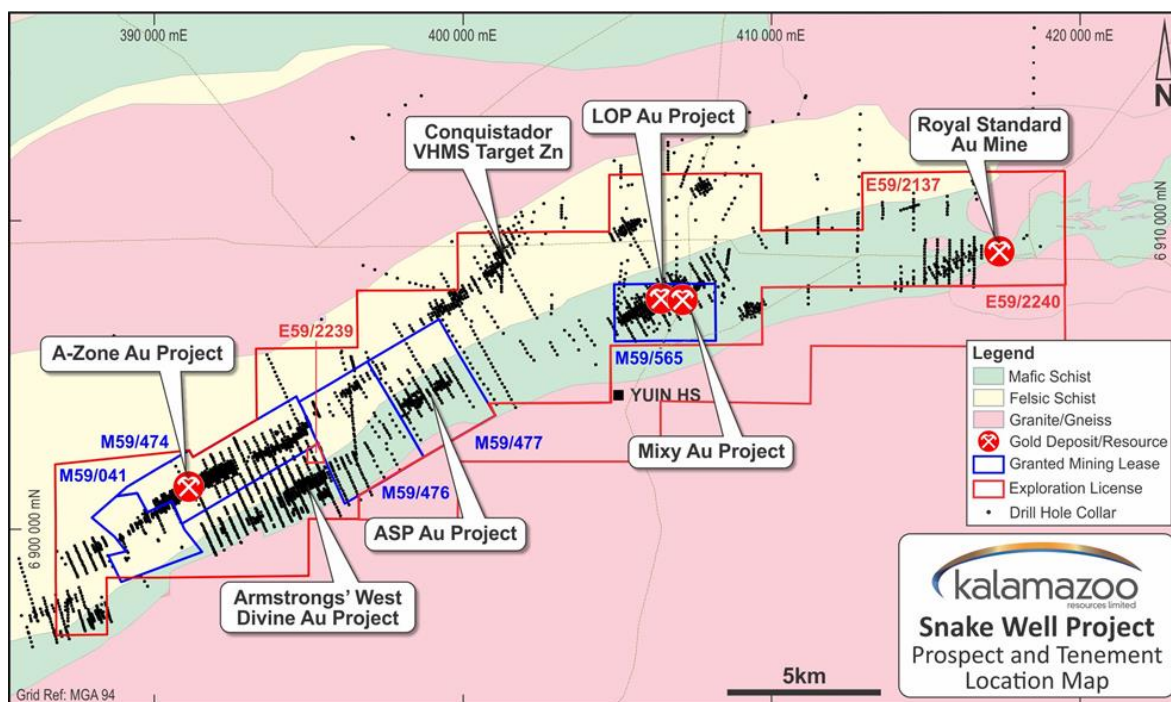


Figure 8: Location of the Mixy Lode in the Snake Well Project Area

High gold grades ranging from 5.1g/t to 18.9g/t Au, albeit over narrow intervals, were intersected in three holes, further evidence that the structure is well mineralised.

## Next Steps

- Commence planning for further drilling to test the down-plunge and along strike extent of the high-grade gold zones.
- Test shallower high-grade gold targets along the Mixy shear to the west and the east, such as Calisi 1 and Calisi 2 zones.

## CORK TREE COPPER PROJECT

The Cork Tree Project consists of six granted Exploration Licences (E52/2056, E52/2057, E52/3042, E52/3514, E52/3515 and E52/3540) comprising 117 blocks and covering approximately 370km<sup>2</sup> mainly within the Earraheedy Basin and partly along the contact with the Yerrida Basin (Figure 9). The Company now controls an area approximately 40km x 20km along the basin margins.

Kalamazoo entered into a farm-in and joint venture ("JV") agreement with Atlas Iron over two Cork Tree tenements in March 2013 and has currently completed the Stage 1 earn-in for 51%.

An exploration program at the Cork Tree Project has commenced to identify areas for copper/gold potential. Initially this involved a review of all historical data, regional geology and geophysics and identification of anomalous and target zones for follow up.

Mineralisation within the area surrounding the Cork Tree Project dominantly occurs as epigenetic gold deposits (Peak Hill, Fortnum, and Horseshoe mining centres) with lesser VHMS (Horseshoe Lights and DeGrussa deposits) and epigenetic copper (Thaduna deposit).

Historical exploration has indicated encouraging copper potential at the project:

- Regional soil sampling defined an anomaly some 1,950m x 600m in extent, with results ranging from 2ppm to 25ppm Cu; and
- Eight rock samples of 'gossans' returned copper assay above 0.1% with a maximum of 1.42% Cu.

A program of infill lag geochemistry was completed, along with mapping and rock chip sampling. Reprocessing and remodelling of historical geophysical data, including gravity, magnetics and electromagnetics ("EM") was also completed. Review of this data has led to a better understanding of the regional geology and improved the exploration model which most importantly has directed exploration to specific target areas for follow-up work.

Preparation for a drilling program comprising up to an initial 7 holes for 1,050m is underway, with the Program of Works (POW) approved by DMIRS and a heritage clearance survey completed in late September 2018. The drill hole locations have been marked on the ground and field checked.

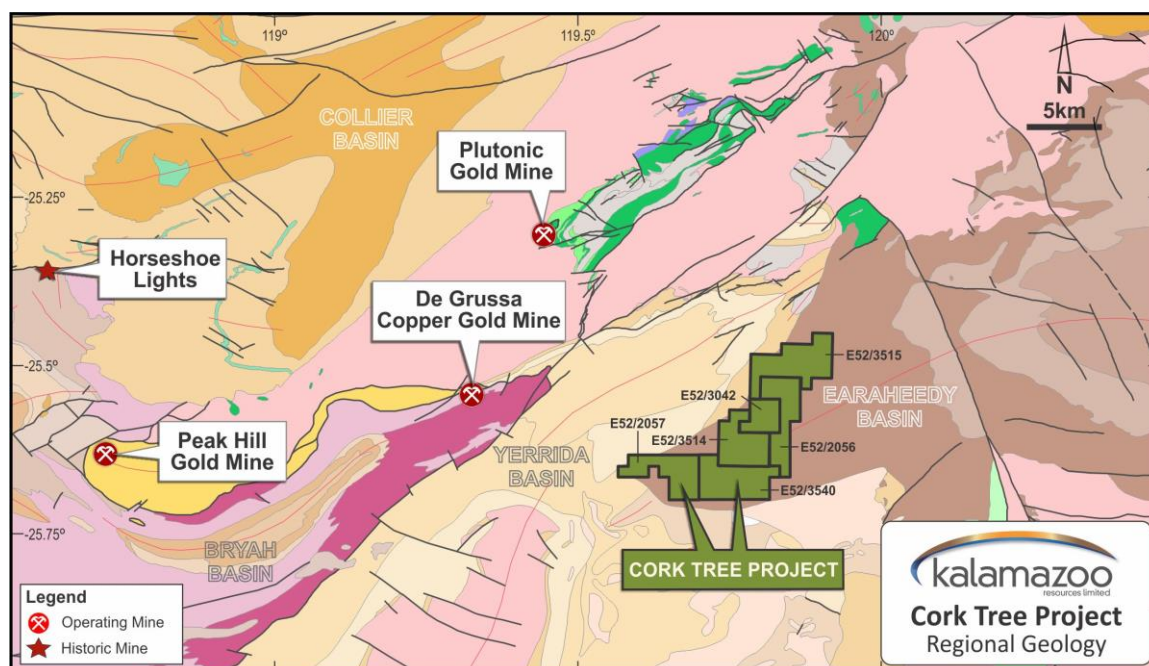


Figure 9: Location of Cork Tree tenement package, geology and significant deposits

## Other Projects

Kalamazoo continues to seek out and review other projects which can meet the necessary criteria to add value to the Company. A number of projects have been assessed, mainly potentially open pit, gold projects and base metal (principally copper) exploration projects.



## **CORPORATE - Board Updates**

After the announcement of the acquisition of the Wattle Gully project, several Kalamazoo board changes were announced in July 2018:

- Managing Director Peter Benjamin retired in July 2018 after two years in the role.
- Chairman Luke Reinehr was appointed as interim CEO role while a replacement is secured.
- Paul Adams was appointed Non-Executive Director in July 2018.
- Experienced Victorian gold geologist John Collier was appointed as senior technical consultant to Kalamazoo's Wattle Gully gold project in Victoria.

### **For further information, please contact:**

Mr Luke Reinehr

CEO and Executive Chairman

Please direct email enquiries to [admin@kzr.com.au](mailto:admin@kzr.com.au) or call 1300 782 988 or 08 9481 8188

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

Project / Tenement ID	State	Status	KZR Interest at start of quarter	KZR Interest at end of quarter	Notes
<b>SNAKE WELL PROJECT</b>					
E59/2137	WA	Granted	100%	100%	
E59/2239	WA	Granted	100%	100%	
E59/2240	WA	Granted	100%	100%	
M59/0041	WA	Granted	100%	100%	
M59/0474	WA	Granted	100%	100%	
M59/0476	WA	Granted	100%	100%	
M59/0477	WA	Granted	100%	100%	
M59/0565	WA	Granted	100%	100%	
<b>PILBARA PROJECT</b>					
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	-	-	
E45/5046	WA	Granted	-	100%	
E45/5146	WA	Application	-	-	
<b>CORK TREE PROJECT</b>					
E52/2056	WA	Granted	51%	51%	49% held by Giralia Resources Pty Ltd.
E52/2057	WA	Granted	51%	51%	49% held by Giralia Resources Pty Ltd.
E52/3042	WA	Granted	100%	100%	
E52/3514	WA	Granted	100%	100%	
E52/3515	WA	Granted	100%	100%	
E52/3540	WA	Granted	100%	100%	
<b>WATTLE GULLY PROJECT</b>					
EL006679	VIC	Granted	100%	100%	
EL006752	VIC	Application	-	-	
<b>TARNAGULLA PROJECT</b>					
EL006780	VIC	Application	-	-	

Giralia Resources Pty Ltd is a wholly owned subsidiary of Atlas Iron Ltd.



### **About the Snake Well Project**

The Snake Well Project, is located 450km north of Perth in the Mid-West region. It consists of five granted mining leases, one granted exploration licence and two exploration licence applications. The Snake Well Project covers Archaean rocks over an area of approximately 263km<sup>2</sup> and a 45km prospective strike length of the Talling greenstone belt, in the western portion of the Murchison Domain that hosts a number of significant mineral deposits including Golden Grove (Cu-Zn), Big Bell (Au), Cue (Au), Deflector (Cu-Au) and Mt Magnet (Au).

### **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 Wattle Gully Project**

Kalamazoo's newest gold asset is the Wattle Gully and Wattle Gully South gold project, which covers almost all the historical Castlemaine Goldfields. The project area is located approximately 100 kilometres northwest of Melbourne and is 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 one granted exploration licence and one exploration licence application. 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.

### **Competent Persons Statement**

The information in this release that relating to the exploration data for all 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 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.

The information in this report that relating to Snake Well on the accumulation modelling of the Company is based on information compiled by Mr David Reid, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Reid is an employee of Ravensgate Mining Industry Consultants (**Ravensgate**) who is engaged as the Independent Geologist of the Company. Mr Reid 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 Reid 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 for the Wattle Gully Project relates to Mr John Collier who is the Principal Consultant to **Conarco Consulting** who is engaged as a Consultant to the Company.

Mr Collier 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 Collier consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

For additional and detailed information, including the JORC 2012 Minerals Resource Estimates, please refer the Independent Geologist's Report prepared by Ravensgate in Section 5 of the Company's Prospectus dated 3 October 2016 and Supplementary Prospectus, dated 14 November 2016.

### **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.