

ASX Announcement

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VICTORIAN GOLDFIELDS DRILLING AND EXPLORATION UPDATE

Highlights

- ~4,000m diamond drilling program at the Lightning Prospect located within the Castlemaine Gold Project (EL006679), commenced on 1st October 2020
- ~7,000m RC drilling program across four high priority targets at the South Muckleford Gold Project to commence on receipt of final Government approval
- Highly successful project wide geochemistry soil programs completed at the Castlemaine and South Muckleford Gold Projects
- 15 high priority exploration targets have now been identified at the Castlemaine and South Muckleford Gold Projects

Kalamazoo Resources Limited (ASX: KZR) ("Kalamazoo" or the "Company") is pleased to update the market on significant exploration progress made at its Victorian Goldfield Projects, as a result of a concerted campaign of regional and infill surface geochemistry programs, detailed field mapping, 3D structural modelling and drill program design and planning.

The outcome of these recent work programs is the commencement on 1st October 2020 of a minimum 2,700m (up to 4,000m) diamond drilling program at the Lightning Prospect within the Castlemaine Gold Project (EL006679). A further ~7,000m RC drilling program is planned for the South Muckleford Gold Project (EL006959) which is currently awaiting final approval.

Kalamazoo's Chairman and CEO Luke Reinehr said today, "We are extremely pleased to have commenced our next Victorian drilling campaign at the Castlemaine Gold Project, with drilling to then move to our South Muckleford Gold Project soon after. We are fortunate that our project areas are located within incredibly rich historical goldfields which contain a combined past production of almost 8Moz of gold. Our strategy from the outset has been to utilise technologies and innovations previously not used on these projects to better assist us in our search for the next world class discovery in the Bendigo Zone and whilst these programs are extensive, we are confident they will assist us in identifying exploration targets with the potential to contain high grade gold resources."

Castlemaine Gold Project - Diamond Drilling Program

The Lightning Prospect is Kalamazoo's next identified drill target within the Castlemaine Gold Project. Drilling commenced on 1st October 2020 from within the private Pine Plantation in the northern area of EL006679 (Figure 1). The Lightning Prospect is located approximately 2km south of the Mustang Prospect (Figure 2), where Kalamazoo completed its successful maiden diamond drilling program in April 2020¹.

The Lightning Prospect was identified in 2019 as one of Kalamazoo's top ten prospects within the Castlemaine Gold Project. These ten priority targets were identified through analysis of historical gold production records and previous drilling, and the results from recent mapping, geophysical and geochemical surveys followed by 3D structural modelling.



Figure 1: Diamond drill rig in operation at the Lightning Prospect, Castlemaine Gold Project (EL006679)

¹ ASX: KZR 29 April 2020

The Lightning Prospect area contains extensive historical workings (c.1854 – c.1896) exploiting shallow, gently-dipping quartz veins and numerous shafts of unknown depth. The mineralisation at surface is located at the Whitehorse Fault, which continues south to the Chewton Anticline, with the major Schicer Gully Fault interpreted at surface a further 250m to the east.

Numerous shafts, workings and infrastructure indicate that the area surrounding the Lightning Prospect was the subject of extensive mining in the period 1850-1890. Accurate historical production records are limited for the immediate area however mining recoveries were reported to be ~1 oz/t (i.e. ~31 g/t) of gold for 23 years (as of 1882)².



Figure 2: Location of the Castlemaine and South Muckleford Gold Project exploration tenements

² The Argus, 18 October 1882, <u>http://nla.gov.au/nla.news-article11556362</u>)

In addition to the identified mineral occurrence, the Lightning Prospect is of significant interest to Kalamazoo due to its structural style. Although most historical excavations were in gently-dipping veins, a mineralised "breached-anticline" outcrop was identified, displaying the characteristic "Wattle-Gully" style of a west-dipping quartz-vein parallel to the west-limb of an anticline and breaching through to be discordant with the east-dipping beds on the eastern limb. The Wattle Gully Gold Mine, approximately 5km to the south of the Lightning Prospect, was the major historical underground mine located within the Castlemaine Gold Project, with previous gold production of approximately 411,000oz at 11 g/t Au³.

The current diamond drill program underway at the Lightning Prospect has been designed to test high grade gold targets associated with the coincidence of prospective structures, surface geochemistry and ground IP anomalies and historical mine workings. An initial program of 6 x ~400-500m diamond drill holes for a minimum 2,700m is expected to be completed by early December 2020. Dependent upon the results, a further ~1,400m drill program has been planned pending Government approval.

South Muckleford Gold Project RC Drilling Program

After completion of the Lightning Prospect drill program, Kalamazoo will move to its next drill campaign at the South Muckleford Gold Project (EL006959). A ~7,000m RC drill program will test several significant surface geochemistry anomalies associated with highly prospective structures and significant historical workings. Four high priority prospects have been identified with the drilling program now awaiting final Government approval, which is anticipated in Q4 2020.

Cultural heritage surveys by the Native Title Holders have been successfully completed over all proposed drill sites.

Surface Geochemistry Sampling Programs

In February 2020, Kalamazoo reported the commencement of a regional-scale soil geochemistry sampling program in collaboration with the CSIRO⁴. Specifically, soil samples have been subjected to UltraFine+TM multi-element analysis for major and trace elements in a CSIRO-led collaborative leading-edge research project. This program is being undertaken in conjunction with a separate CSIRO Innovations Connections research project that uses the latest advanced technologies to map and detect broad mineral alteration haloes within soil samples. These combined surface geochemistry sampling programs are using the latest advanced technologies to assist Kalamazoo in identifying and prioritising drill targets to be tested at both the Castlemaine and South Muckleford Gold Projects.

Soil sampling programs have been designed on 200m x 100m grids that cover a large number of high priority prospective target areas with known gold mineralisation across Kalamazoo's Castlemaine, South Muckleford and Tarnagulla Central Gold Projects. The target areas have been selected utilising a combination of data including the presence of prospective fault/fold structures, gold mineralised reefs, historical workings, low exploration maturity and historical drill hole intersections.

To date, Kalamazoo has received the Ultrafine+[™] soil sample assay results for 3,424 samples. 1,812 samples (best result 1.42 g/t Au) are from the South Muckleford Gold Project and 1,612 samples (best result 1.63 g/t Au) from the Castlemaine Gold Project. Whilst the CSIRO is yet to report its final analysis of these results, Kalamazoo's preliminary analysis and field validation exercises have confirmed gold plus multi-element anomalies which are often but not always associated with known gold-bearing reefs and historical mining (Figure 3 and 4).

³ ASX: KZR 20 June 2018

⁴ ASX: KZR 4 February 2020

To assist with the drill hole designs for the Castlemaine and South Muckleford Gold Project's programs, the target areas have also been the subject of detailed 50m x 50m infill soil geochemistry surveys utilising a portable handheld XRF. These infill results have been used in the final positioning of individual diamond drill sites and RC drilling traverses.

A further 59 samples have been collected at the Tarnagulla Central Gold Project with assay results still pending.

Airborne LiDAR surveys

Trial airborne LiDAR surveys have been flown over three key areas of the Castlemaine and South Muckleford Gold Projects, with the aim of improving Kalamazoo's geological and structural interpretations as well as to potentially identify previously unknown historical mine workings. The final processed data is expected in early November 2020.

Next Steps

- Ongoing management of the current diamond drilling program at the Lightning Prospect, Castlemaine Gold Project, with potential to expand this program to ~ 4,000m
- Receive final Government approval for the ~7,000m RC drilling program at the South Muckleford Gold Project
- Continued focus on the completion of low impact reconnaissance field mapping, soil sampling and ground geophysical surveys at several already identified and highly prospective areas-of-interest for the purposes of generating more high priority drill targets
- Interpretation and evaluation of the LiDAR survey data

All ground activities are being conducted in accordance with the Company's COVID-19 policies and procedures, with the commencement of drilling activities dependent upon State and Federal COVID-19 health guidelines and ERR permitting.



Figure 3: Preliminary gold (ppb), As (ppm) and Sb (ppm) soil geochemistry grids over portions of both EL006679 and EL006752, Castlemaine Gold Project



Figure 4: Preliminary gold (ppb), As (ppm) and Sb (ppm) soil geochemistry grids over South Muckleford (EL006959)

Luke Reinehr Chairman / CEO <u>luke.reinehr@kzr.com.au</u> Victoria Humphries Investor Relations – NWR Communications victoria@nwrcommunications.com.au

Response to COVID-19

Kalamazoo has been proactively managing the potential impact of COVID-19 and has developed systems and policies to ensure the health and safety of its employees and contractors, and of limiting risk to its operations. These systems and policies have been developed in line with the formal guidance of State and Federal health authorities and with the assistance of its contractors and will be updated should the formal guidance change. Kalamazoo's first and foremost priority is the health and wellbeing of its employees and contractors.

To ensure the health and wellbeing of its employees and contractors, Kalamazoo has implemented a range of measures to minimise the risk of infection and rate of transmission to COVID-19 whilst continuing to operate. All operations and activities have been minimised only to what is deemed essential. Implemented measures include employees and contractors completing COVID-19 risk monitoring, increased hygiene practices, the banning of non-essential travel for the foreseeable future, establishing strong infection control systems and protocols across the business and facilitating remote working arrangements, where practicable and requested. Kalamazoo will continue to monitor the formal requirements and guidance of State and Federal health authorities and act accordingly.

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.

Forward Looking Statements

Statements regarding Kalamazoo's plans with respect to its mineral properties and programs 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.

Section 1 Sampling Techniques and Data

Criteria J	ORC 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. 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. 	 Samples referred to in this report are obtained from in situ soil samples overlying Palaeozoic sedimentary basement rocks of the Castlemaine Group. Soil sampling was conducted along 200m spaced E-W lines with a sample station every 100m i.e. a 200m x 100m grid pattern. The sampling interval was selected based upon previous studies which ascertained the alteration signature footprint associated with gold mineralisation in this region is >100m. At some prospects infill 50m x 50m grid soil sampling was completed utilising a portable hand-held XRF. The XRF data was used a guide only to help position planned drill sites. Sampling practice is appropriate to the generally residual soil profile of the area sampled and complies with industry best practice.
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). 	• Not applicable.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	• Not applicable.
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	• Not applicable.
Sub- sampling techniques	• If core, whether cut or sawn and whether quarter, half or all core taken.	 Soil samples were collected in dry conditions and placed in numbered calico bags and grouped in poly-weave bags for dispatch to the laboratory.

Criteria JOF	RC Code explanation	Commentary
and sample preparation	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Sample size was generally 0.3-0.4 kg. Samples were directly delivered to the laboratory via tracked TOLL freight consignment. Sample preparation was conducted at the LabWest Laboratory, Perth, including sample sorting, drying, crushing and milling. Sample sorting: samples are weighed, and respective weights recorded. Any reconciliation (extra samples, insufficient sample, missing samples) is noted at this stage. Sample Drying (only required if wet samples): Samples are dried in calico bags in ovens at 105 deg C. Field duplicate samples were collected at a rate of 1:50. Duplicate results show an acceptable level of variability for the material sampled and style of mineralisation. Sample weights are recorded and provided by the laboratory.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Assaying of the soil samples were conducted by LabWest Laboratory, Perth. The Ultrafine+[™] methodology utilises a <2µm size fraction. LabWest use a propriety hydraulic settlement procedure to collect the <2µm size fraction. A sub-sample of <2um material is taken for analysis. All samples were assayed for Au plus 44 elements using a microwave aqua regia digestion followed by ICPMS/OES determination. Sampling and assaying quality control procedures consisted of the inclusion of Certified Reference Materials (CRMs) at a rate of 1:30. Analysis of the available QC sample assay results for gold indicates that an acceptable level of accuracy and precision has been achieved and the database contains no analytical data that has been numerically manipulated. QC of the remaining multi-element data is ongoing. The assaying techniques and quality control protocols used are considered appropriate for the data to be used for reporting exploration soil geochemistry results.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data 	 All sampling and assay information were stored in a secure database with restricted access. Digital sample submission forms provided the sample identification numbers accompanying each submission to the laboratory.

Criteria JOR	C Code explanation	Commentary
		 All sampling and assaying documentation are validated and stored off-site with an independent third party. Assay results from the laboratory with corresponding sample identification are loaded directly into the database. No assay adjustments have been applied. Verification of the soil sample assay results has been completed by company personnel and the Competent Person.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 All sample locations (x-y) have been recorded with a 64s Garmin Handheld GPS with 3-5m accuracy and height (z) relative to AHD. All sample location coordinates are provided in the Geocentric Datum of Australia (GDA94 Zone 55S). RL data is verified utilising publicly available SRTM-derived (~30m pixel) Digital Elevation Model.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Sample spacing: 100m along east west lines; lines spaced 200m north-south (MGA94). No sample compositing is applied to samples.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 The strike of the geology is approximately north-south with slight variation dependent upon the location within the exploration licence. Sample spacing and orientation is reconnaissance in nature and not targeted at specific structures or known trends of mineralisation.
Sample security	• The measures taken to ensure sample security.	 Samples were secured in closed polyweave sacks and stored at company premises. All samples have been delivered direct to the laboratory via tracked TOLL freight consignment.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Due to the limited duration of the program, no external audits or reviews have been undertaken.

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, 	 EL006679 & EL006959 are 100% owned by Kalamazoo Resources Ltd and are in good standing with no known impediments. A proportion of EL006679 consists of the Castlemaine Diggings National Park which is

Criteria	JORC Code explanation	Commentary
	 wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 classified as Restricted Crown Land although that does not prohibit gold exploration and mining. A proportion of EL006959 consists of the Muckleford Conservation Reserve and Maldon Historic Reserve which are both classified as Restricted Crown Land although that does not prohibit gold exploration and mining.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 The project area has been explored and mined for both alluvial and quartz-vein gold mineralisation by numerous previous parties since the mid-1800s. The results of this work including past production is described in numerous publicly available Geological Survey of Victoria publications. Appraisal of the substantial volume of historical exploration and mine production records occurred during the due diligence period and is ongoing.
Geology	• Deposit type, geological setting and style of mineralisation.	 The Castlemaine and South Muckleford Gold Project contains known gold deposits/occurrences typical of the Bendigo Zone of Central Victoria. Primary gold mineralisation is described as orogenic in nature, structurally controlled, and associated with quartz-veining and lesser sulphide mineralisation.
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. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	• Not applicable.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such 	 Significant soil anomalies >25ppb are reported.

Criteria	JORC Code explanation	Commentary
	aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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'). 	 The exact relationship of results reported to any mineralisation present is unknown at the time of reporting although as described some soil gold anomalies are coincident with known historic gold mine workings. This relationship is still to be fully evaluated.
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. 	• As provided.
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.	 Only significant assay results (>25 ppb Au) have been reported.
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 exploration data to report.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Field validation of significant soil geochemistry anomalies is ongoing. This practice involves physically observing each gold anomalous soil sample site to verify its validity and to ascertain whether it is in-situ material, alluvial deposit, or otherwise contaminated site.