

4 January 2021

Chalice secures access to major new targets at Julimar

Initial reconnaissance exploration activities to commence at the large-scale Hartog, Baudin and Jansz EM anomalies in the coming weeks

Highlights

- Approval received from the Minister for Environment for initial non-ground disturbing exploration activities within the Julimar State Forest.
- Three large-scale airborne EM anomalies located within the State Forest to the north of the world-class Gonneville PGE-Ni-Cu-Co-Au discovery will be the focus of initial exploration program.
- Ground EM and soil geochemical sampling to commence in the coming weeks.
- Chalice is fully funded to continue its 6-rig resource definition drill program and reconnaissance exploration activities at Julimar with **~\$120 million** in cash.

Chalice Mining Limited ("Chalice" or "the Company", ASX: CHN | OTCQB: CGMLF) is pleased to announce that it has received a key access approval to additional exploration areas at its 100%-owned Julimar Nickel-Copper-Platinum Group Element (PGE) Project, located ~70km north-east of Perth in Western Australia.

The Minister for Environment has provided agreement (concurrence) to consent to initial non-ground disturbing activities within the Julimar State Forest on granted Exploration Licence E70/5119, under the approved Stage 1 Conservation Management Plan (CMP). This approval paves the way for the first ever Ni-Cu-PGE exploration activities within the State Forest.

Exploration activities will have negligible impact on vegetation, fauna or recreational activities within the area, and will be governed by the approved CMP.

Chalice completed the first-ever airborne electromagnetic (AEM) survey over this area in September 2020, which identified several large-scale EM anomalies (Hartog, Baudin and Jansz) located directly along strike from the Company's world-class Gonneville PGE-Ni-Cu-Co-Au discovery (**Figure 1**).

All three targets represent high quality greenfield discovery opportunities over ~20km of strike length across the interpreted Julimar layered mafic-ultramatic intrusive complex. The Hartog anomaly is the highest priority target, given its similar EM signature to the Gonneville discovery.

Exploration activities will initially comprise prospect-scale soil geochemical sampling (200m x 100m) in conjunction with 200m-spaced Moving Loop EM (MLEM) and ground gravity surveys (200m x 50m) centred over the Hartog, Baudin and Jansz AEM anomalies. This will be followed by infill soil geochemical sampling and MLEM to define targets for drill testing.

The entire ~20km x ~3km exploration corridor along the interpreted Julimar Complex will also be subject to first-pass exploration including wide-spaced soil geochemistry and ground gravity surveying and/or MLEM. Any additional areas of interest will be infilled to define potential targets for future drill testing.

Initial exploration activities within the Julimar State Forest will commence in the coming weeks and are anticipated to be completed in Q1 2021. This work will be undertaken concurrently with the ongoing 6-rig resource definition drilling program at the Gonneville discovery, located on private farmland.

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Figure 1. Julimar Complex Plan View – 2020 AEM Survey and 2021 planned exploration corridor.

Chalice Managing Director, Alex Dorsch, said: "This access approval has been eagerly anticipated and is highly significant, as it allows us to finally start to understand the true scale of the Julimar discovery. The targets to the north of the world-class Gonneville discovery have the potential to add material value to the project and we are incredibly excited to be the first on the ground.



"The strength and scale of the EM target at Hartog has drawn significant interest and we believe it could represent a different section of the intrusive complex which may be prospective for new styles of nickelcopper-PGE mineralisation. It should also be noted that the lack of an airborne EM response in other areas does not preclude the presence of mineralisation, as evidenced by our drilling at Gonneville.

"The planned initial reconnaissance activities aim to define drill-ready targets, which will then form the basis of a second stage approval process for drill testing. Drilling will ultimately determine if Julimar is a new multidiscovery mineral district.

"We are pleased to be working together with the various state government departments and agencies to facilitate the first ever ground-based Ni-Cu-PGE exploration programs in the State Forest. Chalice appreciates the conservation values of the area and takes its environmental responsibilities seriously. We intend to test the area as quickly as possible with minimal impact according to the approved CMP, and eagerly anticipate the first results."

Authorised for release on behalf of the Company by:

Alex Dorsch Managing Director

For further information, please visit <u>www.chalicemining.com</u> to view our latest corporate presentation, or contact:

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About the Julimar Nickel-Copper-PGE Project, Western Australia

The 100%-owned Julimar Nickel-Copper-PGE Project is located ~70km north-east of Perth on private farmland and State Forest. The Project has direct access to major highway, rail, power and port infrastructure in one of the world's most attractive mining jurisdictions – Western Australia.

The Project was staked in 2018 as part of Chalice's global search for high-potential nickel sulphide exploration opportunities.

Chalice interpreted the possible presence of a mafic-ultramafic layered intrusive complex (the 'Julimar Complex') based on high-resolution airborne magnetics. The Julimar Complex is interpreted to extend over ~26km of strike and is confirmed to be highly prospective for nickel, copper and platinum group elements (**Figure 2**).





Figure 2. Julimar Project tenure over regional magnetics.

Prior to Chalice's major discovery, the Julimar Complex had never been explored for Ni-Cu-PGE mineralisation, and the lack of any bedrock geology exposures and widespread development of laterite and transported cover in the region hindered the confirmation of the conceptual geological model.

Exploration activities to date have been confined to the \sim 1.6km x >0.8km Gonneville Intrusion on largely Chalice owned private land only, while the access approval to the remainder of the Complex within the Julimar State Forest was pending.

Chalice commenced a systematic greenfield exploration program over the Gonneville Intrusion in mid-2019. The initial drill program commenced in Q1 2020 and resulted in the discovery of shallow high-grade PGE-nickel-copper-cobalt mineralisation. The first drill hole (JRC001) intersected 19m @ 8.4g/t Pd, 1.1g/t Pt,



2.6% Ni, 1.0% Cu and 0.14% Co from 48m. The major greenfield Gonneville discovery defined the new West Yilgarn Ni-Cu-PGE Province.

The Intrusion is interpreted to be a layered mafic-ultramafic 'sill', with a moderate westerly dip and gentle northerly plunge. The potential 'feeder' for the system, a highly prospective area for high-grade mineralisation, is yet to be discovered. PGE-Ni-Cu-Co +/- Au sulphide mineralisation is widespread throughout the Intrusion and has been intersected down to ~850m below surface to date. The intrusion is open to the north into the Julimar State Forest and its depth extent is still unknown.

Seven high-grade massive / matrix / heavily disseminated sulphide zones (G1-7) have been defined to date over the southern end of the Intrusion. The discrete high-grade PGE-Ni-Cu-Co +/- Au zones comprise sulphide-rich accumulations (10-100% sulphide, defined by >1g/t Pd cut-off) and typically have a grade range of 3-15g/t PGE+Au, 0.5-3.3% Ni, 0.4-4.5% Cu and 0.03-0.27% Co.

The Intrusion also hosts widespread disseminated PGE-Ni-Cu-Co mineralisation (trace to 3% on average) surrounding the high-grade zones, which typically has a grade range of 0.5-2.0g/t PGE, 0.1-0.2% Ni, 0.05-0.15% Cu and 0.01-0.03% Co.

Weathering at Gonneville extends down to ~30-40m below surface and a well-developed saprolite (oxide) profile after serpentinite contains elevated PGE-Au grades (typically ranging from 1.2-4.5g/t PGE+Au) from near surface to a depth of ~25m.

Early stage metallurgical testwork completed to date on selected high-grade and disseminated sulphide mineralisation samples from Gonneville has returned promising flotation results, giving initial encouragement that the sulphide-hosted mineralisation at Gonneville will be amenable to conventional flotation under standard conditions.

Tests completed on a composite of oxide mineralisation samples has also returned promising results, with the extraction of PGEs and gold achieved through oxidative leaching under standard conditions.

An airborne electromagnetic (EM) survey was completed in September 2020 over the entire Julimar Complex. Three new large EM anomalies were identified – Hartog, Baudin and Jansz. The Hartog EM Anomaly extends ~6.5km directly north of the Gonneville Intrusion into the Julimar State Forest.

About Platinum Group Elements

The Platinum Group Elements (PGEs) are a group of six precious metals clustered together on the periodic table: platinum (Pt), palladium (Pd), iridium (Ir), osmium (Os), rhodium (Rh) and ruthenium (Ru).

PGEs have many desirable properties and as such have a wide variety of applications. Most notably, they are used as auto-catalysts (pollution control devices for vehicles), but are also used in jewellery, electronics and hydrogen fuel cells.

Palladium is very rare and is currently one of the most valuable precious metals, with an acute supply shortage driving prices to a recent record high of US\$2,856/oz in February 2020. The current spot price is approximately US\$2,400/oz.

Strong demand growth (~11.5Moz in 2019¹) is being driven by regulations requiring increased use of the metal, particularly as an auto-catalyst in gasoline and gasoline-hybrid vehicles. The total palladium market supply from all sources in 2019 was ~10.8Moz, and >75% is sourced from mines in Russia and South Africa¹.

¹ Source: S&P Global Market Intelligence





Competent Persons and Qualifying Persons Statement

The information in this announcement that relates to Exploration Results in relation to the Julimar Nickel-Copper-PGE Project is based on and fairly represents information and supporting documentation compiled by Dr. Kevin Frost BSc (Hons), PhD, a Competent Person, who is a Member of the Australian Institute of Geoscientists. Dr. Frost is a full-time employee of the Company and has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Dr. Frost consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

The Information in this announcement that relates to prior exploration results for the Julimar Project is extracted from the following ASX announcements:

- "High-grade nickel-copper-palladium sulphide intersected at Julimar Project in WA", 23 March 2020
- "Preliminary results from second target at Julimar Project", 24 March 2020
- "Significant nickel-palladium discovery confirmed at Julimar", 15 April 2020
- "Second diamond hole intersects discovery zone at Julimar", 20 April 2020
- "Exciting visual results from deep diamond drill hole at Julimar", 5 May 2020
- "Large-scale PGE system further expanded at Julimar", 11 May 2020
- "High-grade Ni-Cu-PGEs confirmed in discovery zone at Julimar", 25 May 2020
- "Extension of wide, high-grade PGE-Ni-Cu matrix zone at Julimar", 15 June 2020
- "Chalice discovers new high-grade PGE-Cu-Au zone at Julimar", 9 July 2020
- "Significant extension of high-grade PGE-Ni-Cu-Co zones at Julimar", 17 August 2020
- "Positive preliminary metallurgical results at Julimar", 1 September 2020
- "Major new 6.5km-long EM anomaly identified at Julimar", 22 September 2020
- "Significant new PGE-copper-gold horizon defined at Julimar", 6 October 2020
- "Key Private Properties Secured at Julimar", 16 November 2020
- "Significant high-grade PGE-Cu-Au extensions at Julimar", 18 November 2020

The above announcements are available to view on the Company's website at <u>www.chalicemining.com</u>. The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in the relevant original market announcements. The Company confirms that the form and context in which the Competent Person and Qualified Person's findings are presented have not been materially modified from the relevant original market announcements.

Forward Looking Statements

This report may contain forward-looking information within the meaning of Canadian securities legislation and forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, forward-looking statements). These forward-looking statements are made as of the date of this report and Chalice Mining Limited (the Company) does not intend, and does not assume any obligation, to update these forward-looking statements.

Forward-looking statements relate to future events or future performance and reflect Company management's expectations or beliefs regarding future events and include, but are not limited to, the Company's strategy, the fair value of investments, the estimation of mineral reserve and mineral resources, the realisation of mineral resource estimates, the likelihood of exploration success at the Company's projects, the prospectivity of the Company's exploration projects, the existence of additional EM anomalies within the project, the timing of future exploration activities on the Company's exploration projects, planned expenditures and budgets and the execution thereof, the timing and availability of drill results, potential sites for additional drilling, the timing and amount of estimated future production, costs of production, capital expenditures, success of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims and limitations on insurance coverage.

In certain cases, forward-looking statements can be identified by the use of words such as "anticipated", "believe", "could", "future", "impact", "planned", "extend" "will", "may", "potential", "pending", "prospective", "promising", "to commence" or variations of such words and phrases or statements that certain actions, events or results may, could, would, might or will be taken, occur or be achieved or the negative of these terms or comparable terminology. By their very nature forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

Such factors may include, among others, risks related to actual results of current or planned exploration activities; assay results of visually interpreted mineralised intersections; obtaining appropriate access to relevant freehold properties and the Julimar State



Forest; whether geophysical anomalies are related to economic mineralisation or some other feature; obtaining access to undertake additional ground disturbing exploration work on EM anomalies located in the Julimar State Forrest; the results from testing EM anomalies; results of planned metallurgical test work; changes in project parameters as plans continue to be refined; changes in exploration programs based upon the results of exploration, future prices of mineral resources; grade or recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; movements in the share price of investments and the timing and proceeds realised on future disposals of investments, the impact of the COVID 19 epidemic as well as those factors detailed from time to time in the Company's interim and annual financial statements, all of which are filed and available for review on SEDAR at sedar.com, ASX at asx.com.au and OTC Markets at otcmarkets.com.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.