



ASX: CHN | OTCQB: CGMLF

# Julimar – a globally significant PGE-Ni-Cu-Co discovery in WA

Resources Rising Stars 2020 Conference

10-11 November 2020

### Forward looking statements and disclosures



This presentation does not include all available Information on Chalice Gold Mines Limited and should not be used in isolation as a guide to investing in the Company. Any potential investor should also refer to Chalice Gold Mines Limited Annual Reports, filings on sedar.com, and to ASX/OTCQB releases and take independent professional advice before considering investing in the Company. For further information about Chalice Gold Mines Limited, visit the website at <a href="chalicegold.com">chalicegold.com</a>

#### Forward-Looking Statements

This document 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 and include, but are not limited to, the Company's strategy, the price of O3 Mining securities, the likelihood of exploration success including results of future events and include, but are not limited to, the Company's strategy, the price of O3 Mining securities, the likelihood of exploration success including results of future events or future events or future events and include, but are not limited to, the Company's strategy, the price of O3 Mining securities, the likelihood of exploration success including results of future events or future events and include, but are not limited to, the Company's strategy, the price of O3 Mining securities, the likelihood of exploration success including results of future events or results may, could, would, might or will be taken, occur or be achieved or the negative profunction or achievements of the Company to be materially different from any future results, performance or achievements of the company future forward-looking statements of the company future events or future disposal or future disposal events or future events or future disposal events or fut

#### Competent Person and Qualifying Persons Statement

The Information in this presentation that relates to 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

The Information in this presentation that relates to the exploration results for the Pyramid Hill Project is extracted from the following ASX announcements:

- "Discovery of new >2km gold trend in air-core drilling at Karri Target indicates potential for a significant gold system", 12 December 2019
- "Several new gold zones discovered in first drill holes at Ironbark North Target", 19 December 2019
- "Karri gold trend expanded to over 3km of strike extent", 13 January 2020
- "Infill AC drilling at Karri returns best intercept to date of 4m at ~4g/t gold", 3 February 2020
- "New High-Grade Gold Zones at the Large-Scale Karri Target", 4 March 2020
- "First diamond drill hole at Karri hits primary gold zone", 7 April 2020
- "Maiden diamond drill program at the Pyramid Hill Gold Project confirms a large gold system at the Karri Prospect", 29 July 2020

The Information in this presentation that relates to exploration results for the Hawkstone Project (formerly the King Leopold Project) is extracted from the following ASX announcements:

- "Chalice acquires highly prospective nickel sulphide project in west Kimberley region of WA", 18 June 2019
- "Strong EM Conductors Identified at King Leopold Project", 20 August 2019

The above announcements are available to view on the Company's website at chalicegold.com. The Company confirms that it is not aware of any new information or data that materially affects the information 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.



A unique exploration specialist with a globally significant discovery





- Julimar Australia's first major palladium discovery
- A suite of critical metals for our clean energy future
- Rare combination of new district and new mineral province



### Unrivalled pipeline of greenfield discovery opportunities in Australia

- Unique advantage in new West Yilgarn Ni-Cu-PGE Province
- Large exploration holdings in exciting frontier provinces
- 7 rigs currently drilling across 2 projects



### Well funded, high performance team with an excellent track record

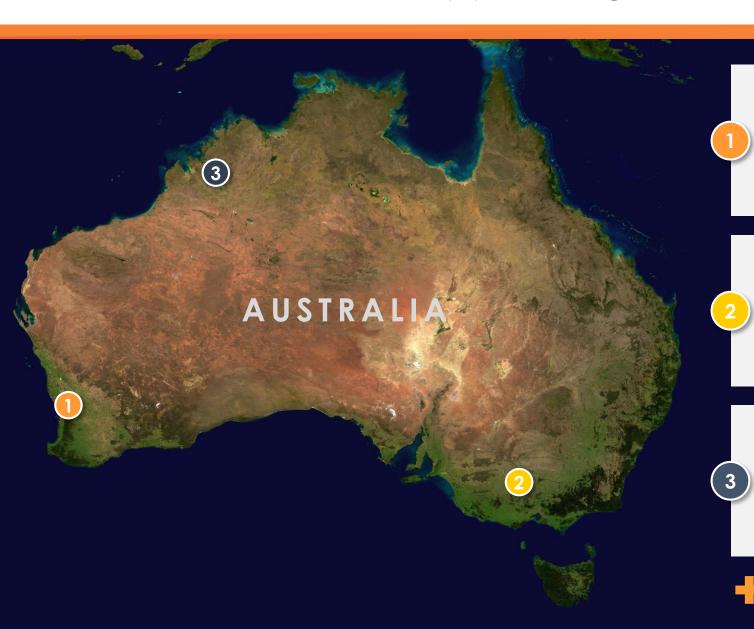
- Proven ability to discover and define mines
- ~A\$50M1 in cash + investments





Chalice's portfolio includes an exciting **new discovery** in the new West Yilgarn Ni-Cu-PGE Province in WA + a pipeline of generative opportunities





### Julimar Nickel-Copper-PGE Project, WA

- New greenfield PGE-Ni-Cu-Co sulphide discovery in Mar-2020
- 19m @ 8.4g/t Pd, 2.6% Ni, 1.0% Cu, 0.1% Co in 1st hole
- 100% owned, ~26km long intrusive complex ~70km NE of Perth
- 5 rigs drilling, aiming for maiden MRE mid-2021

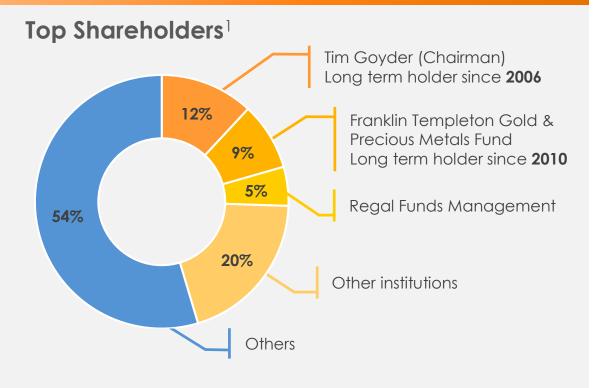
### Pyramid Hill Gold Project, Vic

- New >4km gold trend + 2 gold bearing diorite intrusions
- >5,000km² holding NW and NE of Fosterville Gold Mine
- 100% owned, all under cover in unexplored terrane
- 2 diamond rigs drilling at the >4km long Karri Prospect

### Hawkstone Nickel-Copper-Cobalt Project, WA

- **New** greenfield nickel sulphide opportunity in frontier province
- >1,800km<sup>2</sup> holding east of Merlin Ni-Cu-Co prospect (IGO/BUX)
- 85-100% owned, several large untested dolerite intrusions
- Maiden drill program recently completed (assays pending)
- Several generative exploration opportunities, investments, royalties and non-operated joint ventures

## We have a **tight capital structure** and a **strong financial position**



Key Management
Richard Hacker (CFO)
Kevin Frost (GM Exploration)
Bruce Kendall (GM Development)
Jamie Armes (Co Sec)

### **Capital Structure and Financials**

Equity listings
ASX: CHN
OTCQB: CGMLF

Shares out. 308.7M Shares (F/D) 325.9M Market capitalisation ~A\$926M (@ A\$3.00ps)

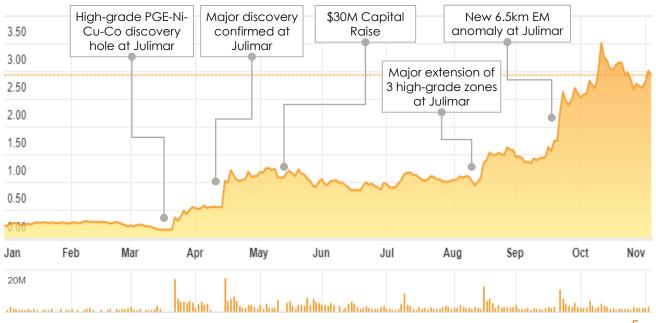
**Debt** nil

**Cash**<sup>2</sup> ~A\$39.5M

Cash & Investments<sup>2</sup> ~A\$50M

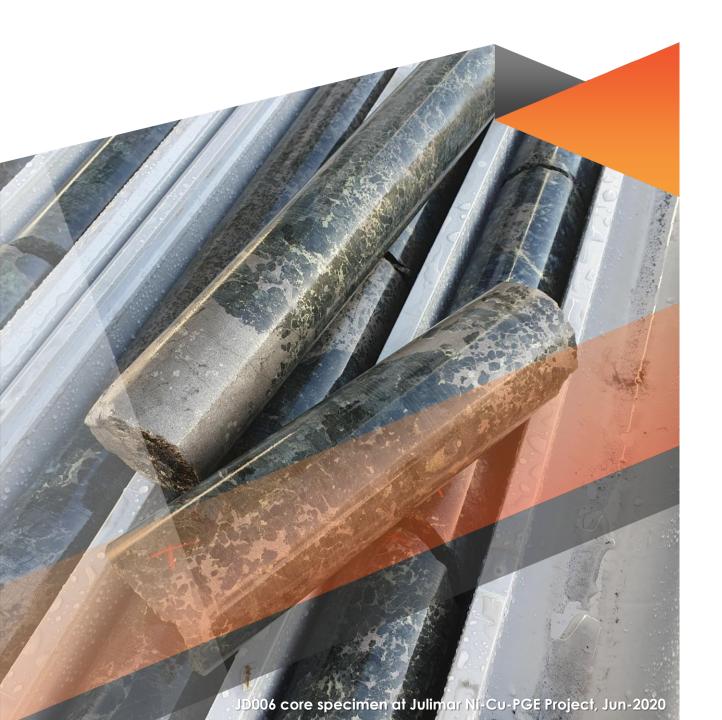
Key Investments	Position	Current Value
O3 Mining (TSX-V: OIII)	3.1M (5.1%)	~A\$10M

### Share Price & Volume Chart (CHN)



<sup>&</sup>lt;sup>2</sup> As of 30 September 2020

5



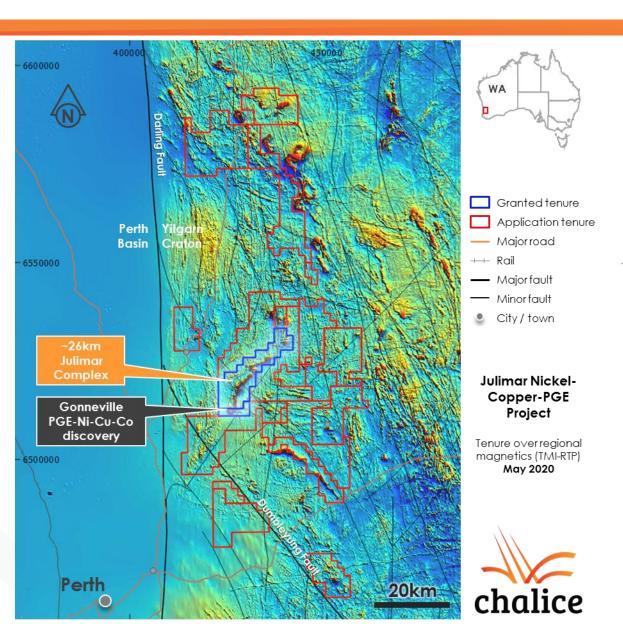
### Julimar Nickel-Copper-PGE Project

Western Australia



# High-grade PGE-Ni-Cu-Co intersected in the very first drill hole at Julimar, uncovering a remarkable new discovery in a completely new province





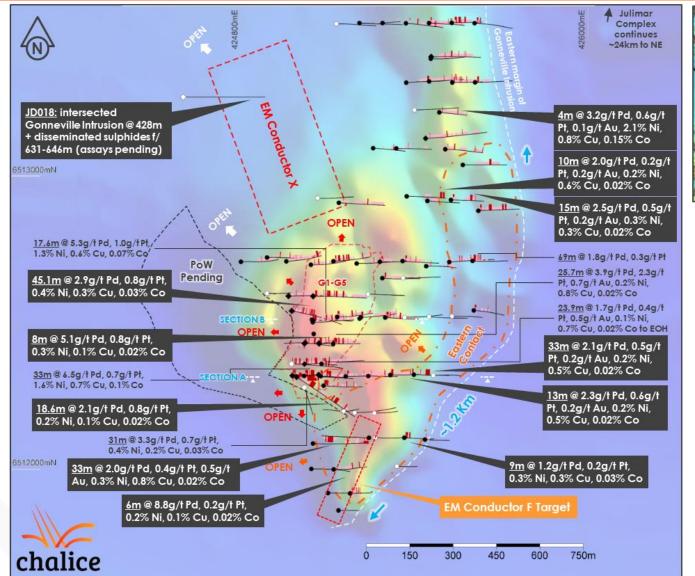
- ~70km NE of Perth, with direct access to major highway, rail, power and port infrastructure
- ~26km long layered ultramafic-mafic intrusive complex (Julimar Complex) with no previous Ni-Cu-PGE exploration
- Staked in early 2018 (100% owned)

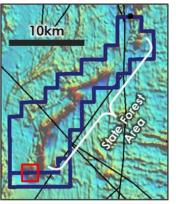
- Exploration so far restricted to the ~1.6km x 0.8km

  Gonneville Intrusion at the southern end of the Complex on private land
- First drill hole in March 2020 discovered wide, shallow zone of high-grade PGE-nickel-copper-cobalt mineralisation
- Discovery marked the start of the new West Yilgarn Ni-Cu-PGE Province
- >8,000km² of new licence applications since the discovery (incl. >2,000km² around Julimar) – leveraging our competitive advantage to make additional discoveries

## Gonneville is an exceptional new PGE-nickel-copper-cobalt discovery with the potential to deliver a world-class deposit







#### **Drill holes**

- RC assayed
- RC assays pending
- DDH assayed
- $\mathbb{Q}$  DDH assays pending
- New key intersection
- ← Prev key intersection

#### Mineralisation

- >0.3g/t Pd cut-off
- >1.0g/t Pd cut-off

#### Julimar Nickel-Copper-PGE Project

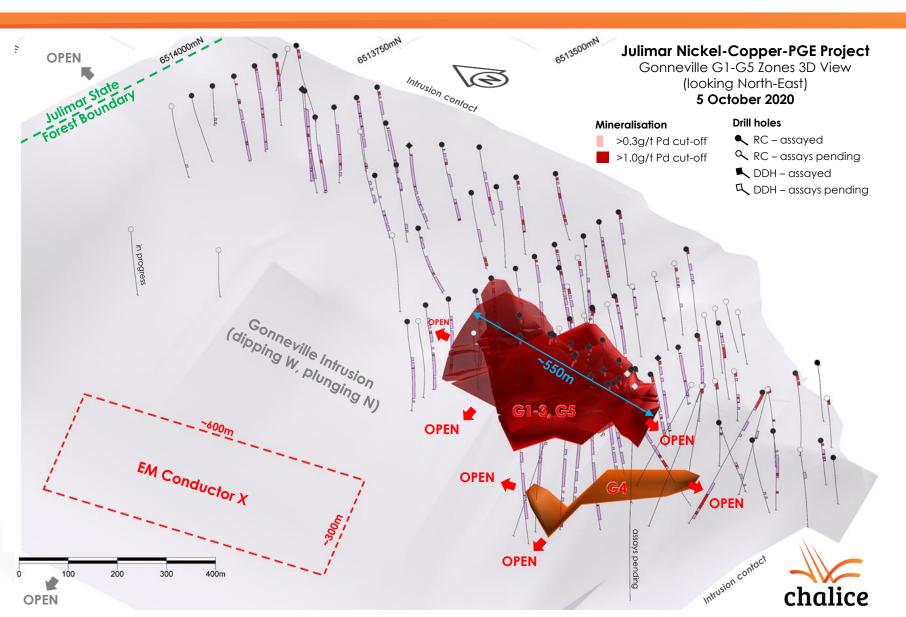
Gonneville Intrusion Plan View (TMI-RTP Magnetics) 6 October 2020

- ~1.6km x ~0.8km intrusion, open to the north-west
- Five shallow high-grade PGE-Ni-Cu-Co+/Au zones defined to date (G1-G5) all
  remain open
- New Pd-Cu+/-Au Eastern Contact horizon extends over ~1.2km of strike, further infill drilling underway
- Widespread PGE-rich disseminated sulphides within intrusion, down to ~600m below surface so far
- Widespread PGE-rich oxide zone from surface to ~25m
- Preliminary metallurgical testwork indicates:
  - Sulphide mineralisation amenable to flotation under standard conditions
  - Low levels of deleterious elements
  - Oxide mineralisation amenable to oxidative leaching under standard conditions

 ~70,000m step-out and resource definition drill program ongoing with 3 RC and 2 diamond rigs

## The five wide high-grade zones defined to date strike over up to ~550m and remain open along strike and down-dip





#### G1 (discovery) and G2 Zones:

- ~5-40m wide
- Pd-Ni dominant
- Open along strike and down-dip
- 33m @ 6.5g/t Pd, 0.7g/t Pt, 1.6% Ni, 0.7% Cu, 0.09% Co from 44m (JRC001)
- 45.1m @ 2.9g/t Pd, 0.8g/t Pt, 0.4% Ni, 0.3% Cu, 0.03% Co from 223.9m (JD013)
- <u>17.6m</u> @ 5.3g/t Pd, 1g/t Pt, 1.3% Ni, 0.6% Cu, 0.07% Co from 191.4m (JD003)
- <u>26.3m</u> @ 3.8g/t Pd, 0.9g/t Pt, 0.5% Ni, 0.2% Cu, 0.04% Co from 80.7m (JD010)
- <u>24.4m</u> @ 3.3g/t Pd, 0.4g/t Pt, 0.4% Ni, 0.2% Cu, 0.03% Co from 164.6m (JD006)
- 9m @ 5.7g/t Pd, 1.1g/t Pt, 1.1% Ni, 1.5% Cu, 0.06% Co from 103m (JRC019)
- <u>15m</u> @ 2.4g/t Pd, 0.5g/t Pt, 0.6% Ni, 0.6% Cu, 0.04% Co from 56m (JRC006)

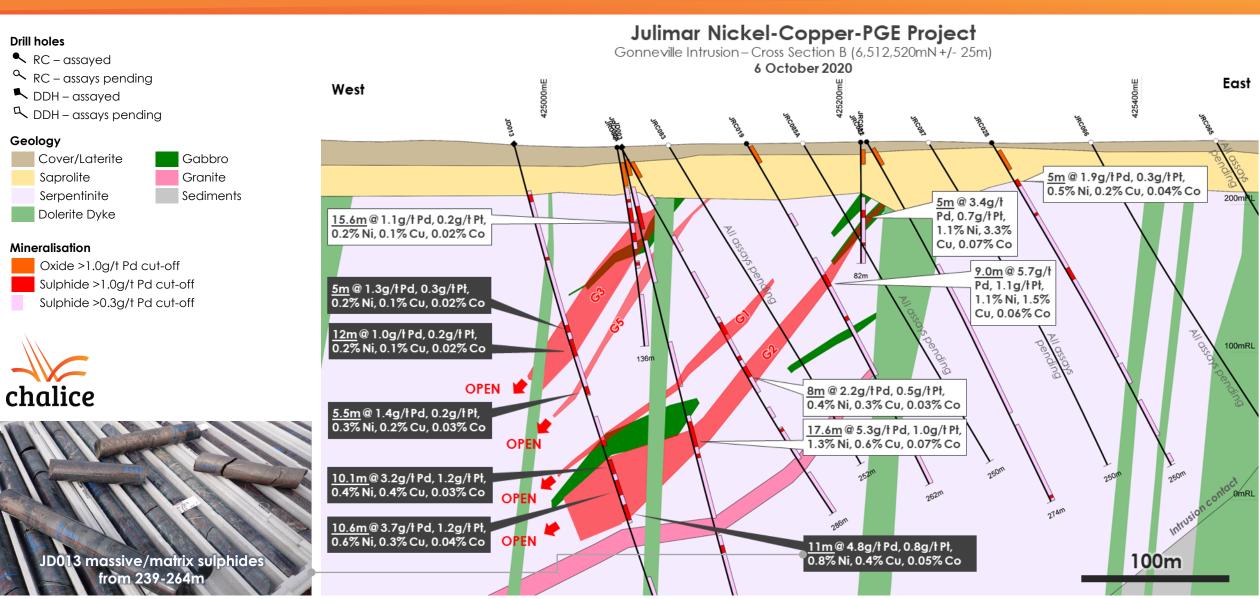
#### G3 and G5 Zones:

- ~5-15m wide
- Pd dominant
- Open along strike and down-dip
- <u>13.7m</u> @ 4.4g/t Pd, 0.9g/t Pt, 0.7% Ni, 0.7% Cu, 0.05% Co from 29.3m (JD006)

9

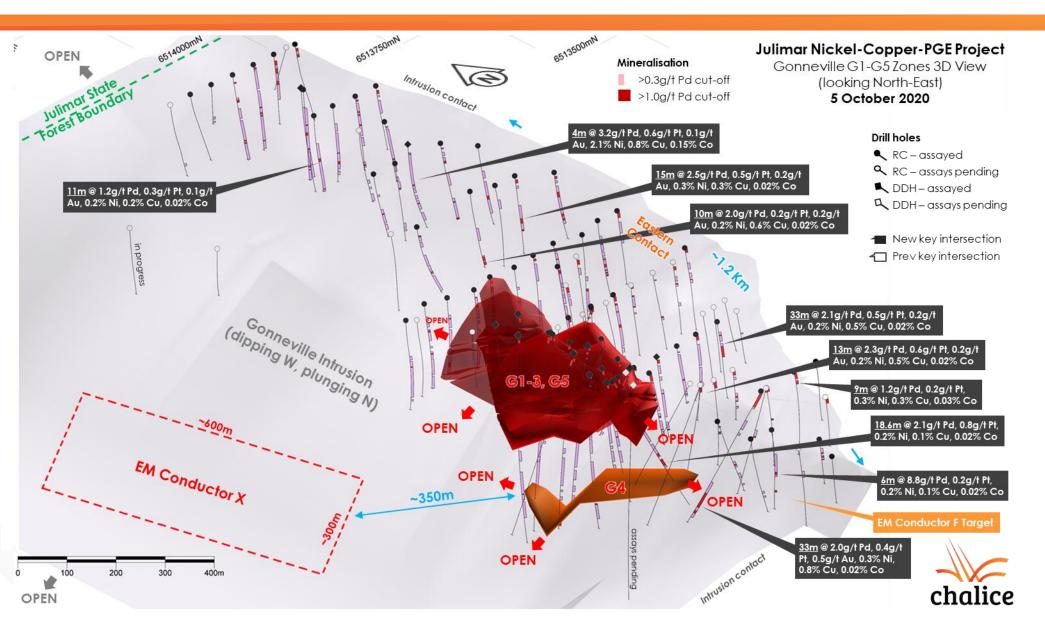
## Four of the high-grade zones are internal to the intrusion and have up to ~340m of dip extent – all remain open





## The G4 Zone and the newly identified Eastern Contact host several wide PGE-Cu intervals associated with the intrusion contact





#### G4 Zone:

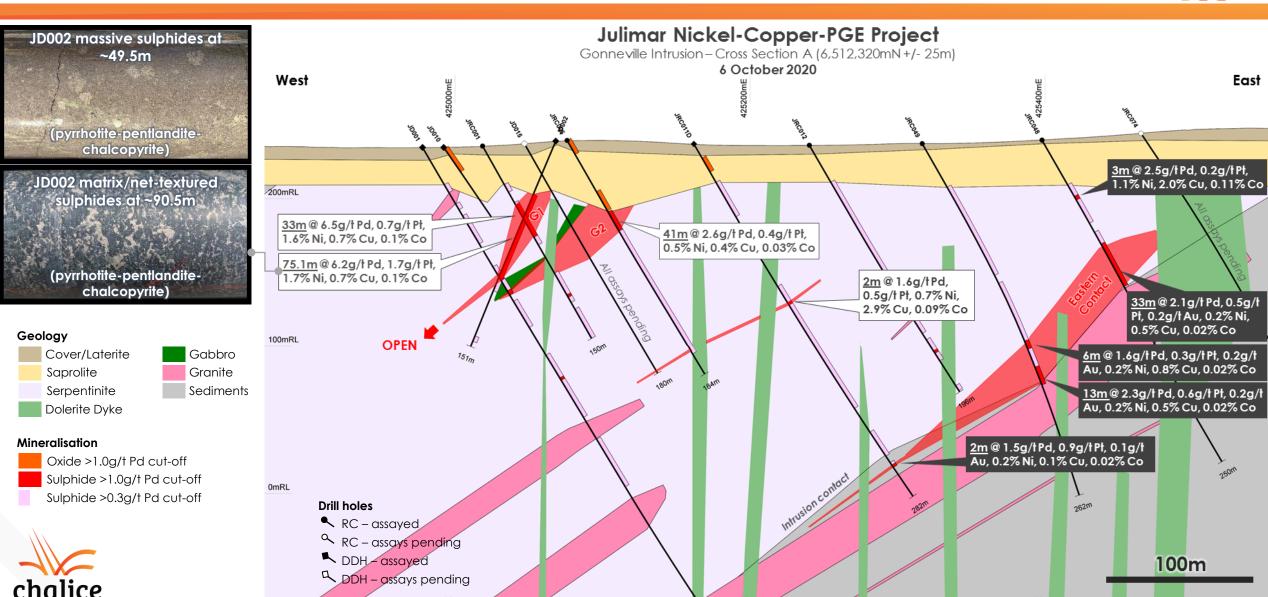
- · ~20m wide
- Pd-Pt-Cu+/-Au dominant
- Open along strike and down-dip
- Associated with contact
- 25.7m @ 3.9g/t Pd, 2.3g/t Pt, 0.7g/t Au, 0.2% Ni, 0.8% Cu, 0.02% Co from 418.1m (JD006)
- 23.9m @ 1.7g/t Pd, 0.4g/t
   Pt, 0.5g/t Au, 0.1% Ni, 0.7%
   Cu, 0.02% Co from 313.0m
   to EOH (JD005)
- Other PGE assays (Ir, Os, Rh, Ru) pending

#### **Eastern Contact:**

- Several wide-spaced PGE-Cu+/-Au intersections along ~1.2km of strike
- Associated with contact
- Further infill drilling required to define zones – now underway

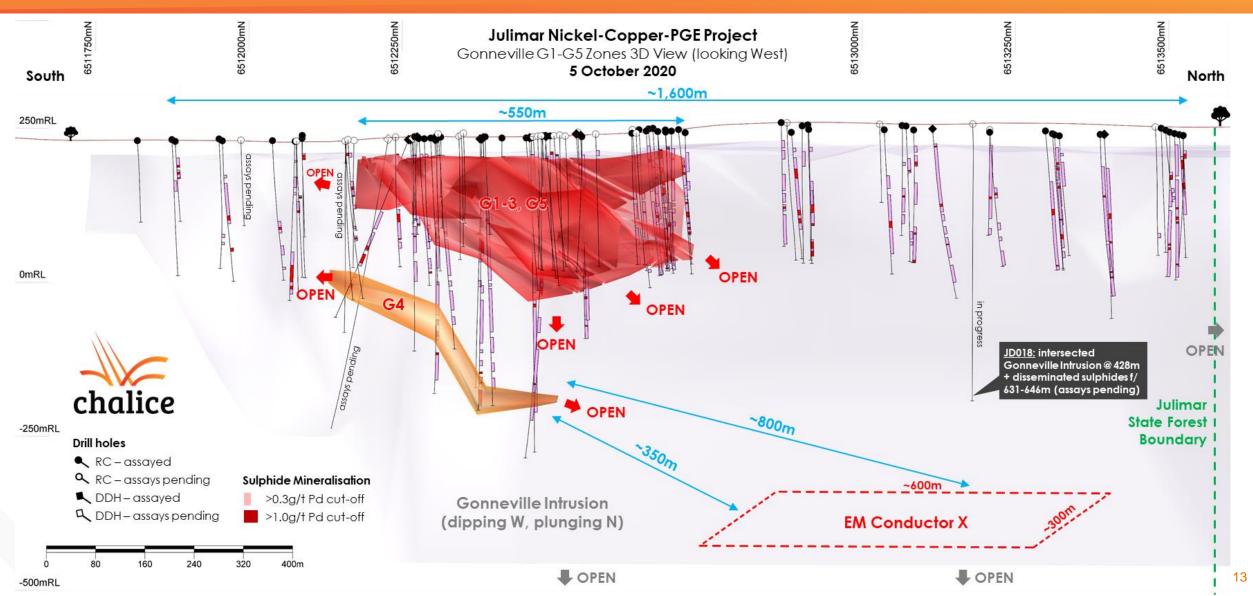
# The Eastern Contact target position includes several wide-spaced PGE-Cu+/-Au intersections along ~1.2km of strike





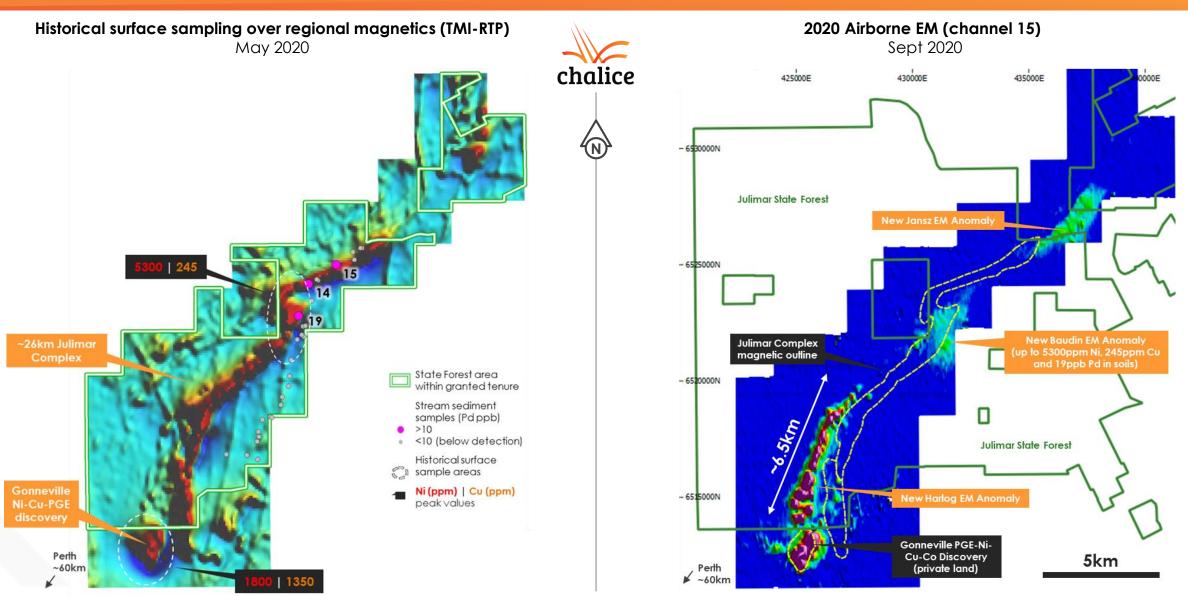
Initial test of the new deep EM target (Conductor 'X') intersected disseminated sulphides ~800m beyond the high-grade G1-G5 Zones





## Several large EM anomalies recently identified to the north-east of Gonneville, all are yet to be tested (access pending)





### Platinum Group Elements – critical metals for our clean energy future



>70% of PGEs used in automotive catalytic converters (pollution control devices)



**Palladium based** catalytic converters preferred to comply with stricter emissions standards







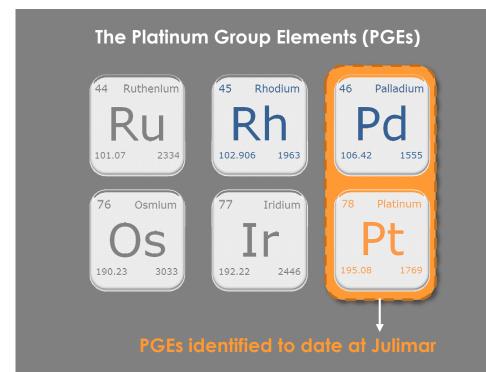
Hydrogen Fuel Cell Truck



Palladium market has been in **deficit for nine consecutive years** – recent record price of **US\$2,856/oz** reached in Feb 2020 (current spot price ~**US\$2,300/oz**)



**Future demand** for PGEs underpinned by the rapid growth predicted in hydrogen fuel cells – in particular in heavy transport and energy storage sectors



# Accelerated drilling and metallurgical testwork program underway – aiming to define a maiden Mineral Resource by June 2021



2020	Jul	Aug	Sept	Oct	Nov	Dec
Julimar Project, WA						
Access Approvals						
Geophysics	DHEM		state Forest orne EM			
Soil Sampling					Julimar State Fore pending	
RC Drilling	200x80m over entire	e intrusion	80m step-out ar	nd 40x40m infill to ~250n	n deep (2-3 rigs)	
Diamond Drilling	80m step-out and infill beyond 250m deep (2 rigs)					
MRE / Metallurgy / Mining Studies	Prelim rougher floo	atation testwork		Flotation	/ leach – testwork / op	otimisation

### Investment highlights

The new PGE-Ni-Cu-Co discovery at Julimar in WA has significant scale potential and has opened up a new mineral province – resource drill-out underway

Two rigs drilling at the Pyramid Hill Gold Project in Vic and a maiden drill program recently completed at the Hawkstone Ni-Cu-Co Project in the Kimberley

A major greenfield discovery, ~A\$36M returned to shareholders to date and ~A\$50M¹ in cash and investments – an excellent track record







### Thank You

www.chalicegold.com



### The Chalice Story

Appendix

## We are a dynamic and entrepreneurial group of accomplished mine finders and disciplined commercial managers





### We have people who know how to <u>find mines</u>...





## People who know how to finance and commercialise them



Dr Kevin Frost GM – Exploration, BSc (Hons) PhD MAIG

 Co-recipient of AMEC's Prospector of the Year Award in 2009 for the discovery of the Spotted Quoll nickel sulphide deposit in WA (Western Areas)



Tim Goyder Chairman

- 40+ year industry veteran with track record of success as an investor, entrepreneur and company director
- Founder and largest shareholder of Chalice (~12%)



Bruce Kendall
GM – Development, BSc (Hons) MAIG

 Co-recipient of AMEC's Prospector of the Year Award in 2012 for the discovery of the world-class
 Tropicana gold deposit in WA (AngloGold Ashanti)



Alex Dorsch Managing Director, BEng (Hons), BFin

- Previously a Specialist with McKinsey & Company
- Diverse experience in consulting, engineering and corporate advisory in the energy and resources sectors



Supported by a significant team of staff project geologists and mining consultants



Richard Hacker Chief Financial Officer, BCom, ACA, ACIS

- Chartered Accountant with 20+ years experience in junior company financing and management
- Company CFO since 2006

# Since our 2006 IPO, we have acquired well, advanced projects quickly and generated >A\$110M in after-tax proceeds<sup>1</sup> from asset sales



\$7.5M raised in IPO on ASX to progress Chalice & Higginsville Projects

2009 Zara Gold Project in Eritrea acquired for ~A\$7M

2010

Zara Gold Project in Eritrea sold for ~US\$114M (pre-tax)

**A\$0.10ps** / ~**A\$25M** capital return to shareholders

2012

2016

2016

Cameron
Gold Project
in Ontario sold
for ~A\$25M
(pre-tax)

2018
Staked
Julimar NickelCopper-PGE
Project in
Western
Australia

2018

2020 Major Ni-Cu-PGE discovery at Julimar Project

2020
A\$30M raised
to progress
Julimar

**2007**Chalice &
Higginsville

2006

Higginsville
Projects sold
for ~A\$12M
(pre-tax)

2008

2009-2011

~A\$43M raised to progress Zara to DES

> 2013 Cameron Gold Project in Ontario acquired for ~A\$8M

2014

2017

Acquired East Cadillac Gold Project in Quebec and staked Pyramid Hill Gold Project in Victoria 2019
Quebec Gold
Projects sold to
O3 Mining

2020

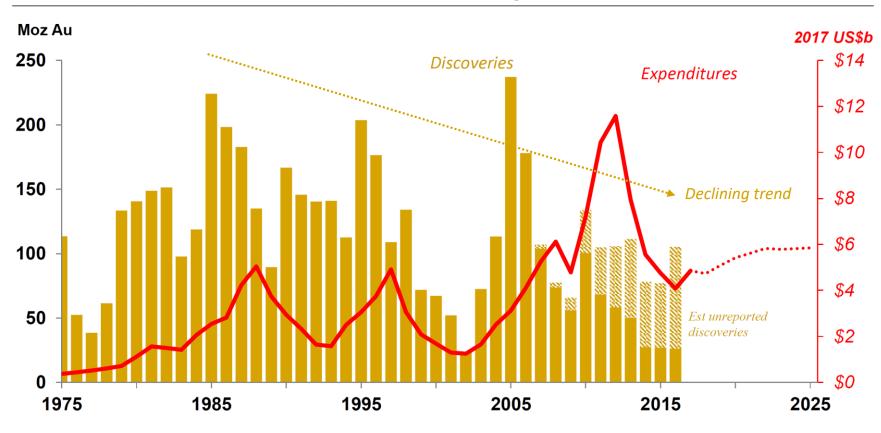
2018
A\$0.04ps /
~A\$10.6M
capital return to
shareholders

<sup>1</sup> As of 15 June 2020

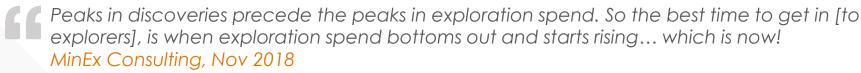
## Our strategy is to systematically acquire and explore in premier terranes; aiming to address the rapid decline in tier-1 scale discoveries worldwide



#### **Exploration Expenditures and Primary Gold discovered globally**



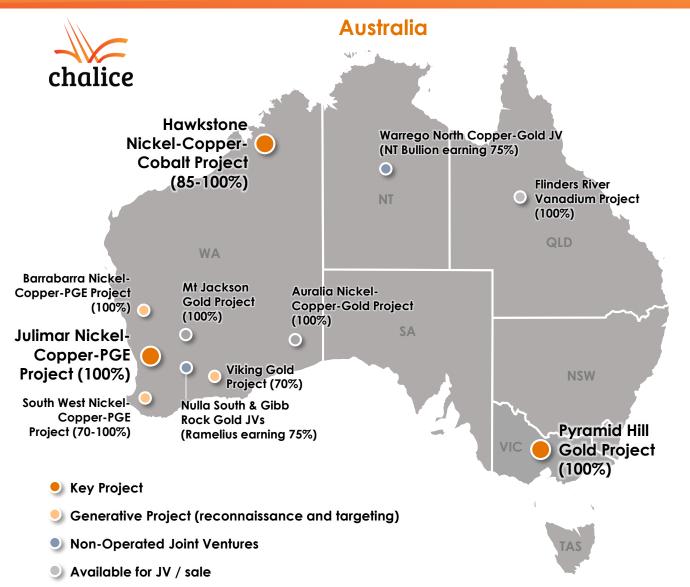
Tier-1 scale discoveries (>US\$1bn NPV) now represent only ~2% of all discoveries worldwide; Only one in Australia in last 10 years (Swan Zone at Fosterville)





# Chalice's portfolio includes district-scale precious and base metal projects as well as several royalties, investments and non-operated JVs





#### **Royalties**

- Nyanzaga, Tanzania A\$5 million payment receivable upon commercial production from Orecorp Limited (ASX: ORR)
- East Cadillac, Quebec 1.0% NSR partial
- Kinebik, Quebec 1.0% NSR
- Ardeen, Ontario 0.12-1.0% NSR partial
- Cameron, Ontario 1.0% NSR partial
- Jericho, WA 1.0% NSR capped
- Bunjarra Well, WA 1.0% NSR capped

#### **Key Investments**

• ~3.1M shares (~5%) in O3 Mining Inc. (TSX-V: OIII)



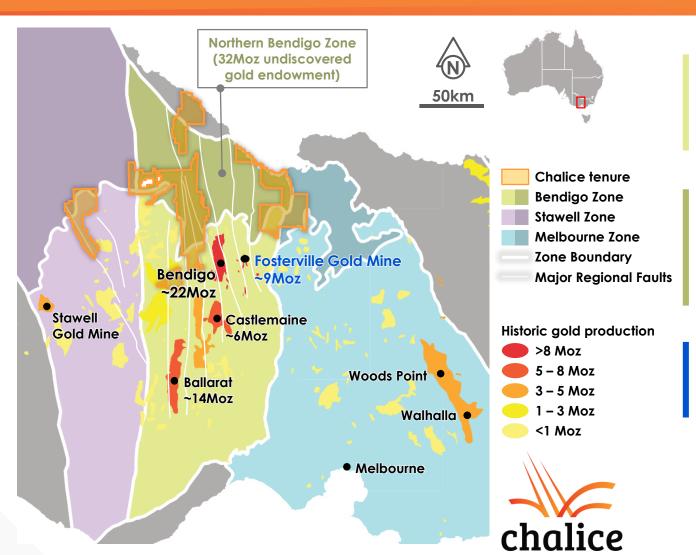
### Pyramid Hill Gold Project

Victoria



### Why gold in Victoria? The prospect of finding another Fosterville Gold Mine





>60Moz Au produced since 1850's from outcropping South Bendigo Zone, at a avg grade of ~15g/t Au

90% of mines had a recovered grade >8.5g/t Au

**32Moz Au** (P50 mid case) of undiscovered gold to the north in the **Northern Bendigo Zone** (Vic Govt 'Gold Undercover' estimate)

This area is essentially unexplored – the opportunity

Historic region capturing global attention again thanks to Kirkland Lake Gold's **ultra high-grade Swan Zone discovery at the Fosterville Gold Mine:** 

**2019 Production** 

~619koz at ~40g/t Au

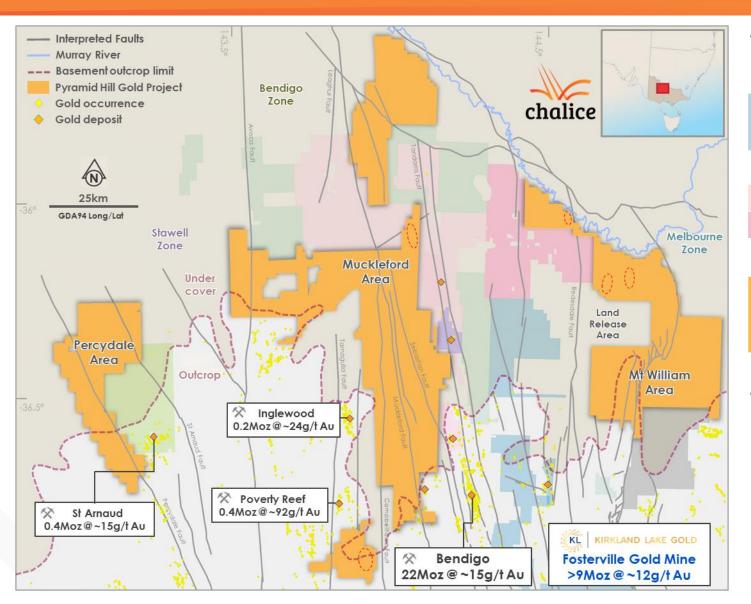
2019 operating cash costs guidance

US\$130-150/oz Swan Zone Mineral Reserve (Dec-18)

2.3Moz @ ~50g/t Au

## As an early mover, Chalice staked a >5,000km<sup>2</sup> essentially unexplored land holding surrounding two world-class gold deposits





 The success of Fosterville has attracted significant new players into the district:









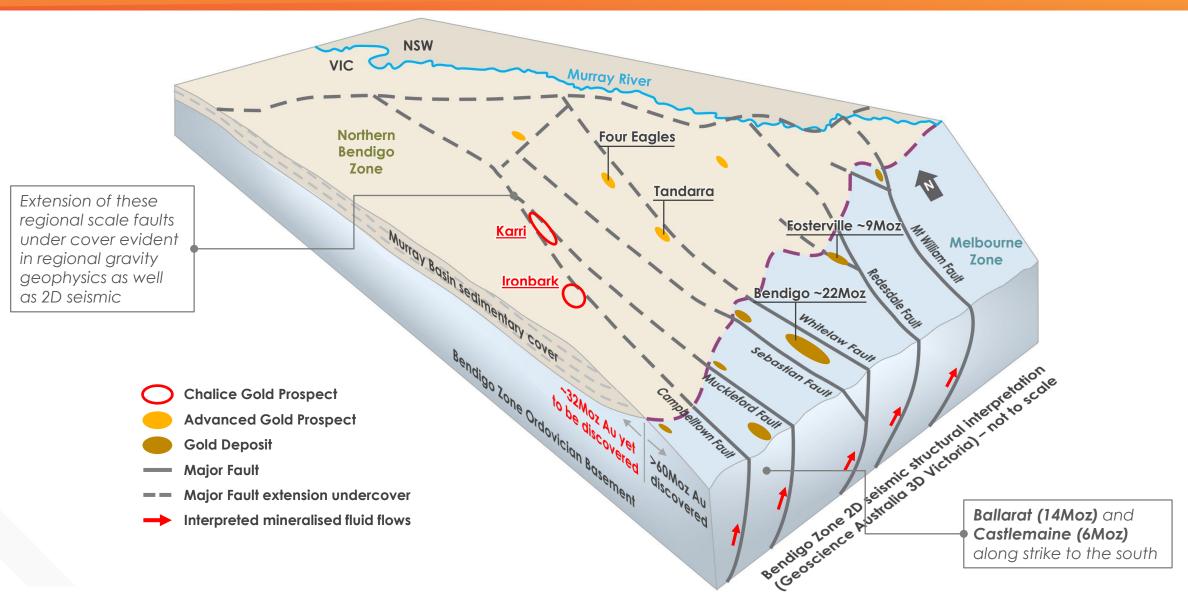




- Chalice positioned itself early and strategically, with a focus on:
  - Unexplored, prospective areas (potential world-class deposits hidden by cover)
  - Sparsely populated and less sensitive areas (plains of the Murray Basin) where large-scale mining feasible

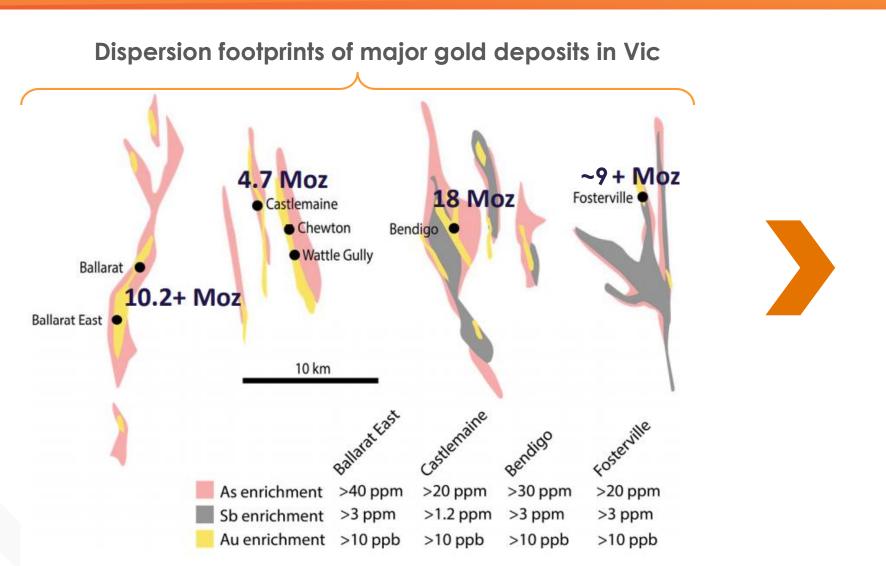
## The world-class gold deposits are controlled by regional scale faults, which continue to the north into Chalice's tenure follow the strike



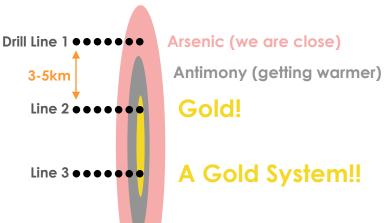


## Dispersion of gold and pathfinder metals such as arsenic and antimony is used to **vector towards gold** under cover





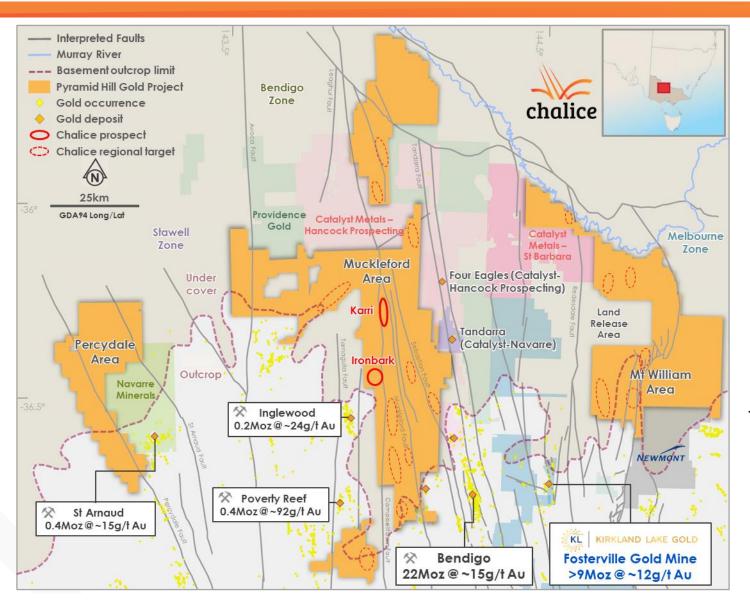
### Our shallow, wide-spaced aircore drilling approach



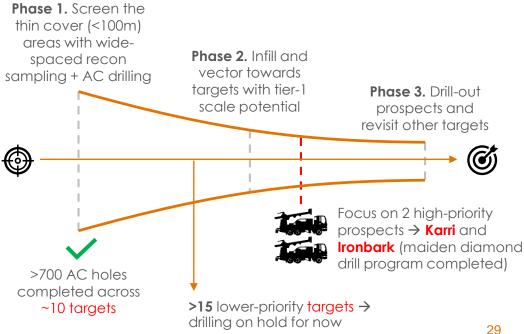
Identifying <u>continuous</u> dispersion over <u>kilometres</u> a good indicator of a **large gold system beneath...** 

## Chalice has adopted a **systematic value-add approach** – 'find the big gold systems first'



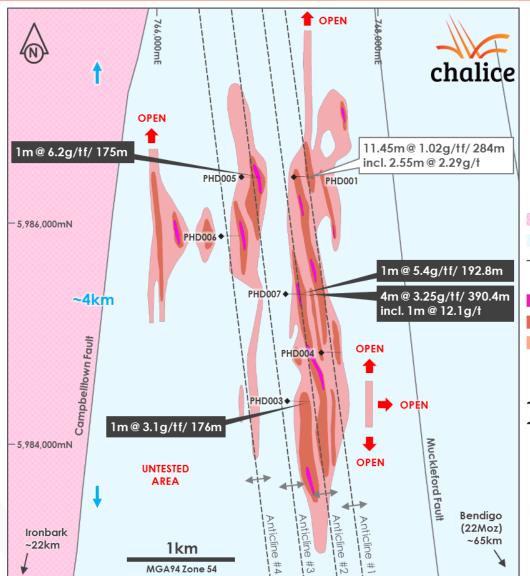


- Our Project covers hundreds of kilometres of prospective strike:
  - Muckleford (>300km)
  - Mt William (>75km)
  - Percydale (>40km)
- Prior to Chalice most of the area essentially un-drilled
- Our **regional-scale** activities commenced in mid-2018:



# Initial geological holes have confirmed a large gold system at depth below the >4km long gold trend at the Karri Prospect





- Muckleford
  Area

  Karri
  Ironbark

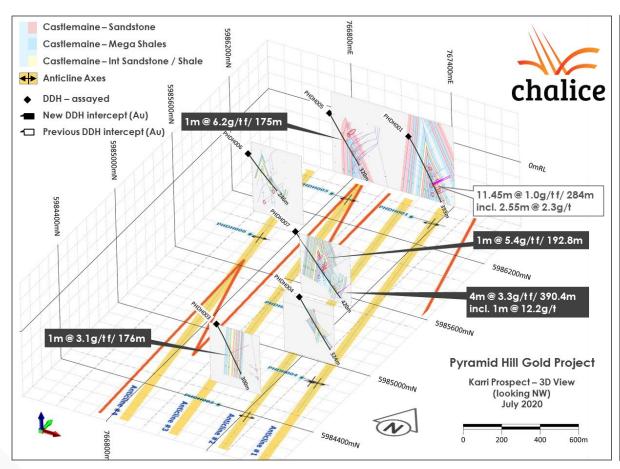
  25km
- Granitoid
- Castlemaine Group
- ---- Anticlinal Axes
  - **AC Drilling contours**
  - >1.0g/t gold trend
  - >0.1g/t gold trend
  - >0.025g/t gold trend
- DDH assayed
- New DDH intercept (Au)
- Previous DDH intercept (Au)
- Pyramid Hill Gold Project

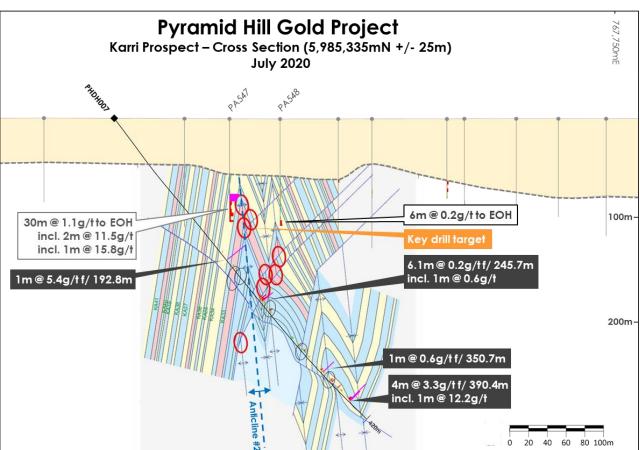
Karri Prospect – Plan View Drilling over Geology July 2020

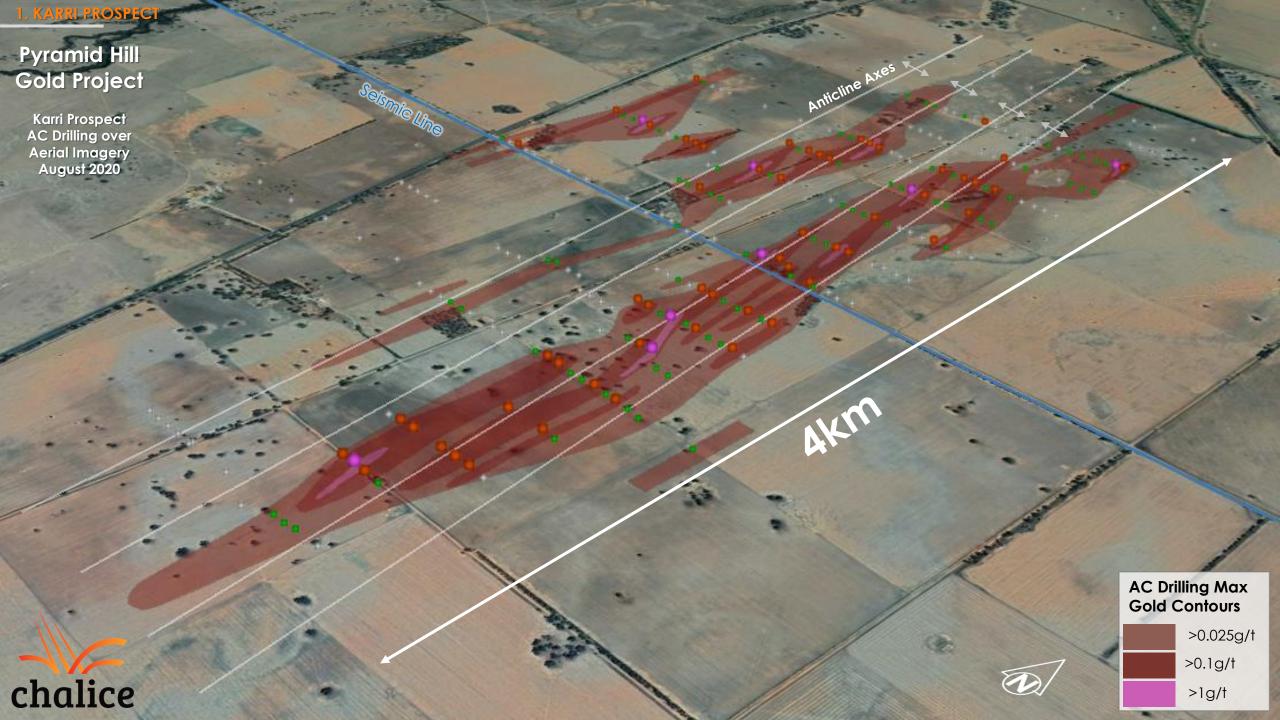
- Maiden 6 hole diamond program for structure / geology recently completed
- First ever test at depth into a 'blind target'
- All six diamond drill holes intersected tightly folded, upright stratigraphy and primary gold mineralisation.
- Several strike extensive anticlinal structures identified (typical geological setting for highgrade gold deposits in the region)
- Anomalous gold intersected in all holes
- Several high-grade gold zones intersected
   ~1-2km apart
- Results indicate potential for a tier-1 scale gold system
- 2 diamond rigs currently drilling

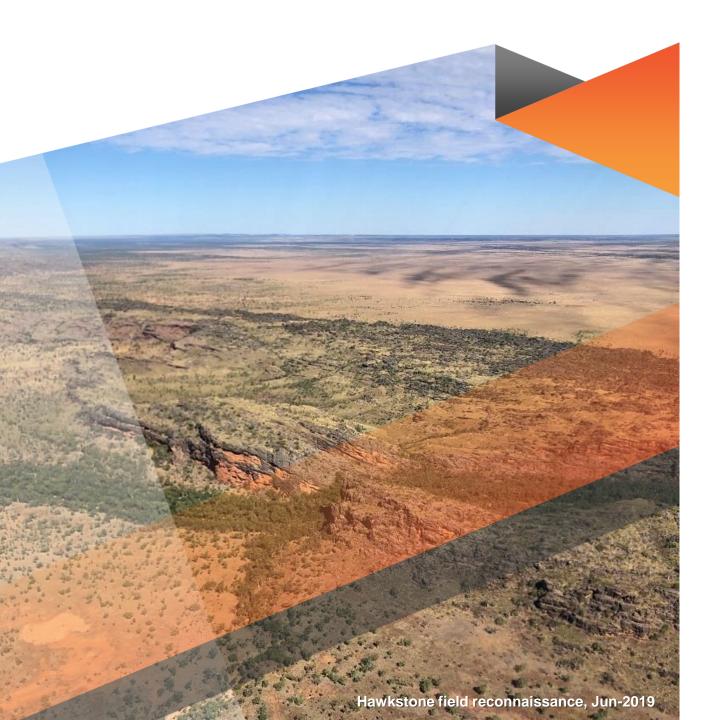
# The initial diamond holes provided a first glance at the geology and compelling targets for the current phase of diamond drilling











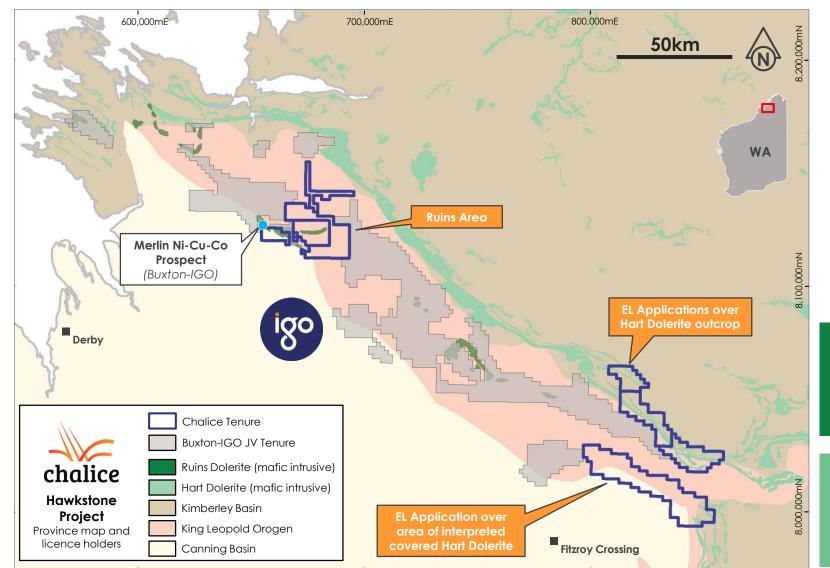
### Hawkstone Nickel-Copper-Cobalt Project

Western Australia



# The Hawkstone Nickel-Copper-Cobalt Project covers 1,800km<sup>2</sup> in the frontier and largely unexplored King Leopold Orogen of the west Kimberley





- Frontier province highly prospective for magmatic Ni-Cu-Co sulphide deposits
- Minimal modern exploration
- 2015 Merlin discovery by Buxton Resources (ASX: BUX) highlighted potential of Ruins Dolerite
- IGO Ltd (ASX: IGO) entered the region in late 2018 with a regional JV with Buxton
- Chalice a significant player in the belt:

Ruins Dolerite

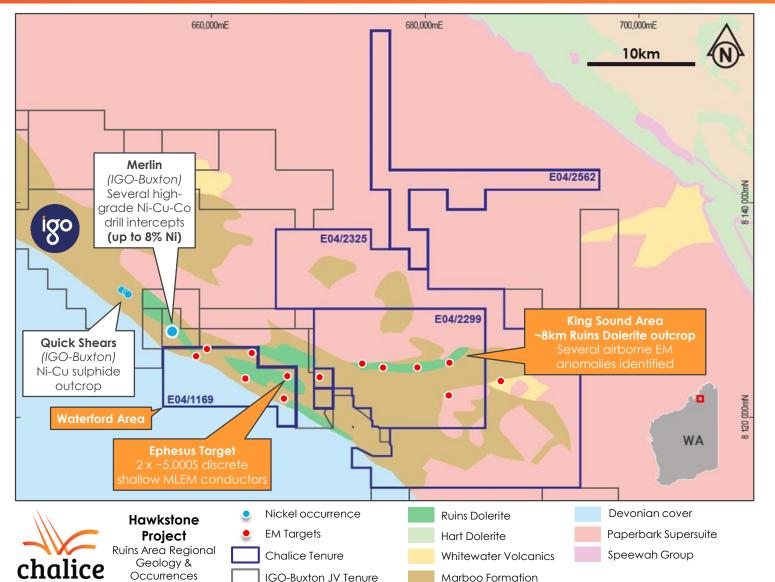
- 600km<sup>2</sup> Ruins Area acquired in June 2019
- Immediately SE of Merlin (proven host)

Hart Dolerite

- 1,200km<sup>2</sup> of EL applications made in late 2018
- Conceptual host to magmatic sulphides

## Chalice's immediate focus is the Ruins Area, where several nickel sulphide targets have already been defined





- Merlin (IGO-Buxton) hosts drill intercepts in Ruins Dolerite with grades up to 8.14% Ni, 5.26% Cu and 0.69% Co
- 11 airborne EM targets defined by Chalice to date along strike to SE and E of Merlin
- Ground based MLEM completed, identifying several high-priority EM targets
- 2 x ~5,000 Siemens conductors identified at the ~2.5km x ~1.5km Ephesus Target
- Maiden RC drill program recently completed (assays pending)





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