#### ASX Code: ESS

#### **Corporate Profile**

Shares on issue: 151 million Cash: \$3.4m (30 Sep 2020) Debt: Nil

#### **Corporate Directory**

**Non-Executive Chairman** Craig McGown

**Non-Executive Directors** Paul Payne Warren Hallam

Managing Director Timothy Spencer

**CFO & Company Secretary** Carl Travaglini

**Exploration Manager** Andrew Dunn

#### **Key Projects**

#### Sole Funded

Juglah Dome (Au) Blair-Golden Ridge (Au, Ni) Dome North (Li) Sinclair Caesium Mine (Cs) Mavis Lake (Li)

Free Carried to Decision to Mine Acra (Au) 25%

Kangan (Au) 30% Balagundi (Au) 25%

#### **Investor Relations**

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#### ABN: 44 103 423 981

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#### 30 October 2020

## ESSENTIAL METALS SHAREHOLDER AND INVESTOR WEBINAR – 4 NOVEMBER 2020

Essential Metals (ASX: ESS) is pleased to advise that its Managing Director, Tim Spencer, will host a webinar for shareholders and interested investors to discuss the Company's upcoming drilling program at the Juglah Dome Gold Project.

The webinar will commence at 9.00am (WST) / 12.00pm (AEDT) on Wednesday, 4 November 2020.

Shareholders and investors can register for the webinar by clicking on the following link:

https://www.bigmarker.com/read-corporate/Essential-Metals-Shareholder-Investor-Webinar

A copy of the Company's latest presentation, which provides further detail on these gold targets, and an overview of recent progress at its other gold, lithium/caesium and nickel projects, is attached.









## New phase of high-impact gold exploration set to commence near Kalgoorlie

Investor Presentation – 30 October 2020

## Forward looking statements and disclosures



#### Forward looking statements

This document may contain "forward-looking statements" and other forward looking information based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward looking information includes, among other things, statements with respect to the Company's business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, Mineral Resources and results of exploration. Generally, this forward looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'itarget', 'likely', 'believe', 'estimate', 'expect', 'intend', 'would', 'could', 'soludi', '

#### **Competent Person Statement**

**Dome North Lithium Project**: The information in this presentation that relates to lithium Mineral Resource for the Dome North Lithium Project was extracted from an announcement reported to ASX on 29 September 2020 (JORC 2012) titled "Dome North Lithium Project – Resource upgrade".

Blair Nickel Mine: The information in this presentation that relates to nickel Mineral Resource for the Blair Nickel Mine was extracted from an announcement reported to ASX on 28 November 2013 (JORC 2012) titled "Blair Nickel Sulphide Mine Mineral Resource Statement".

Blair - Golden Ridge Gold/Nickel Project: The information in this presentation that relates to exploration results was extracted from an announcement reported to ASX on 6 July 2020 titled "Golden Ridge – compelling gold targets".

Juglah Dome Gold Project: The information in this presentation that relates to exploration results was extracted from an announcement reported to ASX on 28 August 2020 titled "Juglah Dome Project exploration commences" and 29 October 2020 titled "Juglah Dome drilling to commence in November".

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

This presentation has been approved by the Company's Board of Directors.





an **essential** part of your investment portfolio because...

- A diversified portfolio of advanced gold, lithium/caesium and nickel exploration projects with near-term focus on gold:
  - Gold Two highly prospective exploration projects near Kalgoorlie
  - Lithium/Caesium 11.2Mt @ 1.21% Li<sub>2</sub>O Mineral Resource + Sinclair Caesium Mine - Stage 1 completed generating significant cash & exploration continuing for more caesium
  - Nickel including an established nickel sulphide mine with existing Mineral Resources 222,710t at 2.92% Ni
- Well funded + experienced management with strong commitment to ESG principles.
  - \$2.8M cash at Bank (est. 31 October 2020)
  - Experienced Board and management team with proven discovery and development expertise
  - A name that reflects what we stand for, namely finding and producing metals that are essential for a sustainable future, based on ESG principles.



## Working on our next discovery & development opportunity

## The right commodities in the right locations

GOLD

 Golden Ridge & Juglah Dome 20km & 55km east-northeast of Kalgoorlie
 (2)

 Kangan JV - Pilbara
 (3)

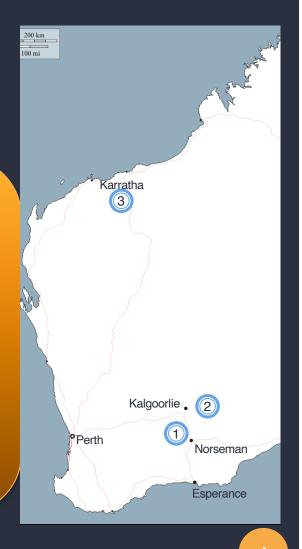
 Acra JV & Balagundi JV - Eastern Goldfields;
 (2)

 LITHIUM / CAESIUM
 Dome North Lithium Project
 (1)

 Sinclair Caesium Mine 35km north of Norseman
 (1)

 NICKEL
 (2)

We want to be a part of a sustainable mining future



## **Corporate Profile**

## The team & expertise to do it

## Experienced and effective Management & Board

#### **Executive Team**

**Tim Spencer** Managing Director – commercial/corporate; project development **Carl Travaglini** CFO & Company Secretary –gold & lithium project developments **Andrew Dunn** Exploration Manager – 17 years' in gold exploration across WA

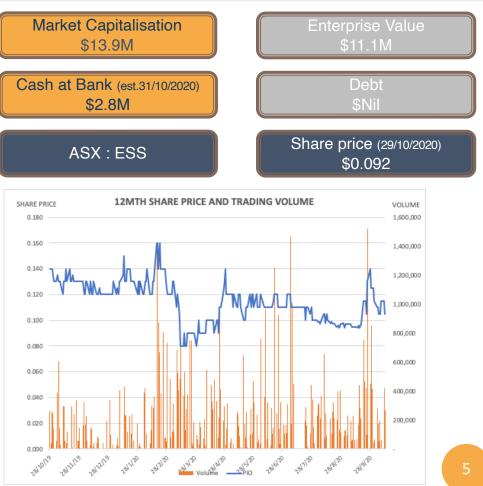
#### **Non-Executive Directors**

Craig McGown Non-Exec Chairman – capital markets; corporate; Paul Payne Non-Exec Director – geologist; exploration/development; corporate Warren Hallam Non-Exec Director – metallurgist, mining operations; corporate

Successfully developed the Sinclair Caesium Mine

Three **highly skilled and experienced** gold & lithium geologists supported by WA's best technical consultants

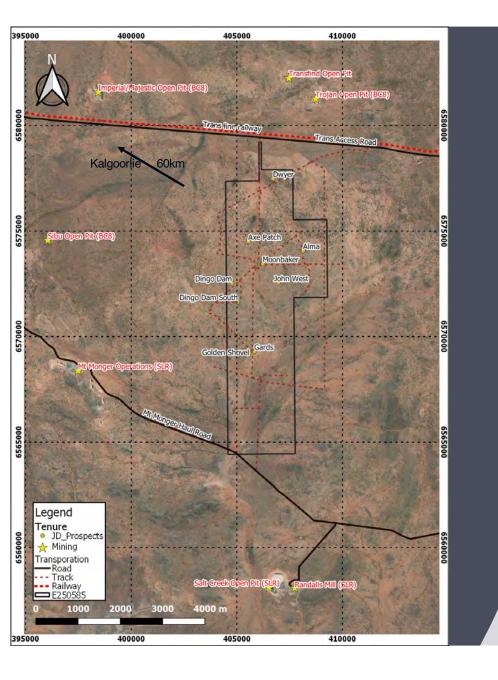
- 12-month trading range: \$0.08 \$0.14
- Top 20 shareholders hold 23% of issued shares
- Shareholders are predominantly retail





# the **golden** part of our project portfolio...

- Two exciting 100% owned gold projects near Kalgoorlie:
  - JUGLAH DOME 47km<sup>2</sup> with 10 exciting prospects identified and we're only just scratching the surface...!
  - GOLDEN RIDGE 140km<sup>2</sup> explored primarily for nickel since the late 1960s BUT there are gold anomolies everywhere...!
- Three significant interests (25-30%) in potentially large gold projects – ESS is <u>free-carried</u> to a Decision to Mine – all with highly credentialled partners:
  - Kangan JV Novo Resources Corp & Sumitomo Corporation
  - Acra JV Northern Star Resources Ltd
  - Balagundi JV Black Cat Syndicated Ltd



# R

# Juglah Dome Project – <mark>Gold</mark>

An outstanding gold project surrounded by large historical and existing gold deposits

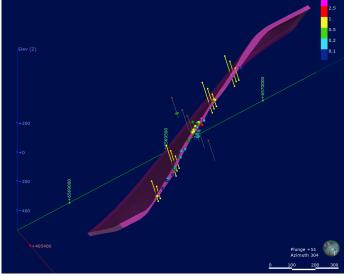
- > 55km east-south-east of Kalgoorlie Boulder
- > Western limb of the south-east plunging Bulong Anticline.
- Along strike of Trojan Au deposit (1.97Mt @ 1.97 g/t Au for 125,129oz Au mined from open cut pit and a Mineral Resource of 115,000oz<sup>1</sup>).
- > Previous explorers focused on VMS and orogenic gold potential.
- Previous drill intercepts<sup>2&3</sup> at Juglah Dome Project include:
  - 15m@4.35g/t Au from 6m incl. 6m@9.6g/t Au (hole ID: JDRB0327-Moonbaker Prospect)
  - 9m@1.15g/t Au from 33m (hole ID: GFRC003 Gards Prospect).
  - 7m@1.47g/t Au from 73m (hole ID: GFDD001 Gards Prospect).

<sup>1</sup>Refer Black Cat Syndicated Ltd (ASX:BC8) release 7 October 2020
<sup>2</sup> Refer Company ASX release 20 July 2012
<sup>3</sup> Refer Company ASX release 28 August 2020



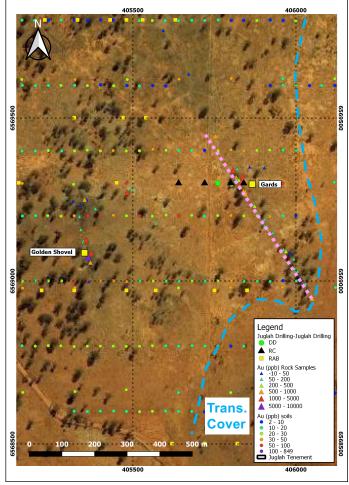
## Juglah Dome Project – Gards prospect

- To be drill tested in November 2020
- >1,200m of outcrop/sub-outcrop mineralised porphyry unit with rock chips up to 4.4g/t Au.
- Extends under cover to south-east.
- ~1,000m long and 200m wide >20ppb Au-in-soil anomaly (up to 105ppb Au).
- Five holes drilled in 2003 on one section and returned results of:
  - 9m@1.15g/t Au from 33m (GFRC003).
  - 7m@1.47g/t Au from 74m (GFDD001).
- No follow up drilling to date.



Above: An oblique section of the Gards prospect, showing proposed drill hole locations along the strike of the mapped outcrop.

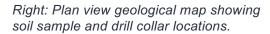
*Right: The proximal locations of the Gards and Golden Shovel prospects.* 

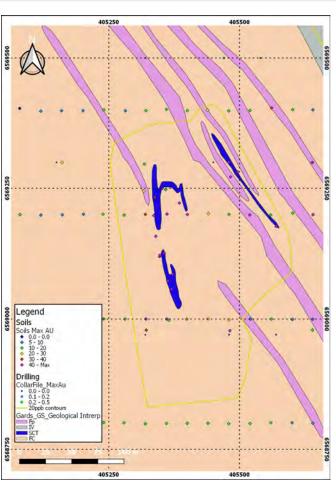


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## Juglah Dome Project – Golden Shovel prospect

- To be drill tested in November 2020
- ~500m long and 300m wide >20ppb Au-in-soil anomaly (up to 76ppb Au).
- Rock chips samples of the cherts have returned grades up to 8.07g/t Au, 6.8g/t Ag, 0.33% Zn and 0.13% Pb.
- Previously been targeted for both VMS and Orogenic gold mineralisation.
- Previous percussion drilling occurred before 1992 testing the mineralised porphyry, however, data is unavailable.
- A Reverse Circulation drill program will test for economic gold or base metal mineralisation below cherts and shallow historic workings.



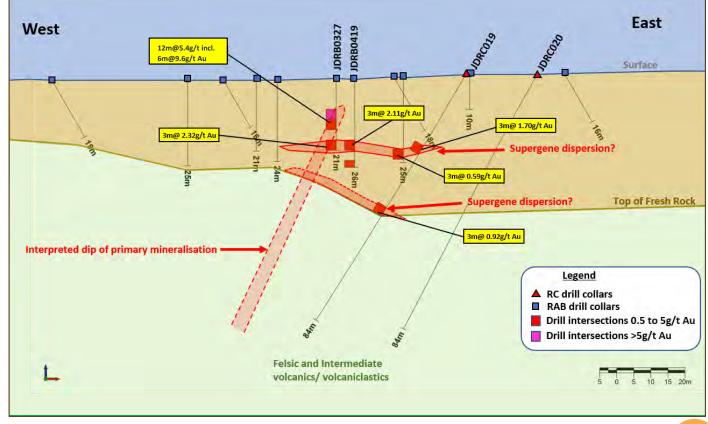


## Juglah Dome Project – Moonbaker prospect



## To be drill tested in November 2020

- ~300m long by 250m wide >20ppb Auin-soil anomaly (up to 119ppb Au).
- Previous aircore intersection of 12m@5.4g/t Au from 6m incl.
   6m@9.6g/t Au (JDRB0327).
- Two west dipping RC holes were drilled to follow up but failed to adequately resolve the dip of the mineralisation.
- Limited outcrop/subcrop in the area along with known mineralisation in the surrounding region, including Trojan (8km along strike to the NNE) all appear to be west dipping, not east dipping.

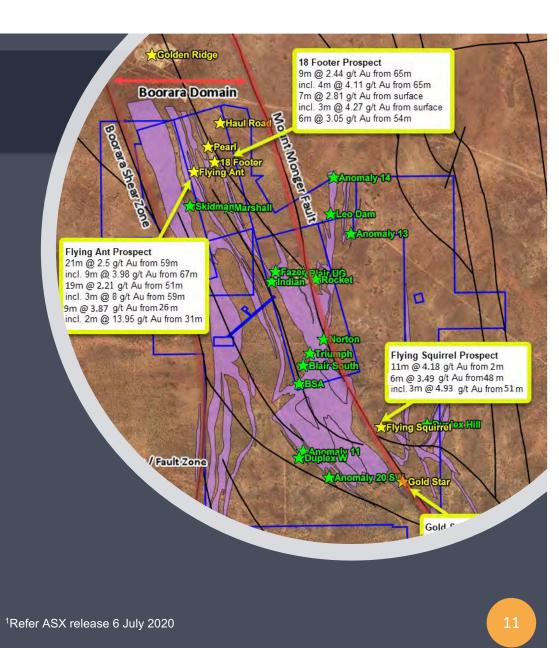


Above: Cross section of Moonbaker prospect.

# Golden Ridge Project – Gold

Multiple high tenor gold anomalies – the goal is to unlock its potential for a large discovery

- Project straddles the Boorara Domain in between the Menzies Boorara Shear Zone (MBSZ) and the Mt Monger Fault
- The MBSZ hosts six major gold mines including Paddington, Boorara and the Golden Ridge Gold Mine.
- Previous exploration focused on Ni and old Au workings e.g. Flying Ant and 18-Footer.
- Sporadic drilling followed up other Au targets and prospects.
- Significant intersections from Flying Ant and 18-Footer prospects include<sup>4</sup>:
  - 9m@3.87g/t Au from 26m incl. 2m@13.95g/t Au (GOD0094) Flying Ant
  - 21m@2.5g/t Au from 59m incl. 9m@3.98g/t Au (GOC0288) Flying Ant
  - 19m@2.21g/t Au from 51m incl. 3m@8.00g/t Au (GOC0259) Flying Ant
  - 9m@2.44g/t Au from 65m incl. 4m@4.11g/t Au (AMRC026) 18-Footer
  - 7m@2.81g/t Au from Surface incl. 3m@4.27g/t Au (GOC0264) 18-Footer



## Golden Ridge Project – AC75 prospect

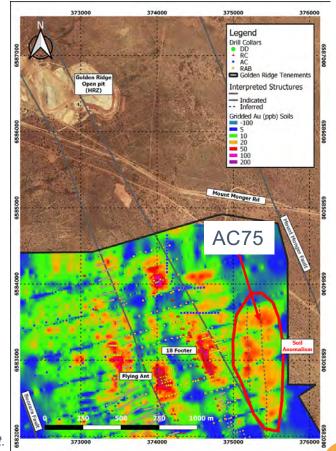
#### To be drill tested in early 2021

- Both of the Mount Monger Fault (MMF) and Boorara Shear Zone (BSZ) transect the project.
- Majority of gold occurrences in the area lie between these structures.
- Tenement previously covered with soil sampling by WMC Resources Ltd, however, the focus was primarily on nickel exploration.
- Most of the previous RC drilling for gold occurred at old workings such as at Flying Ant and 18-Footer with sporadic AC, RAB or Percussion drilling covering other gold targets.
- Subsequent 100m x 20m soil grids completed by the Company over selected areas for nickel and/or gold.
- Significant gold anomalism (>20ppb Au) was identified to the east of 18-Footer in two parallel north trending zones. (*refer diagram*) newly named as the AC75 prospect (in keeping with naming the prospects after yachts)
- These zones have up to 87 and 70ppb gold-in-soils, also having strike lengths of >800m and >1,000m, respectively.
- They will be drilled tested for the first time as part of the November 2020 drilling programme.



Left: The 2021 America's Cup AC75 model

Right: Location of the AC75 prospect.



# Three free-carried gold farm-in/joint ventures



- ESS has a 25% free-carry up to a Decision to Mine & holds 122,820 shares in BC8, currently worth ~\$100k.
- Balagundi is adjacent to Black Cat's Bulong Project, location of the the planned Myhree Mining Centre.

## Kangan Farm-in/JV : Novo Resources Corp (TSXV.NVO) & Sumitomo Corporation

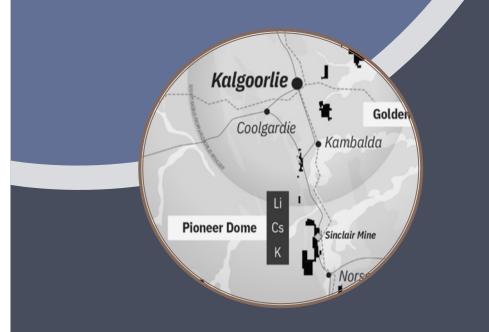
- ESS has a 30% free-carry up to a Decision to Mine & holds 100,000 shares in NVO, currently worth ~\$375k.
- Kangan is part of Novo's Egina Project where a model is coming together of gravel gold mineralisation across very large areas.

## Acra JV : Northern Star Resources Ltd (ASX.NST)

- ESS has a 25% free-carry up to a Decision to Mine.
- Acra is a large tenure forming part of NST's Kalgoorlie Operations.
- \$3.8 million spent by NST to date.



## Pioneer Dome Hosts lithium & caesium... also prospective for gold and nickel



A multi-commodity Project in a corridor hosting large mineral deposits:

- Lithium Mt. Marion; Bald Hill; Buldania.
- **Caesium** Sinclair Mine contained only the third known deposit containing economic quantities of high grade caesium in the world.
- Gold Higginsville; Widgiemooltha; Norseman.
- Nickel Numerous Kambalda nickel mines, including Cassini 17km away and the Juno trend heading south into Pioneer Dome.

### **The Pioneer Dome Project**

- 391km<sup>2</sup> with 45kms north-south strike length extending from the Norseman township.
- Includes the Sinclair Caesium Mine and the Dome North Lithium Project – 11Mt @ 1.21% Li<sub>2</sub>O.
- Has been explored by reputable companies including Newmont in the late 1960s - early '70s and Panoramic Resources Ltd up to 2016.

## Pioneer Dome – Dome North Lithium Project

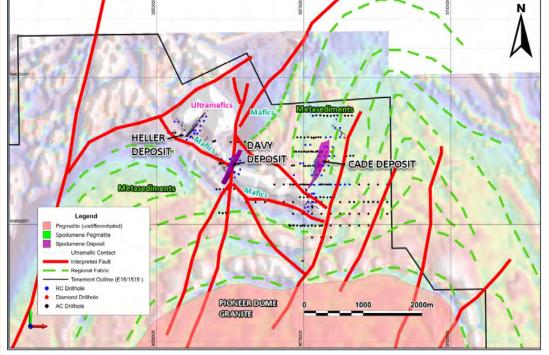
## Achievements to Date

- Lithium (spodumene) in outcrop discovered June 2019
- First drill campaign August 2019 with two more completed since then
- Mineral Resource 11.2Mt @ 1.21% Li<sub>2</sub>O three pegmatites mineralised from surface <sup>(1)</sup>

The Dome North Project is located <10km from key infrastructure, including a major highway and gas and water pipelines. It is approximately 275km from the Esperance bulk and container Seaport.

#### Work programmes

- 'First pass' metallurgical test work on Cade Deposit nearly completed with interim results showing that a market acceptable concentrate can be produced with 67% lithium oxide recovered.
- The likely process route will utilise a dense medium separation (DMS) and flotation hybrid circuit.
- Further field work to follow.



Above: Local geology and structural interpretation of the Dome North Project area - Cade, Davy and Heller Deposits underlain by magnetics TMI\_1VD\_Eshade\_NL imagery.

## Sinclair Caesium Mine

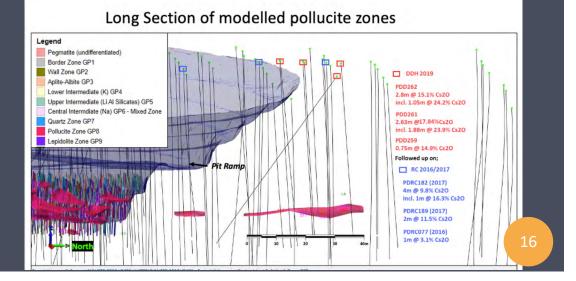
- Exploration Target\* of 1,000 2,000t at a grade of 8-14% Cs<sub>2</sub>O (caesium oxide) defined from the remaining Resource outside the Stage 1 pit to the north (581t @ 7.6% Cs<sub>2</sub>O) and from the 2019 diamond core drill intersections that targeted these specific caesium zones
- Extension target zone drilled in September 2020 demonstrating a central zone of mineralisation – assays results and modelling pending

Exploration to determine if further drilling targets exist

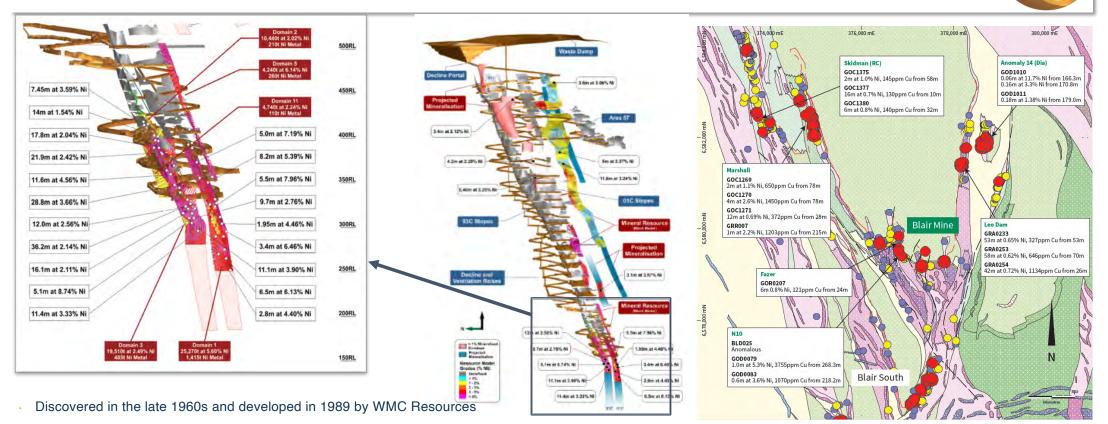
\*The potential quantity and grade of the Exploration Target is conceptual in nature. There is insufficient exploration information generated to estimate a Mineral Resource and it is uncertain that further exploration will result in the estimation of a Mineral Resource.

- Sinclair Caesium Mine history
- Caesium discovered in October 2016 mined in 2019
   sales completed in 2020
- 20,000t of crushed Caesium-bearing Direct Shipped Ore (DSO) sold
- Only two other primary caesium deposits globally and none currently in production

## • \$10M Project Operating Surplus



## Blair Nickel Mine & exploration for nickel & cobalt



- · 33,000t of nickel produced as Direct Shipped Ore over three operating periods. Mining suspended in 2008.
- Considered open below mined vertical depth of ~900m
- Mineral Resource: (Indicated and Inferred) 222,710t at 2.92% Ni\$



an essential addition to your investment portfolio NOW...

- Drilling of three exciting gold prospects at Juglah Dome is about to start...drill results to follow in January and straight into planning for the next campaign.
- We're starting to make sense of Golden Ridge's many tantalizing gold anomalies. Drilling to commence in the 2021 March Quarter.
- Dome North Lithium Project it already has a significant 11Mt lithium Resource and plenty of exploration upside
- Sinclair Caesium Mine a unique environment for a high value, severely supply constrained commodity
- Blair Nickel Mine existing mine infrastructure with a Mineral Resource and near-mine prospects
- The expertise a high quality team management and technical team back by a very experienced Board



## THE TEAM

## OUR VALUES

- <u>Excellence</u> we set ambitious goals and try to beat them through innovation and hard work
- <u>Safely</u> we work in a safe way based on transparency, trust and culture
- <u>Sustainable</u> we want our actions to be consistent with ESG principles

<u>www.essmetals.com.au</u> +61 (0)8 9322 6974

