

## Focused on Gold and Copper in The Great Basin, USA

July 2022



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In relation to previous announcements containing historical exploration results in this presentation which were reported by the Company in accordance with listing rule 5.7 on 15 December 2017, 29 March 2018, 14 November 2018, 22 September 2020, 11 March 2021, 11 June 2021, 24 August 2021, 1 September 2021, 30 September 2020, 15 October 2021, 12 November 2021, 18 November 2021, 19 November 2021, 8 December 2021, 16 December 2021, 30 December 2021, 20 January 2022, 21 January 2022, 22 February 2022, 25 February 2022, 22 March 2022, 5 April 2022, 11 May 2022 and 25 May 2022 the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements. The Company confirms the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements.

The information contained in this presentation that relates to the exploration potential for the Mizpah Prospect and the Drum gold mine peripheral to the historical pits is based on, and fairly reflects, information compiled by Dr Marat Abzalov, who is a Fellow of the Australian Institute of Mining and Metallurgy. Dr Abzalov is a consultant to Alderan 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 Abzalov consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Dr Abzalov holds securities in the Company.

This presentation has been approved for release by the Board of Alderan Resources Limited.



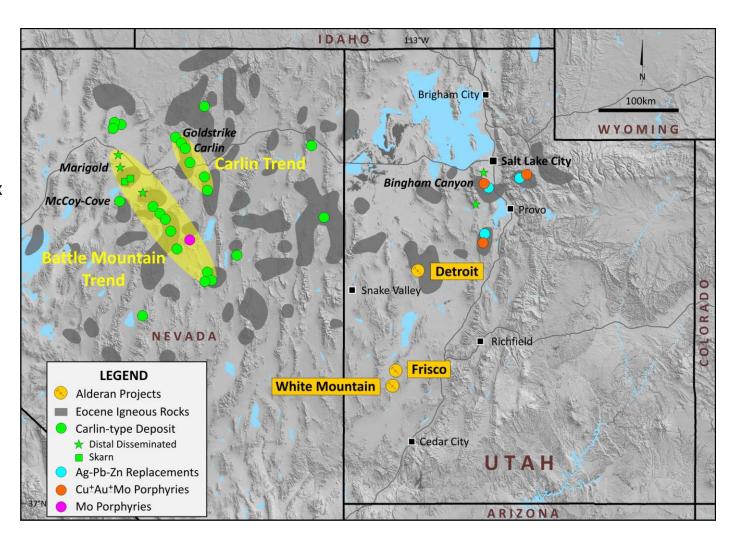
#### **Alderan: Investment highlights**

Projects located in Great Basin geology, Utah – a global leading mining jurisdiction Detroit - district scale gold potential with multiple targets Drum – historical oxide gold mine with no exploration since 1989, remnant oxide gold confirmed, gold grades to 39g/t in historical drill holes, open, primary mineralisation untested Mizpah – undeveloped oxide gold deposit from surface, last assay gold grades to 9.1g/t Au in historical drill holes, open, primary mineralisation untested Next steps drilling for resource, metallurgy, modelling, infill soil sampling to define new targets Frisco – porphyry & breccia hosted copper-gold potential Breccia drill intersections grading >1.5% Cu, 0.5g/t Au; classic porphyry geophysical signature & alteration; Rio Tinto drilling Copper Gulch porphyry copper-gold target USA operational team consists of +30 year experienced Rio Tinto and Newmont veterans Alderan market cap: A\$6.8 million



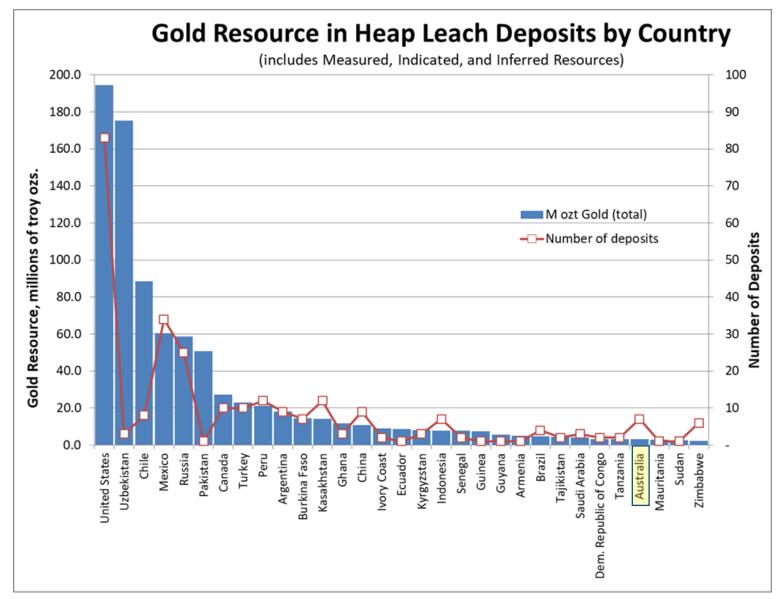
#### **Great Basin, Utah – a Tier 1 mining location**

- Great Basin hosts Carlin (5 Mozpa Au) and Battle Mountain trends
- Utah is a globally ranked
   Tier 1 mining jurisdiction
  - High cost infrastructure tax credit scheme (HCITC)
- World ranked Bingham Canyon (Cu-Au-Mo) and high grade Tintic (Au) deposits in Utah
- All Alderan projects sit in the Great Basin geology
- Detroit potential for Carlin-like mineralisation, Frisco porphyry Cu-Au and White Mountain epithermal Au





### Heap leach oxide deposits a major source of gold in USA



- USA heap leach gold resource inventory is +190 Moz from more than 160 heap leach gold deposits
- Resource grades typically 0.4-0.6g/t Au
- Cut-off grades 0.15-0.2g/t Au
- Gold recoveries 60-80%
- Low capital cost and low operating costs
- Major source of gold in neighbouring
   Nevada



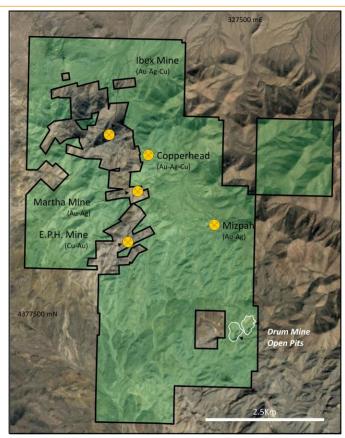
Source: MiningIntelligence.com; Costmine | June 29, 2020; How do you evaluate gold heap leach projects? - MINING.COM

## **Detroit Gold Project**





### **Detroit: Consolidated historical gold mining district**

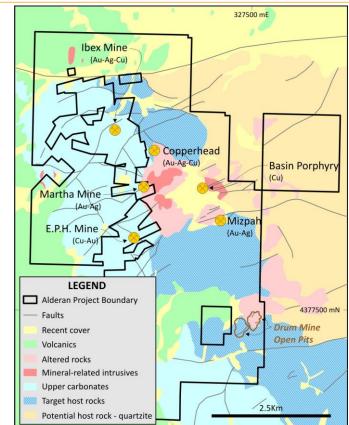


LEGEND

Alderan Project Boundary

Alderan

Alderan tenement at Detroit including significant historical mines



Detroit geology

- Consolidated Detroit district Alderan controls ~27km² of tenement
- Includes historical Drum oxide gold mine and Mizpah oxide gold deposit
- Drum produced ~125Koz @ ~1.2g/t Au between 1984-89
- Alderan has 6.5km strike of prospective stratigraphy that hosts Drum and Mizpah
- All weather road access 70km from town of Delta, 40km to power plant, water available



### Drum: Historical gold grades to 39g/t in drill holes

- High-grade assays to 38.8g/t
   Au over 1.5m samples in
   historical holes
- Intersections up to 70m @+1g/t Au in historical holes

#### Thick, high-grade gold intersections

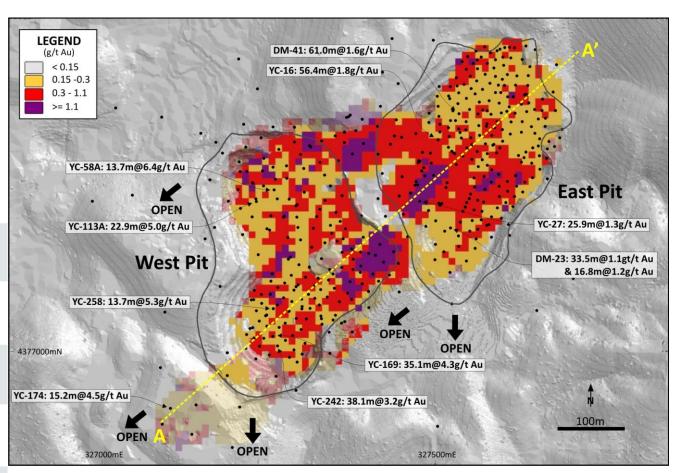
**4.6m @ 18.1g/t Au** within **13.7m @ 6.4g/t Au** (YC-58A)

**9.1m @ 10.8g/t Au** within **22.9m @ 5.0g/t Au** (YC-113A)

**6.1m @ 10.3g/t Au** within **15.2m @ 4.5g/t Au** (YC-174)

**18.3m @ 7.7g/t Au** within **35.1m @ 4.3g/t Au** (YC-169)

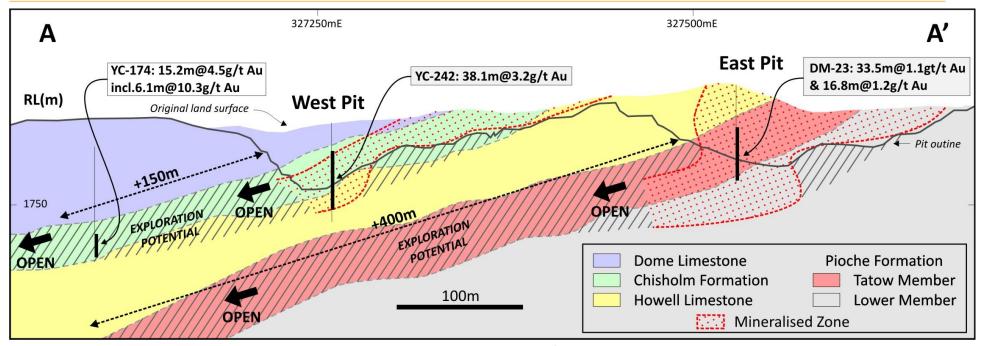
**15.2m @ 6.4g/t Au** within **38.1m @ 3.2g/t Au** (YC-242)



Drum gold deposit modelled from drill holes (1982-89) at >0.15g/t Au cut-off grade plus significant historical drill hole intersections.



### Drum: Mineralisation shallow and open down dip

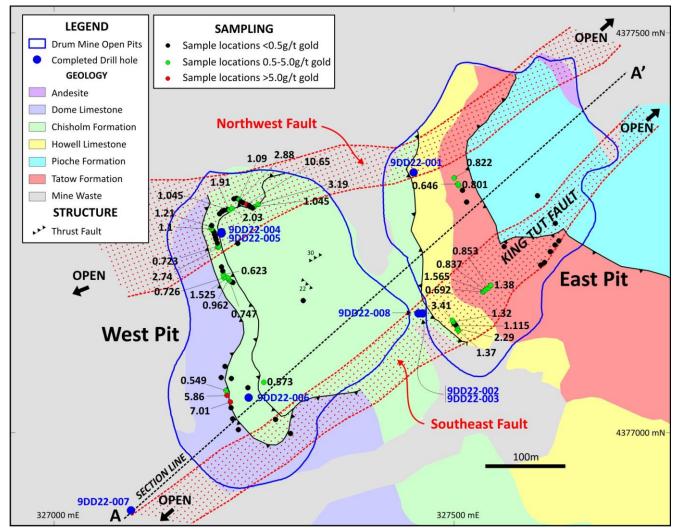


Drum NE-SW section showing interpreted geology, gold mineralisation modelled from historical drill holes and down dip exploration potential.

- Shallow historical drilling (<50m average)</p>
- Mineralised horizons open down dip more than 400m and along strike to north and south
  - Gentle 20°-30° southwest dip with oxidised horizons extending to +100m below surface
- Exploration potential\* ~1.2-1.5Mt grading ~1.1-1.4g/t Au (~42-60Koz Au) oxide mineralisation left behind when mining ceased ... but deposit still open
- Structure hosted high-grade primary gold potential untested



### Drum: Alderan's in-pit rock samples grade +10g/t Au



Drum geology plus Alderan rock sample gold assays and drill hole locations.

- Alderan in-pit rock samples assay up to 10.7g/t Au
  - 34 of 75 samples assay +0.5g/t
     Au , 20 assay +1g/t Au
- Mineralisation hosted in calcareous sediments and limestones of Tatow and Chisholm units
  - Can extend into lower Pioche quartzites
- Deposit sits in 400m x 600m open structural corridor
- Structurally complex
- 8 holes drilled by Alderan verify mineralisation left behind when mining ended



### Drum: Verification holes intersect high-grade oxide gold

- Holes confirm +1g/t Au oxide gold mineralisation at north & south ends of pits which is open down dip to SW
- New waste dump target highlighted

#### **Verification Intersections**

9DD22-001: **6.3m @ 2.9g/t Au** within **16.2m @ 1.0g/t Au** 

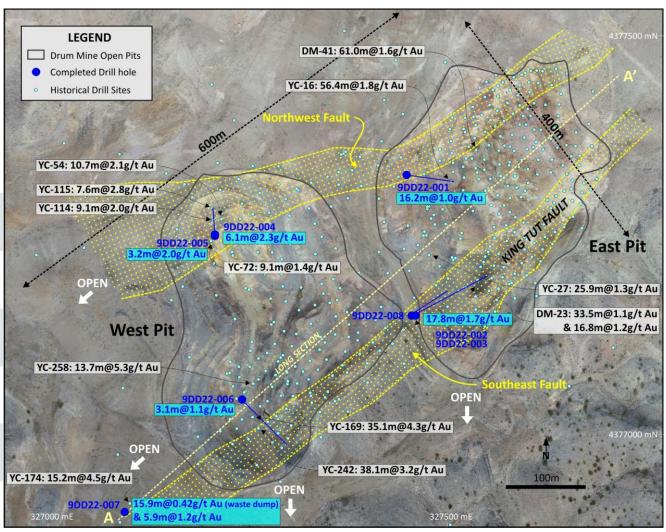
9DD22-003: **6.5m @ 2.5g/t Au** within **17.8m @ 1.7g/t Au** 

9DD22-004: **6.1m @ 2.3g/t Au** from surface

9DD22-005: **3.2m @ 2.0g/t Au** from surface

9DD22-006: **3.1m @ 1.1g/t Au** from surface

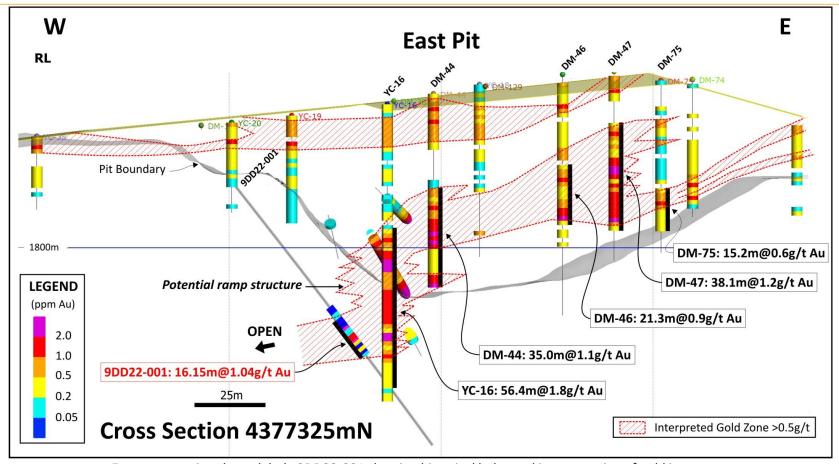
9DD22-007: **15.9m @ 0.42g/t Au** (waste dump) & **5.9m @ 1.2g/t Au** (target depth not reached)



Significant historical and Alderan drill intersections within the Drum NE-SW structural corridor.



### Drum: Structure and host rocks key for high-grade gold



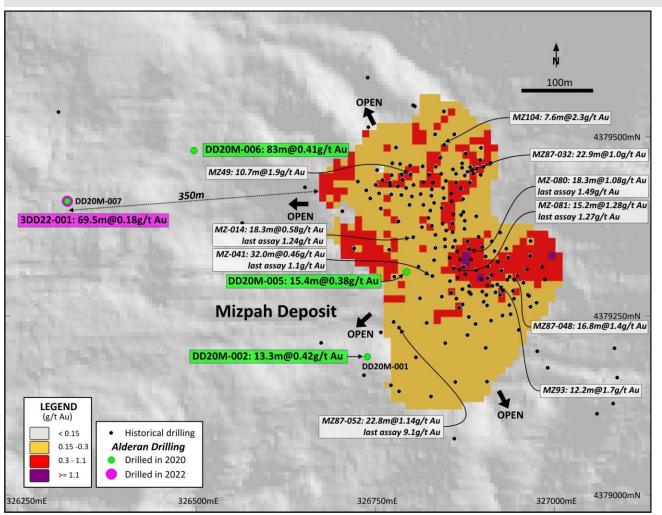
East-west section through hole 9DD22-001 showing historical holes and interpretation of gold intercepts.

- Mineralisation hosted in calcareous sediments and limestones
- Mineralisation in East Pit (Tatow) typically 20-25m thick and West Pit (Chisholm) 10-15m
- Thicker mineralisation likely at intersections of host units and steep 'ramp' structures



#### Mizpah: Undeveloped gold deposit 2km from Drum

Mineralised system significantly larger and open, indications of second mineralised horizon and primary gold potential has never been tested



- 2km north of Drum in same rocks
- Shallow historical drilling (<30m av)</li>
- Gentle 20°-30° SW dip from surface
- Last assays to 9.1g/t Au in holes
  - +1.0g/t Au last assay in 20 holes
- Thick, high-grade intersections:

7.6m @ 2.3g/t Au (MZ-104)

**10.7m @ 1.9g/t Au** (MZ-49)

**12.2m @ 1.7g/t Au** (MZ-93)

16.8m @ 1.4g/t Au (MZ-87-048)

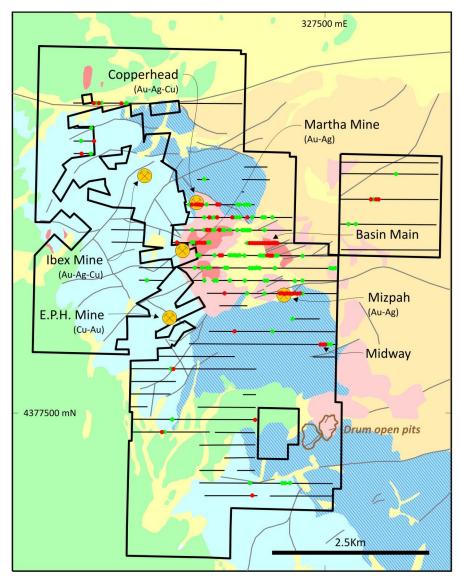
22.9m @ 1.0g/t Au (MZ-87-032)

Exploration potential\* oxide mineralisation of ~40-100Koz Au grading ~ 0.4-0.8g/t Au from surface... but deposit still open

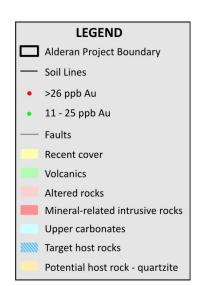
Resources

<sup>\*</sup>Refer Alderan ASX announcements on 24 August 2021 and 22 March 2022. The Company notes that the quantity and grade of the exploration potential is conceptual in nature and that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource. Refer Appendix 1.

### Detroit: District Potential - multiple "gold in soil" anomalies



Detroit geology and Alderan anomalous soil samples grading >10ppb Au



- Multiple >10ppb Au anomalies.
  - Only 13% of 1,763 samples assayed >10ppb
- Four high order "gold in soil" anomalies within target host rocks
  - i. Drum historical oxide gold mine
  - ii. Midway 240m anomaly with assays to 0.19ppm Au
  - iii. Mizpah 500m anomaly over 2 lines with assays to 0.16ppm Au
  - iv. Basin Main 480m anomaly over2 lines with assays to 0.32ppm Au
- Soil anomalies potentially parallel
   NE-SW structures
- Basin porphyry intrusive complex highly anomalous

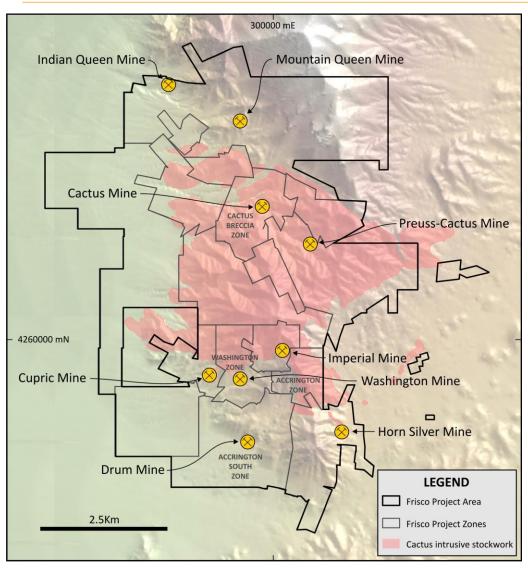
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# **Frisco Copper-Gold Project**





### Frisco: Porphyry and high-grade breccia copper potential



- Historical Cu-Au and Pb-Zn-Ag mining district.
- Potential for porphyry, skarn and breccia pipe copper-gold deposits and mantos Pb-Zn-Ag.
- Alderan tenement covers 40km<sup>2</sup>
- Cactus Cu-Au rich tourmaline breccias
  - Historical (1960s & 70s) drill intersections include:
    - 20.2m @ 2.44% Cu from 27.4m downhole (DDH4)
    - 43.6m @ 1.7% Cu from 208m downhole (DDH8)
    - 22.9m @ 2.1% Cu from 1.5m downhole (R14)
- Accrington Cu-Au rich skarns
- Horn Silver Historical reported mine grades
   10% Pb, 10% Zn, 10oz/t Ag
- Rio Tinto's Kennecott Exploration (KEX) earning 70% interest through expenditure of US\$30 million over 10 yrs
  - \$6.0m to get to 55% by Nov 2023



### Frisco: Cactus high-grade breccia copper potential



Cactus chalcopyrite mineralisation in tourmaline breccia

- Alderan and KEX exploration focus on porphyry, skarn and breccia pipe copper-gold deposits.
- Alderan and KEX drill intersections include:

#### Cactus Breccia

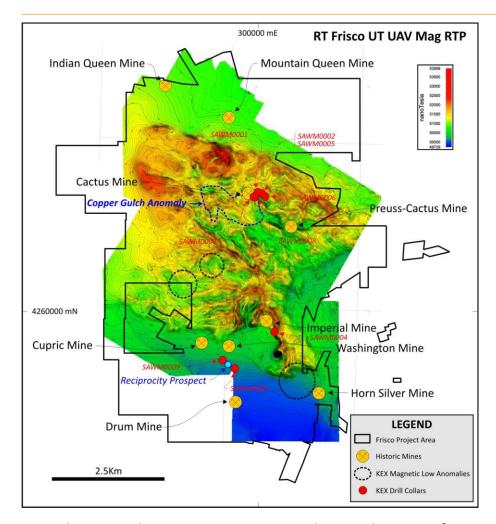
- 41m @ 1.9% Cu, 0.6g/t Au from 252m downhole (SAWM0001)
- 32m @ 1.2% Cu, 0.3g/t Au from 61m downhole (ALCA0010)
- **6.5m @ 3.1% Cu, 0.5g/t Au** from 94m downhole (ALCA001)

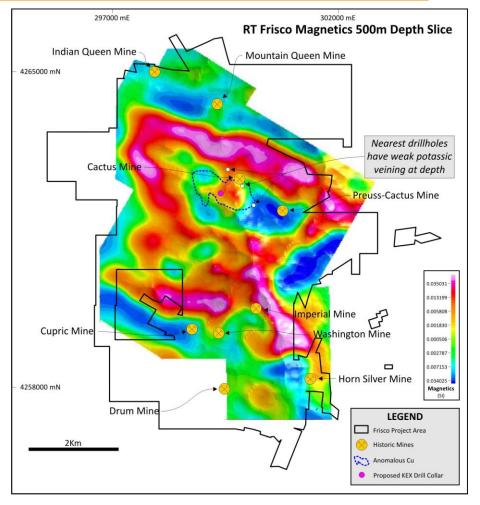
#### Accrington Skarn (Imperial)

- 34m @ 1.0% Cu, 0.1g/t Au from 153m downhole (SAWM0004)
- 54m @ 1.4% Cu, 0.2g/t Au from 46m downhole (FR18-007)
- KEX Drone (UAV) magnetic survey in 2021 highlighted Copper Gulch porphyry target immediately southwest of Cactus



### Frisco: Copper Gulch – 'classic' porphyry target





- 1.5km x 0.5km magnetic anomaly southwest of Cactus
- Anomaly persists to depth of +500m
- Coincident anomalous copper in surface rock samples
- Cu-Mo mineralisation plus potassic & phyllic alteration in peripheral historical holes
- Drill hole completed logging & sampling underway

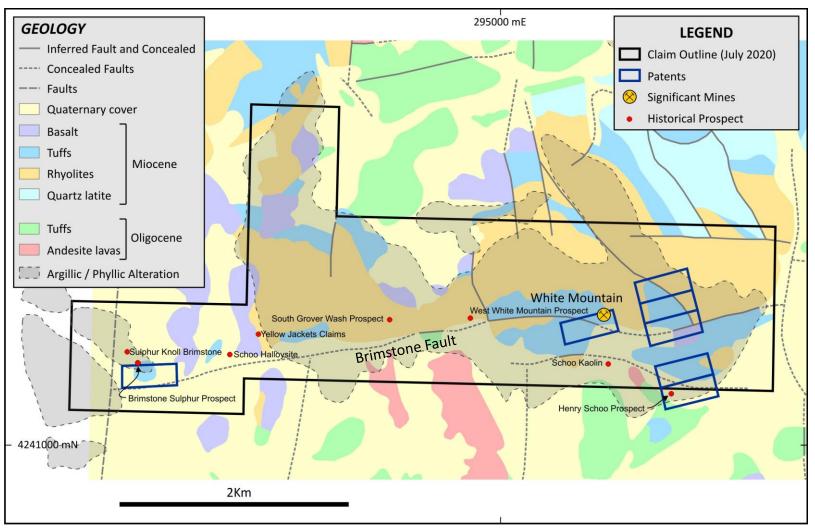


## **White Mountain Epithermal Gold Project**





### White Mountain: Multiple epithermal indicators



- High-grade epithermal goldsilver target
- Preserved
   epithermal system
   with 5km zone of
   argillic, phyllic and
   silica alteration
- Sinter terraces, alunite cap, chalcedony blanket & historical sulphur mining
- Ground magnetics, reconnaissance rock sampling completed
  - Anomalous mercury



#### **Project highlights**

#### High potential gold and copper projects located in Great Basin geology, Utah, USA

#### **Detroit District**

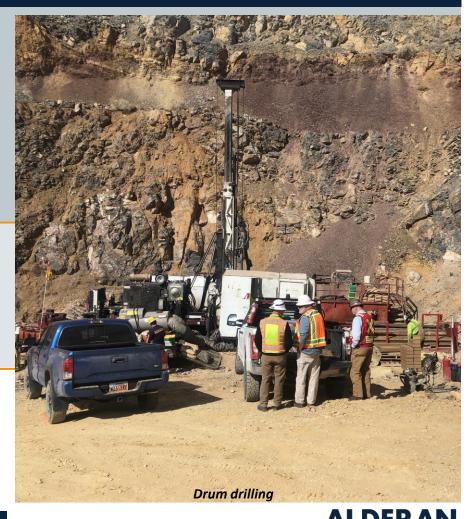
- ✓ Strong gold potential in historical Cu, Au & Mn mining district
- ✓ 6.5km of prospective host rocks with multiple gold targets
- Drum assays to 39g/t Au & intersections 13.7m @ 6.4g/t Au
- ✓ Last assays in Mizpah drillholes to 9.1g/t Au
- ✓ Initial Drum verification intersections to 17.8m @ 1.7g/t Au

#### **Frisco**

- ✓ Copper-gold potential in historical Cu-Au and Pb-Zn-Ag district
- ✓ Cactus prospect intersections include 41m @ 1.9% Cu, 0.6g/t Au
- ✓ Optioned to Rio Tinto drilling Copper Gulch porphyry target

#### White Mountain

- ✓ High potential epithermal gold prospect
- Sinter terraces, alunite cap, chalcedony blanket, sulphur mining, anomalous mercury in soils
- Opportunity to partner





## Next steps & news flow

Project Activity	Estimated Timetable
Detroit: Mizpah permitting for new drill sites	July, 2022
Frisco: Copper Gulch drill hole completion	July, 2022
Detroit: Mizpah drilling (~1,500m reverse circulation) to increase deposit	Q3, 2022
Detroit: Drum-Mizpah trend infill soil sampling to define anomalies for drill testing	Q3, 2022
Detroit: Mizpah and Drum modelling to guide deposit evaluation	Q3, 2022
Detroit: Mizpah laboratory analysis results for drill holes and soil samples	Q4, 2022
Detroit: 'Sighter' metallurgical test work on oxide mineralisation at Drum and Mizpah	Q4, 2022
Frisco: Copper Gulch drill hole assay results and KEX decision on followup drilling	Oct, 2022
Detroit: Permitting for new drill sites at Drum	Q2, 2023
Project Generation: Reviewing new project opportunities	Ongoing



### **Highly experienced Board & Executive Team**

#### Alderan's USA team has +100 years project identification, operational & commercial experience

# Non-Executive Chair Tom Eadie



Geologist & geophysicist with 40 yrs experience. Founding chair of Syrah Resources, Copper Strike & Discovery Nickel. Former Executive GM Exploration & Technology, Pasminco Limited.

BSc (Hons) Geology/ Geophysics - University of British Columbia; MSC Geophysics – University of Toronto; Grad Diploma in Applied Finance & Investment

# Managing Director Scott Caithness



Geologist with 35 yrs
experience in mineral
exploration in Australia,
Asia, Africa and the Pacific.
Former roles include
Director Exploration for the
Vedanta group, co-founder
and MD of Indian Pacific
Resources (now Akora
Resources (ASX: AKO)),
Austrade Senior Trade
Commissioner to Malaysia
& Brunei and GM
Exploration, Rio Tinto
Exploration.

BSc (Applied Geology) – RMIT University; GAICD

Non-Executive Director
Peter Williams



Former Managing Director of Alderan Resources and Chief Geophysicist & Manager of Geoscience Technology at WMC Resources. Founding member of Independence Group & founding Director of Ampella Mining.

MSc Geophysics Engineering – Colorado School of Mines; Adjunct Professor, Centre for Exploration Targeting – University of Western Australia

# VP Operations (US) Bruno Hegner



Corporate manager with 25 years experience. Former Managing Director of RT Copper Projects Group, Rio Tinto. Vice President of Resolution Copper Company.

BA – Fort Lewis College; JD, Law – Sturm College of Law – University of Denver

# Company Secretary Mathew O'Hara



Has been employed by and acted as an independent director, company secretary and CFO for numerous resource companies in Australia, Africa, Canada and the USA.

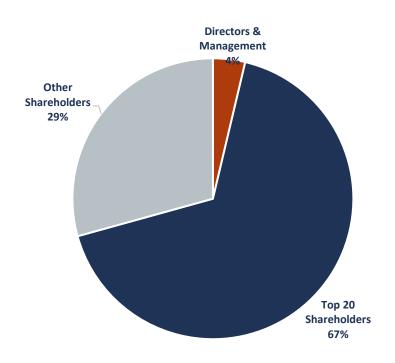
B.Com. – University of Western Australia; Chartered Accountant (CA ANZ)



## **Corporate Structure**

SUMMARY	
Share price (15 Jul 2022)	\$0.016
Shares on issue (15 July 2022)	425,566,080
Market capitalisation (15 Jul 2022)	A\$6.8 million
Options	91,307,292
Performance rights	200,000
Shares held by Directors & Management	~3.7%
Top 20 shareholders	~67%
Cash balance	A\$1.05 million

<sup>\*</sup>All details included in the above table are prior to completion of the Placement as announced on 20 July 2022. The cash balance is as per the Quarterly Cashflow Report dated 29 April 2022.





#### APPENDIX 1 – ADDITIONAL INFORMATION

#### **Drum Gold Mine - Exploration Potential peripheral to historical pits**

- As announced on 18 & 19 November 2021, Alderan used historical drill hole information (404 holes drilled on an approximate 20m x 20m grid) and assays to develop a 3D block model of the gold distribution at Drum which was used to estimate the exploration potential peripheral to the historical pits. Historical holes were analysed by either fire assay or AAS.
- An accurate DTM of the open pit and surrounding area was created using a drone-based topographic survey. This was used to define the remnant gold mineralisation outside of the pit shell.
- In determining the approximate grade and tonnage range of the exploration potential the average grade of the blocks located outside of the pit was estimated using 0.15g/t gold as the blocks lower cut off. The obtained average was then decreased and increased by approximately 15% to produce an approximate range of the target's average grade. Tonnage was estimated by assigning the default tonnage factor of 2.7 t/m3 to all blocks falling outside of the pit and the lower margin of the target's tonnage range was inferred by decreasing the total tonnage of the blocks by approximately 15%. The upper margin of the range was obtained applying more conservative value, approximately 10%.
- In order to test the exploration potential, Alderan has completed in-pit bench rock sampling which confirmed the presence of remnant mineralisation in pit walls. Drilling was also undertaken in early 2022 to both verify and extend the modelled remnant gold mineralisation as part of the Detroit drilling programme. Additional exploration planned at Drum includes a magnetic geophysical survey to assist with structural and geological mapping plus an induced polarization geophysical survey will be considered depending on the results of this earlier work.

#### **Mizpah Gold Prospect-Exploration Potential**

- As announced on 24 August 2021, Alderan used historical drill hole information (197 holes drilled over an approximate 400m x 250m area) and assays to develop a 3D block model of the gold distribution at Mizpah which was used to estimate the exploration potential. Historical holes were analysed by either fire assay or AAS.
- In determining the approximate grade and tonnage range of the exploration potential at Mizpah, the average grade was estimated using a nominal 0.15g/t gold as the blocks lower cut off estimation. The average was then decreased and increased by approximately 15% to produce an approximate range of the target's average grade. Tonnage was estimated by assigning the default tonnage factor of 2.7 t/m3 to all blocks and the lower margin of the target's tonnage range was inferred by decreasing the total tonnage of the blocks by approximately 15%. The upper margin of the range was obtained applying more conservative value, approximately 10%.
- In order to test the exploration potential, Alderan has completed stream sediment and rock sampling programs plus ground magnetics and induced polarization (IP) geophysical surveys. Alderan has also recently completed a 10-hole (approximate 3,000m) drilling program at its Detroit project with the objective of testing for extensions to the modelled gold mineralisation.

