

# ARS - ASX ANNOUNCEMENT

ASX Announcement ASX: ARS

10 February 2020

# MT IDA AND BOTTLE CREEK RESOURCE UPGRADE ADDS 113,000oz Au BRINGS TOTAL RESOURCE TO 519,000 OUNCES Au AND 3.8M OUNCES Ag

# **HIGHLIGHTS:**

- RC drilling at Mt Ida and Bottle Creek Project delivers 4<sup>th</sup> resource upgrade with 22% increase in global resource
- Mt Ida and Bottle Creek Project 2012 JORC global resource estimate now stands at 10.5M tonne @ 1.54g/t Au, for 519,000oz Au and 5.6M tonne @ 21.1g/t Ag 3.78Moz Ag
- Measured + Indicated resource for the Mt Ida and Bottle Creek Project now stands at 5.3M tonne @ 1.89g/t for 322,200oz Au and 4.4M tonne @ 21.1g/t for 2.7Moz Ag
- The average project wide discovery cost per resource ounce Au now stands at \$9.30
- Resource upgrade includes additional 6,768 metres of new RC drilling defining extensions to the Tim's Find, VB North and the new Shepherds Bush deposit

Alt Resources Ltd (ASX: ARS, Alt or 'the Company') is pleased to provide this update to the Mineral Resource estimate for the Mt Ida and Bottle Creek Gold Project. The Company recently completed Resource Estimations based on the drilling programs completed in Q3 and Q4 of 2019. The Company completed a total of 6,768 metres of RC drilling at Mt Ida South and Bottle Creek project areas confirming mineralisation extensions to the Tim's Find, Shepherds Bush and VB North deposits.

The drilling programs completed in Q3 and Q4 2019 adding an additional **113,000oz Au.** Bringing the total for Alt's Mt Ida and Bottle Creek Gold Project Resource to **10.46Mt @ 1.54g/t Au, for 519,000oz Au** (Tables 1 and 2), **including 5.6M tonne @ 21.1 g/t Ag for 3.78Moz Ag.** 

The current Resource Upgrade further supports the Company's project development strategy for the Mt Ida and Bottle Creek Gold Project (Figure 1). The project area has multiple additional exploration and mining targets identified within the Company's landholding. The upgraded Resource Estimate incorporates results of 6768 metres new RC drilling undertaken at VB North, Tim's Find and the Shepherds Bush deposits with all results announced to the market<sup>1</sup>. The Tim's Find extension has expanded the Tim's Find deposits north and south of the historical resource and remains open north and south, with drilling at VB North and Shepherds Bush delivering additional resource ounces with further drilling at Shepherds Bush scheduled to commence in Q1 2020.

 $\underline{https://www.altresources.com.au/wp-content/uploads/2019/10/Tims-Find-Announcement-30-Oct-19-Final-hiRes-3.pdf}$ 

https://www.altresources.com.au/wp-content/uploads/2019/10/1987512.pdf

https://www.altresources.com.au/wp-content/uploads/2019/08/20190819\_Final\_HTDEM\_Shepherds\_Bush\_Announcement.pdf

<sup>&</sup>lt;sup>1</sup> https://www.altresources.com.au/wp-content/uploads/2020/01/20200116-Alt-ASX SB-Results.pdf



Alt's strong successful growth strategy during 2019 and the continued commitment to the development and expansion of the Mt Ida and Bottle Creek Gold Project are strongly supported by the new Resource Upgrade and future planned exploration activity.

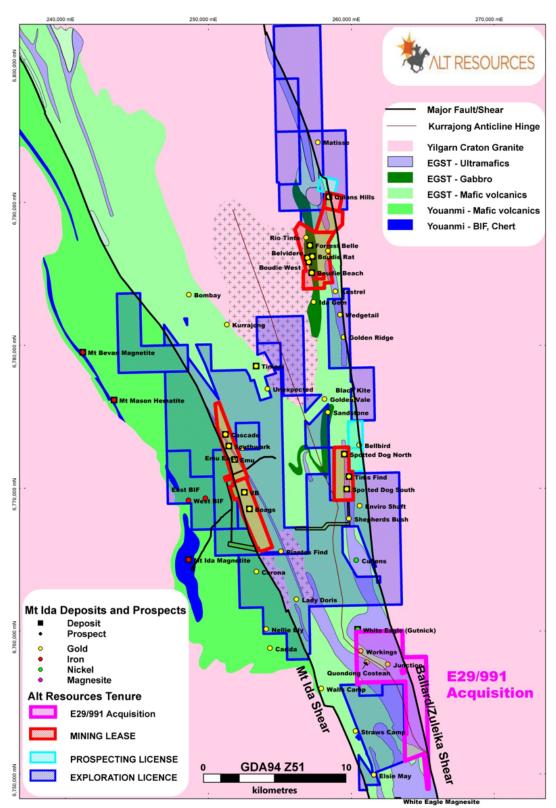


Figure 1. Location and Geology of Mt Ida and Bottle Creek deposits, including VB, Emu, Southwark, Cascade, Boags, Tim's Find and Shepherds Bush deposits



Table 1: Mt Ida and Bottle Creek Global Resource Upgrade all deposits

DEPOSIT	CATEGORY	TONNES	Au Grade	Au Ounces	TONNES	Ag Grade	Ag Ounces
		(t)	(g/t)	(oz)	(t)	(g/t)	(oz)
Emu and Southwark	Measured	602,000	2.3	44,550	602,000	9.5	187,000
	Indicated	1,939,000	1.8	112,250	1,939,000	13.1	815,000
	Inferred	516,000	1.3	21,550	516,000	15.2	252,000
VB and Boags	Indicated	1,827,000	1.7	99,850	1,827,000	28.9	1,697,000
	Inferred	692,000	1.4	31,150	692,000	37.3	829,000
VB North	Indicated	118,000	1.52	5,750			
	Inferred	90,000	0.9	2,600			
Boudie Rat and Forrest Belle	Measured	130,000	2.5	10,450			
	Indicated	130,000	3	12,550			
	Inferred	30,000	3.6	3,450			
Tim's Find	Measured	118,000	2.95	11,200			
	Indicated	417,000	1.9	25,500			
	Inferred	235,000	1.55	11,700			
Total Resources Scoped		6,844,000	1.78	392,550	5,576,000	21.1	3,780,000
Boudie West and Belvidere	Indicated	30,000	3.8	3,650			
	Inferred	100,000	3.5	11,250			
Quinn's Hills	Indicated	20,000	5.7	3,650			
Matisse	Inferred	110,000	1.7	6,000			
Spotted Dog North and South	Inferred	320,000	2	20,600			
Shepherds Bush	Inferred	3,045,000	0.83	81,300			
Total Resources Not Scoped		3,625,000	1.07	126,450			
TOTAL RESOURCES		10,469,000	1.54	519,000	5,570,000	21.1	3,780,000

Table 2: Mt Ida Global Measured and Indicated Resource upgrade all deposits

Measured and Indicated Resource	62%						
DEPOSIT	CATEGORY	TONNES	Au Grade	Au Ounces	TONNES	Ag Grade	Ag Ounces
		(t)	(g/t)	(oz)	(t)	(g/t)	(oz)
Emu and Southwark	Measured	602,000	2.3	44,550	602,000	9.5	187,000
	Indicated	1,939,000	1.8	112,250	1,939,000	13.1	815,000
VB and Boags	Indicated	1,827,000	1.7	99,900	1,827,000	28.9	1,697,000
Boudie Rat and Forrest Belle	Measured	130,000	2.5	10,450			
	Indicated	130,000	3	12,550			
Tim's Find	Measured	118,000	2.95	11,200			
	Indicated	417,000	1.9	25,500			
VB North	Indicated	118,000	1.52	5,800			
TOTAL		5,281,000	1.89	322,200	4,368,000	21.1	2,699,000

Tables 1 and 2: Summary of updated global Mineral Resource Estimate for the Mt Ida and Bottle Creek Gold Project, incorporating the new estimate for the VB North, Tim's Find and Shepherds Bush deposits using 0.5 g/t cut-off for gold. Total tonnes and ounces have been rounded to the nearest 1,000\*.

Alt CEO, James Anderson, commented, "The Company has again delivered another significant number of new resource ounces at Mt Ida and Bottle Creek for a minimal amount of drilling and capital expense. 113,000 ounces of Au from 6768 metres of RC drilling, with the entire project wide average discovery cost now being \$9.30 per resource ounce. 62% of the resource is in the Measured and Indicated categories across all the project areas, the Company has multiple drill targets to continue drilling and add additional resource ounces. The project has reached the half million-ounce milestone and the recent resource upgrade continues to support the strategy to move the project towards development of a treatment plant at Mt Ida".

<sup>\*</sup>Rounding up may result in apparent summation differences between tonnes, grade and contained metal content



#### **BOTTLE CREEK RESOURCE ESTIMATION UPGRADE**

The current updated Mineral Resource has been completed by Mr Stephen Hyland Principal Resource Consultant Geologist of Hyland Geological and Mining Consultants (HGMC) and incorporates all drilling undertaken by Alt Resources on all project areas including the six granted mining leases (Figure 2) up to the 19<sup>th</sup> December 2019, as well as historical drilling conducted by Electrolytic Zinc Company and Norgold Ltd between 1984 and 1989. The combined drill hole dataset total is 76,714 metres of RC and diamond drilling. Tables 1 and 2 provides the summary Mineral Resource Estimates for the Mt Ida and Bottle Creek Project.

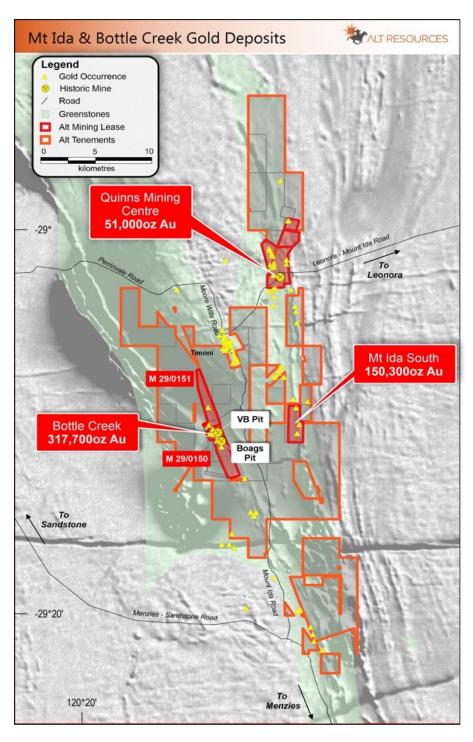


Figure 2: The Mt Ida and Bottle Creek and Mt Ida project tenements and granted mining leases and resource locations



The Mineral Resource Estimate contained in this report is an upgrade to the current gold and silver Resource for Alt Resources Mt Ida and Bottle Creek Gold Project, published 8 May 2019<sup>2</sup>. Mt Ida and Bottle Creek are brownfields projects that have not been mined since 1989. The resource is reported in accordance with the guidelines of the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).

# LOCATION, GEOLOGY AND GEOLOGICAL INTERPRETATION

The Bottle Creek and Mt Ida Gold Projects lies 80 km north west of Menzies in the Mt Ida gold belt (Figure 3). The Mt Ida and Bottle Creek project is located on the northern extremity of the Mt Ida-Ularring greenstone belt extending from Davyhurst to Mt Alexander. The location of mineralisation and regional geology is shown in Figure 1. At Bottle Creek, gold and silver mineralisation is hosted in carbonaceous, sulphidic shales, within a larger package of interbedded basaltic volcanics, sediments and ultramafic rocks. The area is tightly folded and metamorphosed, with intrusion of younger dolerite dykes. Mineralisation at Bottle Creek occurs over a strike length of 11km, running north-west to south-east and is interpreted to be sub vertical, to steeply west dipping.



Figure 3: Location Mt Ida and Bottle Creek Gold Project

<sup>&</sup>lt;sup>2</sup> https://www.altresources.com.au/wp-content/uploads/2019/05/20190507 ARS Clarifying Statement Resource.pdf



The geological interpretations for the Bottle Creek trend deposits (Emu, Southwark, VB and VB North areas), VB North Tim's Find and Shepherd's Bush deposit data for new resource estimates were based on the currently known models of ore genesis, geological history and structural deformation which has been previously described in project reporting. Previous reports include multiple historic exploration and project development reports which can be seen in **Appendix 1** of this report. The geological models have been developed with continuous improvements made in data quality by the Company through with the addition of new exploration and drilling. HGMC has utilised this geological data as the underlying basis to develop updated 3D mineralisation models used for current resource estimation and reporting.

Shepherds Bush deposit sits on the east side of a significant fold, likely the eastern limb of the regionally significant Kurrajong Anticline and current interpretation of the project scale geological mapping and existing magnetic survey data indicate complex faulting and folding sequences at Shepherds Bush. Gold mineralization at Shepherds Bush appears structurally controlled striking north-east with a moderate dip to the south-east. Recent drilling has confirmed the majority of gold mineralisation at Shepherds Bush is associated with banded shale and chert beds with minor BIF. The shale and chert units in the oxide display multiphase veining and brecciation and variable amounts of carbonate and chlorite alteration with little sulphides contained in these units.

**Tim's Find** gold mineralisation is hosted by an ultramafic talc chlorite schist and the adjacent mafic schist within the north to north west striking Ballard Shear zone. Mineralisation at Tim's Find extends over 1.5km of strike length and remains open to the north and south of the current extent of drilling.

**VB North** gold and silver mineralisation is hosted in sedimentary supergene enriched (oxidised massive) sulphidic shales and chert +- quartz in the ore zone bedding known as the Emu Formation. The Bottle Creek geology in its most basic form is represented as a mafic unit on the west side of the Mt Ida Shear, the mineralised Emu Formation, and a felsic quartz porphyry intrusive on the eastern side of Shear.

# **DRILLING TECHNIQUES**

Industry standard drilling techniques have been used at all three deposits discussed in this report. RC drilling techniques have been undertaken using a face sampling hammer and cone splitter.

The drill rigs used is a KWL350 (RC) with on-board 1100 CFM/350 PSI air system complemented with 2400 CFM/850 PSI auxiliary air. Rig is set up to drill 143mm diameter holes and a KW380 utilising 114mm rods and 143mm bit (RC) using an onboard compressor and auxiliary air rated at 1000psi and 2400cfm. No diamond drill hole data has been utilized in the preparation of this Resource Upgrade.

Historical drilling techniques were reported as using industry standard RC drilling Rigs however information relating to the type of rigs used is unavailable. The Company during all phases of drilling programs has twinned multiple historical holes drilled by North and La Mancha Resources at Bottle Creek, Tim's Find and Shepherds Bush deposits and has validated the historical data for inclusion in the resource estimation.

# **SAMPLING AND SUBSAMPLING TECHNIQUES**

Reverse Circulation (RC) drill chips were collected directly from a cone splitter on the drilling rig and automatically fed into pre-numbered calico bags. All sample intervals are 1m, and the sample weight averages 2kg. The splitter and cyclone are cleaned and levelled at the beginning of every hole and cleaned at regular intervals (minimum of 2 rods or 12m) during drilling. Observations of sample size and quality are made whilst logging. A combination of Certified reference materials, coarse blanks and duplicates are included in the sample stream at a rate of 9 in 100. No umpire assays have been undertaken to date.



The standard practice employed is to drill dry and for reported drilling all samples recorded were classed as dry or occasionally damp. The sample is dropped on metre intervals from the cyclone through a cone splitter for sampling. The sample preparation technique is judged appropriate for the sample type and mineralisation style being tested.

The cyclone and cone splitter are regularly cleaned to prevent contamination. Field duplicates are taken and to date show excellent correlation and repeatability, suggesting the samples are representative of in situ material. Further work such as twinning historical holes has been undertaken at all deposits. The sample size is judged appropriate for the grain size of the material being sampled, and the repeatability of the field duplicates supports this.

Assays are completed by ALS Kalgoorlie where the delivered sample is pulverised to  $-75\mu m$ , and then a 30g subsample analysed by AAS fire assay technique. Analyses were for Au only with a detection limit of 0.01 ppm. Samples are collected whilst drilling and grouped in labelled polyweave bags, which are cable tied closed then transported by Alt personnel directly to the laboratory.

Certified reference materials were inserted into the sample series at set intervals. Every 100 samples drilled includes 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date. To date an acceptable level of precision and accuracy have been observed.

## DRILL HOLE SPACING AND DISTRIBUTION

# **Shepherds Bush Deposit**

Drill holes are spaced at approximately 25m, along drill lines that are  $^{50}$ m apart along section, which infill the historical drilling to a combined approximately 25 x 50m pattern in the central area. Along strike north & south, where historic spacing was  $^{50}$  x 100m Alt has completed infill drilling in these areas and the combined spacing is 25 x 50m. Data spacing within mineralised zones is judged as adequate to establish and support an Inferred Mineral Resource. No sampling compositing has been applied.

# **Tim's Find Deposit**

Tim's Find drilling is spaced at approximately 10m, along 40m lines, with Alt's infill drilling of the historical drill lines to an approximately 10m x 40m pattern bringing the overall drill hole spacing to an aggregate of 10m X 20m drill hole pattern. Drill hole data spacing within the Tim's Find mineralised zones is 10m x 20m and is judged as adequate to establish and support a Mineral Resource Estimate in the Measured, Indicated and Inferred categories. No sampling compositing has been applied.

# **VB North Deposit**

VB North drilling is spaced at approximately 12.5m, along 25m lines, which infill the historical drilling to an approximately 12.5 x 25m drill hole pattern. Data spacing within mineralised zones is judged as adequate to establish and support a Mineral Resource in the Indicated and Inferred categories. No sampling compositing has been applied.

# **RESOURCE ESTIMATION METHODOLOGY**

Classification of the Resource Estimate Upgrade in this report, as described below, is based principally on data density, geological confidence criteria, representativeness of sampling and successful historic mining at the Bottle Creek gold mine, VB North, Tim's Find and Shepherds Bush deposits. The in situ mineral resources are constrained by the mineralisation domain boundaries and reported below the topographic surface, including below the historic VB, Boags and Quinn's mine pit 'voids'. All available drilling data from



Tim's Find, VB North and Shepherds Bush deposits were used to define and model the mineralised domains for Au.

The Ordinary Kriging interpolation method was used for the estimation of Au (and Ag where possible) for all deposits discussed in this report using variogram parameters defined from the geostatistical analysis. An outlier 'distance of restriction' approach was applied during the Au and Ag interpolation process in selected domains in order to reduce the influence of very high-grade outlier composite samples. Where multi-element data was available at Boags, Emu, Southwark and VB it was observed that there was generally poor direct correlation between Au and Ag. The kriging interpolated Au and Ag used different interpolation parameters as determined from the independent variographic analysis.

All available RC and Air Core drilling data was used for the Mineral Resource definition. Historical RAB holes were not used in the Mineral Resource estimation due to sample quality.

All drill holes have had collar positions surveyed and Digital Terrain Models (DTM) have been generated by drone survey at Tim's Find with some Topographic data being inferred from the surveyed collar positions. Some historical drill hole collars were draped onto a 'pre-mining' topographic DTM surface and were checked in order to match the surveyed drilling. Topographic data was by way of DTM, ground based survey and additionally from the surveyed collar positions. The survey control for collar positions was considered adequate for the classification and reporting of resources as stated.

The mineralised domains were interpreted from the drilling data by Alt as 3D strings in Micromine software which were then linked to generate 3D wireframes using MineSight by HGMC. Mineralised wire-frame domains constraints were used for statistical analysis and grade estimation. Similar wire-frame weathering surfaces were modelled and used to flag mineralized zones and material type bulk density profile differences.

A review of the quality assurance and quality control (QAQC) data was completed. The QAQC program included company standards, duplicate samples and blanks. Overall, data quality was deemed satisfactory for the current Mineral Resource classification. General statistical and localized spatial geostatistical analysis was carried out on drilling data composited to one or 2 metre intervals downhole.

Analysis of composited data included variography to model spatial continuity in the geological domains. Block models for the VB North trend were as constructed using 2.5 m x 5 m x 2.5 m (E-W, N-S bench) block cells covering the extents of the contained deposit components, namely the Cascade, Southwark, Emu, VB and Boags deposits.

Block models for the Tim's Find trend were as constructed using 2 m x 5 m x 2.5 m (E-W, N-S bench) block cells covering the extents of the Tim's Find North, Central and South deposits.

The block model for the Shepherd's Bush deposit area was constructed using 5 m x 10 m x 5 m (E-W, N-S bench) block cells covering the currently known extents of mineralization.

Dry Bulk Density ("density") was assigned by material type with vales assigned representing the average measured bulk density derived from the available bulk density measurements from the drilling database which was measured in some locations using a down-hole calibrated dual density caliper probe instrument.

The mineralised envelopes were wireframed using both geological logging information and assay data for Au (g/t) and Ag (g/t). The upgraded Mineral Resource contained in this report has been divided into deposits being **Tim's Find, VB North and Shepherds Bush deposits.** Figures 4 through 8 show the mineralised models discussed in this report as wireframes from the Mt Ida and Bottle Creek deposits.



## **CUT-OFF GRADE**

VB North and Tim's Find HGMC has used a default 0.5g Au/t lower cut-off for reporting Mineral Resources from the final block model for all deposits. The three-dimensional wireframe models of mineralisation were based on a gold lower cut-off of nominally 0.3g/t Au. The small amount of estimated contained silver (Ag) in selected deposits has not influenced any mineralisation delineation decisions or the final resource reporting lower cut-offs at this stage of project development since more drilling and sampling work is required to accurately characterise the silver distributions within each deposit area.

**Shepherd's Bush** deposit HGMC has again used a default 0.5g Au/t lower cut-off for reporting Mineral Resources from the final Shepherd's Bush block model. The three-dimensional wireframe models of mineralisation were based on a gold lower cut-off of nominally 0.2-0.3g/t Au.

#### **MODIFYING FACTORS**

The Company delivered a scoping study in July 2019<sup>3</sup> confirming the potential for a robust open pit gold project of which incorporated the Tim's Find and VB deposits at Mt Ida and Bottle Creek, indicating the project has very reasonable prospects for the economic extraction of gold from these deposits applying an \$1,800.00 per ounce pit shell scenario.

Assumed mining costs, processing costs, a dilution factor of 18%, gold recovery of 92% based on historical gold recovered by Norgold during the mining cycle during operations in 1987-89 and additionally by confirmation through new metallurgical test work undertaking by Alt, were applied delivering a projected six year mine life with an EBITDA in excess of \$100M over life of mine.

The Resource Upgrade announced in this report represents additional resources ounces adding to the Alt Resources existing gold and silver inventory.

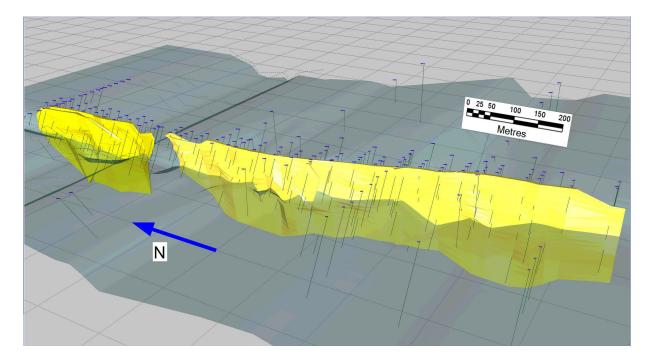
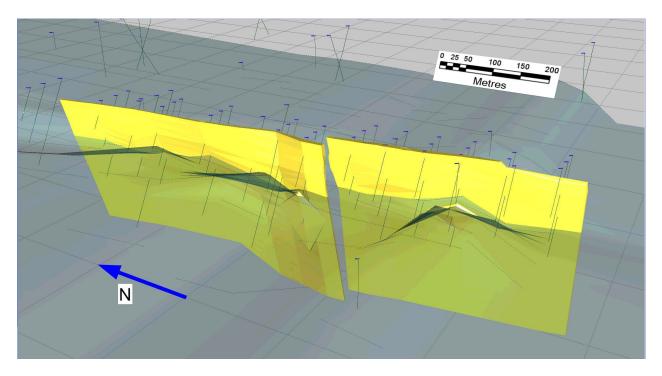


Figure 4: Mineralisation model as a wireframe of the Tim's Find Central and North deposits looking to the north-east up strike towards the Spotted Dog North project

<sup>&</sup>lt;sup>3</sup> https://www.altresources.com.au/wp-content/uploads/2019/09/Mt-Ida-Scoping-Study-2.pdf





 $Figure \ 5: \ Mineralisation \ model \ as \ a \ wire frame \ of the \ Tim's \ Find \ South \ deposit \ looking \ to \ the \ north-east \ up \ strike \ towards \ the \ Tim's \ Find \ Central \ pit$ 

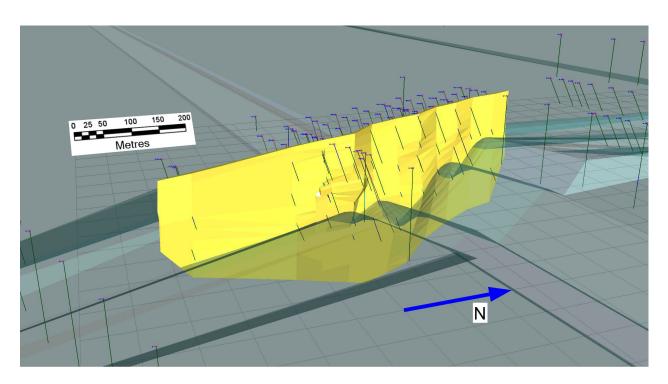


Figure 6: Mineralisation model as a wireframe of the VB North deposit looking to the north-west up strike towards the Emu deposit Bottle Creek



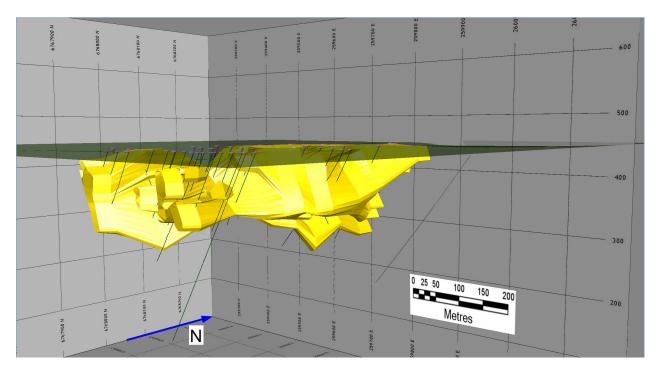


Figure 7: Mineralisation model as a 3D wireframe of the Shepherds Bush deposit looking to the north-west up strike towards the Tim's Find deposit Mt Ida South

# MINERAL RESOURCE STATEMENT

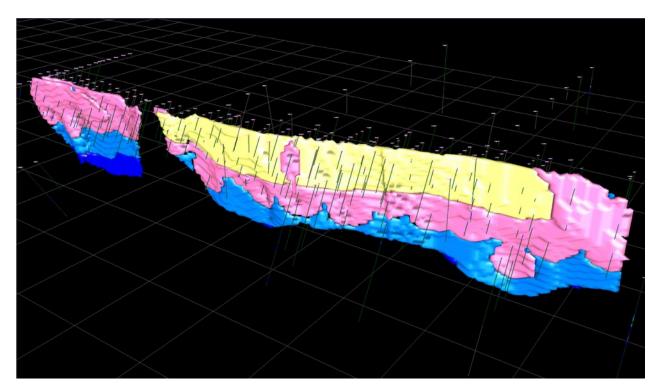
The resource estimates are classified in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012).

The mineral resource upgrade estimate contained in this report covers the **VB North, Tim's Find and the Shepherds Bush** deposits and has been completed by an independent resource geologist, Mr Stephen Hyland, Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting as required by the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI 43-101

Mr. Hyland consents to the inclusion in this report of the information in the form and context in which it appears.

The classifications, summarised in Tables 1 and 2 above, are considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation and representativeness of all available assay data. The defined mineralisation within the VB North, Tim's Find and Shepherds Bush deposits are classified as Measured, Indicated and Inferred resources and shown as block models in Figures 8 through 11 below. The resource is based on an ordinary Kriging interpolated block model. The resource upgrade information contained in this report is subdivided by deposit, mineralised domains and material type.





 $\textit{Figure 8: Tim's Find Central and North deposits block model with yellow = \textit{measured}, \textit{pink} = \textit{indicated and blue} = \textit{inferred}$ 

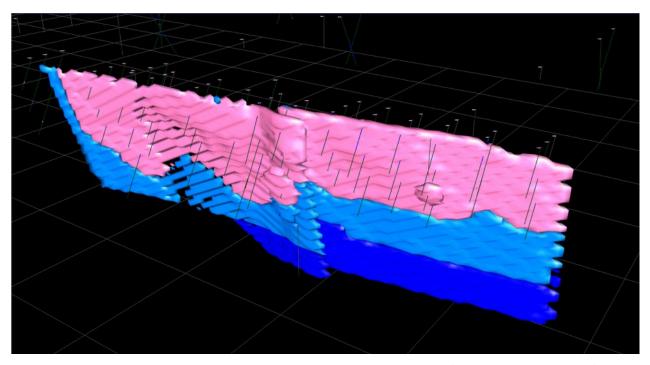
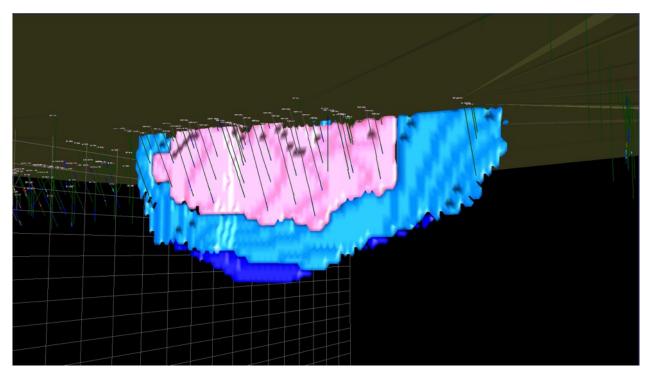
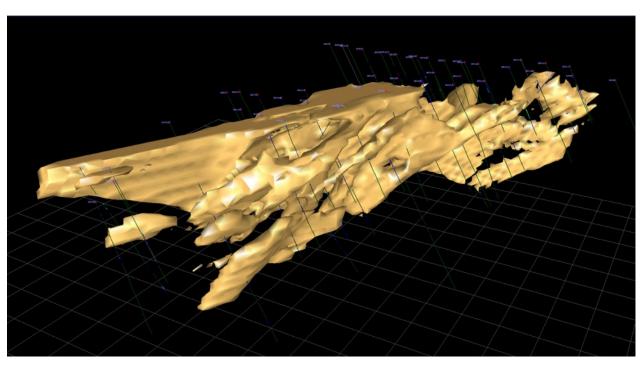


Figure 9: Tim's Find South deposit block model with pink = indicated and blue = inferred and dark blue unclassified





 $\textit{Figure 10: VB North deposit block model with pink = indicated and blue = inferred and dark \ blue \ unclassified \\$ 



 $\textit{Figure 11: Shepherds Bush deposit block model with gold = inferred at the 0.5g/t Au \ cut \ off \ grade}$ 



#### TIM'S FIND TOLL OPERATIONS

The Tim's Find Toll Treatment small scale mining operation has advanced significantly with the Tim's Find pit design and mine plan having now been finalised and the Mining Proposal is scheduled to be lodged with the Department of Mines, Industry Regulation and Safety (DMIRS) in the coming weeks.

Pending approval by the DMIRS for the Mining Proposal the Company expects mining operations at Tim's Find to commence in early Q2 2020.

# **CORPORATE STRATEGY TOWARDS DEVELOPMENT**

Since drilling commenced in March 2018 the Company has delivered in excess of 35,000 metres of RC and 2,100 metres of diamond drilling, focusing on expanding Mt Ida and Bottle Creek JORC 2012 resources to a level that will support the development of a treatment plant to be located at Mt Ida.

In line with the Corporate Strategy COMO Engineers have been contracted to deliver a Pre-Feasibility Study (PFS) for the Mt Ida and Bottle Creek Project with delivery of the PFS by end of Q1 2020 also releasing the maiden ore reserve statement at this time with a final Feasibility Study (FS) scheduled for delivery end of Q2 2020. Over the past six months the Company has undertaken all the significant studies to enable delivery of the PFS and FS.

In addition to the Tim's Find small scale mining operation the Company is planning to continue drilling operations at the Mt Ida project, expanding the growing inventory to support the development of a treatment plant to service the Mt Ida and Bottle Creek Gold Projects.

This announcement has been authorised and approved for lodgement on ASX by the Board of Alt Resources.

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# **About Alt Resources**

Alt Resources is an Australian based mineral exploration company that aims to become a gold producer by exploiting historical and new gold prospects across quality assets and to build value for shareholders. The Company's portfolio of assets includes the Bottle Creek Gold Mine and the Mt Ida Gold Projects located in the Mt Ida gold belt Western Australia, the Paupong IRG Au-Cu-Ag mineral system in the Lachlan Orogen NSW.

Alt Resources holds a significant land package at Mt Ida in the Northern Goldfields of WA. We aim to consolidate and deliver resource ounces adding value for Shareholders by delivering results and to explore new gold targets identified within the Company landholding.



#### **COMPETENT PERSONS STATEMENT**

## **Exploration**

The information in this report that relates to mineral exploration and exploration potential is based on work compiled under the supervision of Ms Kim Boundy, a Competent Person and RPGO of the AIG. Ms Boundy is the Principal Geologist for No Bounds Mineral Exploration Consultants and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that she 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'. Ms Boundy consents to the inclusion in this report of the information in the form and context in which it appears.

#### **Mineral Resource Estimate**

The information in this report that relates to mineral resource estimation is based on work completed by Mr. Stephen Hyland, a Competent Person and Fellow of the AusIMM. Mr. Hyland is Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting according to the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI 43-101. Mr Hyland consents to the inclusion in this report of the information in the form and context in which it appears.

# No Representation, Warranty or Liability

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 $Appendix\ 1:\ Relevant\ Alt\ Resources\ ASX\ drilling\ announcements\ pursuant\ to\ reporting\ of\ exploration\ drilling\ results$ 

Date	Announcement Title	Significance
16/1/20	Shepherds Bush Intercepts Multiple Broad Gold Zones	Drilling results
30/10/19	Broad Intercepts High Grade Gold Mineralisation at Tim's Find	Drilling results
22/10/19	Extension Drilling Delivers Additional High-Grade Gold at VB North	Drilling results
6/8/19	Shepherds Bush Intercepts Broad Gold Zones Mt Ida Gold Project	Drilling results
16/7/19	Tim's Find Intercepts Further High-Grade Gold Mt Ida Gold Project	Drilling results
15/7/19	High Grade Gold Intercepts Confirm Mineralisation at Tim's Find Mt Ida Gold Deposit	Drilling results
14/12/18	Phase 3 Drilling Results	Drilling results
30/10/18	RC drilling results Southwark deposit	Drilling results
10/9/18	Phase 2 Drilling Results	Drilling results
28/8/18	Diamond Drilling Reveals Gold and Silver Continuity at Depth	Drilling results
16/8/18	Maiden Gold Resource for Emu and Southwark	Resource Estimate
6/8/18	Alt Completes Drill Program to Fast Track Resource Delineation at Bottle Creek Gold Project	Project update
2/8/18	Exploration Update Bottle Creek Mt Ida, WA	Project update
21/6/18	High Grade Gold Intercepts from Final RC Holes Drilled at Emu Deposit, Bottle Creek Gold Project	Drilling results
30/5/18	Further High-Grade Gold Results at Emu and Southwark, Bottle Creek Gold Project	Drilling results
14/5/18	Alt's Bottle Creek Project Delivers Bonanza Gold Grades from the Southwark Deposit	Drilling results
1/5/18	Outstanding High-Grade Gold Intercepts at Southwark Deposit, Bottle Creek Gold Project	Drilling results
23/4/18	Exploration Update Bottle Creek Gold Project	Project update
11/4/18	More Exceptional High-Grade Gold Results from RC Drilling at Bottle Creek	Drilling results
5/4/18	Bottle Creek Gold Project Continues to Deliver High Grade Gold Intercepts, Including 22m at 6.3 g/t Au	Drilling results
27/3/18	Multiple High-Grade Gold Intercepts at Emu Deposit, Bottle Creek Gold Project, WA	Drilling results
8/2/18	Shareholder Update – Exploration Activity	Project update
7/12/17	Further High-Grade Historical Gold Intercepts at the Un-Mined Southwark Gold Deposit, Bottle Creek, WA	Drilling targeting
22/11/17	High-Grade Historical Gold Intercepts at the Un-Mined Emu Gold Deposit, Bottle Creek, WA	Drilling targeting
8/11/17	Alt Resources to Acquire Bottle Creek Gold Mine, Mt Ida, Western Australia	Project Acquisition



# JORC Code, 2012 Edition – Table 1 report Shepherds Bush Deposit

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse Circulation (RC) drill chips were collected directly from a cone splitter on the drilling rig and automatically fed into pre-numbered calico bags. All sample intervals are 1m, and the sample weight averages 1.8kg. The splitter and cyclone is cleaned and levelled at the beginning of every hole and cleaned at regular intervals (minimum of 2 rods or 12m) during drilling. Observations of sample size and quality are made whilst logging.</li> <li>A combination of Certified reference materials, coarse blanks and duplicates are included in the sample stream at a rate of 9 in 200. No umpire assays have been undertaken to date.</li> <li>The entire sample collected from the rig splitter is pulverised at the laboratory to 75 micron before a 30g charge is taken for analysis. Mineralisation (Au) is determined quantitatively using a 30 g fire assay, and atomic absorption spectroscopy technique with reportable ranges between 0.01 and 100 ppm</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>Industry standard RC drilling techniques have been undertaken using a face sampling hammer and cone splitter.</li> <li>The drill rig used is a KWL350 (RC) with on-board 1100 CFM/350 PSI air system complemented with 2400 CFM/ 850 PSI auxiliary air. Rig is set up to drill 143mm diameter holes.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>A qualitative assessment of sample quality, and moisture content is made whilst drilling. The collected sample is then weighed at the laboratory.</li> <li>Field crew are at the rig during drilling and communicate any potential issues immediately to allow the drill crew to rectify.</li> <li>Average sample sizes are smaller in the mineralised zones, for samples above the 0.5g/t cut off average weight is 2kg to 2.5kg average for all samples. This may be a result of the ore bearing cherts and BIF making a density difference. At this stage no specific investigation has been undertaken to assess this. Assay data compares</li> </ul>



Criteria	JORC Code explanation	Commentary
		favourably with historic drilling in the same area.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All holes have been geologically logged on geological intervals with recording of lithology, grain size, alteration, mineralisation, veining, structure, oxidation state, colour and geotechnical data noted and stored in the database. All holes were logged to a level of detail sufficient to support future mineral resource estimation, scoping studies, and metallurgical investigations.</li> <li>Veins and mineralisation are logged as a quantitatively as a percentage, all other variables are logged qualitatively. All holes have had the chip trays photographed, and these photos stored in a database.</li> <li>All holes have been logged over their entire length (100%) including any mineralised intersections.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC chips were split in a cone splitter on the rig. The standard practice employed is to drill dry and for reported drilling all samples recorded were classed as dry or occasionally damp. The sample is dropped on metre intervals from the cyclone through a cone splitter for sampling.</li> <li>The sample preparation technique is judged appropriate for the sample type and mineralisation style being tested.</li> <li>The cyclone and cone splitter is regularly cleaned to prevent contamination.</li> <li>Field duplicates are taken and to date show excellent correlation and repeatability, suggesting the samples are representative of in situ material. Further work such as twinning holes with diamond drilling has not been undertaken.</li> <li>The sample size is judged appropriate for the grain size of the material being sampled, and the repeatability of the field duplicates supports this.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.Ba, Mo</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Assays are completed by ALS Kalgoorlie where the delivered sample is pulverised to -75µm, and then a 30g subsample analysed by AAS fire assay technique. Analyses were for Au only with a detection limit of 0.01 ppm.</li> <li>Samples are collected whilst drilling and grouped in labelled polyweave bags, which are cable tied closed then transported by Alt personnel directly to the laboratory.</li> <li>Certified reference materials were inserted into the sample series at set intervals. Every 100 samples drilled includes 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date. To date an acceptable level of precision and accuracy have been observed.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data</li> </ul>	<ul> <li>Significant intersections have been verified by 2 Alt Resources geologists. Further verification can be inferred from historical results in adjacent holes.</li> <li>No holes have been twinned to date.</li> <li>All geological, sampling, and spatial data that is generated and captured in the field</li> </ul>



Criteria	JORC Code explanation	Commentary
	storage (physical and electronic) protocols.  • Discuss any adjustment to assay data.	is immediately entered into a field notebook on standard Excel templates. These templates are then validated each night in Micromine. This information is then sent to a database manager for further validation. If corrections need to be made, they are corrected the following day by the person responsible for generating the data. Once complete and validated the data is then compiled in database server.  • No adjustment of assay data is required
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Prior to drilling holes were located with handheld GPS and reference to the position of historic hole collars, the spacing along section is measured, and the drill line orientation is confirmed with compass. Once drilling is completed collars are resurveyed using an RTK DGPS system. The expected accuracy is 0.15m in three dimensions.</li> <li>The drill rig is orientated via compass and clinometer at surface and once drilling is complete downhole surveyed with a north seeking gyroscope at 30m intervals. Shallow holes have not been down hole surveyed.</li> <li>The grid system used is MGA94 Zone 51</li> <li>The topographic control is judged as adequate and of high quality.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Alt Resources holes are spaced at approximately 25m, along drill lines that are ~50m apart along section, which infill the historical drilling to a combined approximately 25 x 50m pattern in the central area. Along strike north &amp; south, where historic spacing was ~50 x 100m Alt has completed some infill, in these areas combined spacing is either 25 x 50m.</li> <li>Data spacing within mineralised zones is judge as adequate to establish and support an Inferred Mineral Resource.</li> <li>No sampling compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The true widths of intercepts are expected to be 65-75% less than the reported widths depending on both the orientation (dip) of both the mineralised zone, and drill hole. Holes are drilled near perpendicular to strike and no significant bias is expected due to azimuth.</li> <li>The interpreted mineralised zone trends approximately towards 70 degrees and is shallow (&lt; 30°) to the south-east. Drilling inclined holes at -60 degrees will introduce a slight bias to true widths but not to sample assay results.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Alt Resources keeps all samples within its custody, and within its lease boundaries until delivery to the laboratory for assay. Samples are typically collected while drilling to minimise possible contamination and ensure unbroken sample chain of custody.</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No external reviews of the sampling techniques have yet been undertaken. Internal reviews and audits are ongoing with each sample submission being analysed and reported on to ensure issues are quickly noted and rectified.</li> </ul>

# **Section 2 Reporting of Exploration Results Shepherds Bush Deposit**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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, wilderness or national park and environmental settings.</li> <li>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.</li> </ul>	<ul> <li>The information in this release relates to the Mt Ida South Project, tenement E29/1016 which is 100% owned by MGK Resources Pty Ltd a subsidiary of Alt Resources.</li> <li>There are no existing Native Title Agreements over any of the current tenements, and no valid registered or determined claims affect the tenements. However, the area is overseen by the Goldfields Land &amp; Sea Council who may express an interest in the future.</li> <li>The tenure listed in Appendix 1 is in good standing with the West Australian Department of Mines and Petroleum (DMP).</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No work completed by other parties is presented in this announcement.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The deposits and nearby prospects are located in the Archaean Yilgarn Greenstone Belt of WA, more specifically within the northern portion of the Mount Ida Greenstone Belt, forming the eastern limb of the regional south plunging Copperfield Anticline. The geology comprises Archaean mafic to ultramafic lithologies bounded by granitic intrusions, and the region has been metamorphosed to lower amphibolite facies.</li> <li>A major shear zone, interpreted to be the Ballard/Zuleika Shear, intersects the eastern part of the project area.</li> <li>Much of the project area is covered by colluvial and alluvial deposits, with thickness ranging from &lt;1m to tens of metres.</li> <li>Gold mineralisation in the area is associated with fractured chert, BIF and quartz veining +/- massive to semi massive sulphides within sheared ultramafic and mafic units; along the Zuleika Shear, gold is often found in quartz/pyrite lodes which are typically enveloped by tremolite schist, within intensely sheared amphibolites.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Detail of, and assay results from, all holes for which assays have been received and validated are presented in tabular form in the report.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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 aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>In generating reported intersections, a lower cut-off of 0.5g/t Au was applied, internal dilution of up to 2m can be included, no top cutting of grades has been applied.</li> <li>Where reported intercepts include narrower zones of higher grade these narrow intervals have also been reported.</li> <li>No metal equivalent values were used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The mineralised shear appears to be shallow dipping and as such the -60 degree hole dip will result in true widths being ~65-75% of the down hole intercept.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Refer to Figures in the body of the report</li> <li>Appendix 1 contains all material information used in the preparation of this report</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>All results &gt;0.5g/t have been reported in the intersection table. Holes that did not generate mineralised intercepts are also noted.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>https://www.altresources.com.au/wp-content/uploads/2020/01/20200116-Alt- ASX_SB-Results.pdf</li> </ul>

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Criteria	JORC Code explanation	Commentary
		<ul> <li>https://www.altresources.com.au/wp- content/uploads/2019/08/20190806 Announcement-Shepherds-Bush-6Aug19.pdf</li> <li>Appendix 1 contains all material information used in the preparation of this report</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Alt Resources is preparing the maiden inferred JORC resource report and will extend drilling and exploration operations including Drone magnetic data collection, diamond and RC drilling.</li> </ul>

# **Section 3 Estimation and Reporting of Mineral Resources Shepherds Bush Deposit**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The drill hole database for the Shepherds Bush area is maintained by an independent database contractor employed by Alt Resources (Orr &amp; Associates).</li> <li>The Competent Person has verified the internal referential integrity of the database</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the drilling and sampling data is a contractor to Alt Resources and has visited the site.</li> <li>To date no recent site visit has been undertaken by the Competent Person responsible for the resource estimation. The competent person has visited very near this project in the past.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Mineralisation envelopes were interpreted in section from drill hole data. A nominal 0.3 g/t edge cut off was used to define the mineralisation.</li> <li>The mineralisation envelope is contained within a specific geological package.</li> </ul>
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The Shepherd's Bush mineralised zone has a 0.5 km strike containing the identified deposits.</li> <li>Mineralization at Shepherd's Bush has been modelled over 500 m of strike.</li> <li>The mineralisation occurs with variable widths of 5 to approximately 40m width and is observed to extend from 120m and up to 150m in depth.</li> </ul>



# Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- All of the available drilling data was used to define and model the mineralised domains for Au.
- All available Diamond and RC drilling data was used for the Mineral Resource estimation.
- The recent holes driled by Alt Resources in 2029 have been surveyed to acquire accurate collar positions. Topographic data was inferred from the surveyed collar positions. Some historical drill hole collars were draped onto a 'pre-mining' topographic DTM surface and were checked in order to match the surveyed drilling. The survey control for collar positions was considered adequate for the estimation of an inferred resource as stated.
- The mineralised domains were interpreted from the drilling data by Alt as 3D strings in Micromine software which were then linked to generate 3D wireframes using MineSight by HGMC. Mineralised wire-frame domains used for statistical analysis and grade estimation. Similar wire-frame weathering surfaces were modelled and used to flag material type zones and for designating bulk density profile differences.
- Classical statistics in conjunction with spatial geostatistical analysis was carried
  out on 'raw' drilling data and composited drill hole data which composited
  using two metre downhole intervals based on the main gold analytical item.
  Additional analysis included variography to model spatial continuity of gold
  within the main mineralization domains.
- One (1) block model was constructed for the Shepherd's Bush trend deposit using 5 m x 10 m x 5 m block cells covering the entire extents of the mineralisation.
- The Block Model coordinate boundaries (UTM Grid System) are;

259500-260100m E - (120 x 5.0m blocks) 6767500-6768500m N - (100 x 10.0m blocks) 200-480m RL - (56 x 5.0m benchs)

- The Ordinary Kriging (OK) interpolation method was used for the estimation of Au
  using variogram parameters defined from the geostatistical analysis. An outlier
  'distance of restriction' approach was applied during the Au interpolation process
  in selected domains in order to reduce the influence of very high-grade outlier
  composite samples.
- With current drilling density there is some uncertainty of mineralization continuity due to underlying geological complexity. Direct correlation between



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		<ul> <li>some of the higher-grade Au zones is yet to be firmly established and understood.</li> <li>All kriging interpolated Au used different interpolation parameters as determined from the independent variographic analysis for each mineralization geometry domain.</li> <li>Dry Bulk Density ("density") was assigned by material type designation according to the oxidation and weathering profile surfaces. with vales assigned representing the average measured bulk density derived from the available bulk density measurements from the drilling database. Localized lithology domains based on lithological logging such as Banded Iron (BIF) and chert domains were individually assigned their own bulk density estimates. Bulk density throughout the mineralized domain as assigned to the block model ranged from 2.1 to 3.0 tonnes / cubic metre.</li> </ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	All tonnages are reported on a dry basis
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>A 0.5 g/t Au cut off has been applied to reported tonnes and grade</li> </ul>
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>It is assumed parts of the Shepherd's Bush deposits will be mined using open pit mining methods.</li> <li>Detailed grade control will refine the resource for mining</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul> <li>No metallurgical assumptions have been made in estimating the resource</li> <li>Recent and historic Metallurgical test work supports good recovery via a typical gold extraction plant commonly used in the goldfields of Western Australia.</li> <li>Consideration of the use of Vat Leach or Heap Leach methods for mineral processing are being considered by Alt resources, depending on future metallurgical laboratory and column leach test-work.</li> </ul>
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an</li> </ul>	<ul> <li>The resource is located in an area of historic mining which included waste dump and tailings disposal it is assumed no environmental factors would prevent reactivation/extension of these disposal options.</li> </ul>



# Bulk density Classification

explanation of the environmental assumptions made.

- Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.
- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.
- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.
- The basis for the classification of the Mineral Resources into varying confidence categories.
- Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).
- Whether the result appropriately reflects the Competent Person's view of the deposit.

- Dry Bulk Density (DBD) has been determined from Compensated Density & Caliper probe measurements within some available 'open' drill-holes.
- The density measurements have been averaged within the Shepherd's Bush deposit area according to the geologically logged oxide, transition and fresh zone coding in conjunction with all available lithology logging data.

  The broad bulk density values initially applied in both mineralization and 'waste' areas are: Oxide = 2.1; Transition = 2.4; Fresh = 2.8 with additional bulk density values applied according to locally modelled lithological domains.
- The classification was considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation, history of mining, and representativeness of all available assay data.
- The classification criteria have employed multiple 'ancillary' interpolation parameters including 'distance of composite to model block' (DIST1), 'number of composite available within the search ellipsoid' (COMP1) for each block interpolation and the local kriging variance' (KERR1) for each block. The DIST1, COMP1 and KERR1 item values are 'condensed into a 'quality of estimate' (QLTY) which is the used a guide to refine a 'resource category' (RCAT) item used to assist with final resource reporting.
- In consideration of all the resource classification 'modifying factors' present at Shepherd's Bush, the majority of mineralization was classified as RCAT=3 or Inferred Resources.
- Classification of the resource has been assigned by the Competent Person for the Resource estimation.

#### **Audits or reviews**

• The results of any audits or reviews of Mineral Resource estimates.

 The mineral Resource model and estimation has been reviewed in comparison with the previous estimation work carried out for other deposits in the same general area also operated by Alt resources. No issues have been identified.

# Discussion of relative accuracy/ confidence

- Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.
- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- These statements of relative accuracy and confidence of the estimate should be

- The Competent Person considers the mineral resource to be a robust and reliable global estimate of the contained metal as the estimation has been constrained within defined mineralization wire-frame domains based on available drilling with minimal extrapolation has be used.
- The Resource classification applied to the Resource reflects the Competent Person's confidence in the estimate.



compared with production data, where available.

# JORC Code, 2012 Edition – Table 1 report - Tim's Find Deposit

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse Circulation (RC) drill chips were collected directly from a cone splitter on the drilling rig and automatically fed into pre-numbered calico bags. All sample intervals are 1m, and the sample weight can range from 0.4 -5.7kg, with the average sample weight being 2.0 kg. The splitter and cyclone are levelled at the beginning of every hole and cleaned at regular intervals (minimum of 2 rods or 12m). The cyclone is exhaustively cleaned prior to entering and leaving predicted mineralised zones, and more frequently cleaned within these zones. Observations of sample size and quality are made whilst logging.</li> <li>Certified reference materials were inserted into the sample series at set intervals in sample submissions of 200 samples. Every 100 samples includes, 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date.</li> <li>The entire sample provided to the laboratory is dried and pulverised before a subsample is taken for assay.</li> <li>Mineralisation (Au) is determined quantitatively using a 30 g fire assay, and atomic absorption spectroscopy technique with reportable ranges between 0.01 and 100 ppm</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>RC drilling techniques have been completed using a standard aircore or RC bit, and a face sampling hammer.</li> <li>The drill rig used is a KW380 utilising 114mm rods and 143mm bit (RC) using an onboard compressor and auxiliary air rated at 1000psi and 2400cfm.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether</li> </ul>	<ul> <li>A qualitative assessment of sample quality, and moisture content is made whilst drilling. The collected sample is then weighed at the laboratory.</li> <li>Certain zones in the drilling section are prone to poor recoveries, however experience gathered to date and technical adjustments are maximising recoveries in these areas. Given the results received to date, these samples are judged to be</li> </ul>



Criteria	JORC Code explanation	Commentary
	sample bias may have occurred due to preferential loss/gain of fine/coarse material.	representative.  Results received to date no obvious sample bias, nor a significant relationship between grade and recovery. Average sample sizes are slightly smaller in the mineralised zones, for samples above the 0.5g/t cut off average weight is 1.9kg, compared to 2.0kg average for all samples; representing ~5% weight reduction.
Logging	<ul> <li>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.</li> <li>Whether logging is quanlitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All holes have been geologically logged on geological intervals with recording of lithology, grain size, alteration, mineralisation, veining, structure, oxidation state, colour and geotechnical data noted and stored in the database. All holes were logged to a level of detail sufficient to support future mineral resource estimation, scoping studies, and metallurgical investigations.</li> <li>Veins and mineralisation are logged quantitively as percentage, all other variables are logged qualitatively. All holes have had the chip trays photographed, and these photos stored in a database.</li> <li>All holes have been logged over their entire length (100%) including any mineralised intersections.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC chips were split in a cone splitter on the rig. Where possible most samples are sampled dry. % in each hole). Recoveries were small through these zones.</li> <li>The sample preparation technique is judged appropriate for the sample type and mineralisation style being tested.</li> <li>The cyclone and cone splitter are regularly cleaned to prevent contamination.</li> <li>Field duplicates are taken and to date show excellent correlation and repeatability, suggesting the samples are representative of in situ material. Further work such as twinning holes with diamond drilling is expected to be completed to further confirm this.</li> <li>The sample size is judged appropriate for the grain size of the material being sampled, and the repeatability of the field duplicates further supports this.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.Ba, Mo</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Assays are completed by ALS Kalgoorlie where the delivered sample is pulverised to -75µm, and then a 30g subsample analysed by AAS fire assay technique. Analyses were for Au only with a detection limit of 0.01 ppm.</li> <li>Samples are collected whilst drilling with 200 samples collected per submission and then transported by Alt personnel directly to the laboratory.</li> <li>Certified reference materials were inserted into the sample series at set intervals in sample submissions of 200 samples. Every 100 samples includes, 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date. To date an acceptable level of precision and accuracy have been observed.</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections have been verified by 2 Alt Resources geologists. Further verification can be inferred from historical results in adjacent holes.</li> <li>No holes have been twinned to date.</li> <li>All geological, sampling, and spatial data that is generated and captured in the field is immediately entered into a field notebook on standard Excel templates. These templates are then validated each night in Micromine. This information is then sent to a database manager for further validation. If corrections need to be made, they are corrected the following day by the person responsible for generating the data. Once complete and validated the data is then compiled in database server.</li> <li>No adjustment of assay data is required</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Hole locations are surveyed prior to drilling using a Leica RTK GPS and GOLA standard survey marks, once the hole is completed it is resurveyed using the same techniques to mark the actual collar location. The expected accuracy is 0.15m in three dimensions.</li> <li>The drill rig is orientated via compass and clinometre at surface and once drilling is complete downhole surveyed with an Axis Mining north seeking gyroscope at 12m (base of laterite), and then at 30m intervals, and again at the end of hole.</li> <li>The grid system used is MGA94 Zone 51</li> <li>The topographic control is judged as adequate and of high quality.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Alt Resources drilling is spaced at approximately 10m, along 40m lines, which infill the historical drilling to an approximately 10 x 40m pattern.</li> <li>Data spacing within mineralised zones is 10 x 20 drill hole patters and is judged as adequate to establish and support a Mineral Resource in the Measured, Indicated and Inferred categories.</li> <li>No sampling compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The true widths of intercepts are expected to be 65-75% less than the reported widths depending on both the orientation (dip) of both the mineralised zone, and drill hole. Holes are drilled near perpendicular to strike and no significant bias is expected due to azimuth.</li> <li>The interpreted mineralised zone trends approximately towards 340 degrees, and dips steeply (&gt;70°) to the west. Drilling inclined holes at -60 degrees will introduce a slight bias to true widths but not to sample assay results.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Alt Resources keeps all samples within its custody, and within its lease boundaries until delivery to the laboratory for assay. Samples are typically collected while drilling to minimise possible contamination and ensure unbroken sample chain of custody.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No external reviews of the sampling techniques have yet been undertaken. Internal reviews and audits are ongoing with each sample submission being analysed and</li> </ul>



Criteria	JORC Code explanation	Commentary
		reported on to ensure issues are quickly noted and rectified.

# **Section 2 Reporting of Exploration Results Tim's Find Deposit**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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, wilderness or national park and environmental settings.</li> <li>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.</li> </ul>	<ul> <li>The information in this release relates to tenements M29/421 and E29/1016. These tenements were the subject of a purchase agreement between Alt Resources and Latitude Consolidated, as outlined in previous releases.</li> <li>There are no existing Native Title Agreements over any of the current tenements, and no valid registered or determined claims effect the tenements. However, the area is overseen by the Goldfields Land &amp; Sea Council who may express an interest in the future.</li> <li>The tenure is in good standing with the West Australian Department of Mines and Petroleum (DMP).</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Mt Ida Project area has an extensive exploration history dating back to the late 1800's when Forrest Belle and Boudie Rat were mined (predominantly underground) intermittently from 1898-1941. Modern gold exploration over the project has been conducted by several companies with Wild Acre (2009-2016) being the most recent.</li> <li>During the 1980's, key exploration work for gold was carried out by Spargos Exploration NL and Austamax Resources (later to become Australian Consolidated Minerals).</li> <li>In 1996, Consolidated Minerals purchased the Quinn's project and subsequently went into receivership; management passed to Arrow Resource Management (on behalf of Rothschild Australia), and through Australian Gold Mines NL, Arrow mined the open pits at Forrest Belle and Boudie Rat to a maximum 25m vertical depth between January and March 1997.</li> <li>Reported production was 28,234t @ 3.4 g/t Au for 3,086 oz Au at Forrest Belle, and 42,681t @ 4.16 g/t Au for 5,709 oz Au at Boudie Rat.</li> <li>Prior to the data compilation carried out by Barra Resources, comprehensive collection of drilling and sampling metadata was not practised. Therefore drillholes used in resource estimation prior to 2000 do not include rigorous details of sampling techniques and sample quality.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>In 2000 Barra Resources/Barminco purchased the project from Arrow and carried out extensive data compilation, some minor drilling.</li> <li>Barminco acquired a fixed wing magnetic survey over the Quinns Project in 2001. The contractor was UTS Geophysics with survey parameters of 50m line spacing with 20m MTC.</li> <li>Sipa Resources managed the project between 2003 and 2006 when Barra resumed management.</li> <li>In 2003 Sipa acquired the services of Continental Resource Management Pty Ltd to perform a Resource Estimate at the Boudie Rat and Forrest Belle Deposits only</li> <li>The project was sold to Wild Acre Metals in 2009, who carried out a further 456 RAB, Aircore and RC holes across the project as a whole.</li> <li>Wild Acre acquired the services of ExploreGeo Pty who reprocessed the magnetic imagery of which is used in this announcement.</li> <li>In 2013 Wild Acre acquired the services of CoxRocks Pty Ltd to perform a mineral estimation report, which appears to have based mineralization wireframes for Boudie Rat and Forrest Belle from the initial estimation carried out by Continental Resource Management Pty Ltd in 2003</li> <li>Sipa Resources managed the project between 2004 and 2006 when Barra resumed management.</li> <li>The project was sold to Wild Acre Metals in 2009, who carried out a further 456 RAB, Aircore and RC holes across the project as a whole.</li> <li>Prior to the data compilation carried out by Barra Resources, comprehensive collection of drilling and sampling metadata was not practised. Therefore drillholes used in resource estimation prior to 2000 do not include rigorous details of sampling techniques and sample quality.</li> <li>MGK Resources Pty Ltd acquired the project from Wild Acre (now Nuheara) on 2nd March 2016.</li> <li>Alt Resources agreed to acquire the MGK Resources Pty Ltd Mt Ida project from Latitude Consolidated as announced to the ASX https://www.altresources.com.au/wp-content/uploads/2018/05/Alt-Resources-completes-acquistion-of-Mt-Ida-south-and-Quinns-mining-ce</li></ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The deposits and nearby prospects are located in the Archaean Yilgarn Greenstone Belt of WA, more specifically within the northern portion of the Mount Ida Greenstone Belt, forming the eastern limb of the regional south plunging Copperfield Anticline. The geology comprises Archaean mafic to ultramafic lithologies bounded by granitic intrusions, and the region has been metamorphosed</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>to lower amphibolite facies.</li> <li>A major shear zone, interpreted to be the Zuleika Shear, intersects the eastern part of the project area.</li> <li>Much of the project area is covered by colluvial and alluvial deposits, with thickness ranging from &lt;1m to tens of metres.</li> <li>Gold mineralisation in the area is associated with quartz veining +/- sulphides within sheared ultramafic and mafic units; along the Ballard/Zuleika Shear, gold is often found in quartz/pyrite lodes which are typically enveloped by tremolite schist, within intensely sheared amphibolites.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>All material information is provided in figures and tables included in the body of the announcement.</li> <li>No significant information has been excluded for drilling results reported in this document.</li> <li>Appendix 1 contains all material information used in the preparation of this report</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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 aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Reported drill intercepts are averaged intercepts from 1m samples.</li> <li>No cutting of high-grade values has been undertaken.</li> <li>Significant intercepts (see Table 1 in the body of this release) are reported using a low-grade cut-off of 0.5 g/t Au and no more than 2m internal waste.</li> <li>No metal equivalent values were used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Reported intercepts are downhole lengths; due to the subvertical nature of the mineralisation and -60 dip of holes the true width is estimated to be approximately 65-75% of the downhole width.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Refer to Figures and table in the body of the announcement.</li> <li>Appendix 1 contains all material information used in the preparation of this report</li> </ul>



Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul> <li>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.</li> </ul>	Results for all holes drilled and assayed have been reported.
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>The Tim's Find area was reported by LCD as part of a project resource, more recently Alt Resources has announced results of RC drilling undertaken on the project area.</li> <li>More recently details of potential for a toll treated open pit mining operation focused on Tim's Find was announced</li> <li><a href="https://www.altresources.com.au/wp-content/uploads/2019/10/20191023">https://www.altresources.com.au/wp-content/uploads/2019/10/20191023</a> Tims Find Announcement.pdf</li> <li>Appendix 1 contains all material information used in the preparation of this report</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The company is currently progressing work to support a potential decision to mine, including environmental base line, geotechnical and metallurgical studies.  Figures included in this announcement show undrilled potential along strike of recent drilling. The company will assess the option to continue to expand the resource footprint and aims to incorporate recent drilling in a new resource estimation in the coming months.

# **Section 3 Estimation and Reporting of Mineral Resources Tim's Find Deposit**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The drill hole database is maintained by an independent database contractor employed by Alt Resources (Orr &amp; Associates).</li> <li>The Competent Person has verified the internal referential integrity of the database</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the drilling and sampling data is a contractor to Alt Resources and has visited the site.</li> <li>To date no recent site visit to the Tim's Find area has been undertaken by the Competent Person responsible for the resource estimation. The competent person has visited very near this project in the past.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> </ul>	<ul> <li>Mineralisation envelopes for the Tim's Find deposits were interpreted in section from drill hole data. A nominal 0.3 g/t edge cut off was used to define the mineralisation in 3 parts – specifically for the Tim's Find North, Central and South</li> </ul>



#### • The effect, if any, of alternative interpretations on Mineral Resource estimation.

- The use of geology in guiding and controlling Mineral Resource estimation.
- The factors affecting continuity both of grade and geology.

# deposit areas

• The mineralisation envelopes are contained within a specific geological package.

#### **Dimensions**

 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.

- The Tim's Find trend has an approximate 1.4 km strike containing the 3 main identified mineralized zones.
- The Tim's Find North Area has been modelled over 160 m of strike.
- The Tim's Find Central Area has been modelled over 400m of strike.
- Tim's Find South has been interpreted as having a strike length of approximately 700m with the main modelled part of this zone having a strike length of 300m.
- The mineralisation is observed at widths of 2 to 6m and persistently extending to depths of between 100 m and up to 130m.

# Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key
  assumptions, including treatment of extreme grade values, domaining,
  interpolation parameters and maximum distance of extrapolation from data
  points. If a computer assisted estimation method was chosen include a
  description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- All of the available drilling data was used to define and model the mineralised domains for Au.
- Diamond and RC drilling data was used for the Mineral Resource estimation.
- All recent Alt drilling collar positions have been surveyed. Some Topographic
  data was inferred from the surveyed collar positions. Some historical drill hole
  collars were draped onto a 'triangulated' topographic DTM surface and were
  checked in order to match the surveyed drilling. The survey control for collar
  positions was considered adequate for the estimation of all the reported
  resources as stated.
- The mineralised domains were interpreted from the drilling data by Alt as 3D strings Micromine software which were then linked to generate 3D wireframes using MineSight by HGMC.
- Mineralised wire-frame domains used for statistical analysis and grade estimation. Similar wire-frame weathering surfaces were modelled and used to flag different weathering and oxidation zone material types broadly designated as oxidized, transitional and fresh/sulphide. These different material type zones were used to designate bulk density profile differences.
- Statistical and geostatistical analysis was carried out from available drilling
  data which was composited into two metre downhole intervals for both the
  gold and silver items separately. Additional analysis included variography to
  model spatial continuity of gold and silver in the main geological domains.
- Two (2) block models were constructed. One block Model was used specifically for the Tim's Find North and Tim's Find Central areas (combined).
   An additional block model was constructed for the Tim's Find South area. Both block models used 2.5 m x 5 m x 2.5 m block cells covering the entire extents the mineralisation.



<b>~</b>			
			<ul> <li>The Block Model coordinate boundaries (UTM Grid System) are as follows. Tim's Find North and Central Area Block Model 259600-260100m E - (250 x 2.0m blocks) 6770600-6771400m N - (160 x 5.0m blocks) 310-470m RL - (64 x 2.5m benches).</li> <li>Tim's Find South Area Block Model 259700-260200m E - (250 x 2.0m blocks) 6769800-6770600m N - (160 x 5.0m blocks) 310-470m RL - (64 x 2.5m benches).</li> <li>The Ordinary Kriging (OK) interpolation method was used for the estimation of the Au item using variogram parameters defined from the geostatistical analysis. An outlier 'distance of restriction' approach was applied to the Au item during the interpolation process and set individually to each AREA mineralization geometry domain. The outlier restriction level is determined based on analysis of the observed localized geostatistics and is intended to reduce the influence of very high-grade outlier composite samples.</li> <li>The kriging interpolated Au item used different interpolation parameters as determined from the independent variographic analysis.</li> <li>Dry Bulk Density ("density") was assigned by material type with vales assigned representing the average bulk densities measured using a Compensated Dual Density &amp; Caliper probe in ground from a suitable selected series of 2</li> </ul>
			Diamond Core holes and 6 RC holes.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	•	All tonnages are reported on a dry basis
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	•	A 0.5 g/t Au cut off has been applied to reported tonnes and grade
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	•	It is assumed the deposits will be mined using open pit mining methods.  It is anticipated that detailed grade control will be required prior to refining resource definition boundaries for open pit mining.
Metallurgical factors or assumptions	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but</li> </ul>	•	No metallurgical assumptions have been made in estimating the resource.  Recent and historic Metallurgical test work supports good recovery via a typical CIL/CIP gold extraction plant commonly used in the goldfields of Western Australia
ASX Announcement			Alt Resources Limited



	the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	The resource is located in an area of historic mining which included waste dump and tailings disposal it is assumed no environmental factors would prevent reactivation/extension of these disposal options.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Dry Bulk Density (DBD) has been determined from measurements taken from downhole Compensated Dual Density &amp; Caliper probe providing approximately 38,300 readings</li> <li>The down-hole probe measures density measurements which have been condensed and averaged for the main material type zones areas according to the geologically logged oxide, transition and fresh zone coding.</li> <li>The bulk density values applied in the Tim's Find North and Central and South deposit areas are: Oxide = 2.22; Transition = 2.72; Fresh = 2.94.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The resource classification for each of the Tim's Find deposit areas are considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation, and representativeness of all available sampling and assay data.</li> <li>The classification criteria have employed multiple 'ancillary' interpolation parameters including 'distance of composite to model block' (DIST1), 'number of composite available within the search ellipsoid' (COMP1) for each block interpolation and the local kriging variance' (KERR1) for each block. The DIST1, COMP1 and KERR1 item values are 'condensed into a 'quality of estimate' (QLTY) which is the used a guide to refine a 'resource category' (RCAT) item used to assist with final resource reporting.</li> <li>Classification of the resource has been assigned by the Competent Person for the Resource estimation.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>The mineral Resource model and estimation has been reviewed in conjunction with similar estimation work carried out for the Bottle Creek Gold Project deposits in the same general area As managers of the various projects, Alt resources have approaches the requirements for all work to be carried out consistently towards industry best practice standards. No issues have been identified by any of Alt's associated contractors or nominated reviewers.</li> </ul>



# Discussion of relative accuracy/ confidence

- Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.
- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- The Competent Person considers the mineral resource estimates for the Tim's Find Deposits to be a robust global estimate of the contained metal estimates and has been constrained within defined mineralization wireframes and therefore minimal mineralization extrapolation has been incorporated.
- The Resource classification applied to the Resource reflects the Competent Person's confidence in the estimate.

# **JORC Code, 2012 Edition - Table 1 report VB North Deposit**

# **Section 1 Sampling Techniques and Data**

**JORC Code explanation** 

(Criteria in this section apply to all succeeding sections.)

Criteria

- Sampling techniques

   Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.

#### Commentary

- Reverse Circulation (RC) drill chips were collected directly from a cone splitter on the drilling rig and automatically fed into pre-numbered calico bags. All sample intervals are 1m, and the sample weight can range from 0.2 -4.8kg, with the average sample weight being 1.8kg. The splitter and cyclone is levelled at the beginning of every hole and cleaned at regular intervals (minimum of 2 rods or 12m). The cyclone is exhaustively cleaned prior to entering and leaving predicted mineralised zones, and more frequently cleaned within these zones. Observations of sample size and quality are made whilst logging.
- Certified reference materials were inserted into the sample series at set intervals in sample submissions of 200 samples. Every 100 samples includes, 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date.
- Mineralisation is not visible beneath the base of complete oxidation however its
  presence can be inferred from quartz veins and ferruginous alteration. Historical
  drilling completed by Norgold which brackets the current drilling (approximately
  25m either side) also provides a good reference for locating the mineralised zone.
- Mineralisation (Au) is determined quantitatively using a 30 g fire assay, and atomic



		absorption spectroscopy technique with reportable ranges between 0.01 and 100 ppm
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul> <li>RC drilling techniques have been completed using a standard aircore bit, and a face sampling hammer.</li> <li>The drill rig used is a Schramm T450 utilising 89mm rods and 121mm bit (RC) using an onboard compressor rated at 450psi and 1240 cfm.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>A qualitative assessment of sample quality, and moisture content is made whilst drilling. The collected sample is then weighed at the laboratory.</li> <li>Certain zones in the drilling section are prone to poor recoveries, however experience gathered to date and technical adjustments are maximising recoveries in these areas. Given the results received to date, these samples are judged to be representative.</li> <li>Results received to date show no sample bias, nor a relationship between grade and recovery. Average sample sizes are smaller in the mineralised zones, for samples above the 0.5g/t cut off average weight is 1.5kg, compared to 1.8kg average for all samples.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All holes have been geologically logged on geological intervals with recording of lithology, grain size, alteration, mineralisation, veining, structure, oxidation state, colour and geotechnical data noted and stored in the database. All holes were logged to a level of detail sufficient to support future mineral resource estimation, scoping studies, and metallurgical investigations.</li> <li>Veins and mineralisation are logged quantitively as percentage, all other variables are logged qualitatively. All holes have had the chip trays photographed, and these photos stored in a database.</li> <li>All holes have been logged over their entire length (100%) including any mineralised intersections.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC chips were split in a cone splitter on the rig. Where possible most samples are sampled dry.</li> <li>The sample preparation technique is judged appropriate for the sample type and mineralisation style being tested.</li> <li>The cyclone and cone splitter is regularly cleaned to prevent contamination.</li> <li>Field duplicates are taken and to date show excellent correlation and repeatability, suggesting the samples are representative of in situ material. Further work such as twinning holes with diamond drilling is expected to be completed to further confirm this.</li> <li>The sample size is judged appropriate for the grain size of the material being sampled, and the repeatability of the field duplicates further supports this.</li> </ul>



### 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. Ba, Mo
- Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.
- Assays are completed by ALS Kalgoorlie where the delivered sample is pulverised to
   -75μm, and then a 30g subsample analysed by AAS fire assay technique. Analyses
   were for Au only with a detection limit of 0.01 ppm.
- Samples are collected whilst drilling with 200 samples collected per submission and then transported by Alt personnel directly to the laboratory.
- Certified reference materials were inserted into the sample series at set intervals in sample submissions of 200 samples. Every 100 samples includes, 3 blank samples, 2 duplicate samples and 6 certified reference standards. No umpire assays have been undertaken to date. To date an acceptable level of precision and accuracy have been observed.

### 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.

- Significant intersections have been verified by 2 Alt Resources geologists. Further verification can be inferred from historical results in adjacent holes.
- Several holes have been twinned to date.
- All geological, sampling, and spatial data that is generated and captured in the field
  is immediately entered into a field notebook on standard Excel templates. These
  templates are then validated each night in Micromine. This information is then sent
  to a database manager for further validation. If corrections need to be made, they
  are corrected the following day by the person responsible for generating the data.
  Once complete and validated the data is then compiled in database server.
- No adjustment of assay data is required

# 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.

- Hole locations are surveyed prior to drilling using a Leica RTK GPS and GOLA standard survey marks, once the hole is completed it is resurveyed using the same techniques to mark the actual collar location. The expected accuracy is 0.15m in three dimensions.
- The drill rig is orientated via compass and clinometre at surface and once drilling is complete downhole surveyed with an Axis Mining north seeking gyroscope at 12m (base of laterite), and then at 30m intervals, and again at the end of hole.
- The grid system used is MGA94 Zone 51
- The topographic control is judged as adequate and of high quality.

## 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.

- Alt Resources drilling is spaced at approximately 12.5m, along 25m lines, which infill the historical drilling to an approximately 12.5 x 25m pattern.
- Data spacing within mineralised zones is judge as adequate to establish and support
  a Mineral Resource in the Indicated and Inferred categories.
- No sampling compositing has been applied.

## 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.
- If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should
- The true widths of intercepts are expected to be 65-75% less than the reported widths depending on both the orientation (dip) of both the mineralised zone, and drill hole. Holes are drilled near perpendicular to strike and no significant bias is expected due to azimuth.



	be assessed and reported if material.	<ul> <li>The interpreted mineralised zone trends approximately towards 340 degrees, and dips steeply (&gt;70°) to the west. Drilling inclined holes at -60 degrees will introduce a slight bias to true widths but not to sample assay results.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Alt Resources keeps all samples within its custody, and within its lease boundaries until delivery to the laboratory for assay. Samples are typically collected while drilling to minimise possible contamination and ensure unbroken sample chain of custody.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No external reviews of the sampling techniques have yet been undertaken. Internal reviews and audits are ongoing with each sample submission being analysed and reported on to ensure issues are quickly noted and rectified.</li> </ul>

# Section 2 Reporting of Exploration Results VB North Deposit (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary	
Mineral tenement and land tenure status	<ul> <li>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, wilderness or national park and environmental settings.</li> <li>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.</li> </ul>	<ul> <li>The information in this release relates to the Bottle Creek Project, on mining leases M29/150 and M29/151, which is the subject of a purchase agreement between Alt Resources and a private vendor. The details of this purchase arrangement are outlined in the announcement made to the market on the 8th November, 2017 (https://www.altresources.com.au/wp-content/uploads/2017/11/ARS-ASX-Announcement-Bottle-Creek-acquisition-8Nov17.pdf)</li> <li>Settlement terms for the Bottle Creek Gold project have been amended and announced to the ASX on 28 November 2018</li> <li>https://www.altresources.com.au/wp-content/uploads/2018/12/Announcement-Corp-Update-Bottle-Creek-Project-Terms-28Nov18.pdf</li> <li>There are no existing impediments to M29/150 or M29/151.</li> </ul>	
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Bottle Creek Gold Project has seen little or no exploration prior to 1983.</li> <li>Modern gold exploration over the project has been conducted by Electrolytic Zir (EZ) and Norgold, as described below.</li> </ul>	
		Activity Year Company Result	
		conducted  Stream Sediment 1983-1987 Electrolytic Zinc Defined 15km long sampling Au-As-Sb anomaly associated with Bottle Creek mineralisation	



Itoration sampling Definition of linear Au, A.S. Sb, Band Pb anomalies Definition of Zokm long As-Pb anomaly Aerial photography Aerial magnetic survey Solition of Zokm anomaly associated survey anomaly associated with mineralized zone, from magnetite alteration. The highest magnetic anomalies overfle mineralized shoots Significant gold intersections defined in areas of poor outcrop, but poor penteration due to hard sub- surface layers  RAB drilling Defined major mineralized shoots RC drilling Defined major mineralized shoots linear anomalies anomalies overfle mineralized shoots significant gold intersections defined in areas of poor outcrop, but poor penteration due to hard sub- surface layers Defined major mineralized shoots linearized anomalies defined in areas of poor outcrop, but poor penteration due to hard sub- surface layers Definition of order penteration of order penteration of order gold intersections and XVXX) beneath lateritic cover Definition of order gold intersellisation beneath Emu and VS Magnetometric resistivity (MMR) defined the mineralized zone Frequency electromagnetic (VLF E) surveys		
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	Geological mapping 1986-1989 Norgold	Project-scale mapping at 1:25,000 scale, defined new prospective zone SE of Boags
	RAB drilling	Exploration drilling of extensions to known mineralisation, defined parallel zone east of VB and south of Anchor.
	RC and DD drilling	Reserve drilling at VB, Boags and Emu Resource drilling at Anchor, XXXX, Southwark and surface laterite Sterilisation drilling for airstrip
	Soil Sampling	Extensions to areas of previous sampling, analysed for Au, Ag, As, Sb
	Airborne multi- spectral survey	Defined high density fracture patterns associated with mineralisation
	Mining	Mining at VB and Boags, 1988-1989. Production at Boags: 382,000t @ 1/75 g/t Au (21.6koz Au) Production at VB: 730,000t @ 3.1 g/t Au (72koz Au)
Geology  • Deposit type, geological setting and style of mineralisation.  ASV Appendment	<ul> <li>The Bottle Creek gold project lies on the western edge Province in WA, within the Ularring greenstone belt. V characterized by banded iron formations interbedded</li> </ul>	Vest of the project, the area is

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#### central and eastern parts of the project, a dominantly mafic-ultramafic volcanic and intrusive suite occurs. Minor volcaniclastic sediments are interbedded with the greenstones. The entire central and eastern zone has been intruded by felsic quartz porphyries. • Near Bottle Creek, the greenstone belt is folded into a tight, south-plunging anticline with a granite core • The project is defined by epigenetic, hydrothermal, shear-hosted gold+silver mineralisation. Mineralisation is hosted within a steeply dipping, sheared, carbonaceous black shale unit (the Emu Formation), close to the contact with the interbedded mafic volcanics and banded ironstones. • Sulphide mineralisation is characterised by pyrite, pyrrhotite and magnetite, with minor tetrahedrite, sphalerite, arsenopyrite and chalcopyrite. Native gold and electrum are also present as fine, <45µm grains. A strong regolith profile is developed in the mineralised zone, to a depth of approximately 85m in some areas. • 5 mineralised zones have been defined by historical exploration, including from south to north, Boags, VB, Emu, Southwark and Cascade. **Drill hole Information** • A summary of all information material to the understanding of the exploration No significant information has been excluded for drilling results reported in this results including a tabulation of the following information for all Material drill holes: document o easting and northing of the drill hole collar Appendix 1 contains all material information used in the preparation of this report elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole down hole length and interception depth o 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. Data aggregation In reporting Exploration Results, weighting averaging techniques, maximum and/or Reported drill intercepts are averaged intercepts from 1m samples. methods minimum grade truncations (eg cutting of high grades) and cut-off grades are • No cutting of high-grade values has been undertaken. usually Material and should be stated. Significant intercepts are reported using a low-grade cut-off of 0.5 g/t Au and no Where agaregate intercepts incorporate short lengths of high-grade results and more than 2m internal waste. longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. Relationship These relationships are particularly important in the reporting of Exploration Results. Based on extensive drilling throughout the Emu and VB deposits, mineralisation is between If the geometry of the mineralisation with respect to the drill hole angle is known, its interpreted to be striking north 20° west, and with a dip close to vertical, or dipping mineralisation steeply west, as portrayed in Figure 4 in the text. Drilling was oriented perpendicular nature should be reported.



### widths and intercept lengths

If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').

- to this trend. Holes have been drilled at a 60 degree angle to approximate (as close as practicably possible) a true width intercept through the steeply dipping mineralised zone.
- Reported intercepts are downhole lengths; the true width is estimated to be approximately 65-75% of the downhole width, based on interpretations drilling.

#### **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.

- The location of new drillholes at VB North deposit with significant intercepts described in the text is shown in previously announced public
- The layout of the Bottle Creek site is shown in previously announced public reports
- All details of significant intercepts discussed in this release, including drillhole collar information are contained in previously announced public reports
- Appendix 1 contains all material information used in the preparation of this report

### **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.

### All drillhole locations are reported and a table of significant intervals is provided in the text of this release and are judged to be a balanced report of exploration results.

## 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.

#### **Metallurgical Testing**

 Metallurgical testwork was carried using selected composited RC intervals by EZ, as below:

Hole ID	Interval	Sample Number
EMU-32	54-58m	110721
EMU-12	24-28m	119717
EMU-31	90-99m	110720
EMU-38	33-60m	110722
EMU-14	69-90m	110718
EMU-17	34-44m	110719

- The six composite samples were submitted to Eltin Pty Ltd in Kalgoorlie for preliminary metallurgical. Cyanidation tests were carried out by Kalgoorlie Metallurgical Laboratories.
- Testwork used the following parameters:
- Nominal grind to 80% 75 microns
- 24 hour cyanidation test
- pH of 9.5
- splitting of cyanide residue into +75 micron and -75 micron fractions for liberation tests
- production of rate curves for the test to establish recovery times
- assessment of reagent usage for the test



- Kalgoorlie Scheme water was used for the test
- The following results were determined:
- The samples are free milling
- For a head grade greater than 4 g/t Au, recoveries of the order of >90% can be expected at a grind of approximately 80% passing 75 microns
- Greater recoveries can be expected in a full size plant
- By cyaniding in the mill, the rate of gold dissolution can be significantly increased compared to the laboratory curves
- There is evidence of some soluble copper which will affect cyanide consumption
- Samples 110718, 110721 and 110722 require further work due to high cyanide resistant residues.

#### **Specific Gravity**

- Specific gravity analyses were performed by EZ using selected samples of PQ core
- Volume calculations were made with calipers and a complex programmable calculator programme to take in account uneven breaks
- The sections of core were weighed on a series of kitchen scales. The scales
  were recalibrated after every weighing using pieces of lead cut to size and
  weighed on a microbalance. The recalibration was undertaken over a range of
  weights each time.
- The quality of the core was noted for each block weighed. The complete mineralised zone was weighed along with representative sections of the wall rock.
- Principal results of the SG calculations are:

#### Mineralised Zone:

Surface ironstone 2.7-3.2 Ironstone >2.1 Massive quartz 1.75-1.85 Sugary quartz 1.60-1.65

Wall rocks:

Laterite (clay) 1.9-2.0 Porphyry 2.2-2.3

> Open File report by Electrolytic Zinc (a18217) notes that there is a vertical density stratification within the ore zone.

Further work

• The nature and scale of planned further work (eg tests for lateral extensions or depth •

Initial resource estimations based on Alt's RC drilling for the Bottle Creek project



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. has been completed and announced to ASX

- https://www.altresources.com.au/wp-content/uploads/2018/10/ASX\_ARS-Resource-Upgrade-at-Bottle-Creek-18Oct18.pdf
- https://www.altresources.com.au/wpcontent/uploads/2019/05/20190507\_ARS\_Clarifying\_Statement\_Resource.pdf
- The resource drilling program aimed to confirm historical drilling has provided enough confidence in the historical data to develop a resource able to be reported according to the JORC 2012 code for the remaining in-ground mineralisation at Bottle Creek. The focus of the resource drilling has been the un-mined Emu deposit, as well as the un-mined Southwark deposit and immediately north of the Boags and VB pits. Further drilling at the northern end of the VB open pit and between the VB and Boags pits has confirmed continuation of mineralisation.
- Appendix 1 contains all material information used in the preparation of this report

## Section 3 Estimation and Reporting of Mineral Resources VB North Deposit

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The drill hole database is maintained by an independent database contractor employed by Alt Resources (Orr &amp; Associates).</li> <li>The Competent Person has verified the internal referential integrity of the database</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the drilling and sampling data is a contractor to Alt Resources and has visited the site.</li> <li>To date no recent site visit has been undertaken by the Competent Person responsible for the resource estimation. The competent person has visited very near this project in the past.</li> </ul>



# Geological interpretation

- Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.
- Nature of the data used and of any assumptions made.
- The effect, if any, of alternative interpretations on Mineral Resource estimation.
- The use of geology in guiding and controlling Mineral Resource estimation.
- The factors affecting continuity both of grade and geology.

- Mineralisation envelopes for the VB North deposit was interpreted in section from drill hole data. A nominal 0.3 g/t edge cut off was used to define the mineralisation at VB North.
- The mineralisation envelope is contained within a specific geological package.

#### **Dimensions**

 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.

- The Bottle Creek mineralised zone has a 10 km strike containing the identified deposits.
- Emu South and North Area has been modelled over 1900 m of strike
- Cascade has been modelled over 300m of strike.
- The VB North deposit mineralised zone has an approximate strike length of 340 m containing the main identified mineralized zones.
- The mineralisation at the Main Emu and VB areas is observed to range from 5 to 20
  m in width and has been identified consistently to extend to 120 m and up to 160m
  in depth.
- Specifically at the VB North area the mineralisation is quite sharply defined with a
  narrow mineralized zone ranging from 2 to 4 m in width and has been observed to
  persistently extend to depths of between 100 m and 120m from the topographic
  surface.



# Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key
  assumptions, including treatment of extreme grade values, domaining,
  interpolation parameters and maximum distance of extrapolation from data
  points. If a computer assisted estimation method was chosen include a description
  of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- All of the available drilling data was used to define and model the mineralised domains for Au.
- Diamond, RC and Air Core drilling data was used for the mineralization definition.
- All recent Alt drilling collar positions have been accurately surveyed. Some Topographic data was inferred from the surveyed collar positions. Some historical drill hole collars were draped onto a 'triangulated' topographic DTM surface and were checked in order to match the drill holes with actual collar surveys. The survey control for collar positions was considered adequate for the estimation of the reported resources for VB North as stated.
- The mineralised domains were interpreted from the drilling data by Alt as 3D strings Micromine software which were then linked to generate 3D wireframes using MineSight by HGMC.
- Mineralised wire-frame domains used for statistical analysis and grade estimation.
   Similar wire-frame weathering surfaces were used to flag different weathering and oxidation zone material types broadly designated as oxidized, transitional and fresh/sulphide. These different material type zones were used to designate deposit profile bulk density differences.
- General statistical analysis and localized spatial geostatistics were analysed using the composited drilling data. Composites for the VB North area were set to 1m (based on the main Au analytical item) owing to the relatively thin nature of the



- mineralized zones observed. Additional analysis included variography to model spatial continuity of gold in the main mineralization domain.
- Two (2) separate block models were constructed for the Emu and VB Main area trend deposits using 2.5 m x 5 m x 5 m block cells covering the entire extents the mineralisation.
- One (1) additional block models was constructed for the VB North trend deposit using 2.5 m x 5 m x 5 m block cells covering the entire extents the mineralisation.
- The Block Model coordinate boundaries (UTM Grid System) are as follows.
   Emu Area Block Model

251000-253500m E - (1000 x 2.5m blocks) 6770800-6774400m N - (720 x 5.0m blocks) 260-490m RL - (64 x 5.0m benches).

VB (Main) Area Block Model 251000-253500m E - (1000 x 2.5m blocks) 6767800-6770800m N - (600 x 5.0m blocks) 260-490m RL - (46 x 5.0m benches).

VB North Area Block Model 251800-252500m E - (280 x 2.5m blocks) 6770350-6771400m N - (210 x 5.0m blocks) 260-490m RL - (64 x 5.0m benches).

• The Ordinary Kriging (OK) interpolation method was used for the estimation of the Au and Ag items using variogram parameters defined from the geostatistical analysis. An outlier 'distance of restriction' approach was applied to the Au item during the interpolation process and set individually to each AREA mineralization geometry domain. The outlier restriction level is determined based on analysis of the observed localized geostatistics and is intended to reduce the influence of very high-grade outlier composite samples.



- The kriging interpolated Au and Ag items used different interpolation parameters as determined from the independent variographic analysis. There has been previously an observed poor correlation between Au and Ag.
- Dry Bulk Density ("density") was assigned by material type with vales assigned representing the average measured bulk density derived from the available Archimedes based bulk density measurements as recorded in along with the drilling database information.

Moisture

• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.

• All tonnages are reported on a dry basis



#### **Cut-off parameters**

- The basis of the adopted cut-off grade(s) or quality parameters applied.
- A 0.5 g/t Au cut off has been applied to reported tonnes and grade

# Mining factors or assumptions

- Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.
- It is assumed the deposits will be mined using open pit mining methods.
- It is anticipated that detailed grade control will be required prior to refining resource definition boundaries for open pit mining.

# Metallurgical factors or assumptions

- The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.
- No metallurgical assumptions have been made in estimating the resource
- Recent and historic Metallurgical test work supports good recovery via a typical CIL/CIP gold extraction treatment plant commonly used in the goldfields of Western Australia

# Environmental factors or assumptions

- Assumptions made regarding possible waste and process residue disposal options.
   It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.
- The resource is located in an area of historic mining which included waste dump and tailings disposal it is assumed no environmental factors would prevent reactivation/extension of these disposal options.



#### **Bulk density**

- Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.
- The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.
- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.
- Dry Bulk Density (DBD) has been determined from measurements taken from core samples.
- An Archimedies volume / weight displacement technique was used to determine representative average bulk densities for the VB North deposit area..
- The density measurements have been averaged in the VB deposit area according to the geologically logged oxide, transition and fresh zone coding.
- The bulk density values applied in the Emu trend deposits are: Laterite = 1.9; Oxide = 1.9; Transition = 2.2; Fresh = 2.7.
- The bulk density values applied in the VB Main trend deposits are: Laterite = 2.0;
   Oxide = 2.0; Transition = 2.1; Fresh = 2.6.
- The bulk density values applied in the VB North deposit are: Oxide = 2.0; Transition = 2.2; Fresh / Sulphide = 2.6.

#### Classification

- The basis for the classification of the Mineral Resources into varying confidence categories.
- Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).
- Whether the result appropriately reflects the Competent Person's view of the deposit.
- The resource classification for each of the VB North deposit areas are considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation, and representativeness of all available sampling and assay data.
- The classification criteria have employed multiple 'ancillary' interpolation parameters including 'distance of composite to model block' (DIST1), 'number of composite available within the search ellipsoid' (COMP1) for each block interpolation and the local kriging variance' (KERR1) for each block. The DIST1, COMP1 and KERR1 item values are 'condensed into a 'quality of estimate' (QLTY) which is the used a guide to refine a 'resource category' (RCAT) item used to assist with final resource reporting.
- Classification of the resource has been assigned by the Competent Person for the Resource estimation.

#### Audits or reviews

• The results of any audits or reviews of Mineral Resource estimates.

 The mineral Resource model and estimation has been reviewed in conjunction with similar estimation work carried out for the Bottle Creek Gold Project deposits in the same general area As managers of the various projects, Alt resources have approached the requirements for all work carried out consistently and towards industry best practice standards. No issues have been identified by any of Alt's associated contractors or nominated reviewers.



# Discussion of relative accuracy/ confidence

- Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.
- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- The Competent Person considers the mineral resource estimate for the VB North deposits to be a robust and accurate global estimate of the contained metal. The estimation has been constrained within defined mineralization wireframes and therefore minimal mineralization extrapolation has been incorporated.
- The Resource classification applied to the Resource reflects the Competent Person's confidence in the estimate.