



**Breakaway  
Research**

March 2018

Stephen Bartrop | Research Manager  
[sbartrop@breakawayinvestmentgroup.com](mailto:sbartrop@breakawayinvestmentgroup.com)

[www.breakawayresearch.com](http://www.breakawayresearch.com)

### Company Information

ASX Code	SCI
Share Price (23 March 2018)	\$0.043
Ord Shares	245.4m
<b>Market Cap undiluted</b>	<b>\$10.6m</b>
Est. Cash (23 Mar. 18)	\$2.1m
Cash raised on option exercise	\$1.1m
<b>Enterprise Value*</b>	<b>\$8.1m</b>

\*excludes options which are well all out-of-the-money

### Directors

Chairman (non-exec)	Bob Besley
Managing Director	Chris Torrey
Director (non-exec)	Greg Jones
Director (non-exec)	Josh Puckridge

### Significant Shareholders

L & M Group	5.4%
Dead Knick Pty Ltd	4.9%
Upskey Equity Pty Ltd	3.4%
Jennings Family Investments	2.8%

Source: Silver City Minerals Limited

### Company Details

Address	Level 1, 80 Chandos Street St Leonards, NSW 2065
Phone	+612 9437 1737
Web	<a href="http://www.silvercityminerals.com.au">www.silvercityminerals.com.au</a>

### Price Chart



Source: Commsec

# Silver City Minerals (SCI)

*Copper Blow is Starting to Shape Up!*

*Recommendation: Speculative BUY*

### Key Points

- **Silver City Minerals is fast tracking exploration on its new 'IOCG' Copper Blow project near Broken Hill after its initial 15-hole programme has demonstrated potentially economic copper and gold mineralisation along with continuity at depth.**
- **Copper Blow has been segregated into North and South zones based on the location of magnetic high zones. Drilling in the North zone has reveal broad mineralized zones with a highlight being Drillhole 18CB054 reporting:**
  - **41 m @ 1.3 % copper & 0.40 g/t gold from 183.8 m**
- **In contrast drilling in the South Zone has generally revealed higher grade but narrower zones including Drill Holes CB09 and 17CB041 reporting:**
  - **11.8 m @ 6.7% copper and 1.92 g/t gold,**
  - **4 m @ 6.1% copper, 4.23 g/t gold, 13 g/t silver and 220 ppm cobalt**
- **The broad intersection reported in the North zone is highly encouraging as it suggests increasing widths of higher grade mineralisation with depth. Testing whether the higher-grade zone does in fact increase in width as the mineralization gets deeper will be an exciting aspect of the forthcoming drilling. In addition, the drilling will also test the magnetic low area between the North and the South Zones where mineralisation has not previously considered to occur.**
- **While exploration has focused on the southern end of the 4 km magnetic trend, there is no reason why the rest of the belt should not be as prospective below the surface as the southern portion.**
- **Copper Blow is held in a Joint Venture structure with CBH Resources contributing 25% of the funding in proportion to its equity position but has no special rights to ore processing or offtake. Both CBH Resources and Perilya have processing plants within trucking distance at nearby Broken Hill. This leaves SCM in a strong negotiating position to secure competitive processing costs.**

*Silver City Minerals Ltd is fast tracking exploration on the Copper Blow copper-gold-cobalt project which exhibits Iron Oxide Copper-Gold style mineralisation that is uncommon in the Broken Hill province. After raising \$2m at 4 cents per share in a recent placement, the Company is fully funded to commence the Phase 2 drilling programme. If this drilling programme is successful, it could have significant ramifications for the economics of the project as well as the potential for further discoveries along the 4 km trend.*

*Our recommendation is a **SPECULATIVE BUY** for Silver City Minerals on the back of the implications that may emerge from any success in the Phase 2 drilling programme.*



## Company Overview

*Silver City Minerals has a significant tenement position in the Broken Hill Province...*

*Ongoing exploration at the Copper Blow project has been a game changer for the Company .....*

*The development economics are enhanced by the presence of 2 processing plants at Broken Hill ....*

Recapping from our research report issued in August 2017, Silver City Minerals (“SCI”) is an ASX listed company that was formed in 2008 to explore the Broken Hill province. It has an enviable land position covering 1,586 km<sup>2</sup> which was aggregated from tenements that were previously owned, under joint venture or purchased by the Company (See Figure 1). The district has been centred on Broken Hill deposit which has been mined continuously for over 120 years and readers will recall that it has spawned major mining companies such as BHP and CRA (predecessor to Rio Tinto).

As we noted in our August 2017 report, the Company had identified a significant opportunity with the Copper Blow prospect with subsequent exploration having been a game changer for the Company and has led to a doubling of the share price since our initiation coverage.

Ongoing exploration has delivered encouraging drill intersections which are documented later in this report. However the drilling also has intangible value in the increased understanding of the mineralisation trends within the deposit by management. Indeed the recent development of some conceptual theories which may deliver significant value to shareholders and will be tested in the current drill programme. Again readers will recall that the Company has a strong geological focus with three Board members being geologists including MD Chris Torrey and Chairman Bob Besley.

The Copper Blow mineralisation is typical of Iron Oxide-Copper-Gold (IOCG) orebodies such as Olympic Dam, Ernest Henry and Selwyn. It represents a new target in the Broken Hill province beyond the Copper Blow prospect although the Company’s focus is clearly to define the Copper Blow orebody to produce a JORC 2012 compliant ore resource statement.

*Breakaway Research* believes that the drilling results to-date have probably already confirmed that Copper Blow represents an economic proposition under a development scenario involving open pit mining, ore hauling to Broken Hill and toll treating through either the CBH Resources or Perilya plants. Nevertheless the Company will also continue drilling to determine whether the actual resource potential could mean that it can support its own processing plant on site in the future.

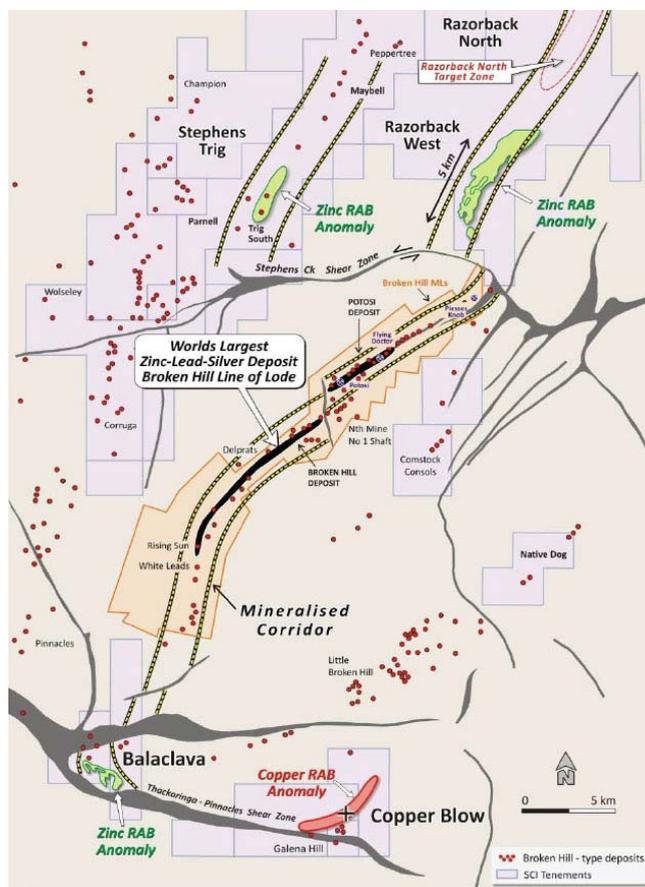


Figure 1. Silver City Mineral’s extensive tenement position with Copper Blow located approximately 20 km south of Broken Hill (Source: Company).



## Copper Blow Project Background

*CBH Resources is a 25% joint venture partner but has no special right to processing the ore or selling the concentrate ....*

The Copper Blow project is located approximately 20 km to the south of Broken Hill (Figure 1) and forms part of the joint venture tenements between SCI (75%) and CBH Resources Ltd (CBH, 25%).

CBH Resources is only an equity participant in the joint venture which means it has no special rights to the ore processing or offtake but simply contributes its 25% to the project funding. Nevertheless, CBH Resources has been supportive of Silver City Minerals exploration activities over many years and continues to contribute to the financing of the Copper Blow exploration. On the other hand it means that Silver City Minerals only has to finance 75% of the exploration.

## Recent Highlights

*SCI has now drilled a total of 15 holes into the mineralisation ....*

The Company has reported encouraging results on ASX releases dated 22 January 2018, 5 February 2018 and 22 February 2018 and has drilled a total of 15 holes into the prospect to-date. The most recent ASX announcement reported the following significant copper-gold and separate cobalt downhole intersections:

- Drillhole 18CB054 - 41.2 metres at 1.3% copper and 0.40 g/t gold from 183.8 m
- Drillhole 17CB046 - 10.8 metres at 0.09% cobalt and 0.3% copper from 288.36 m

*Hole 18CB054 returned a great intersection of 41m @ 1.3% Cu & 0.4g/t Au ....*

The broad 41.2 m zone is significant and while there were narrower higher-grade intersections within this zone (e.g. 7 m @ 2.0% copper and 0.99 g/t gold from 189 m), in cross-section it highlights that potential that the width of the higher grade ore zone may be increasing with depth (see Figure 2).

*The width of the higher-grade zone may be increasing with depth ...*

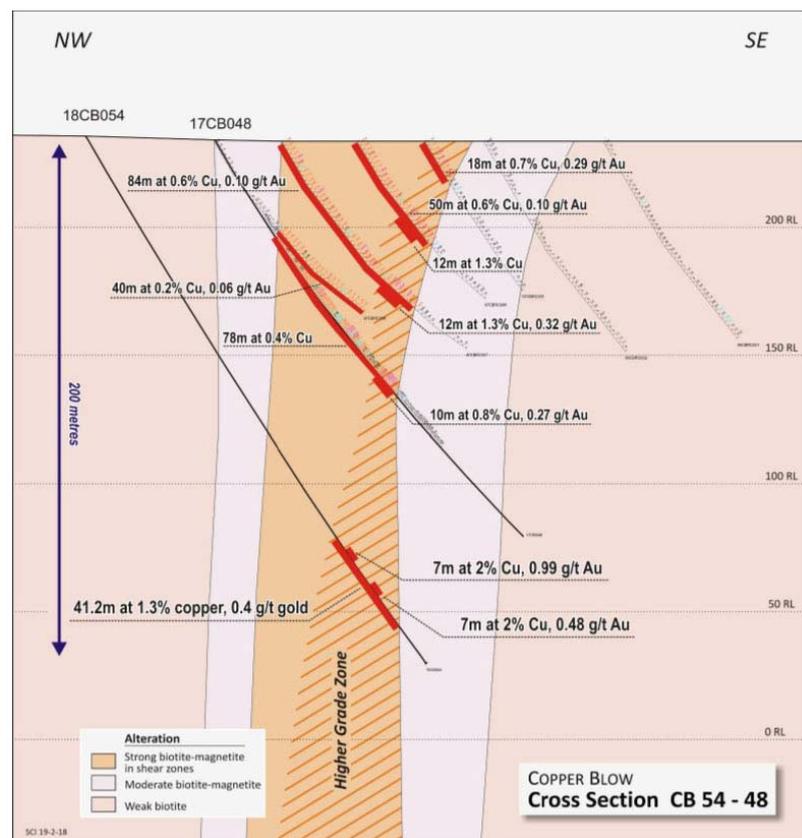


Figure 2. Cross Section CB 54 – 48 highlighting the recent broad drilling intersection of 41.2 m at 1.3% Cu & 04 g/t Au. The size of the intersection may mean that the width of the higher grade ore zone is increasing with depth (Source: Company).

The broad zones of mineralisation evident in Drillhole 18CB054 above also highlights that to-date these broad mineralised zones appear to occur north of an inferred fault while narrower but higher grade mineralised zones generally occur south of this fault. The north and south zones have also been defined in the magnetics in plan-view as outlined in Figure 3. Figure 3 also provides a long-section corresponding to these zones and indicating the apparent southwest plunge to the mineralisation.



The magnetic 'low' between the North and South Zone will be tested in the forthcoming Phase 2 drilling programme ....

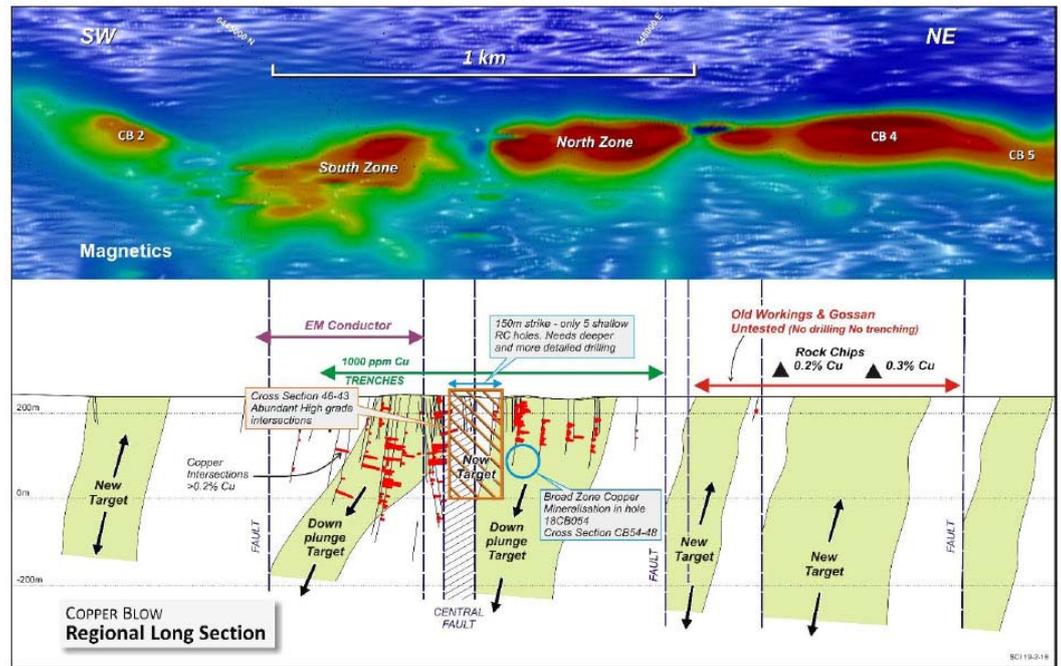


Figure 3. Plan view of magnetic anomalies which define the north and south zones. The drilling intercepts and mineralized zones are presented in long-section (Source: Company).

The inferred fault occurs in a magnetic low area between the magnetic 'high' of the North and South zones and is marked on Figure 3 as the Central Fault. While there may in fact be a fault zone in this location, the Company is now reassessing the prospectivity of the areas of low magnetic response. This is because the low magnetic response may be another feature of the mineralisation event where magnetite is altered to haematite or some other non-magnetic mineral and hence creating the magnetic lows.

There is a 'sweet spot' in the mineralisation between 100 m and 220 m depth .....

As noted in Figure 3, the magnetic low between the North and South zones now represents a drilling target in the forthcoming Phase 2 programme. This is an exciting possibility as there is no reason why the mineralisation may not be continuous between the North and South zones. The Company has noted that there is a 'sweet spot' between 100 m and 220 m and this could continue through this zone and substantially increase the resource tonnage.

Figure 4 below presents both the magnetics and gravity along the Copper Blow prospect trend which extends for approximately 4 km along strike. As the magnetic highs represent discrete zones, it is evident that each zone represents a new zone that needs to be tested by drilling while the magnetic lows between each zone may also represent targets.



There are multiple mag high zones along the trend that represent additional exploration targets ...

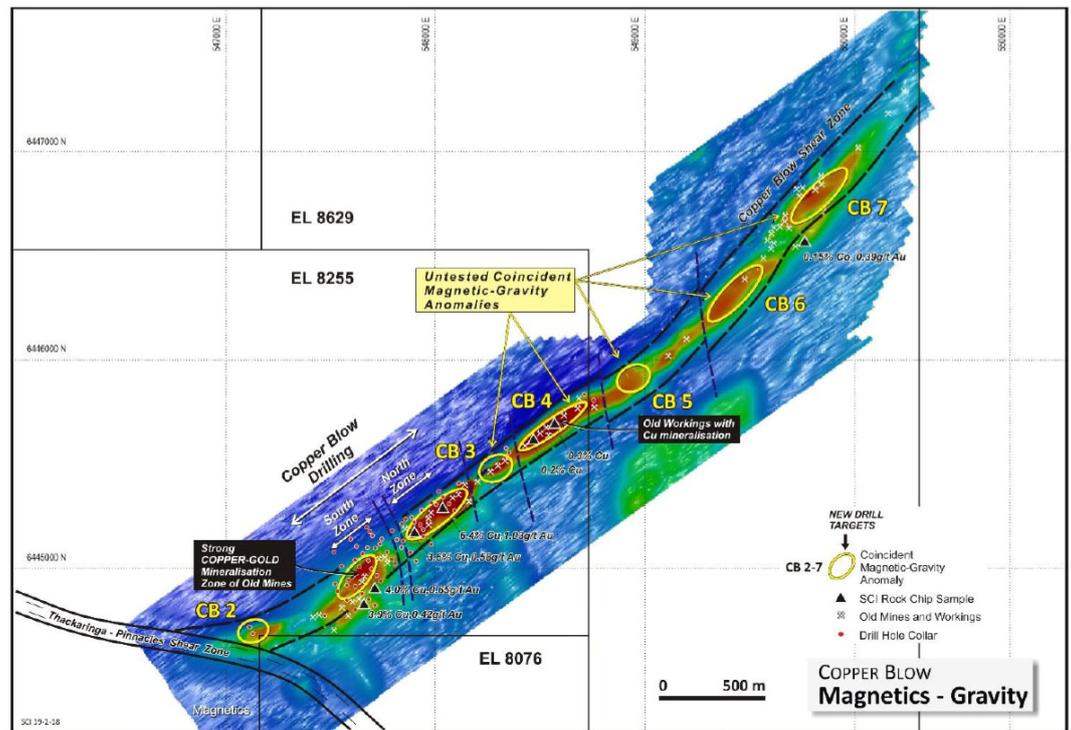


Figure 4. Plan view of magnetic and gravity anomalies along the Copper Blow trend which extends for approximately 4 km. Exploration drilling to-date has only focused on the North and South zones (Source: Company).

## Cobalt Mineralisation

Cobalt mineralisation is associated with higher pyrite zones ...

Cobalt values often occur in IOCG mineralisation and Copper Blow is no exception. Typical values are in the 300 to 500 ppm range and there is a strong association with pyrite zones and not necessarily where the copper mineralisation is located. A number of drill holes have returned significant intersections:

- Drillhole 17CB042 – 5 metres at 0.14% Co from 400 metres
- Drillhole 17CB046 – 10.8 metres at 0.09% Co from 288.36 metres.

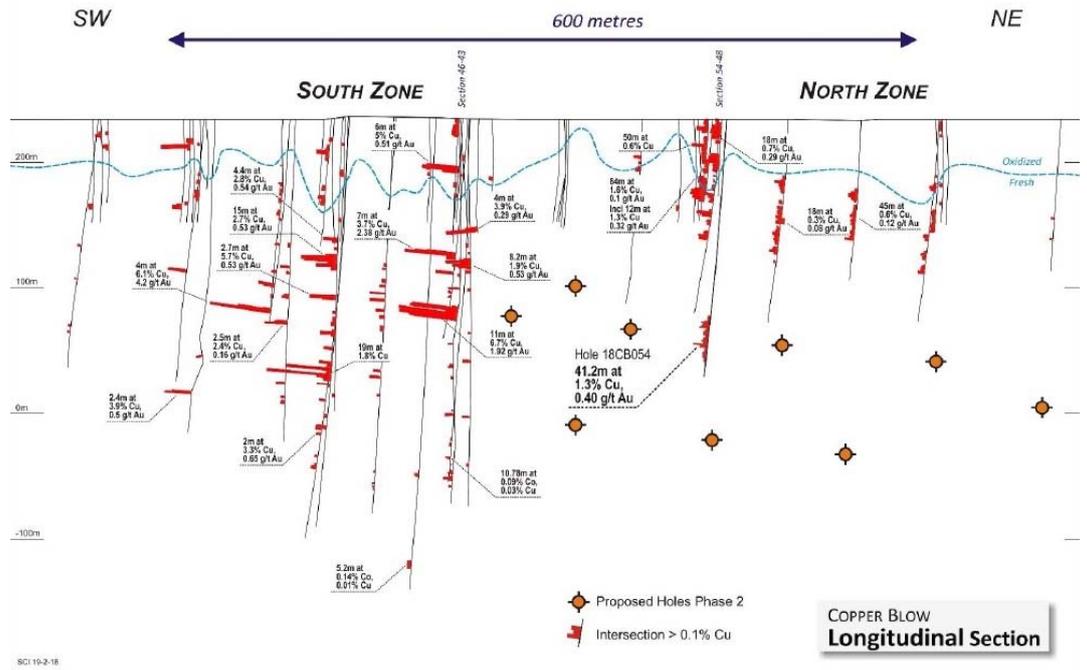
Interestingly in the north-eastern magnetic zones surface 'grab' samples have returned grades up to 0.1% Co. The significance of these results is yet to be determined.

## Copper Blow – Proposed Drilling Programme

Silver City Minerals has raised approximately \$2 million to finance ongoing drilling at Copper Blow given the exciting results reported in February from the recent drilling programme. It is currently planning a 4,000 to 5,000 m programme and which is likely to be significant in potential outcomes. This is because it is likely to:

1. Drilling to test the magnetic low-fault zone between the North and the South Zones. Any success in this location could have additional implications for the prospectivity of other magnetic low areas between the other magnetic high zones further along strike in Figure 4.
2. Drilling to test down dip from the recent broad intersection (41 m @ 1.3 % copper & 0.40 g/t gold) which may have indicate that the width of the higher-grade zone is increasing with depth as per Figure 2.

We expect the drilling programme to commence in early April and be completed by the end of June 2018 with the ongoing release of results as assays come to hand during this period. The planned location of the proposed drillhole intercepts is presented on Figure



The Phase 2 proposed drilling programme will test depth extensions to the mineralisation ...

Figure 5. Cross-section drilling in the North and South Zones and proposed drilling intercepts in Silver City Mineral's next (Stage 2) drilling programme (Source: Company).

### Copper Blow – IOCG Model

If the mineralisation style is like Selwyn then it may extend to considerable depths....

Iron Oxide Copper-Gold ('IOCG') orebodies range in size from less than 1 million tonnes in the Tennant Creek deposits of the Northern Territory to 10 billion tonnes at Olympic Dam in South Australia (See Figure 6). Indeed, Copper Blow is perhaps the first documented IOCG in New South Wales

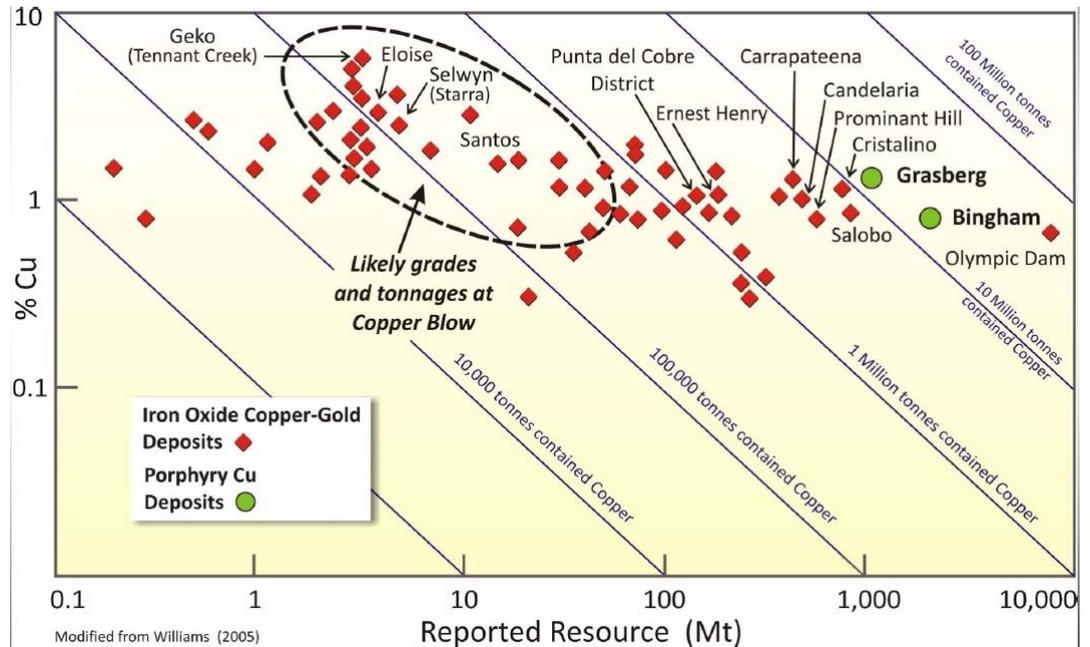


Figure 6. Iron Oxide Copper-Gold deposit sizes relative to average copper grade (Source: Company).



Selwyn style orebodies are laterally not continuous ...

The Company believes that based on the drilling information to-date that the Selwyn line of orebodies in Queensland may represent the closest similarity to Copper Blow project.

Figure 7 shows a long section of the Selwyn line where five separate copper (“IOCG”) orebodies have been discovered which are all hosted in a magnetite-ironstone horizon extending over 5.5 km with some zones extending down dip for over 500 m at economic grades. Total ore production to date has been 11.4Mt @ 2.1% copper and 3.2g/t gold. In addition, documented resources include 12.8Mt at 1% copper and 0.85% g/t gold at a 0.5% Cu cutoff (Source: M.A. McGeough and I.L. Faulkner, “Selwyn Mineral Field” in Australian Ore Deposits Monograph 32 AusIMM p. 513).

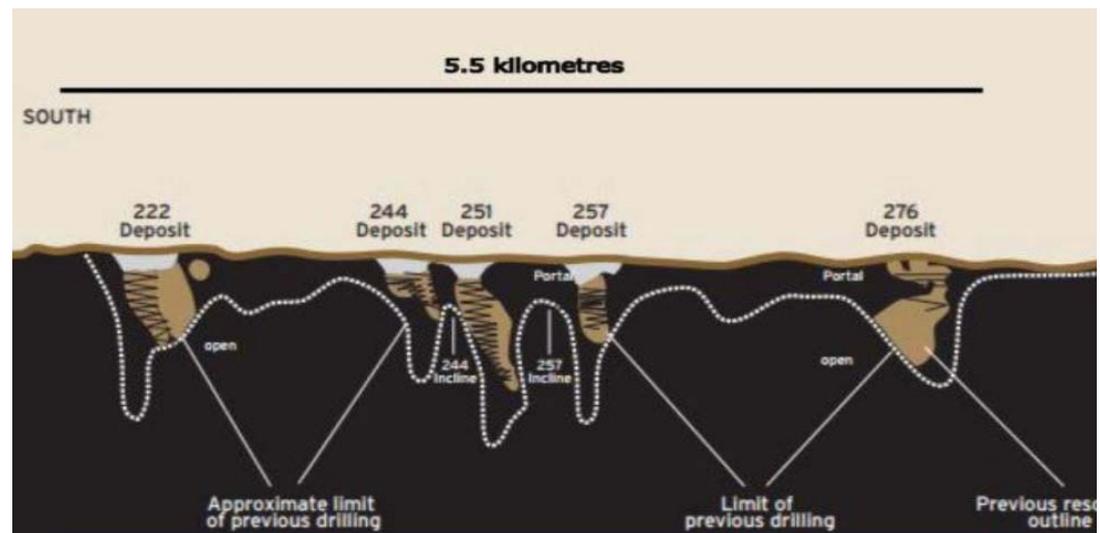


Figure 7. Long section of the Selwyn Line near Mt Isa, Queensland. Selwyn is a IOCG deposit and the orebodies have limited strike length on surface. (Source: M.A. McGeough and I.L. Faulkner, “Selwyn Mineral Field” Australian Ore Deposits Monograph 32 AusIMM p 513)

There are two mills in Broken Hill which is 20 km away from the project site .....

### Copper Blow – Tonnage size and mill availability

An advantage of the Copper Blow project is that its location is only 20 km from Broken Hill. There are two unlisted companies operating in Broken Hill and while both process lead/zinc sulphide ore, there could be flexibility to incorporate the processing of Copper Blow copper/gold ore by incorporating a different circuit or batch processing. However existing crushing, milling and concentrate handling facilities could be utilised.

The companies operating in Broken Hill are:

- Perilya – MBHL Plant (3 Mtpa capacity)
- CBH Resource – South Mine Plant (0.75 Mtpa capacity)

Both plants are currently under-utilised and treating additional ore would improve unit costs despite potential modifications.

As mentioned earlier, CBH Resources is a joint venture partner in the Copper Blow project with a 25% interest but this interest does not provide it with processing or offtake rights and any third-party processing agreement will involve commercial negotiations by Silver City Minerals.



## Market Capitalisation & Enterprise Value

*The market capitalisation is still only \$10.1m...*

The market capitalisation of Silver City Minerals is modest at A\$10 million (Figure 8). Cash reserves are estimated at around \$2m and this is more than adequate to meet the Company's 75% funding of the Stage 2 drilling programme.

The estimate \$ 2m cash reserves include the net proceeds from a placement carried out in late February which raised \$1.96 m from the issue of 29.4 m shares at 4 cents per share.

Parameter		Value
Share price	A\$	0.043
Shares issued	m	245.4
Market capitalisation	A\$m	10.6
Options (likely to be exercised)	m	18.2
Market capitalisation (diluted)	A\$m	11.3
<b>Less</b>		
Cash estimated at 22 March 2018	A\$m	2.1
Cash raised from option exercise	A\$m	1.1
<b>Add</b>		
Debt	A\$m	0.0
<b>Enterprise value</b>	<b>A\$m</b>	<b>8.1</b>

Figure 8. Enterprise value calculation

The enterprise value of Silver City Minerals is estimated at only \$7.6m and this incorporates an assumption that 18.2 options with an exercise price of 6.7 cents or less and ignores a further 7m options with an exercise price of 10 cents.

The option positions are summarised in Figure 8.

Expiry	Number issued	Exercise Price (\$)	Amount Raised (\$)
21-Jul-19	8,722,540	0.067	584,410
02-Dec-19	7,000,000	0.100	700,000
24-Nov-18	1,000,000	0.040	40,000
24-Nov-19	8,500,000	0.060	510,000
<b>Total</b>	<b>25,222,540</b>	<b>0.073</b>	<b>1,834,410</b>

Figure 9. Issued options.



## **Silver City Minerals Director Backgrounds**

*Board comprises experienced geologists...*

The Board includes members with experience in Broken Hill geology and who can provide key support to MD, Chris Torrey.

### **Mr Bob Besley**

*Chairman*

Bob is a geologist with more than 40 years' experience in the minerals industry in Asia, the Middle East, North and South America, Australia and the Pacific Rim. He spent 13 years with Unocal, seven of those as Manager of Minerals for Australia and the Pacific and was General Manager of Australmin Holdings Limited when that company developed a minerals sands project in eastern Australia and a gold mine in Western Australia. Bob founded and was Managing Director of CBH Resources Limited from its initial ASX listing as a junior to when it was an important Australian zinc/lead/silver producer. He was a founding Director of Kimberley Metals Ltd and is currently Chairman of Image Resources, a company developing a mineral sands mine located north of Perth, WA. Bob has served on a number of Government and Industry advisory boards.

*Chris Torrey is a key driver of the Company...*

### **Mr Chris Torrey**

*Managing Director*

Chris is a geologist with over 30 years international exploration experience. He has worked for large mining companies, notable Noranda and Cyprus Amax where he held senior management positions in Australia, New Zealand, Indonesia, United States and Central America. He joined ASX-listed Golden Cross Resources as Exploration Manager in 1996 and was appointed to that Board in 2003, ultimately holding the Chairman's position.

Prior to joining Silver City Minerals in April 2010 he managed a Sydney-based geological consulting business and was the Chief Consulting Geologist to Golden Minerals Company, a North American-based silver explorer and Manager of Silex Exploration Pty Limited.

### **Mr Greg Jones**

*Non-Executive Director*

Greg is a geologist with 33 years of exploration and operational experience gained in a broad range of metalliferous commodities both within Australia and overseas. Greg has held senior positions in a number of resource companies including Western Mining Corporation and Sino Gold and his experience spans the spectrum of exploration activity from grass-roots exploration through to resource definition and new project generation, as well as mine geology, ore resource/reserve generation and new mine development.

Greg was awarded the Institute Medal for academic excellence whilst at university and is credited with several economic discoveries including the Blair nickel and the Orion gold deposits in Western Australia. He is a director of Thomson Resources Ltd and the Managing Director of Moly Mines Limited.



### **Mr Josh Puckridge**

*Non-Executive Director*

Josh is a Corporate Finance Executive formerly working as a specialist Equity Capital Markets Advisor for Fleming Australia, a Corporate Advisory and Funds Management firm. He has significant experience within funds management, capital raising, mergers, acquisitions and divestments of projects by companies listed on the Australian Securities Exchange.

Formerly Executive Director and Chief Executive of Discovery Resources Limited, Mr. Puckridge structured the acquisition of the Canberra Casino and the relisting of the Company as Aquis Entertainment Limited. He was a founding Director of Windward Resources Limited, seeding and listing the Company and raising more than \$11m. Mr. Puckridge coordinated the change of Board of TopTung Limited (then, Krucible Metals Limited), returning \$5m to its shareholders in 2015; subsequently, the Company acquired a NSW based tungsten project. In November, Mr. Puckridge retired as a Director of Alcidion Corporation Limited (ASX: ALC), having overseen its reverse takeover by Naracoota Resources Limited (ASX: NRR).

Currently he serves as Non-Executive Director of MCS Services Group Limited (ASX: MSG), Chairman of Blaze International Limited and (ASX: BLZ) and Executive Chairman of Fraser Range Metals Group Limited (ASX: FRN). Mr. Puckridge also holds various positions on private company boards.

### ***Breakaway's View***

*The Copper Blow project is moving increasingly towards having development potential ....*

Silver City Minerals is a junior explorer which has identified a significant exploration and future development opportunity with the Copper Blow Project. The Company has drilled only 15 holes into the prospect but the results are already defining Iron Oxide Copper – Gold ('IOCG') mineralisation with widening higher-grade intersections with depth.

*This potential is enhanced by the location of processing plants within trucking distance 20 km away....*

The next drilling phase (Phase 2) will be important as it will test whether indeed the width of the higher grade mineralised zones increase in depth but also test areas with low magnetic responses which had previously been considered unmineralised.

*The Phase 2 drilling programme will provide important information to assist the project quickly moving forward ....*

The Phase 2 drilling will be conducted between April and June 2018 and we expect a steady stream of results to be announced as assay results come to hand.

Meanwhile the market is likely to consider the processing options at Broken Hill which mean that the capital cost of constructing a processing plant on-site may not be required. This significantly lowers the minimum size-grade economic threshold for the deposit but at the same time, doesn't limit the scope that further exploration may uncover a larger deposit capable of supporting its own on-site plant.

With a market capitalisation of approximately \$10m, Silver City Minerals provides leverage to future exploration success at the Copper Blow project as well as the potential rapid appreciation that development may be economic given its proximity to the Broken Hill processing plants. Elsewhere the encouraging cobalt grades in some drill holes within the mineralised zone and elsewhere are yet to be quantified as upside potential.

Hence Breakaway's recommendation for Silver City Minerals is a ***Speculative Buy***.



### **Analyst Verification**

I, Stephen Bartrop, as the Research Analysts, hereby certify that the views expressed in this research accurately reflect our personal views about the subject securities or issuers and no part of analyst compensation is directly or indirectly related to the inclusion of specific recommendations or views in this research.

### **Disclosure**

Breakaway Research Pty Ltd and the Breakaway Investment Group (AFSL 290093) may receive corporate advisory fees, consultancy fees and commissions on sale and purchase of the shares of Silver City Minerals Limited and may hold direct and indirect shares in the company. It has also received a commission on the preparation of this research note.

### **Disclaimer**

Any observations, conclusions, deductions, or estimates of figures that have been made by Breakaway Research and the Breakaway Investment Group in this report should not be relied upon for investment purposes and the reader should make his or her own investigations. This publication has been issued on the basis that it is only for the information and exclusive use of the particular person to whom it is provided. Any recommendations contained herein are based on a consideration of the securities alone. In preparing such general advice no account was taken of the investment objectives, financial situation and particular needs of a particular person. Before making an investment decision on the basis of this advice, investors and prospective investors need to consider, with or without the assistance of a securities adviser, whether the advice is appropriate in light of the particular investment needs, objectives and financial circumstances of the investor or the prospective investor. Although the information contained in this publication has been obtained from sources considered and believed to be both reliable and accurate, no responsibility is accepted for any opinion expressed or for any error or omission that may have occurred therein.

#### **Breakaway Research Pty Ltd**

ABN: 64 103 587 702, is an authorised representative of:  
Breakaway Investment Group AFSL 290093 ABN 84127962387  
T+61293928010 F+61292792727  
PO Box H116 Australia Square  
Sydney, NSW 2001  
Suite 505, 35 Lime Street,  
Sydney, NSW 2000