Redbank Copper Limited

Annual Exploration Report

GROUP REPORT 305

Redbank Copper Project

For the period 1 January 2018 to 31st December 2018

Distribution:

NT Department of Primary Industry and Resources

Redbank Copper Limited

Tenement Operator:	**Redbank Copper Limited**
Tenement Holder:	Redbank Operations Pty Ltd
Report Type:	Annual Amalgamated
Report Title:	GR305
Report Period:	06/02/2018 to 05/02/2019
Author:	Craig Hall
Date of Report:	14/06/2019
1:250 000 map sheet:	Calvert Hills
1:100 000 map sheet:	Wollogorang
Target Commodity:	Copper
Keywords:	Copper, Redbank, Azurite, Bluff, Breccia Pipes
Prospects drilled:	NA
List of Assays:	NA
List of Elements:	NA

SUMMARY

Group Report 305 covers two small Mining Leases, MLN 634-5, which form part of Redbank Copper Limited's Redbank Copper Project and is located approximately 300km south east of the township of Borroloola near the northern Territory/Queensland border. The tenement covers a sequence of sediments and volcanics of the Tawallah Formation. The tenements are prospective for breccia pipe-hosted copper mineralisation.

During the current reporting period work consisted of review and interpretation of data proximal principally to the Bluff copper deposit. The tenements contain over 42kt of contained copper metal. Drilling has been planned for the tenement in the current 2019 field season.

Disclaimer

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1.0 INTRODUCTION

This report details exploration activities on GR305 between 6 February 2018 and 5 February 2019. The tenement is owned by Redbank Operations Pty Ltd, a wholly owned subsidiary of ASX-listed Redbank Copper Limited.

The tenements contain the Redbank, Azurite and Bluff copper deposits and are considered part of the company's Redbank Copper Project, which includes Exploration Retention Licence 94 and EL31316, securing the copper resources at Redbank, Azurite, Bluff, Punchbowl, Roman Nose, and Sandy Flat.

Project infrastructure includes a partly decommissioned camp, core shed facilities, an airstrip and internal roads with ELR94.

1.1 Location and Access

The tenement is located approximately 300 km south-east of the township of Boorooloola, around 30km west of the Northern Territory – Queensland border, and around 70km SSW of the Gulf of Carpentaria.

Vehicle access is restricted to the main Borroloola – Wollogorang road and local station tracks. There is a 1200m airstrip at Redbank which can be used to access the project. The tenement is on the Wollogorang Pastoral Station, with Wollogorang Homestead located around 22km to the east. The camp and airstrip which supports the company's Sandy Flat Mine operation are located within ELR 94. The site is currently on care and maintenance, and the camp is in the process of decommissioning.

Topography is dominated by escarpment country with a maximum elevation above sea level in the area of 226m. The well-developed dendritic drainage network is dominated by Settlement Creek, which drains in a north-easterly direction into the Gulf of Carpentaria. Vegetation consists mostly of open woodland and native grasses that support cattle grazing.

The area has a tropical climate with a wet season between November - March during which time access to and around the project can be blocked by flooding creeks and a dry season between March and October during which time the majority of field operations occur.

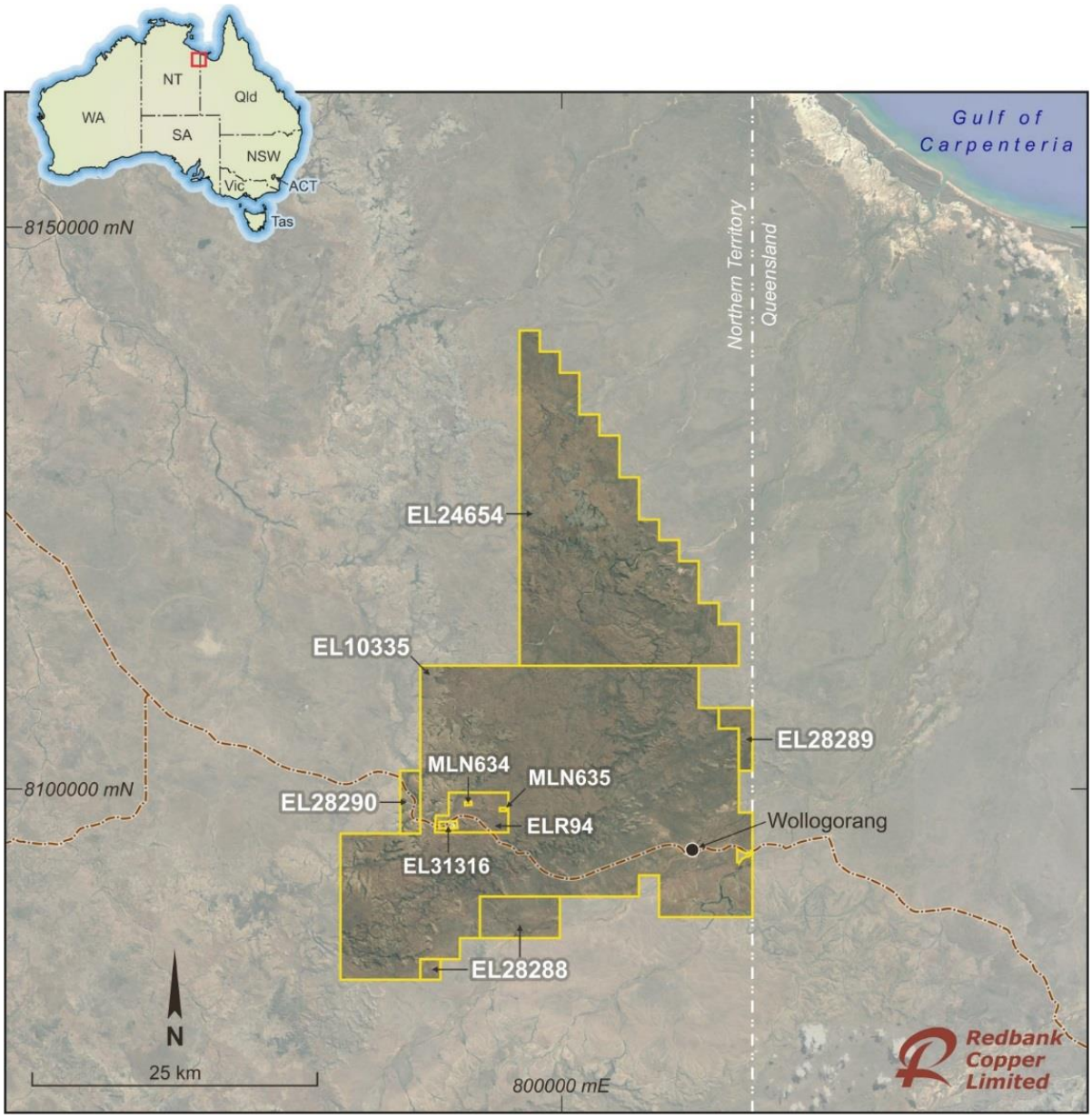

Figure 1. Location Plan- Redbank Copper Project, with tenements shown. MLN634 and MLN635 are inset inside ELR94

1.2 Tenure

The tenement is held by Redbank Operation Pty Ltd, a wholly owned subsidiary of Redbank Copper Limited. Details of the tenure are provided in the table below.

Table 1. Tenement details for the Redbank Copper.

Title Number	Tenement Name	GRNO	Total Area (Ha)	Grant Date	Holder
MLN634	Redbank	GR305	16.18	12 March 1973	Redbank Operations Pty Ltd.
MLN635	Bluff	GR305	16.18	12 March 1973	Redbank Operations Pty Ltd.

2.0 GEOLOGY AND MINERALISATION

2.1 Regional Geology

The tenement is situated in the south-eastern portion of the Proterozoic McArthur Basin in the Northern Territory (refer Figure 2.). The tenement is located on the Wearyan Shelf tectonic unit within basin. The geological sequence comprises a mix of shallow water and continental sedimentary units intercalated with volcanics of the Tawallah Group which is the lower-most sequence within the Macarthur Basin sequence. The sequence has been intruded by various granitic bodies.

The McArthur Basin sequence contains the world class McArthur River lead-zinc deposit (227 Mt grading 9.2% zinc, 4% lead, 0.2% copper, and 41g/t silver) approximately 200 km WNW of the tenement. The Merlin Diamond field is approximately 1500 km to the WNW of the tenement.

Within the region copper mineralisation associated with breccia pipes in trachyte has been mined at Sandy Flat and Redbank, and copper-cobalt mineralisation in similar settings is known at Stanton. Copper-uranium mineralisation is recognized within the Westmoreland Conglomerate Formation to the SW of the tenement.

Figure 2: Regional Geology and Redbank Copper Location

2.2 Tenement Geology

The Redbank Mining Centre contains a significant number of individual breccia pipes or diatremes and shear zones/veins, most of which contain copper mineralisation (refer Figure 3). These structures are mainly hosted by the Gold Creek Volcanics but locally may be associated with the Wollogorang Formation and the Hobblechain Rhyolite; and further east diatremes have also been recorded in the Settlement Creek Dolerite and the Seigal Volcanics.

Host rocks are brecciated and altered, passing out into less-altered shallow-dipping structural corridor although the mineralised breccia veins are aligned north-east with a steep northerly plunge to the shoots. A conjugate fault system with dextral movement would tend to produce dilation zones aligned along an ESE-WNW trend, as outlined by the interpreted Redbank and Sandy Flat trends. The localizing structures are probably fault intersections plunging through the Tawallah Group into the granite basement. The copper deposits occur in clusters, and can reach 300m in depth and have near-circular-to-irregular surface expressions from 25-150m in diameter.

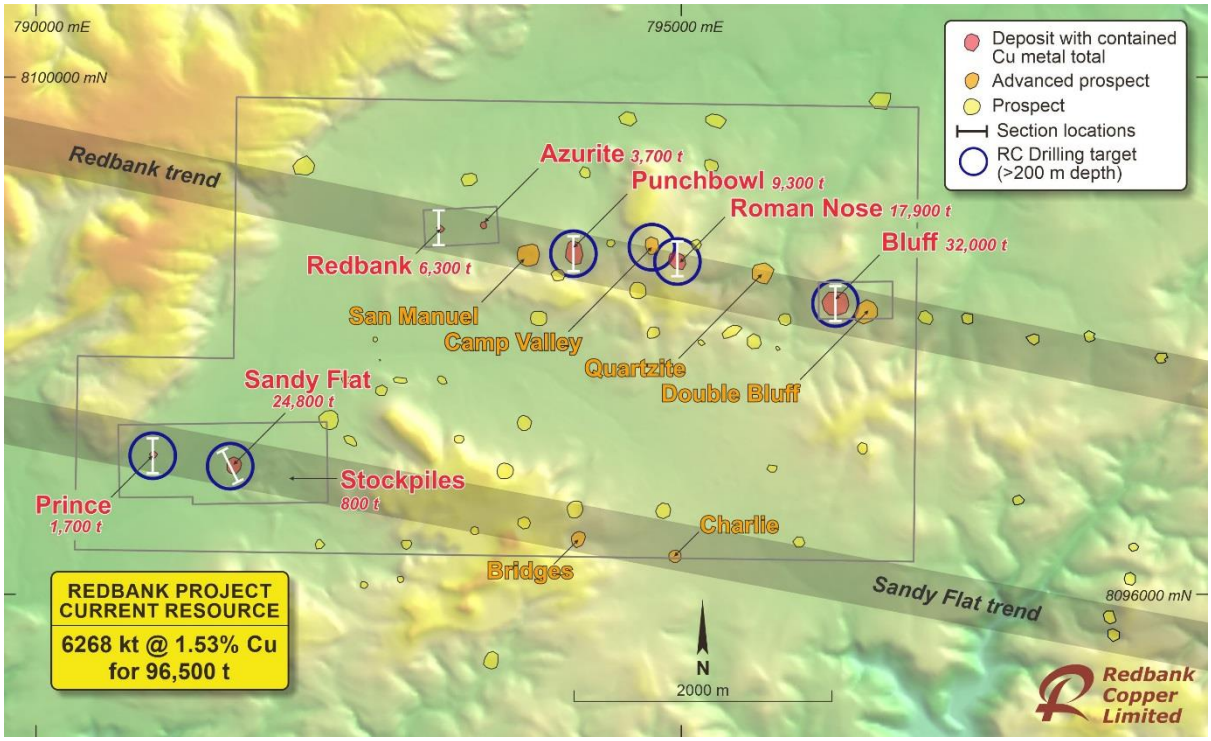

Figure 3: Redbank Project Resources and Target Plan. Redbank and Azurite are contained within MLN634, Bluff within MLN 635

The stratigraphy of the tenement reflects Stratherian Tawallah Group units. The uppermost outcropping unit is the Echo Sandstone (1725-1710Ma inferred), a formation of thin basal cobble conglomerate; lower dolomitic-lithic sandstone with local pebbles, overlain by interbedded lithic sandstone and mudstone; upper pink coarse +/- pebbly lithic sandstone with large planar and trough cross-beds, attaining a maximum thickness of 160m, though locally it is eroded to a maximum thickness of less than 50m. It unconformably overlies the Hobblechain Rhyolite (1725Ma +/- 2Ma age), a K-feldspar quartz-rich porphyritic rhyolite typically less than 5m thickness in the locale, where present. The Hobblechain rhyolite is contiguous and co-magmatic with the Packsaddle microgranite.

The known host to Cu(Co-Ni) breccia pipe deposits is the Gold Creek Volcanics (1723Ma +/- 4Ma age); a formation comprising a sequence of basalts, trachyte, volcanic agglomerates, breccias and sandstones/siltstones which outcrop over the majority of the tenement, which is intruded by the Packsaddle Microgranite away from the tenement. It typically occurs in the area as variable intermediate to felsic volcanics and amygdaloidal vesicular basaltic volcanics with interbedded sediments. The formation is thought to attain a maximum thickness of around 230m.

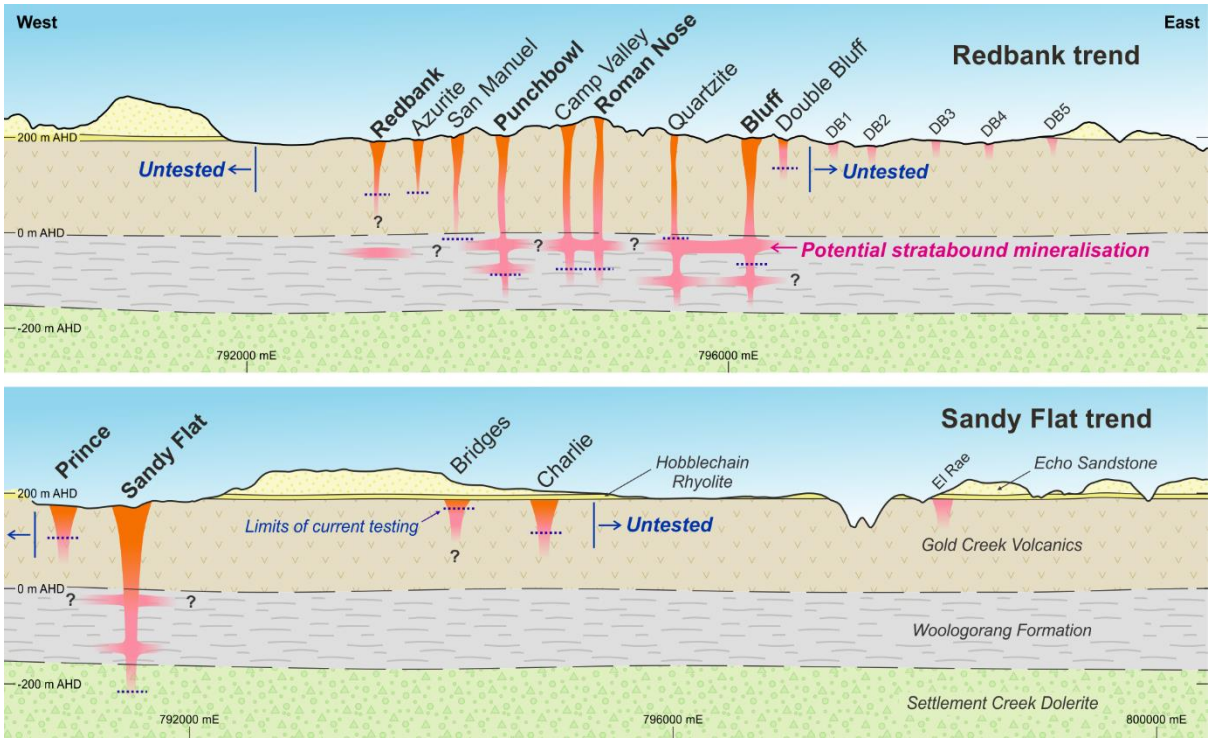

Figure 4: Redbank Conceptual Long Section, highlighting mineralisation and stratigraphy.

The Gold Creek Volcanics conformably overlies the Woologorang Formation (1730-1723Ma age dolomitic sandstone, dolomite, stromatolitic dolomite, oolitic dolomite; dolomitic and quartz sandstone, ferruginous in parts. The type locale is located east of the tenement and displays a number of thin bituminous beds. The formation is thought to attain a maximum thickness of around 150m.

The Woologorang Formation is intruded at depth by the similar age (1725-1730Ma inferred) Settlement Creek Dolerite. The unit forms extensive sills; cores are medium to coarse grained, aphyric to locally porphyritic, ophitic and subophitic textures, comprising plagioclase, pyroxene and opaque oxides; incipiently altered; jointing common; hornfelsed contacts and rafts. The formation is thought to attain a maximum thickness of around 200m.

2.3 Mineralisation

Copper mineralisation in the Redbank area is in the form of steeply dipping to vertical cylindrical breccia pipes. The pipes contains various proportions of micro-breccia, dolomite, quartz, chlorite, hematite, barite, galena, and potassium feldspar.

Primary copper mineralisation is predominately chalcopyrite and pyrite with minor pyrrohite and arsenopyrite. The pipes have been oxidised to a depth of approximately 30-40 m below surface, where grades may reach >5% Cu, with the oxide copper minerals including malachite, azurite, chalcocite, native copper and chrysocolla.

Primary mineralisation consists of disseminations and veins with chalcopyrite and bornite in breccia, typically averaging 1.5% Cu in average grade. Gangue minerals are dolomite, barite, chlorite, potassium-feldspar, quartz, pyrite, haematite, apatite, and pyrobitumen. Clasts of overlying units within the matrix indicate collapse during breccia formation. Breccia and wall rocks are associated with intense potassic alteration consisting of carbonate-chlorite-potassium feldspar-quartz, pyrite, haematite and pyrobitumen.

2.4 Resources

The current geological resources for the project are provided in the table below, the resources were calculated by SRK consulting and released to the ASX by Redbank in 2010. There has been no material movement in the resources since the statement was released. Details of the resources have previously been provided by the company to the Department.

Table 2 Mineral Resources EL31316

Deposit	Tenement	Indicated		Inferred		Total		
		Tonnes	Grade	Tonnes	Grade	Tonnes	Grade	Metal
Redbank	MLN634	196,000	2.2	185,000	1.1	381,000	1.7	6,300
Azurite	MLN634	222,000	1.6	20,000	1.3	242,000	1.6	3,700
Bluff	MLN635	1,062,000	1.6	922,000	1.6	1,984,000	1.6	32,000
Total		**1,480,000**	**1.7**	**1,127,000**	**1.5**	**2,607,000**	**1.6**	**42,000**

Table 3 Total Mineral Resources Redbank Copper Project

By Deposit

	Indicated			Inferred			Total		
	tonnes	Cu%	Cu Metal (t)	tonnes	Cu%	Cu Metal (t)	tonnes	Cu%	Cu Metal (t)
Azurite	222,000	1.6	3,500	20,000	1.3	200	242,000	1.5	3,700
Redbank	196,000	2.2	4,300	185,000	1.1	2,000	381,000	1.7	6,300
Punchbowl	435,000	1.2	5,100	259,000	1.6	4,200	694,000	1.3	9,300
Roman Nose	-	-	-	1,287,000	1.4	17,900	1,287,000	1.4	17,900
Bluff	1,062,000	1.6	17,400	922,000	1.6	14,600	1,984,000	1.6	32,000
Prince	-	-	-	101,000	1.7	1,700	101,000	1.7	1,700
Sandy Flat	851,000	1.5	12,800	688,000	1.8	12,000	1,539,000	1.6	24,800
Stockpiles	-	-	-	40,000	2.0	800	40,000	2.0	800
Total Project	**2,766,000**	**1.55**	**43,100**	**3,502,000**	**1.52**	**53,400**	**6,268,000**	**1.53**	**96,500**

By Style

Total Oxide	**689,000**	**1.5**	**10,000**	**180,000**	**1.3**	**2,400**	**869,000**	**1.4**	**12,400**
Total Transition	**42,000**	**2.4**	**1,000**	**28,000**	**1.8**	**500**	**70,000**	**2.1**	**1,500**
Total Sulfide	**2,035,000**	**1.57**	**32,100**	**3,294,000**	**1.53**	**50,500**	**5,329,000**	**1.55**	**82,600**

3.0 EXPLORATION ACTIVITIES

3.1 Previous Exploration

1900- Copper was discovered 25km to the east of the Redbank area at China Girl, on what is now EL10335, and worked unsuccessfully by Chinese miners.

1912- Further discoveries made in 1912 at Packsaddle and Bauhinia prospects, 17km to the east of Redbank

1916- Copper discovered in the Redbank project by William Masterton

1916-1957- Masterton intermittently mined the Redbank, Azurite and Prince deposits via shallow open pits and underground workings over a period of forty years, producing 1,200 imperial tons (1220t) at greater than 30% Cu.

1966- Granville Development mined 2000 imperial tons (2030t) at a grade of over 15%, which was transported to Mt Isa.

1967- Placer Prospecting completed geophysical surveys

1969- Formation of a Joint Venture between Harbourside Oil and Westmoreland Minerals

1970- Discovery of high grade copper sulfide ore below a high grade oxide cap in drilling at Sandy Flat, following up and anomalous copper in soil sample in alluvium cover.

1971- Harbourside was joined by NewAIM (a consortium of Newmont Australia, AMP and ANZICI) in the JV, and undertook further mapping, drilling and geophysical surveys. NewAIM withdrew at the end of the year, stating the scale of discoveries made did not meet their corporate objectives. The JV was dissolved.

1972- Triako Mines NL entered into an agreement with Harbourside to explore the project, and Harbourside later withdrew.

1972-1983- Triako continue to explore with various partners.

1983-1989- Sanidine-Restech-HunterResources-Vanoxi take control of project, and complete an IP survey and 12 percussion holes to confirm diamond drilling recoveries of sulfide minerals at Sandy Flat.

1989- 1990- Colmayne Pty Ltd acquires the tenement group from Sanidine-Vanoxi and renames itself Redbank Copper Pty Ltd (RCPL, which has held title since as either as private operating company or as a wholly owned subsidiary of an ASX-listed entity).

1990-1993- Larger scale mining of Sandy Flat is planned by Alameda Pty Ltd, a private company, with construction of a 200,000 TPA flotation plant at the site to mill copper sulfide ore.

1994-1996- Mining approval granted for Sandy Flat, and an open pit operation at Sandy Flat processes 170,000 tones @ 4.6% Cu, and 54,000 tonnes of oxide material averaging 6% Cu is stockpiled. Two shipments of concentrate were transported to Mt Isa, along with some high grade (DSO) material of greater than 25% Cu. Declining copper prices caused a cessation to the operation in 1996.

2004-2005- Vat leaching of stockpiled copper oxides commenced by Alemeda.

2005- Redbank Project acquired by Burdekin Pacific, and changes name to Redbank Mines Limited.

2008- Stirling Resources acquires major stake in Redbank. Total project resources estimated at 5.2Mt @ 1.4% Cu for 75000t of Cu metal.

2009- Redbank Mines changes name to Redbank Copper Limited. RC and Diamond Drilling undertaken.

2010- Significant exploration effort including detailed gravity surveys and RC and Diamond Drilling

2011- Redbank announce new total project resources of 6.3Mt @1.5% Cu for 96,500T of Cu metal.

2011-2012- Parent company Stirling Resources becomes financially distressed.

2013- Company recapitalised by new majority shareholders Investmet.

2014-2015- Negotiations between NT Government and Redbank over legacy environmental issues curtail exploration.

2016- Sandy Flat Mining Leases and security surrendered to NT Department of Primary Industry and Resources in June.

3.1 Exploration during the reporting period

During the reporting period the company has focused on a review of the geological model, reviewing the data with the objective to extending resources by drilling significantly deeper than currently tested.

The company has focused on the possibility that mineralisation below the Gold Creek Volcanics may become stratigraphically related, as sulfide-bearing fluids came into contact with certain reducing beds within the Woologorang Formation below.

The company has designed extensional down-dip drilling at Bluff to assess this potential, while the review at Redbank did not support deeper drilling (refer Figures 5, 6).

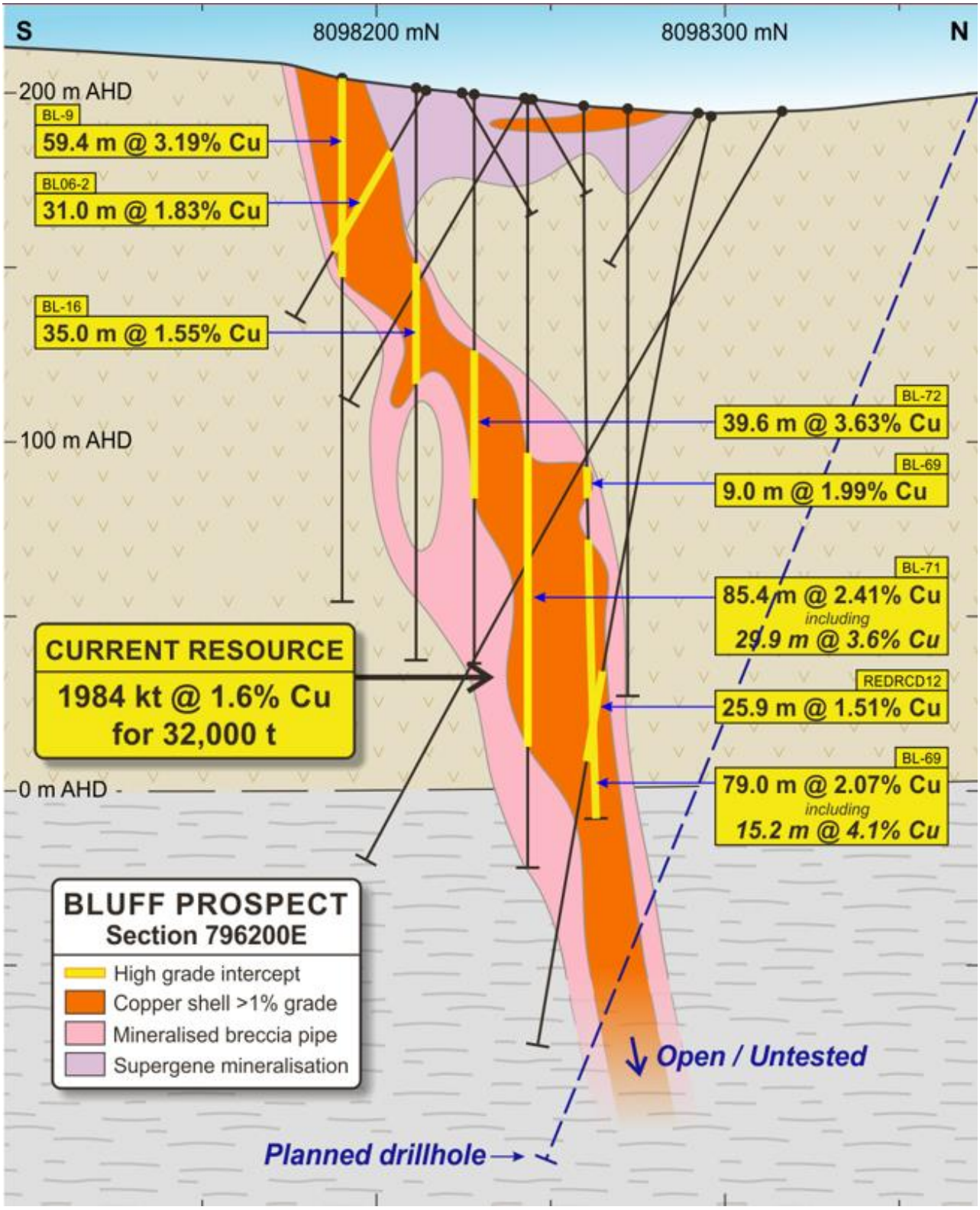

Figure 5: Bluff Cross Section with planned drilling

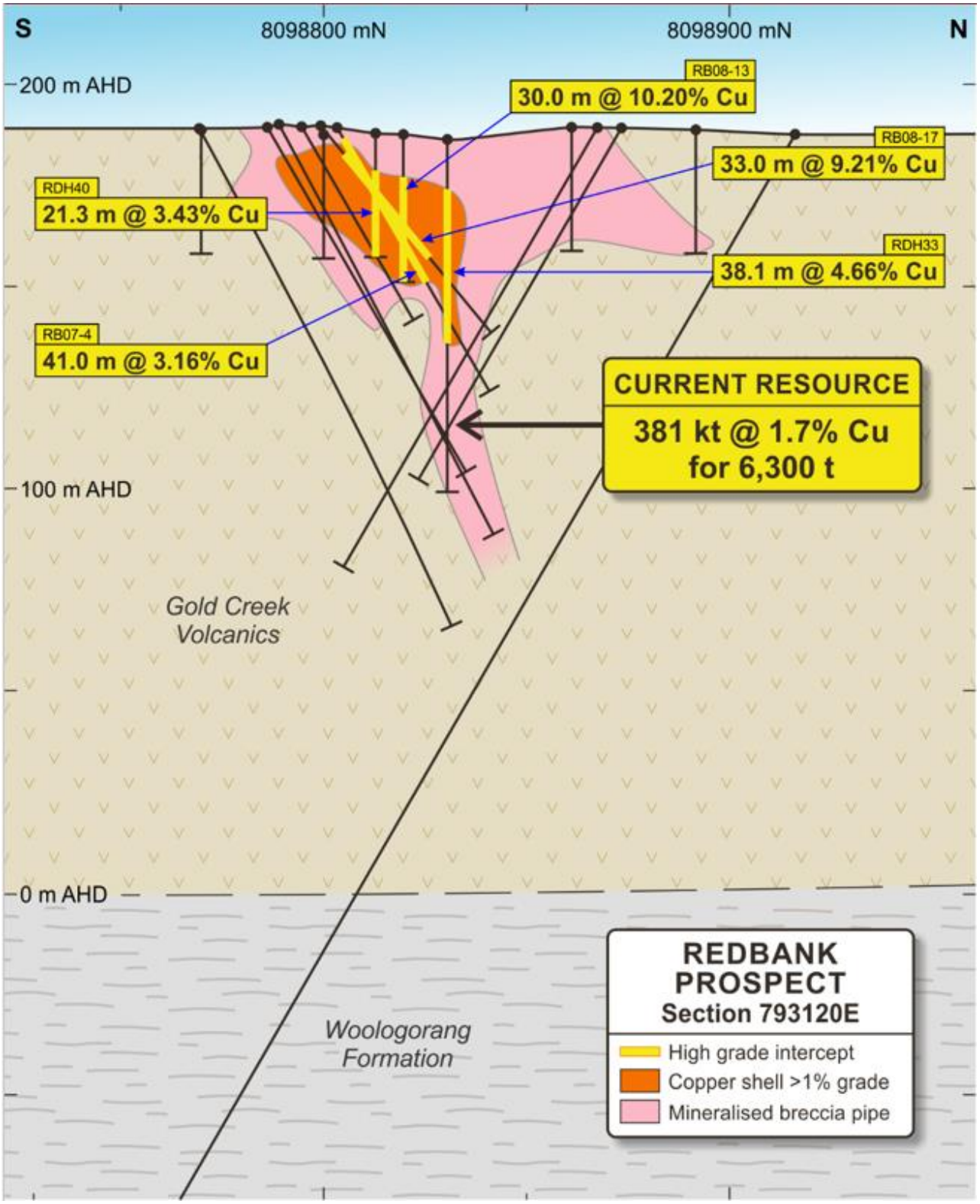

Figure 6: Redbank Cross Section

3.3 Planned Exploration Activity

The company is planning to drill one hole at Bluff in the current field season.

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