

Redbank Mines Limited

Redbank Resource Estimate July 2007

Report Prepared for
Redbank Mines Limited

Prepared by



RML002

July 2007

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SRK Project Number RML002

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July 2007

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Executive Summary

The resource has been re-estimated for the Bluff and Punchbowl prospects, and estimated for the first time for Redbank and Azurite. The resource for the Sandy Flat prospect is the same as previously reported in Jankowski (2005). The project's total resource is 5.03Mt @ 1.4% Cu, containing 71 kt of total Cu metal. There are discrepancies between previously recorded drillhole locations and newly surveyed records of the same holes, as well as between historic hard copy records; other historic holes that have not been resurveyed cannot be considered to be accurately located. This is an issue for the Azurite and Redbank prospect resources.

For Bluff and Punchbowl, acid-soluble copper assays have also been recently acquired, however there is much less data than the total copper data, and a blanket mean grade has been applied to the oxide and sulphide zones of these prospects.

Prospect	Classification	Tonnes	Total Cu (%)	Total Cu tonnes
Bluff	Indicated	856,000	1.50	12,800
Bluff	Inferred	1,179,000	1.66	19,550
Sandy Flat	Indicated	467,000	1.60	7,550
Sandy Flat	Inferred	1,524,000	1.20	17,500
Punchbowl	Inferred	416,000	1.24	5,150
Redbank	Inferred	372,000	1.51	5,600
Azurite	Inferred	214,000	1.34	2,900
<i>Total Project</i>	<i>Indicated</i>	<i>1,323,000</i>	<i>1.54</i>	<i>20,350</i>
<i>Total Project</i>	<i>Inferred</i>	<i>3,705,000</i>	<i>1.39</i>	<i>50,700</i>
Total Project	Indicated plus Inferred	5,028,000	1.43	71,050

Prospect	Indicated		Inferred		Total	
Oxide						
	Tonnes	Cu (%)	Tonnes	Cu (%)	Tonnes	Cu (%)
Bluff	458,000	1.3			458,000	1.3
Punchbowl			31,000	0.9	31,000	0.9
Redbank			372,000	1.5	372,000	1.5
Azurite			214,000	1.3	214,000	1.3
<i>Total Oxide</i>	<i>458,000</i>	<i>1.3</i>	<i>617,000</i>	<i>1.4</i>	<i>1,075,000</i>	<i>1.4</i>
Fresh						
Sandy Flat	467,000	1.6	1,524,000	1.2	1,991,000	1.3
Bluff	398,000	1.7	1,179,000	1.7	1,577,000	1.7
Punchbowl			385,000	1.3	385,000	1.3
<i>Total Fresh</i>	<i>865,000</i>	<i>1.7</i>	<i>3,088,000</i>	<i>1.4</i>	<i>3,953,000</i>	<i>1.4</i>
Total Project	1,323,000	1.5	3,705,000	1.4	5,028,000	1.4

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Disclaimer

The opinions expressed in this report have been based on the information supplied to Steffen Robertson & Kirsten (Australasia) Pty Ltd (“SRK”) by Redbank Mines Limited (“RML”). The opinions in this report are provided in response to a specific request from RML to do so. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them.

1 Introduction and Scope of Report

1.1 Program Objectives

Redbank Mines Limited ("RML") are developing the Redbank Copper Project in the Northern Territory, which comprises six Mineral Leases (MLN631 to MLN635 and MLN1108) and an Exploration Retention Lease (ERL94). In 2006 and 2007, RML drilled diamond and reverse-circulation drillholes at the Bluff, Punchbowl, Redbank and Azurite prospects, and requested SRK Consulting to re-estimate the mineral resources for these prospects.

1.2 Reporting Standard and JORC Statement

The purpose of this Report is to provide an independent technical assessment of the mineral assets and exploration tenements held by Redbank Mines Limited in the Redbank Copper Project.

The information in the report to which this statement is attached that relates to Exploration Results and Mineral Resources is based on information compiled by Phil Jankowski, who is a Member of The Australasian Institute of Mining and Metallurgy. Phil Jankowski is a full-time employee of SRK Consulting (Australasia) Pty Ltd, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Phil Jankowski consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

1.3 Project Team

This resource estimate has been prepared by Phil Jankowski, Senior Consultant (Resource Evaluation).

Phil Jankowski commenced his career with seven years' experience of Archaean gold deposits, gaining experience in both open pit and underground mine geology and grade control, as well as in exploration and resource development. Subsequently, he spent nine years as a resource geologist with a major Australian mining company. He specialises in mine geology, orebody interpretation and wireframing, resource estimation using linear and non-linear geostatistics, the integration of geological and grade information, technical audits of resource estimates and grade control systems and reconciliation. Phil is a member of the AusIMM.

1.4 Statement of SRK Independence

Neither SRK nor any of the authors of this Report have any material present or contingent interest in the outcome of this report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of SRK.

SRK's fee for completing this Report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the report.

2 Geology and History

2.1 Regional geology

The Redbank Project is hosted by rocks of the Macarthur Basin (MCB), a mid-Proterozoic epicratonic basin that is exposed over an area of 200,000km² in the Northern Territory and Queensland that hosts the world-class Macarthur River lead zinc silver deposit (Plumb *et al.*, 1990). The MCB has two major subdivisions exposed: The Bauhinia Shelf and the Wearyan Shelf, the latter of which hosts the Redbank Copper Project (Figure 1). Deposition in the MCB occurred between 1725Ma and 1429Ma unconformably over the early Proterozoic Pine Creek Orogen, Arnhem Block and Murphy Inlier. The MCB is itself overlain unconformably by Palaeozoic and Mesozoic basins.

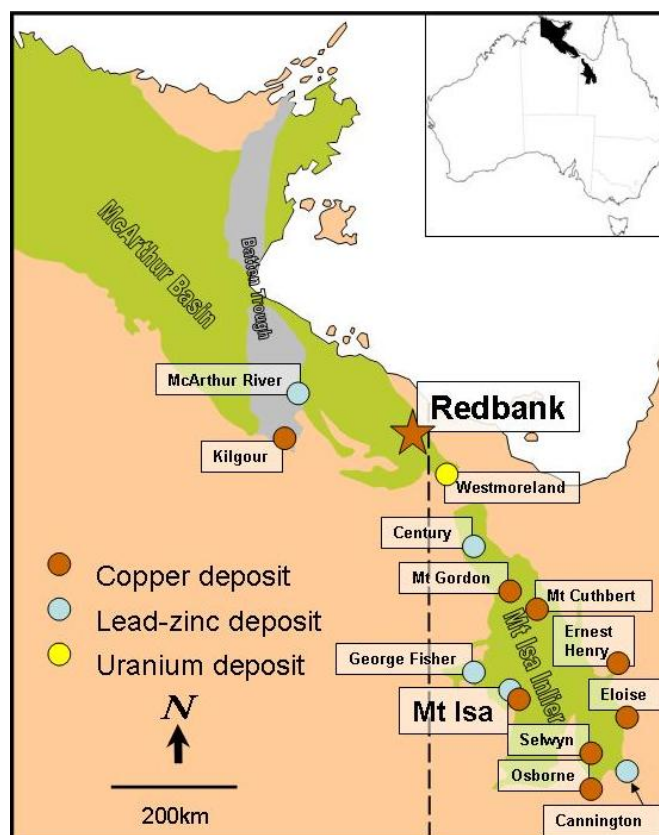


Figure 1: Simplified geology of parts of the Northern Territory and Queensland, with location of the Redbank Project and other selected base metal deposits.

2.2 Local geology

The majority of MCB rocks in the Redbank area are part of the Tawallah Group, a northwest dipping package of sedimentary, volcanic and carbonate rocks that is the lowermost unit in the MCB sequence. The Tawallah Group has a maximum thickness of 4,800m and contains all of the volcanic rocks in the MCB sequence (Cooke *et al.*, 2001).

The lowermost unit is the Settlement Creek Volcanics (SCV), a series of alkaline trachyandesite flows and sills with interbedded volcanoclastics (Table 1). Overlying the SCV is the Wollogorang

Formation (WGF), a mixed clastic/carbonate sequence. The WGF has four lithological subdivisions: basal red shale, crystalline dolostone, an ovoid-concretion bearing dolostone and an arenaceous unit.

The Gold Creek Volcanics (GCV) overlie the WGF, and comprise trachybasalt lavas with interbedded volcanoclastics. The Hobblechain Rhyolite, a distinctive marker unit of felsic lavas within the GCV, is exposed throughout the project area. A NNW trending intrusion, the Packsaddle Microgranite, has been interpreted to be co-magmatic with the Hobblechain Rhyolite.

Overlying the Tawallah Group, and forming a prominent escarpment in the north-western part of the project area, are the arenaceous sediments of the Masterton Sandstone, the lowest subdivision of the Parsons Range Group.

Possibly Cretaceous sediments derived from the Masterton Sandstone are patchily distributed throughout the region. Quaternary and Cainozoic alluvium and soils are also widely distributed, with thicknesses of about 10m over the Sandy Flat open pit.

Primary copper mineralisation in the Redbank area is in the form of steeply dipping to vertical, cylindrical to oval breccia pipes (Knutson *et al.*, 1979). Some fifty possible breccia pipes have been identified in the area (Figure 2). The pipes comprise various proportions of microbreccia, dolomite, quartz, chlorite, celadonite, hematite, potassium feldspar and apatite, with minor barite, rutile, galena and pyrobitumen. The majority of the breccia fragments are derived from the surrounding MCB sediments and volcanics.

The breccia pipes were formed by the release of fluids from a carbonated trachytic magma 2-3km below the surface. Mineralogical and textural evidence reported by Knutson *et al.* (1979) suggests that the fluids were enriched in K, Cl, P, Mg, Ce, La, CO₂ and H₂O.

The mineralogy of the Sandy Flat deposit has been studied in detail by McLaughlin *et al.* (2000). In the upper oxidised zone, copper minerals include azurite, malachite, native copper, chalcotrichite, libethenite, pseudomalachite and chrysocolla. Chalcocite is common at the base of the oxidised zone. The primary mineralisation is predominantly chalcopyrite and pyrite, with minor pyrrhotite and arsenopyrite. Pyrobitumen is also found at the base of the oxidised zone, and is thought to represent pyrolysed petroleum or highly reduced carbonate rocks.

The Bluff deposit was identified by NEWAIM Pty Ltd in 1971. It has a noticeable surface expression of a bowl-shaped depression, with a distinctive spinifex grass cover. Copper staining in the immediate vicinity of the breccia pipe may represent lateral migration of mineralising fluid from the breccia pipe into favourable sedimentary units.

The Punchbowl deposit was identified by Triako NL in 1974. A kaolin-quartz-calcite alteration zone associated with fine grained chalcopyrite about 200m in diameter in rhyolite was intersected in their drillholes. Subsequently, several diamond holes were drilled in the Punchbowl area; one, AD1, has an intersection of 36.6m at 1.0% Cu from 11.6m and brecciation similar to those found at other prospects.

Redbank has a small open pit and waste dumps, the remains of Masterton's hand-sorting of ore; very little is visible at Azurite apart from a shallow depression and some spoil piles, although Jensen (1940) reported that Masterton had five shafts at Redbank, the deepest 76 feet (23m) and had mined the pit at Azurite to a depth of 25 feet (7.6m), as well as dug two shafts. Outcrop is limited to the Redbank open cut, where copper staining and hematite-copper veining is visible on one side of the pit.

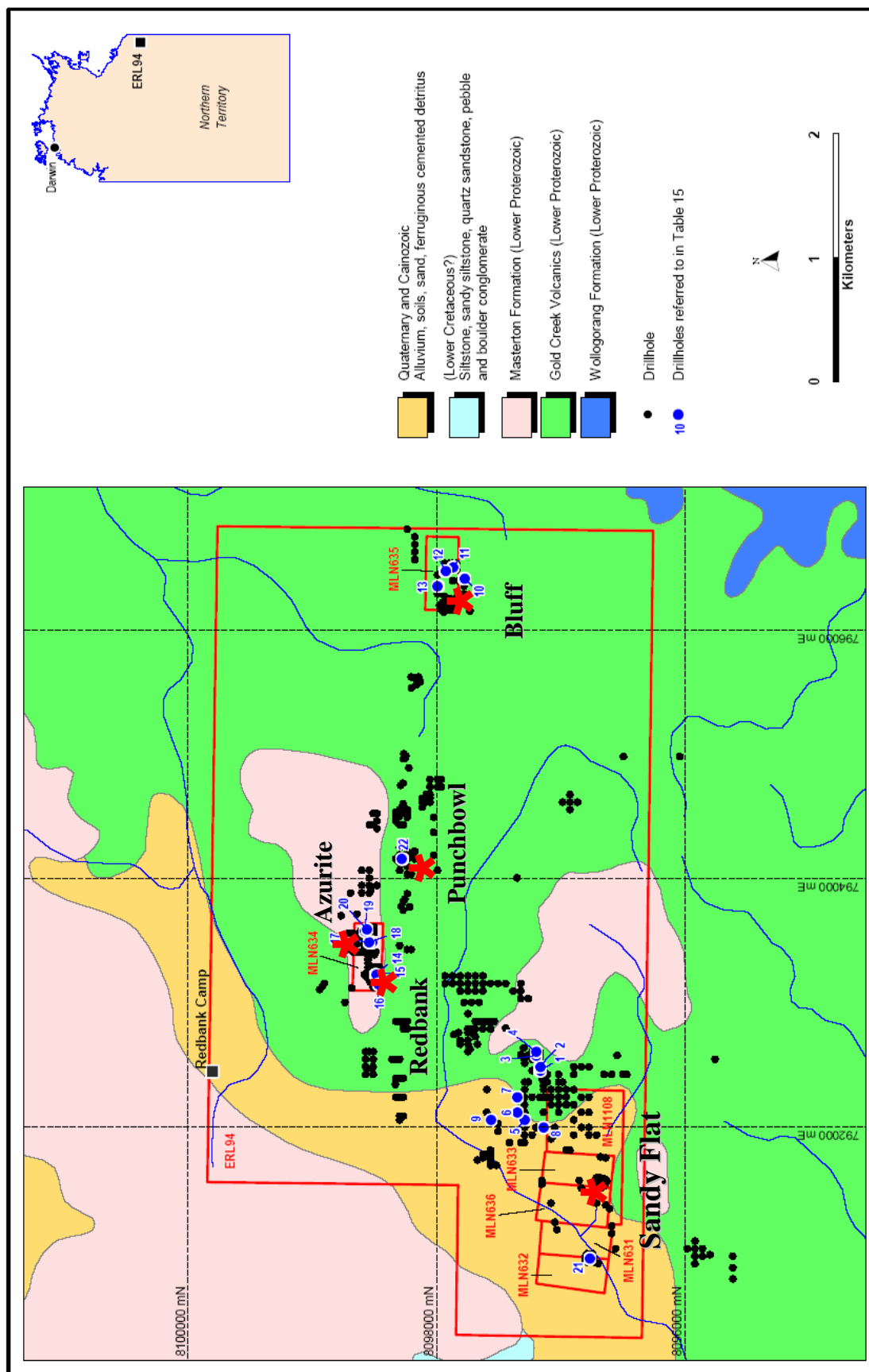


Figure 2: Redbank project simplified geology and deposit location.

Table 1: Proterozoic stratigraphy of the Redbank area.

Formation	Sub Units	Thickness	Lithology
Masterton Sandstone		>150m	Medium to coarse grained orthoquartzite, locally feldspathic or kaolinitic
Gold Creek Volcanics	Upper	60m	Medium to coarse grained thinly bedded feldspathic or kaolinitic quartz sandstone
			Poorly sorted rippled lithic sandstone with abundant volcanic fragments
			Massive quartz-rich sandstone, locally conglomeratic with abundant volcanic fragments
			Sub-angular to rounded cobble conglomerate
	Lower	~165m	Trachyte and trachy-andesite lavas and lava-mud breccia flows, interbedded with thin lithic sandstone and dolomitic tuff beds.
Wollogorang Formation		>150m	Interbedded grey siltstones, dolomites, dolomitic quartz sandstones and feldspathic sandstones.
Settlement Creek Volcanics			Trachytes, rhyolites and dolomites with derived agglomeratic breccias.

2.3 Project History

William Masterton discovered outcropping copper mineralisation at Redbank in 1916, and commenced small scale production from open pits and shallow underground workings in the supergene copper carbonate zone. Total production by Masterton was more than 1,200 imperial tons of ore from 1916 until 1957, shortly before his death at the age of 91. This production was largely from the Azurite, Redbank and Prince deposits. Although numerous companies investigated the area between the 1940's to the early 1990's, no further production occurred until a small open pit operation at the Sandy Flat deposit in the 1990's processed 170,000t @ 4.6% Cu, as well as leaving 54,000t @ 6.0% Cu in stockpiles and the mining and processing infrastructure.

Various mining companies inspected the district in the 1940's, 1950's and 1960s. Granville Development mined 2,000 imperial tons @ 15% Cu in 1966 from the area, which was sent to Mount Isa for treatment. A joint venture between Harbourside Oil NL and Westmoreland Mineral commenced exploration in 1969. The first deep drilling was carried out by Harbourside in 1970-71 at the Bluff and Sandy Flat deposits. This drilling discovered the primary chalcopyrite mineralisation. Harbourside then entered into a joint venture over the project with NEWAIM (a consortium of Newmont Australia Pty Ltd, AMP, and ICIANZ). NEWAIM had a target of 10-20Mt @ 3% Cu. NEWAIM discovered more mineralisation, including the San Manuel, Camp Valley, Punchbowl, Roman Nose and Quartzite prospects. NEWAIM considered that the discoveries did not meet their corporate requirements and withdrew at the end of 1971.

In 1972, Triako Mines NL entered into an agreement with Harbourside to explore at Redbank. Harbourside withdrew from the area and were delisted from the stock exchange early in 1974. Triako continued exploration in the area with a succession of partners until 1983, although most of the work on the ground was completed between 1973 and 1977.

Triako identified the Punchbowl prospect, lying between the previously defined San Manuel and Camp Valley prospects. Triako's exploration tenements were transferred to Sanidine NL and Restech Pty Ltd in 1983, followed by the mining leases in 1984. Exploration in the area throughout the 1980's was concentrated on diamonds and gold rather than base metals. In 1988 twelve percussion holes were drilled at Sandy Flat to investigate the high grade supergene mineralisation. Following some regional geochemical sampling, the exploration license was reduced to the current retention license (ERL94). The project was subsequently acquired by Alameda Pty Ltd.

In 1995, CRA Exploration Pty Ltd (CRAE) (a subsidiary of CRA Ltd, now Rio Tinto Ltd) entered a farm-in and joint venture agreement with Alameda for the Redbank project area (ERL94). CRAE selectively resampled core from Punchbowl, Camp Valley, Roman Nose and San Manuel. Forty samples from these prospects were assayed for a suite of twenty elements: Au, Ag, As, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Ni, P, Pb, V and Zn. CRA also drilled twelve RC drillholes, at the Redbank, Azurite, San Manuel, Punchbowl, Roman Nose, Quartzite, Airport Valley, Prince and Seven Mile prospects. These confirmed the results of the 1971 NEWAIM and 1975 Triako drilling. These were also assayed for the same elements as the 1971 drillcore samples.

CRA withdrew from the JV agreement in July 1996, although they concluded that the potential for further breccia-hosted Cu mineralisation in ERL94 was moderate to high, and proposed a further 14 drillholes for 900m to test soil anomalies at South Quartzite, East Bluff, NE of Camp Mountain, Ridgeback and Titley's Flat.

Alameda commenced open pit mining at Sandy Flat in 1993, and continued until 1996. The current open pit is oval-shaped, with dimensions of approximately 220m by 180m at the surface and a maximum depth of 50m. Mining ceased with the planned open pit incomplete due to falling metal prices. In the period of mining, 170,454t @ 4.6% Cu was processed on site or shipped direct to Mount Isa. Stockpiles of crushed oxide, uncrushed oxide and uncrushed transitional ore were left on site, as was a pad constructed of low grade oxide.

In 2005, Burdekin Pacific Limited acquired the Redbank project and changed its name to Redbank Mines Limited (RML). In 2006, RML commenced a combined RC and diamond resource drilling program, designed to confirm the resource at Bluff, extend the resource at Punchbowl, Redbank and Azurite, as well as providing further density samples. A total of 36 RC holes for 2,067m and 2 diamond holes for 573.3m were drilled (Table 2). Samples were assayed at ALS Chemex in Brisbane for total Cu by three-acid digest with AAS determination, and acid-soluble copper by a sulphuric acid leach with AAS determination. In addition, 41 density samples from Bluff and Punchbowl were also measured by the immersion method.

Table 2: Redbank 2007 drilling program for resource estimation.

Prospect	Type	Number	Total meterage
Azurite	RC	16	1,287
	DDH	1	249.2
Bluff	RC	13	108
Redbank	RC	7	672
	DDH	1	324.1
Punchbowl	RC	27	2118
	DDH	2	200
Total	RC	59	4,185
	DDH	4	773.3

2.4 Previous resource estimates

The first documented JORC code compliant estimates were completed by MacDonald (1989), although the confidence classification is not documented. Using 10m flitch levels, polygonal blocks were digitised at a 0.5% Cu cutoff, and densities ranging from 2.00 to 2.75t/m³. MacDonald estimated a resource at Sandy Flat of 526kt @ 3.32% Cu, and at Bluff 771kt @ 1.89% Cu. Another Sandy Flat resource estimate was reported by Cooke (1991), but detail is very sketchy.

The first Sandy Flat resource estimate, which used all of the drillholes currently available, was completed by Giles (1995) during the suspension of mining in December 1994, but this estimate was specifically stated to be non-JORC compliant. In this resource estimate, polygonal cross sectional interpretations at 15m intervals were digitised at 1% Cu cutoffs, however sub-grade assays were included if the average of it and the subsequent assay exceeded 1% Cu. Sections were extrapolated 5m past the end of the data, and the grade estimate was the simple average of all assays within the interpreted sections, even though these were of different lengths. On sections with no drillholes, 'hypothetical' drillholes were created in sectional gaps by averaging holes to the north and south. No allowance was made for dilution. A range of densities was applied from 1.9 to 2.4 t/m³, but 2.1 t/m³ was stated as being the most likely single value.

Another resource estimate for Sandy Flat and Bluff were completed by Hill (2004a,b). For each of these estimates, cross-sectional polygons were interpreted at 15m intervals. All assays within the sections were averaged, regardless of their length, and a density of 2.1 t/m³ was used following the recommendations of Giles (1995). For Sandy Flat, the remaining resource at a 0.5% Cu cutoff was estimated as 431kt @ 1.81% Cu (Inferred); for Bluff, the resource was estimated as 1,285kt @ 1.56% Cu (inferred).

In 2005, Burdekin Pacific Limited acquired the Redbank project and changed its name to Redbank Mines Limited. At the time of the RML acquisition, the resources of Sandy Flat, Bluff and Punchbowl were estimated (Jankowski, 2005). For each prospect, a Leapfrog model of the existing data was used to constrain downhole composites of the data; grades were estimated by Ordinary Kriging (Sandy Flat and Bluff) or as a global average (Punchbowl) (Table 3). Subsequent data validation revealed that many of the Punchbowl assays used in this resource were incorrect and had been factored by 10 over the actual values.

Table 3: Redbank resource estimate as at 1 May 2005

Resource	Tonnes	% Cu	Tonnes Cu	lbs Cu
Sandy Flat Indicated	467,000	1.6	7,550	16,704,000
Bluff Indicated	528,000	1.9	10,250	22,580,000
<i>Total Indicated</i>	<i>995,000</i>	<i>1.8</i>	<i>17,800</i>	<i>39,284,000</i>
Sandy Flat Inferred	1,523,600	1.2	17,500	38,630,000
Bluff Inferred	1,036,000	1.4	13,950	30,830,000
Punchbowl Inferred	620,000	2.0	12,400	27,280,000
<i>Total Inferred</i>	<i>3,179,600</i>	<i>1.4</i>	<i>43,850</i>	<i>96,740,000</i>
<i>Total Mineral Resource</i>	<i>4,174,600</i>	<i>1.5</i>	<i>61,650</i>	<i>136,024,000</i>

3 Mineral Resources

3.1 Sandy Flat

3.1.1 Database

The database was supplied by RML, and comprises the historical database. The statistics of the data set are presented in Table 4.

Table 4: Sandy Flat database statistics

Table	Records
Collar	70
Survey	82
Assay	3,715

3.1.2 Domaining

To create a domain for the resource estimate, a wireframe was created using Leapfrog™ software at a cutoff of 0.5% Cu (Figure 3). Above the 700mRL (approximately 90m below the natural surface and 40m below the base of the current open pit), a 15m maximum extension was used, as the data was sufficiently dense to allow an interpretation of a breccia pipe. Below the 700mRL, an unconstrained modelling was used, which produced a somewhat wider shape.

A set of 10 feet (3.048m) downhole composites was created. All within the mineralised wireframes were selected as a mineralised dataset. These were then sub-domained into the high grade core and the lower grade halo. The statistics of these two subsets are presented in Table 5.

Table 5: Sandy Flat 3.048m composite statistics by ore zone

	Supergene	Low Grade
Count	134	1 181
Minimum	0.08	0.01
Maximum	29.72	27.98
Mean	7.17	2.21
Standard Deviation	5.97	2.76
Coefficient of Variation	0.83	1.25

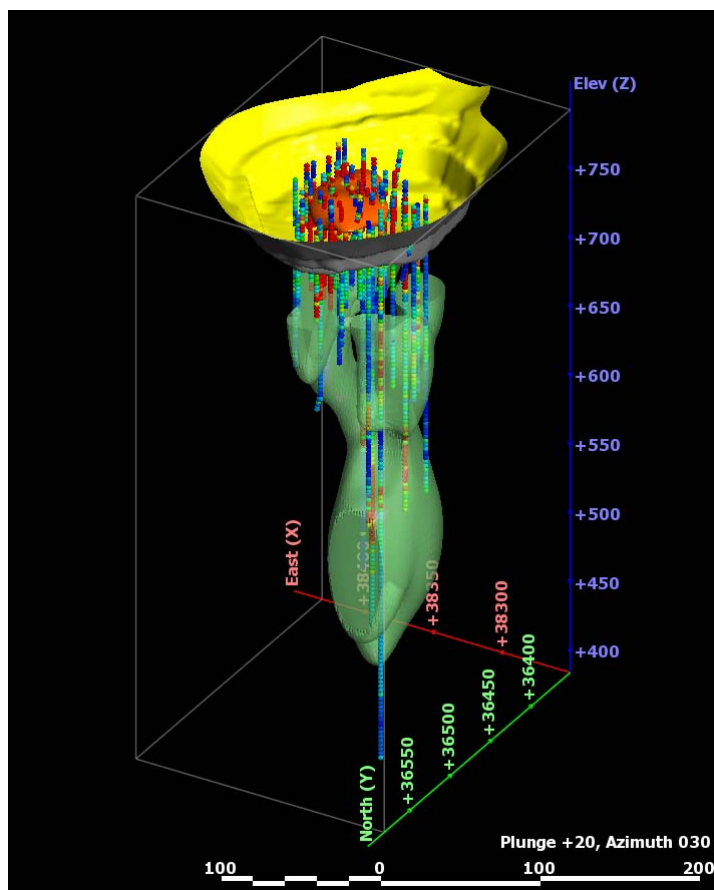


Figure 3: The Sandy Flat drillhole data and 0.5% Cu Leapfrog model viewed from the southwest, supergene zone in orange.

3.1.3 Estimation

Moderately well structured variograms were generated for the Low Grade Zone dataset using Gaussian transformed values; these variograms were backtransformed for estimation purposes (Figure 4). Grades in the Low Grade Zone were estimated in the wireframe by Ordinary Kriging. The data points in the Supergene Zone are significantly clustered; a declustered mean grade of 6.2% Cu was applied to the whole zone, as there are too few data points to estimate.

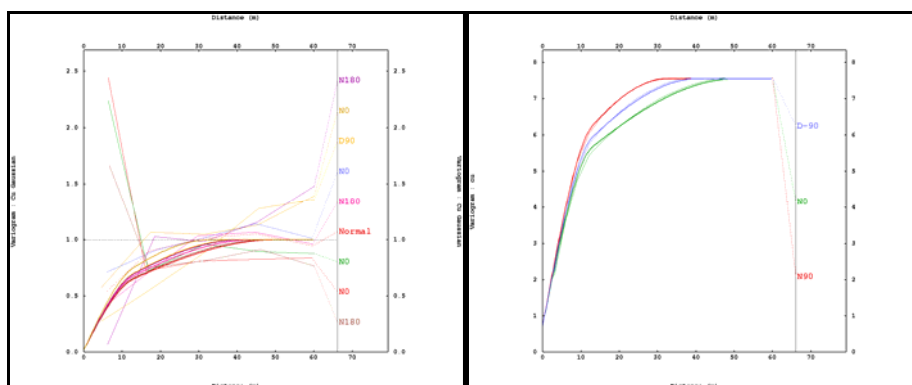


Figure 4: Sandy Flat low grade directional gaussian variograms (left) and the same variograms backtransformed (right).

3.1.4 Density

The density applied of 2.1 t/m³ was derived from the previous testwork, as well as 15 core samples selected from the fresh core in April 2005. There is no clear trend of increasing density with increasing depth.

A list of the Redbank project density measurements is appended as Appendix 1.

3.1.5 Classification

Blocks above the 700mRL were classified as Indicated; blocks below the 700mRL were classified as Inferred due to the lack of downhole surveys, which may cause significant deviations to drillholes below this depth and the lack of data to constrain the shape of the wireframe interpretation

3.1.6 Validation

To validate the model against production, the tonnes and grade inside the open pit were compared with the sum of ore processed and ore stockpiled (Figure 5). Although the production is close to the estimated grade-tonnage curve, the current model suggests that significant amounts of low-grade mineralisation may have been sent to the waste dump during previous open pit mining.

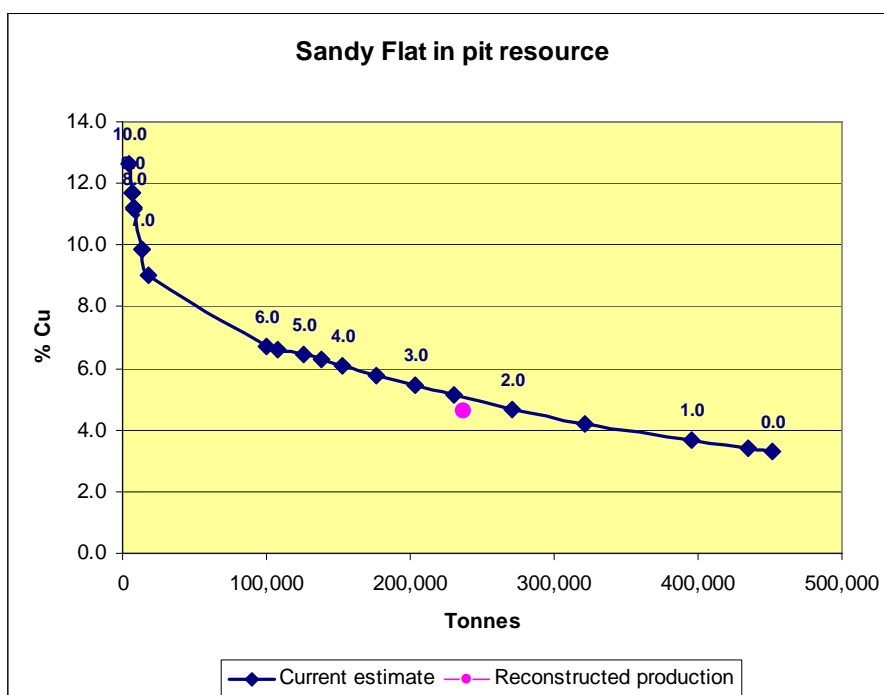


Figure 5: Comparison of Sandy Flat estimated resource in the pit with the reconstructed production.

3.1.7 Estimate

The current resource for the Sandy Flat deposit is 1.99Mt @ 1.26% Cu (Table 6). The resource is open at depth, and is amenable to both open and bulk underground mining. There are about 10,000

tonnes per vertical metre of resource down to the 660mRL (Figure 6) ; below this, the drilling is too sparse to give any accurate estimate.

Table 6: Sandy Flat Mineral Resource as at 6 July 2007

Type	Classification	Tonnes	% Cu	Tonnes Cu
Low Grade Zone	Indicated	467,000	1.62	7,550
	Inferred	1,524,000	1.15	17,500
Total Indicated		467,000	1.62	7,550
Total Inferred		1,524,000	1.15	17,500
Total Resource		1,991,000	1.26	25,100

Note: tonnes of resource rounded to the nearest 1,000t; tonnes of metal rounded to the nearest 50t. Rounding may cause minor discrepancies.

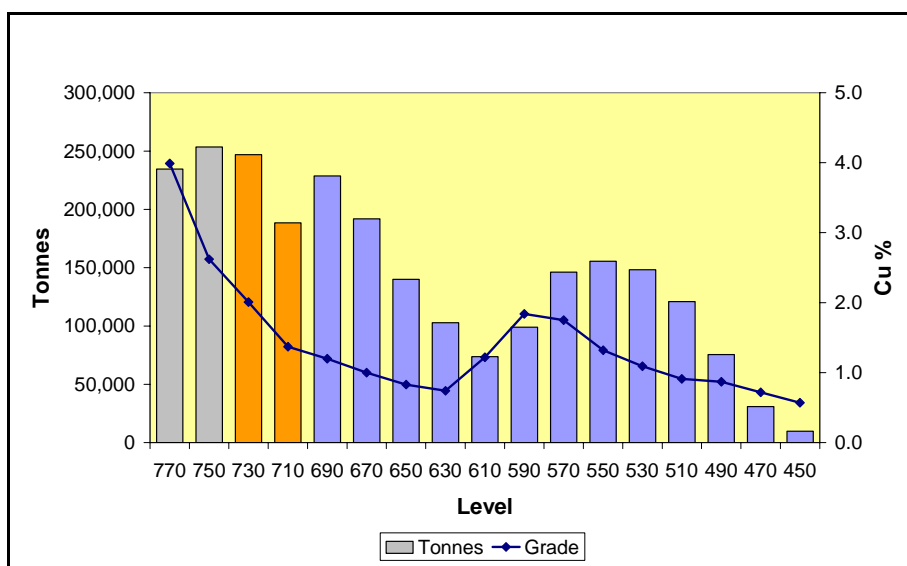


Figure 6: Sandy Flat model tonnes and grade per 20m bench. Approximate levels of: Grey: mined in the current pit; Orange: Indicated; Blue: Inferred.

3.2 Bluff Prospect

3.2.1 Database

The database was supplied by RML, and comprises a subset of the historical database as well as the holes drilled by RML in the latest drilling program. All new drillholes were surveyed by a Differential Global Positioning System (DGPS) unit. In addition, all identifiable previous drillhole collars were also surveyed. Comparison of DGPS readings and the values in the database showed that the DGPS readings were approximately 18m to the west and 5m to the south of the historic collar locations. Where historic holes were not relocated, a correction of Y -18 and X-5 was applied to match approximately the DGPS. A Ranger downhole tool was used in the most recent program to measure hole dip, however as it was used inside the drill casing no azimuth reading was possible; the planned azimuth was used. None of the historic holes have any form of downhole survey. The statistics of the data set are presented in Table 7.

Table 7: Bluff database statistics

Table	Records
Collar	53
Survey	64
Assay	5,354

An analysis of the bag weights of the recent drilling (Figure 15) shows that apart from the top three metres, there is no clear relationship between sample size and depth downhole, suggesting that the sample recovery is good and that minimal contamination has occurred.

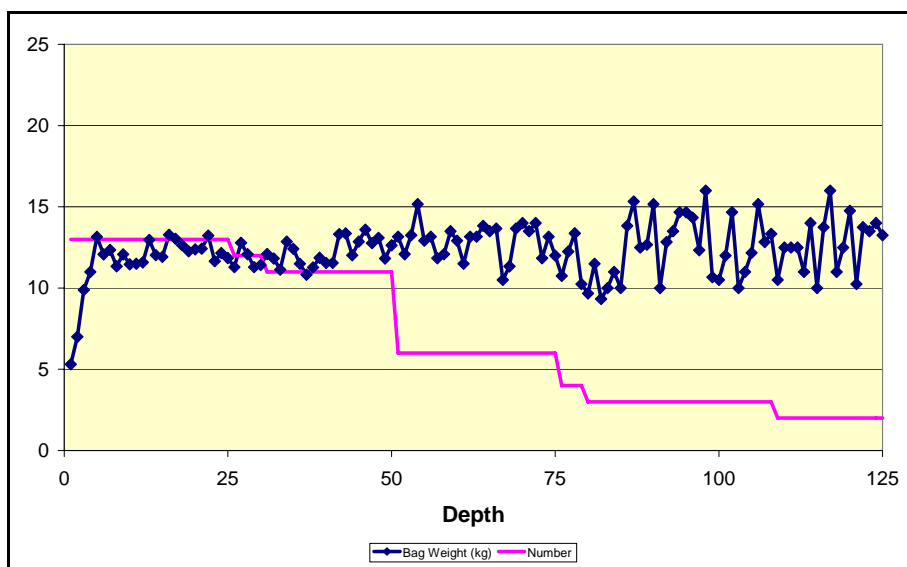


Figure 7: Bluff mean sample bag weight by depth.

3.2.2 Domaining

To create mineralised domains for the Bluff deposit, a set of nested Leapfrog shells was created from 10' (3.048m) downhole composites of the data. The data was smoothed with a spherical variogram with a 20% nugget and a 60m range; these parameters were derived from an omnidirectional direction of the entire composite dataset. An anisotropy of 2:1:1 dipping 70° vertically was applied. The entire dataset (Figure 8) shows a strong bimodality, with a significant tail of high grade composites. To domain this separately, a high grade core shell of 2% Total Cu was selected; this was the highest grade at which a continuous leapfrog shell was created throughout the vertical extent of the orebody (Figure 9; Figure 10). A low grade value of 0.5% Total Cu was chosen for the outer low grade zone, as this appeared to be relatively free of data effects and matched the mode of a steep dipping breccia pipe. This low grade zone appear to be closed off at depth by three vertical drillholes, however if the breccia pipe changes dip toward the southwest it is not closed off. After modelling, the Leapfrog shell was truncated by a topographic surface created from the drillhole collars, as no full topographic survey of the Bluff area has been completed.

A set of 5m downhole composites was created. All within the mineralised wireframes were selected as a mineralised dataset. These were then sub-domained into the high grade core and the lower grade halo. The statistics of these two subsets are presented in Table 8. A digital terrain model (DTM) of

the top of fresh rock was also created. All mineralised samples above this surface were classified as Oxide, the composites below it as Fresh. The statistics of these two composite classifications are presented in Table 9.

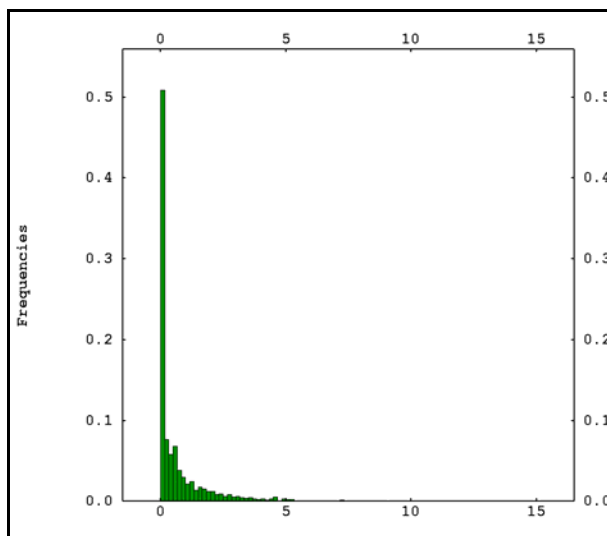
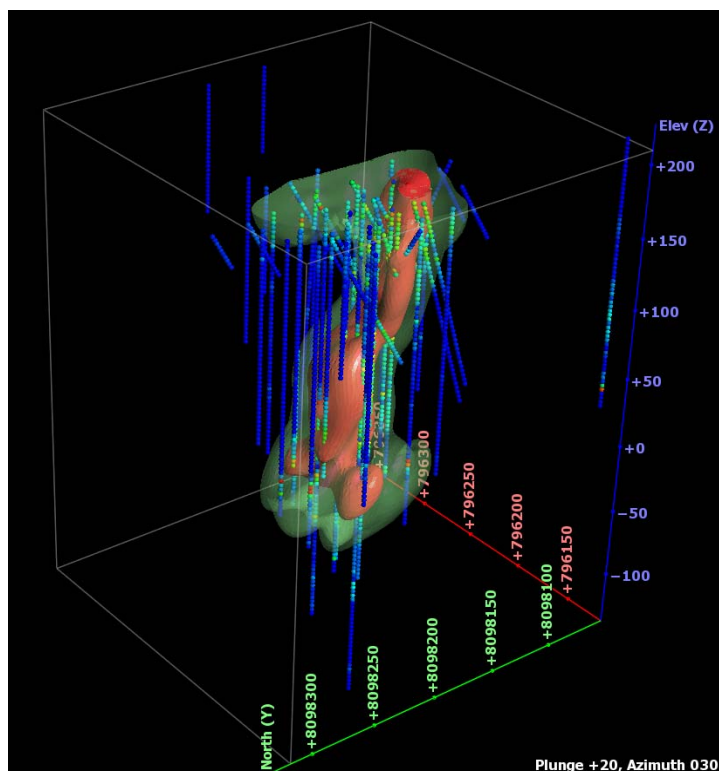


Figure 8: The Bluff 10' composite total dataset histogram.



**Figure 9: The Bluff deposit drillhole data and Leapfrog model viewed from the southwest.
0.5% Cu shell in green, 2% Cu shell in red.**

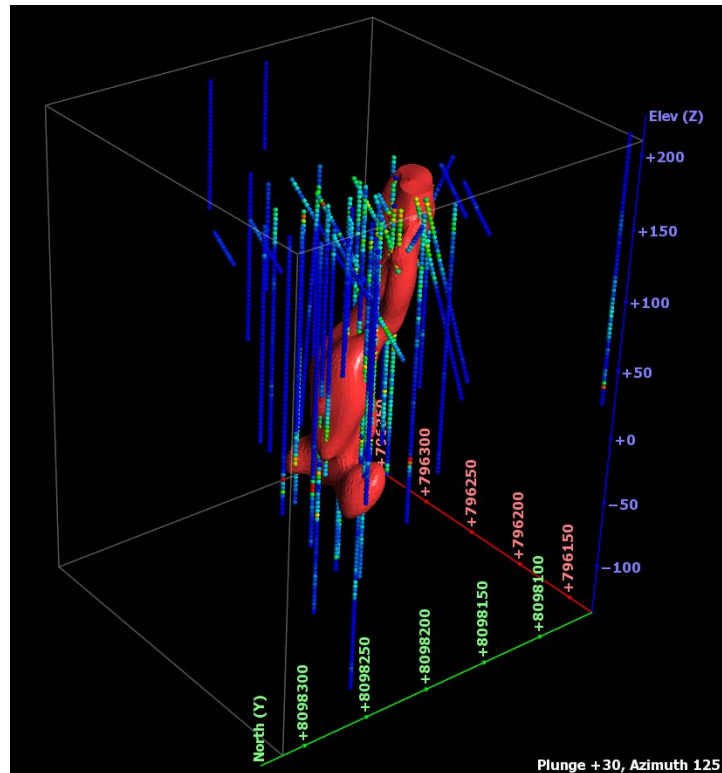


Figure 10: The Bluff deposit drillhole data and 2% Cu Leapfrog model viewed from the southwest.

Table 8: Bluff 5m composite statistics by ore zone

	High Grade		Low Grade	
	Total Cu	ACS Cu	Total Cu	ACS Cu
Count	173	24	386	56
Minimum	0.74	0.04	0.02	0.01
Maximum	10.95	4.08	4.62	3.37
Mean	3.44	1.04	1.03	0.47
Standard Deviation	1.73	1.36	0.72	0.59
Coefficient of Variation	0.50	1.31	0.70	1.24
Q10	1.74	0.09	0.33	0.05
Q20	2.03	0.12	0.51	0.08
Q30	2.23	0.14	0.62	0.10
Q40	2.58	0.17	0.71	0.16
Q50	3.01	0.18	0.85	0.25
Q60	3.41	0.81	1.05	0.35
Q70	4.01	1.09	1.24	0.58
Q80	4.94	2.61	1.46	0.77
Q90	5.92	3.81	1.90	1.27

Table 9: Bluff 5m ore zone composite statistics by weathering zone

	Fresh		Oxide	
	Total Cu	ACS Cu	Total Cu	ACS Cu
Count	163	42	396	38
Minimum	0.11	0.04	0.02	0.01
Maximum	5.92	4.08	10.95	1.17
Mean	1.32	1.09	1.96	0.15
Standard Deviation	1.02	1.09	1.74	0.21
Coefficient of Variation	0.77	1.00	0.89	1.38
Q10	0.45	0.22	0.46	0.04
Q20	0.56	0.29	0.62	0.07
Q30	0.71	0.37	0.78	0.08
Q40	0.85	0.49	1.09	0.08
Q50	1.01	0.72	1.41	0.10
Q60	1.19	0.96	1.84	0.12
Q70	1.53	1.09	2.30	0.14
Q80	1.88	1.38	3.04	0.17
Q90	2.32	3.31	4.51	0.21

3.2.3 Estimation

A block model was created in Surpac. The block dimensions and attributes are presented in Table 10 and Table 11. To estimate the grades of Total Cu, an omnidirectional variogram was constructed for each of the Low Grade and High Grade Zones (Figure 11; Figure 12). Both these variograms were well structured, however had high relative nuggets, which in turn dictates a relatively smooth resource estimate within the selected domains. Grades were estimated using a neighbourhood with an isotropic search of 40m , a minimum of 8 and a maximum of 64 composites. These parameters were chosen as giving a reasonable average slope of regression (0.66) and a low amount of positive kriging weights (>0.1%).

Due to the relatively small number of acid-soluble Cu assays, a global average value of 1.09% was applied to all the Oxide zone blocks, and 0.15% to all the Fresh zone blocks. No topcuts were applied as the datasets had low coefficients of variation.

Table 10: Bluff block model summary

Model name	bluff25062007.mdl
Minimum Y	809 8000
Maximum Y	809 8405
Minimum X	796 000
Maximum X	796 300
Minimum Z	-50
Maximum Z	200
Block Size Y	15
Block Size X	15
Block Size Z	5

Table 11: Bluff block model attributes

Attribute Name	Type	Decimals	Description
classification	Character		JORC Classification Code
cu	Numeric	2	Total Copper Grade
cu_acid_soluble	Numeric	2	Acid-soluble Copper grade
density	Numeric	2	Block density
material	Character		Air or Rock
sr	Numeric	2	Slope of regression of Total Cu estimate
weathering	Character		Oxide or Fresh
zone	Character		Waste, Low or High

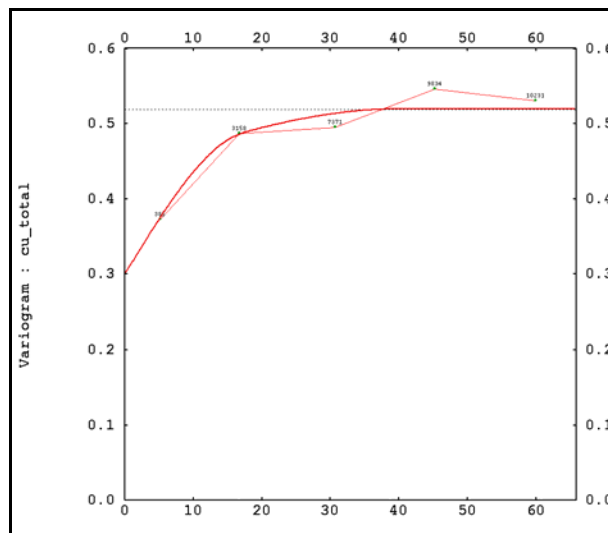


Figure 11: Bluff Low Grade Zone Total Cu variogram.

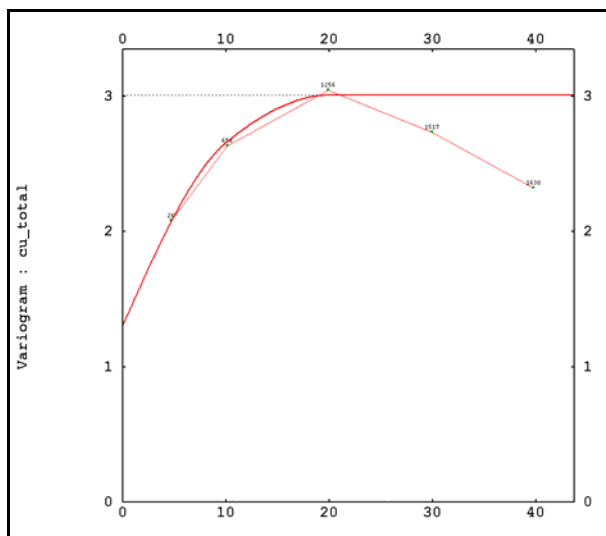


Figure 12: Bluff High Grade Zone Total Cu variogram.

3.2.4 Density

A density of 2.2 t/m³ was applied to the Oxide Zone. This was the average of 17 samples measured by RML (an outlier value of 3.36t/m³ was ignored). A value of 2.6 t/m³ was applied to the Fresh Zone, based on 3 samples measured by RML.

3.2.5 Classification

Blocks above the 100mRL in the ore zone was classified as Indicated, those below 100mRL was classified Inferred. This split is approximately the same as used in the previous resource estimate (Jankowski, 2005); there is a decrease in the data density below the 100mRL, and the volume of the breccia pipe is not well constrained.

3.2.6 Validation

To validate the resource estimate, the mean grades and distributions of the input composites and the block estimates were compared (Table 12).

Table 12: Bluff model comparison of Total Cu composites and block estimates.

	High Grade		Low Grade	
	Data	Blocks	Data	Blocks
Count	173	164	386	560
Minimum	0.74	2.33	0.02	0.54
Maximum	10.95	5.63	4.62	1.78
Mean	3.44	3.56	1.03	1.00
Standard Deviation	1.73	0.71	0.72	0.20
Coefficient of Variation	0.50	0.20	0.70	0.20

3.2.7 Resource estimate

The estimated resource as at 6 July 2007 for Bluff is presented in Table 13. Tonnes per vertical metre and grade-tonnage curves are presented in Figure 13 and Figure 14. Note that in Figure 14, there is no overlap between the High Grade Zone and Low Grade Zone grade-tonnage curves.

Table 13: Bluff resource estimate as at 6 July 2007.

Classification	Tonnes	Total Cu (%)	Acid Soluble Cu (%)	Total Cu tonnes
Indicated	856,000	1.50	0.65	12,800
Inferred	1,179,000	1.66	0.15	19,550
Total	2,034,000	1.59	0.36	32,350

Note: tonnes of resource rounded to the nearest 1,000t; tonnes of metal rounded to the nearest 50t. Rounding may cause minor discrepancies.

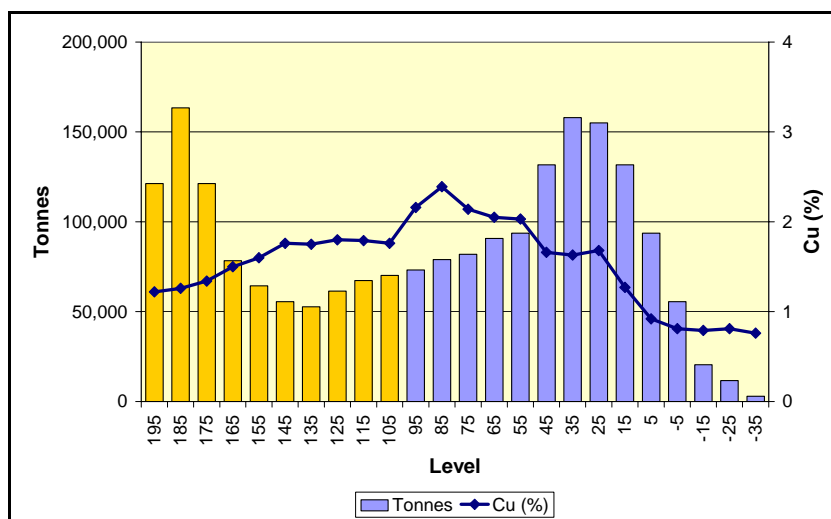


Figure 13: Bluff model tonnes and grade per 10m bench. Indicated orange, inferred blue.

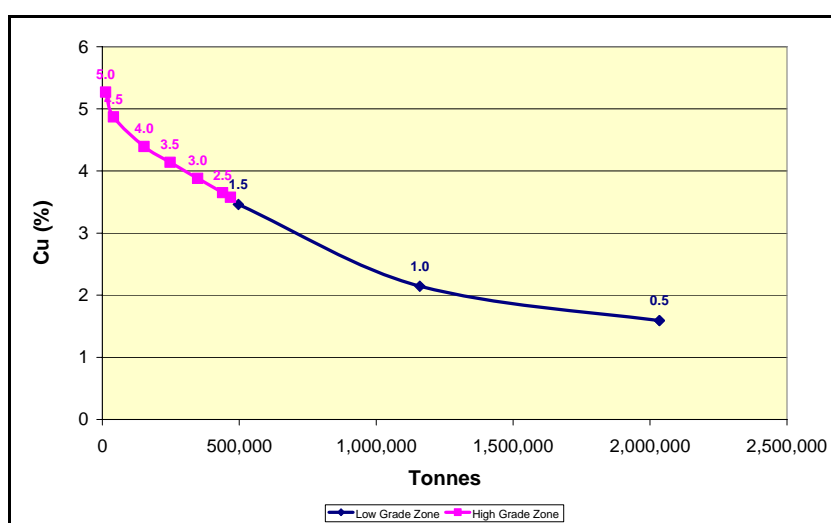


Figure 14: Bluff Model grade-tonnage curve.

3.3 Punchbowl Prospect

3.3.1 Database

The database was supplied by RML, and comprises a subset of the historical database as well as the holes drilled by RML in the latest drilling program. All new drillholes were surveyed by a Differential Global Positioning System (DGPS) unit. In addition, all identifiable previous drillhole collars were also surveyed. Comparison of DGPS readings and the values in the database showed that the DGPS readings were approximately 120m to the west and 50m to the south of the historic collar locations. Where historic holes were not relocated, a correction of Y -50 and X-120 was applied to match approximately the DGPS. A Ranger downhole tool was used in the most recent program to measure hole dip, however as it was used inside the drill casing no azimuth reading was possible; the planned azimuth was used. None of the historic holes have any form of downhole survey. The statistics of the data set are presented in Table 14.

Table 14: Punchbowl database statistics

Table	Records
Collar	122
Survey	125
Assay	3,551

An analysis of the bag weights of the recent drilling (Figure 15) shows that apart from the top three metres, there is no clear relationship between sample size and depth downhole, suggesting that the sample recovery is good and that minimal contamination has occurred.

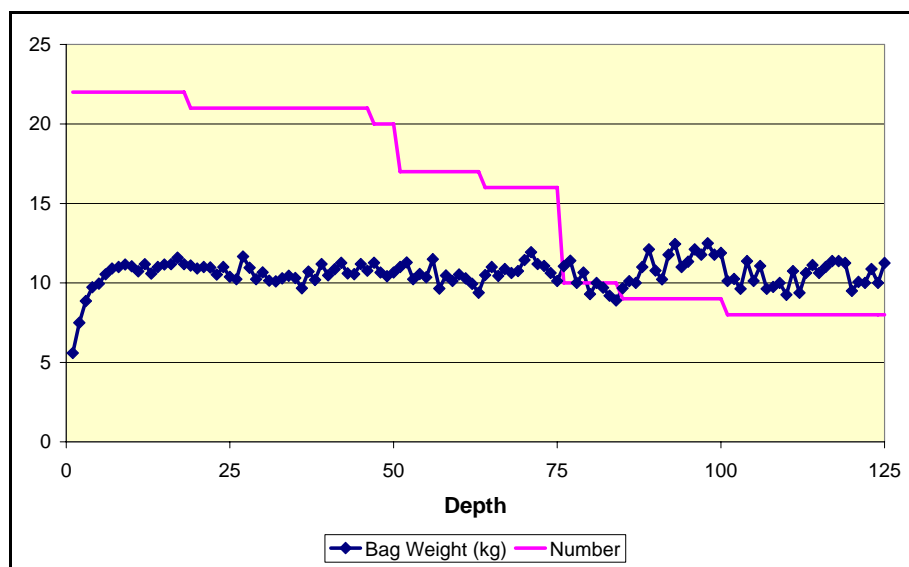


Figure 15: Punchbowl mean sample bag weight by depth.

3.3.2 Domaining

To create mineralised domains for the Punchbowl deposit, a set of nested Leapfrog shells was created from 5m downhole composites of the data. The data was smoothed with a spherical variogram with a 5% nugget and a 25m range; these parameters were derived from an

omnidirectional direction of the entire composite dataset. An anisotropy of 1.5:1:1 dipping 90° vertically was applied. A grade value of 0.5% Total Cu was chosen for the mineralised zone, as this appeared to be relatively free of data effects and matched the model of a steep dipping breccia pipe. This low grade zone appear to be closed off at depth by a single angled drillhole, however there is a deeper mineralised intersection in the historic diamond drillhole AD1 (Figure 16).

All 5m composites within the mineralised wireframes were selected as the mineralised dataset. The statistics of this dataset are presented in Table 15, a histogram in Figure 17.

A digital terrain model (DTM) of the top of fresh rock was also created. All mineralised samples above this surface were classified as Oxide, the composites below it as Fresh. The statistics of these two composite classifications are also presented in Table 15.

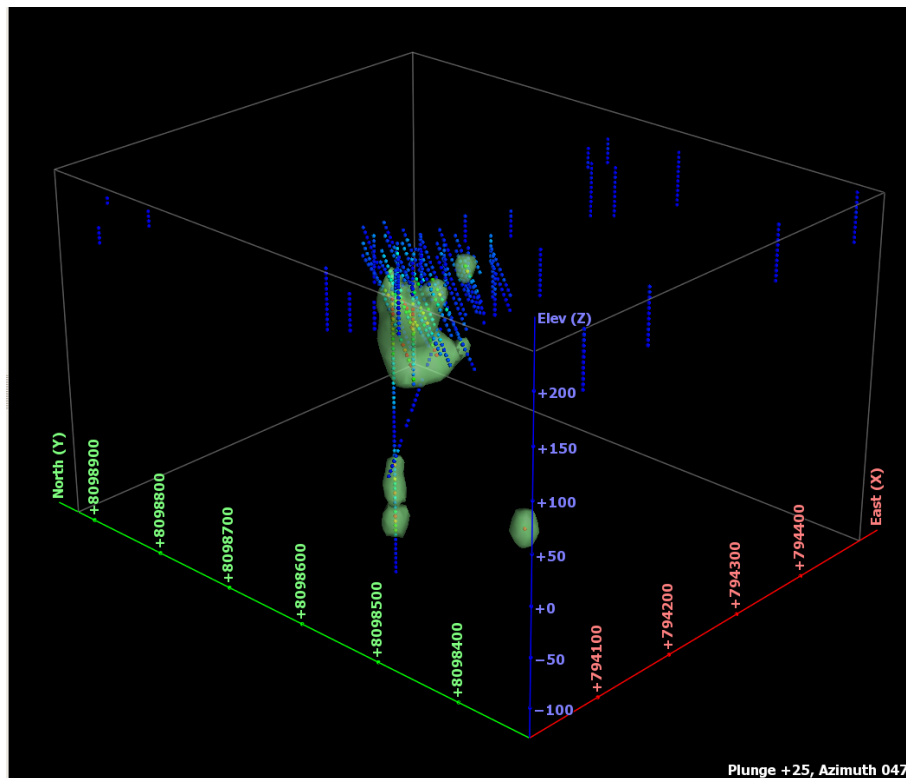


Figure 16: The Punchbowl deposit drillhole data and 0.5% Cu Leapfrog model viewed from the southwest. Only the largest shell was used in the resource model.

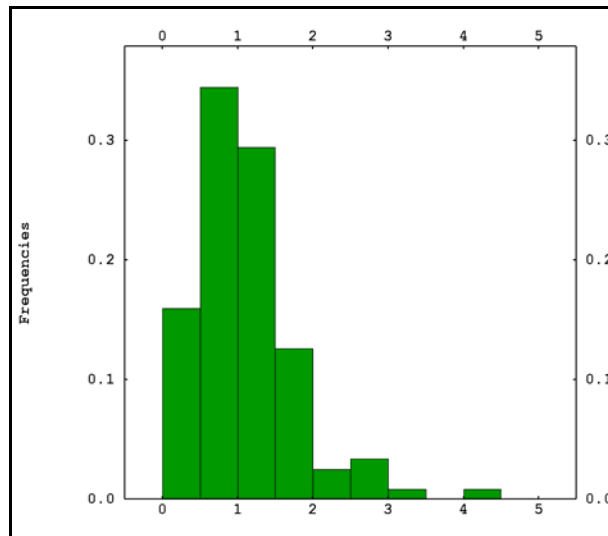


Figure 17: Punchbowl mineralised zone Total Cu 5m composite histogram.

Table 15: Punchbowl 5m composite statistics

	Oxide		Fresh	
	Total Cu	ACS Cu	Total Cu	ACS Cu
Count	24	20	96	79
Minimum	0.07	0.00	0.25	0.00
Maximum	1.29	0.86	4.20	0.26
Mean	0.70	0.26	1.16	0.06
Standard Deviation	0.34	0.22	0.70	0.05
Coefficient of Variation	0.48	0.83	0.60	0.87
Q10	0.33	0.00	0.46	0.01
Q20	0.35	0.02	0.55	0.02
Q30	0.48	0.11	0.64	0.03
Q40	0.56	0.25	0.89	0.04
Q50	0.67	0.27	1.07	0.04
Q60	0.81	0.28	1.21	0.05
Q70	0.90	0.30	1.41	0.06
Q80	1.09	0.41	1.60	0.08
Q90	1.10	0.52	1.94	0.14

3.3.3 Estimation

A block model was created in Surpac. The block dimensions and attributes are presented in Table 16 and Table 17. To estimate the grades of Total Cu, an omnidirectional variogram was constructed (Figure 18). This variogram is well structured with moderate relative nugget. Grades were estimated using a neighbourhood with an isotropic search of 50m , a minimum of 8 and a maximum of 48

composites. These parameters were chosen as giving a reasonable average slope of regression (0.69) and a low amount of positive kriging weights (~0.03%).

Due to the relatively small number of acid-soluble Cu assays, a global average value of 0.26% was applied to all the Oxide zone blocks, and 0.06% to all the Fresh zone blocks. Not topcuts were applied as the datasets had low coefficients of variation.

Table 16: Punchbowl block model summary

Model name	punchbowl_model29062007.mdl
Minimum Y	809 8400
Maximum Y	809 8800
Minimum X	793 900
Maximum X	794 500
Minimum Z	0
Maximum Z	250
Block Size Y	10
Block Size X	10
Block Size Z	5

Table 17: Punchbowl block model attributes

Attribute Name	Type	Decimals	Description
classification	Character		JORC Classification Code
cu	Numeric	2	Total Copper Grade
cu_acid_soluble	Numeric	2	Acid-soluble Copper grade
density	Numeric	2	Block density
material	Character		Air or Rock
sr	Numeric	2	Slope of regression of Total Cu estimate
weathering	Character		Oxide or Fresh
zone	Character		Waste, Low or High

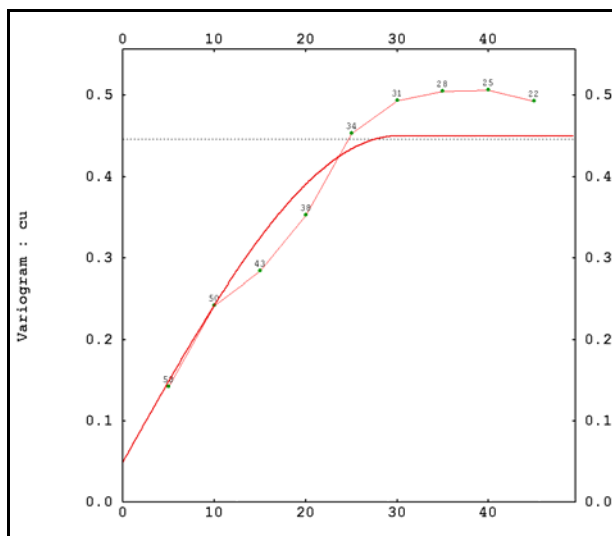


Figure 18: Punchbowl mineralised zone Total Cu 5m composite variogram.

3.3.4 Density

A density of 1.8t/m³ was applied to the Oxide and 2.2t/m³ to the Fresh, based on the mean values of 10 Oxide and 11 Fresh samples respectively measured by RML.

3.3.5 Classification

The entire Punchbowl resource is classified as Inferred. There are some data effects in the shape of the shell, which is not well constrained.

3.3.6 Validation

To validate the resource estimate, the mean grades and distributions of the input composites and the block estimates were compared (Table 18).

Table 18: Punchbowl model comparison of Total Cu composites and block estimates.

	Data	Blocks
Count	173	164
Minimum	0.74	2.33
Maximum	10.95	5.63
Mean	3.44	3.56
Standard Deviation	1.73	0.71
Coefficient of Variation	0.50	0.20

3.3.7 Estimate

The estimated resource as at 6 July 2007 for Punchbowl is presented in Table 19. Tonnes per vertical metre and grade-tonnage curves are presented in Figure 19 and Figure 20.

Table 19: Punchbowl Mineral Resource as at 6 July 2007

Classification	Tonnes	% Total Cu	% Acid-soluble	Tonnes Total
Inferred	416,000	1.24	0.07	5,150
Total	416,000	1.24	0.07	5,150

Note: tonnes of resource rounded to the nearest 1,000t; tonnes of metal rounded to the nearest 50t. Rounding may cause minor discrepancies.

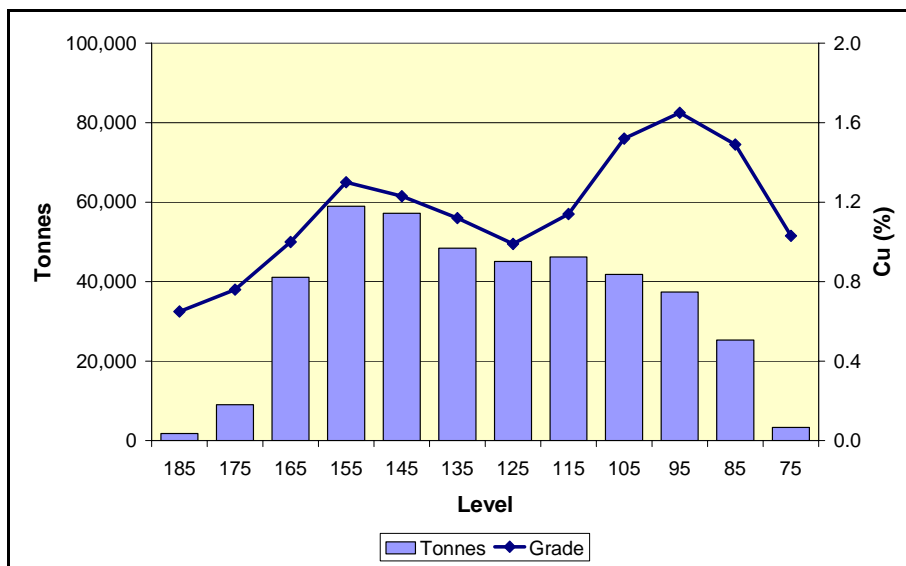


Figure 19: Punchbowl model tonnes and grade per 10m bench.

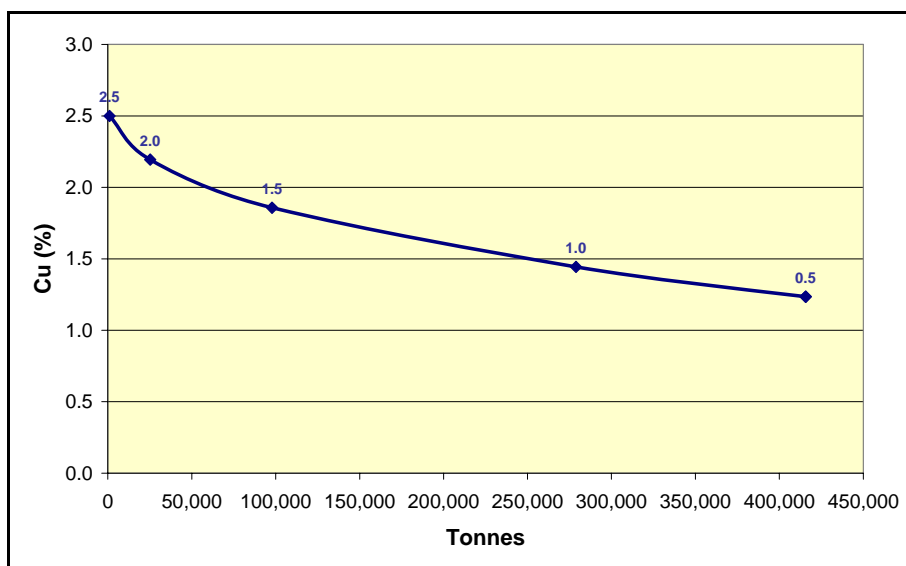


Figure 20: Punchbowl model grade-tonnage curve.

3.4 Redbank Prospect

3.4.1 Database

The database was supplied by RML, and comprises a subset of the historical database as well as the holes drilled by RML in the latest drilling program. All new drillholes were surveyed by a Differential Global Positioning System (DGPS) unit. In addition, all identifiable previous drillhole collars were also surveyed. Comparison of DGPS readings, the previous values in the database and a drillhole plan from a 1971 publication showed considerable discrepancies. The historic holes locations were adjusted to match the current DGPS pickups or the location on the map; this involved translations of up to 50m. This uncertainty over the actual location of the drillholes cannot be further resolved as the collars are not locatable. A Ranger downhole tool was used in the most recent program to measure hole dip, however as it was used inside the drill casing no azimuth reading was possible; the planned azimuth was used. None of the historic holes have any form of downhole survey. The statistics of the data set are presented in Table 20.

Table 20:Redbank database statistics

Table	Records
Collar	88
Survey	88
Assay	1,427

3.4.2 Domaining

To create mineralised domains for the Redbank deposit, a set of nested Leapfrog shells was created from 5m downhole composites of the data. The data was smoothed with a spherical variogram with a 7% nugget and a 47.5m range; these parameters were derived from an omnidirectional direction of the entire composite dataset. An anisotropy of 1.5:1:1 dipping 90° vertically was applied. A grade value of 0.5% Total Cu was chosen for the mineralised zone, as this appeared to be relatively free of data effects and matched the model of a steep dipping breccia pipe (Figure 21).

All 5m composites within the mineralised wireframes were selected as the mineralised dataset. The statistics of this dataset are presented in Table 21.

No weathering data or acid-soluble Cu values have been recorded for Redbank. It is has been treated as Oxide.

3.4.3 Estimation

A block model was created in Surpac. The block dimensions and attributes are presented in and. To estimate the grades of Total Cu, an omnidirectional variogram was constructed (Figure 22). This variograms is poorly structured, reflecting the lack of data. Grades were estimated using a neighbourhood with an isotropic search of 40m , a minimum of 8 and a maximum of 32 composites. These parameters were chosen as giving a reasonable average slope of regression (0.66) and a low amount of positive kriging weights (>0.1%).

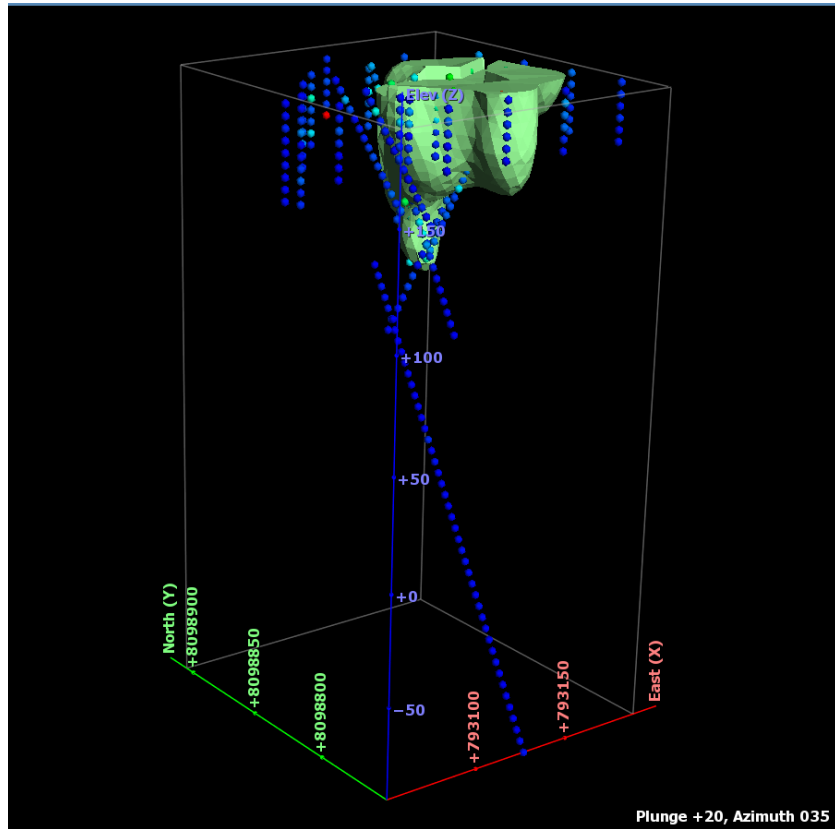


Figure 21: Redbank drillhole data and 0.5% Cu Leapfrog model viewed from the southeast.

Table 21: Redbank 5m composite statistics

	Total Cu
Count	83
Minimum	0.10
Maximum	10.83
Mean	1.58
Standard Deviation	1.95
Coefficient of Variation	1.23
Q10	0.28
Q20	0.45
Q30	0.59
Q40	0.80
Q50	0.83
Q60	1.02
Q70	1.46
Q80	2.19
Q90	3.96

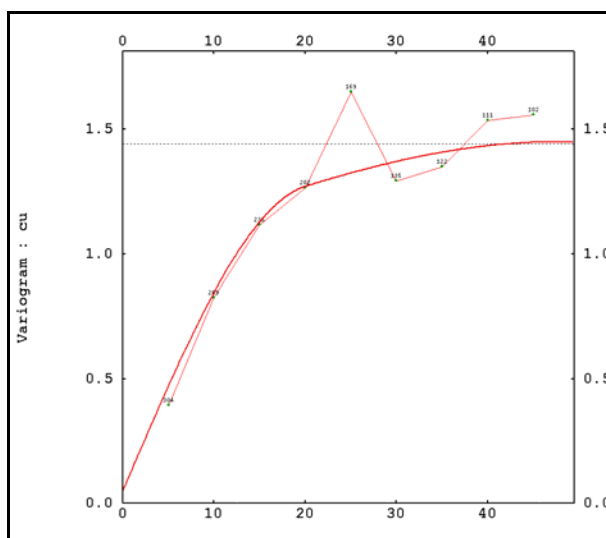


Figure 22: Redbank mineralised zone Total Cu 5m composite variogram.

3.4.4 Density

Four density values have been recorded for Redbank. A blanket oxide value of 2.1 t/m³ has been applied.

3.4.5 Classification

The entire Redbank resource is classified as Inferred. There are some data effects in the shape of the shell, which is not well constrained. In addition, the uncertainty on the position of the historic drillholes needs to be resolved, if necessary by redrilling and replacing these with new holes.

3.4.6 Validation

To validate the resource estimate, the mean grades and distributions of the input composites and the block estimates were compared (Table 22).

Table 22: Redbank model comparison of Total Cu composites and block estimates.

	Data	Blocks
Count	83	354
Minimum	0.10	0.53
Maximum	10.83	6.41
Mean	1.58	1.51
Standard Deviation	1.95	0.93
Coefficient of Variation	1.23	0.62

3.4.7 Estimate

The estimated resource as at 6 July 2007 for Redbank is presented in Table 23. Tonnes per vertical metre and grade-tonnage curves are presented in Figure 23 and Figure 24.

Table 23: Redbank Mineral Resource as at 6 July 2007

Classification	Tonnes	% Cu	Tonnes Cu
Inferred	372,000	1.51	5,600
Total	372,000	1.51	5,600

Note: tonnes of resource rounded to the nearest 1,000t; tonnes of metal rounded to the nearest 50t. Rounding may cause minor discrepancies.

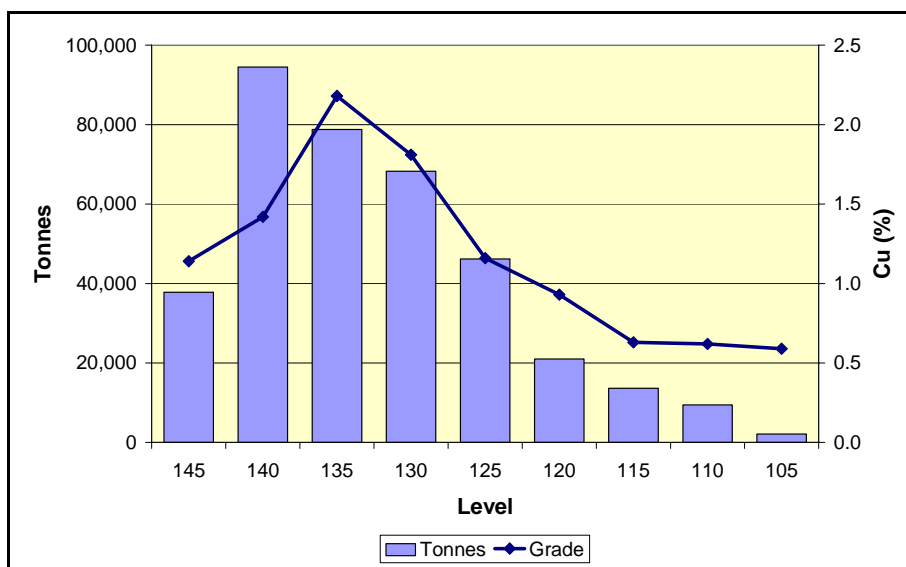


Figure 23: Redbank model tonnes and grade per 10m bench.

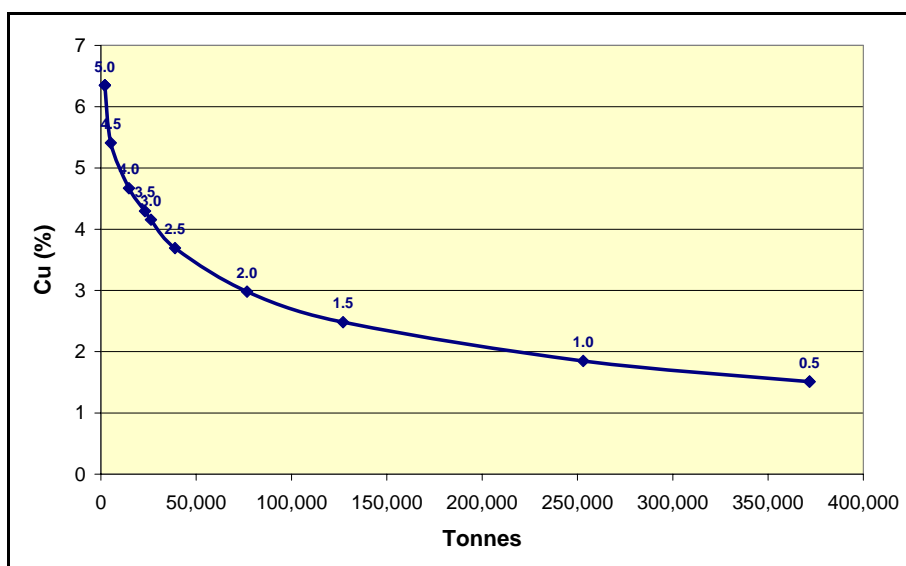


Figure 24: Redbank model grade-tonnage curve.

3.5 Azurite Prospect

3.5.1 Database

The database was supplied by RML, and comprises a subset of the historical database as well as the holes drilled by RML in the latest drilling program. All new drillholes were surveyed by a Differential Global Positioning System (DGPS) unit. In addition, all identifiable previous drillhole collars were also surveyed. Comparison of DGPS readings and the values in the database showed that the DGPS readings were approximately 100m to the west and 20m to the south of the historic collar locations. Where historic holes were not relocated, a correction of Y -20 and X-100 was applied to match approximately the DGPS. A Ranger downhole tool was used in the most recent program to measure hole dip, however as it was used inside the drill casing no azimuth reading was possible; the planned azimuth was used. None of the historic holes have any form of downhole survey. The statistics of the data set are presented in Table 24.

Table 24:Azurite database statistics

Table	Records
Collar	67
Survey	67
Assay	2,389

3.5.2 Domaining

To create mineralised domains for the Azurite deposit, a set of nested Leapfrog shells was created from 5m downhole composites of the data. The data was smoothed with a spherical variogram with a 20% nugget and a 40m range; these parameters were derived from an omnidirectional direction of the entire composite dataset. An anisotropy of 2:1:1 dipping 90° vertically was applied. A grade value of 0.5% Total Cu was chosen for the mineralised zone, as this appeared to be relatively free of data effects and matched the model of a steep dipping breccia pipe.

All 5m composites within the mineralised wireframes were selected as the mineralised dataset. The statistics of this dataset are presented in Table 25, a histogram in Figure 26.

No weathering data or acid-soluble Cu values have been recorded for Azurite. It is has been treated as Oxide.

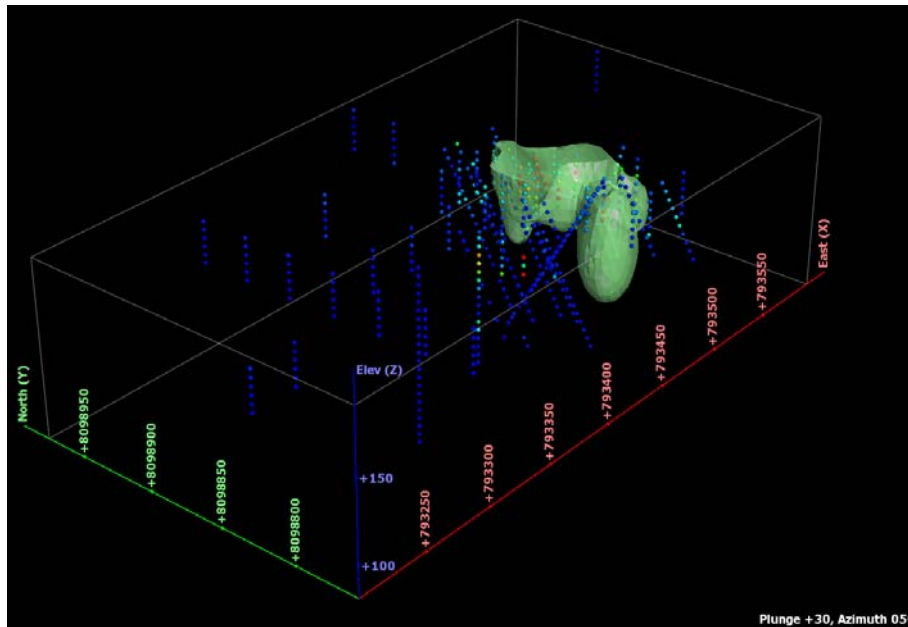


Figure 25: Azurite drillhole data and 0.5% Cu Leapfrog model viewed from the southwest.

Table 25: Azurite 5m composite statistics

	Total Cu
Count	73
Minimum	0.04
Maximum	5.42
Mean	1.29
Standard Deviation	1.16
Coefficient of Variation	0.90
Q10	0.18
Q20	0.38
Q30	0.54
Q40	0.77
Q50	0.93
Q60	1.17
Q70	1.47
Q80	2.05
Q90	2.89

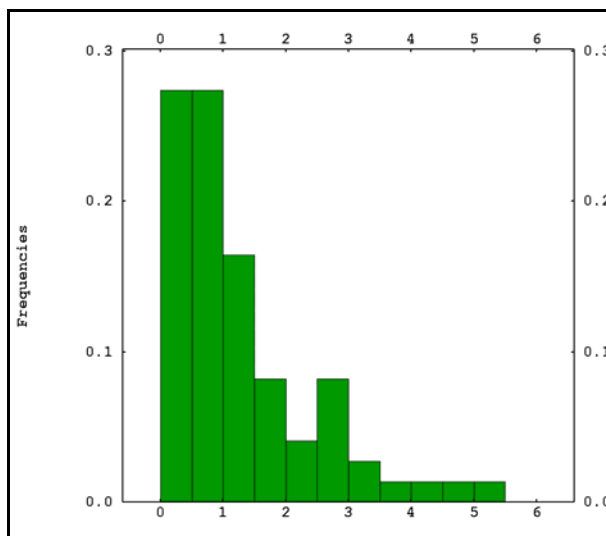


Figure 26: Azurite mineralised zone Total Cu 5m composite histogram.

3.5.3 Estimation

A block model was created in Surpac. The block dimensions and attributes are presented in Table 26 and Table 27. To estimate the grades of Total Cu, an omnidirectional variogram was constructed (Figure 27). This variogram is poorly structured, reflecting the lack of data. Grades were estimated using a neighbourhood with an isotropic search of 40m , a minimum of 8 and a maximum of 64 composites. These parameters were chosen as giving a reasonable average slope of regression (0.66) and a low amount of positive kriging weights (>0.1%).

Table 26: Azurite block model summary

Model name	azurite_model02072007
Minimum Y	809 8770
Maximum Y	809 9000
Minimum X	793 350
Maximum X	793 550
Minimum Z	100
Maximum Z	200
Block Size Y	10
Block Size X	10
Block Size Z	5

Table 27: Azurite block model attributes

Attribute Name	Type	Decimals	Description
classification	Character		JORC Classification Code
cu	Numeric	2	Total Copper Grade
density	Numeric	2	Block density
material	Character		Air or Rock
sr	Numeric	2	Slope of regression of Total Cu estimate
weathering	Character		Oxide or Fresh
zone	Character		Waste, Low or High

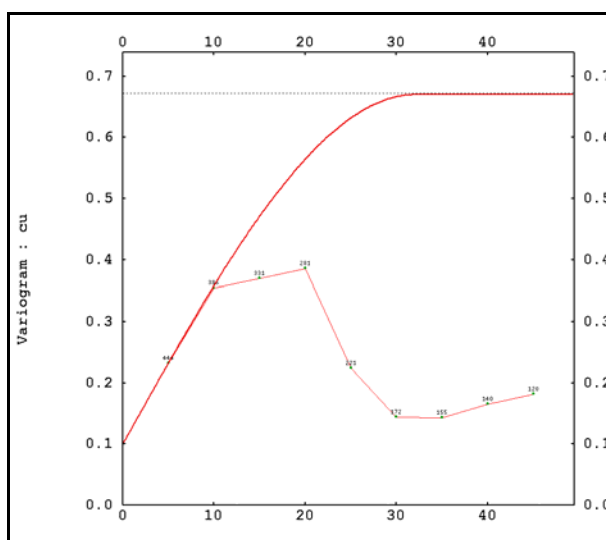


Figure 27: Azurite mineralised zone Total Cu variogram.

3.5.4 Density

No density values have been recorded for Azurite. A blanket oxide value of 2.1 t/m³ has been applied.

3.5.5 Classification

The entire Azurite resource is classified as Inferred. There are some data effects in the shape of the shell, which is not well constrained; and the number of datapoints is rather low for a reasonable local estimate of a deposit with a moderately high relative nugget.

3.5.6 Validation

To validate the resource estimate, the mean grades and distributions of the input composites and the block estimates were compared (Table 28). The highest grade block is informed by a single datapoint, and therefore the global grade estimate is probably higher than the true grade. Further drilling is required to improve the confidence in the global grade estimate, as well as allowing a better local block grade estimate.

Table 28: Azurite model comparison of Total Cu composites and block estimates.

	Data	Blocks
Count	73	246
Minimum	0.04	0.30
Maximum	5.42	5.42
Mean	1.29	1.61
Standard Deviation	1.16	1.02
Coefficient of Variation	0.90	0.64

3.5.7 Estimate

The estimated resource as at 6 July 2007 for Azurite is presented in Table 29. Tonnes per vertical metre and grade-tonnage curves are presented in Figure 28 and Figure 29.

Table 29: Azurite resource estimate as at 6 July 2007.

Classification	Tonnes	Total Cu (%)	Total Cu tonnes
Inferred	214,000	1.34	2,900
Total	214,000	1.34	2,900

Note: tonnes of resource rounded to the nearest 1,000t; tonnes of metal rounded to the nearest 50t. Rounding may cause minor discrepancies.

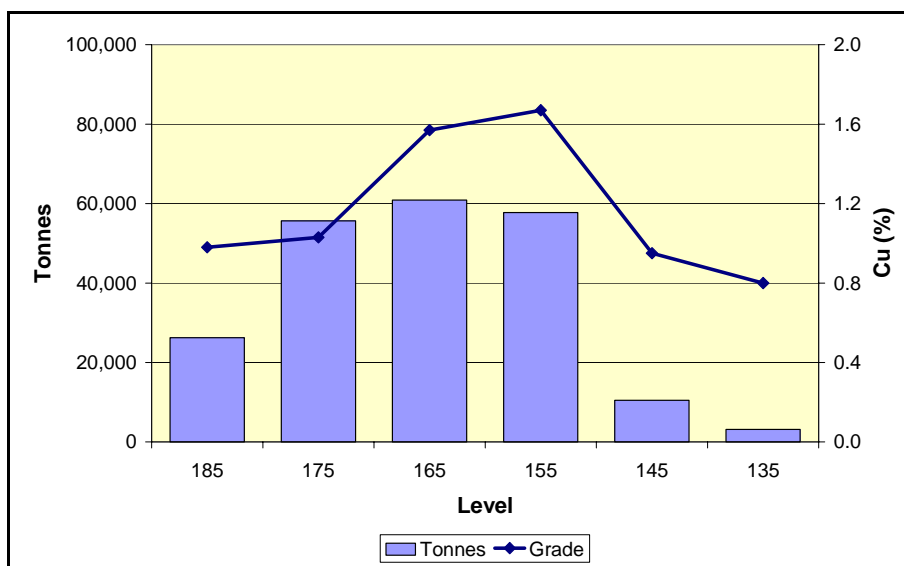


Figure 28: Azurite model tonnes and grade per 10m bench.

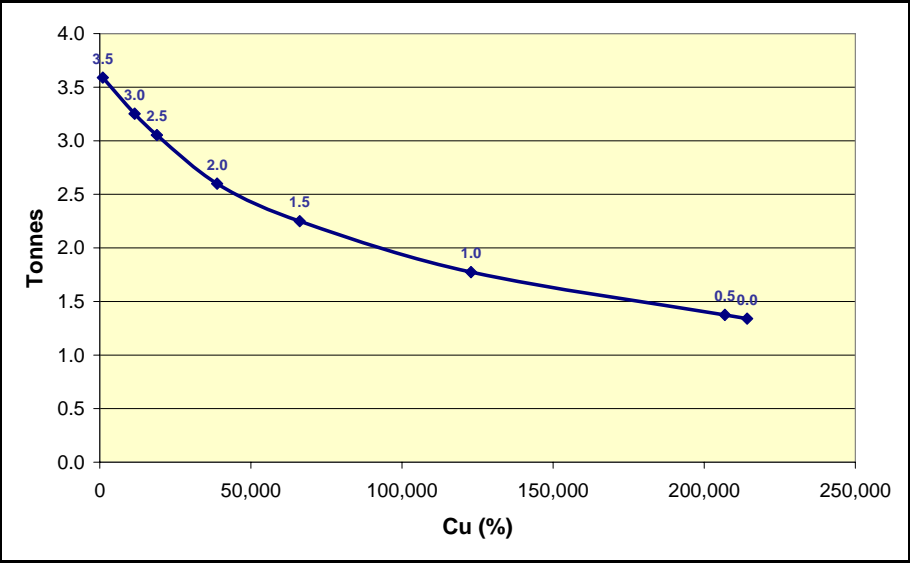


Figure 29: Azurite model grade-tonnage curve.

4 Conclusions and Recommendations

The resource has been re-estimated for the Bluff and Punchbowl prospects, and estimated for the first time for Redbank and Azurite. The resource for the Sandy Flat prospect is the same as previously reported in Jankowski (2005).

The project's total resource is 5.03Mt @ 1.4% Cu, containing 71kt of total Cu metal (Table 30). There are discrepancies between previously recorded drillhole locations and newly surveyed records of the same holes, as well as between historic hard copy records; other historic holes that have not been resurveyed cannot be considered to be accurately located. This is an issue for the Azurite and Redbank prospect resources.

A classification of these resource by weathering code is presented in

Table 31.

For Bluff and Punchbowl, acid-soluble copper assays have also been recently acquired, however there is much less data than the total copper data, and a blanket mean grade has been applied to the oxide and Sulphide zones of these prospects.

Table 30: Redbank Project resource estimate as at 6 July 2007.

Prospect	Classification	Tonnes	Total Cu (%)	Total Cu tonnes
Bluff	Indicated	856,000	1.50	12,800
Bluff	Inferred	1,179,000	1.66	19,550
Sandy Flat	Indicated	467,000	1.60	7,550
Sandy Flat	Inferred	1,524,000	1.20	17,500
Punchbowl	Inferred	416,000	1.24	5,150
Redbank	Inferred	372,000	1.51	5,600
Azurite	Inferred	214,000	1.34	2,900
<i>Total Project</i>	<i>Indicated</i>	<i>1,323,000</i>	<i>1.54</i>	<i>20,350</i>
<i>Total Project</i>	<i>Inferred</i>	<i>3,705,000</i>	<i>1.39</i>	<i>50,700</i>
Total Project	Indicated plus Inferred	5,028,000	1.43	71,050

Table 31: Redbank Project resource estimate as at 6 July 2007 classified by weathering.

Prospect	Indicated		Inferred		Total	
Oxide						
	Tonnes	Cu (%)	Tonnes	Cu (%)	Tonnes	Cu (%)
Bluff	458,000	1.3			458,000	1.3
Punchbowl			31,000	0.9	31,000	0.9
Redbank			372,000	1.5	372,000	1.5
Azurite			214,000	1.3	214,000	1.3
Total Oxide	458,000	1.3	617,000	1.4	1,075,000	1.4
Fresh						
Sandy Flat	467,000	1.6	1,524,000	1.2	1,991,000	1.3
Bluff	398,000	1.7	1,179,000	1.7	1,577,000	1.7
Punchbowl			385,000	1.3	385,000	1.3
Total Fresh	865,000	1.7	3,088,000	1.4	3,953,000	1.4
Total Project	1,323,000	1.5	3,705,000	1.4	5,028,000	1.4

Appendices

Appendix 1 Redbank Project Density Measurements

Deposit	Hole	Depth	Density	Date	Laboratory	Comments	Type
Bluff	BL-009	15.5	2.30	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-009	24.7	2.10	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-009	31.4	2.30	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-012	7.9	2.10	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-012	19.5	2.40	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-012	26.8	2.30	1990	Chem Centre WA	Waxed	Oxide
Bluff	BL-017	166.1	2.5	2005	NTEL	Waxed	Sulphide
Bluff	BL06-008	6.0	3.36	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	12.0	2.04	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	17.0	2.23	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	23.0	2.51	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	29.0	2.33	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	35.0	2.32	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-008	39.0	2.62	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-012	15.0	2.21	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-012	23.0	2.12	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-012	29.0	2.13	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-012	32.0	2.14	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL06-012	36.0	2.26	Jun-07	Ammtec	Waxed	Oxide
Bluff	BL-069	139.3	2.09	2005	NTEL	Waxed	Sulphide
Bluff	BL07-008	40.0	2.21	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-008	45.0	2.35	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-008	50.0	2.44	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-008	55.0	2.56	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-008	60.0	2.58	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-012	38.0	2.24	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-012	45.0	2.24	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-012	50.0	2.48	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-012	60.0	2.25	2007	Ammtec	Waxed	Sulphide
Bluff	BL07-012	68.0	2.65	2007	Ammtec	Waxed	Sulphide
Bluff	BL-071	103.9	2.59	2005	NTEL	Waxed	Sulphide
Bluff	BL-071	144.8	2.4	2005	NTEL	Waxed	Sulphide
Bluff	BL-071	184.1	2.34	2005	NTEL	Waxed	Sulphide
Punchbowl	PB07-001	10.0	2.46	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	13.0	1.40	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	18.0	1.45	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	22.0	1.73	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	28.0	1.84	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	29.0	1.82	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	31.0	1.86	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	35.0	1.74	Jun-07	Ammtec	Waxed	Oxide

Deposit	Hole	Depth	Density	Date	Laboratory	Comments	Type
Punchbowl	PB07-001	38.0	1.94	Jun-07	Ammtec	Waxed	Oxide
Punchbowl	PB07-001	40.0	1.71	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-001	50.0	2.19	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-001	60.0	2.19	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-001	70.0	2.37	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-001	84.0	2.15	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-024	104.0	2.12	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-024	110.0	2.18	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-024	115.0	2.30	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-024	120.0	2.08	2007	Ammtec	Waxed	Sulphide
Punchbowl	PB07-024	125.0	2.59	2007	Ammtec	Waxed	Sulphide
Redbank	RKD3	2.6	2.20	1990	Chem Centre WA	Waxed	Oxide
Redbank	RKD3	5.5	2.10	1990	Chem Centre WA	Waxed	Oxide
Redbank	RKD3	8.8	2.20	1990	Chem Centre WA	Waxed	Oxide
Redbank	RKD3	12.1	2.40	1990	Chem Centre WA	Waxed	Oxide
Sandy Flat	ASF41	8.0	2.48	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF41	12.0	1.43	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF41	16.0	1.63	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF41	20.0	1.58	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF42	8.0	1.62	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF42	12.0	2.44	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF42	14.0	1.97	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF42	28.0	2.00	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF43	10.0	2.11	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF43	14.0	2.35	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF43	18.0	1.27	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF43	22.0	1.61	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF43	26.0	1.92	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	9.5	1.85	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	14.0	1.19	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	22.0	1.88	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	26.0	1.66	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	28.0	1.63	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF44	30.0	1.58	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	10.0	2.06	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	14.0	1.62	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	18.0	1.38	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	22.0	1.51	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	24.0	1.60	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF45	26.0	1.46	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF46	16.0	2.21	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF46	20.0	1.24	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF46	28.0	1.79	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF46	32.0	1.72	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	12.0	1.60	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	16.0	1.80	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	20.0	1.58	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	24.0	1.46	1976	Warman International	Paint sealed	Oxide

Deposit	Hole	Depth	Density	Date	Laboratory	Comments	Type
Sandy Flat	ASF47	26.0	1.49	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	32.0	1.75	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	34.0	1.85	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF47	44.0	2.35	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	14.0	2.21	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	18.0	1.91	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	22.0	1.99	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	26.0	1.86	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	30.0	1.90	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	34.0	1.64	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	38.0	2.17	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	42.0	1.94	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF48	46.0	2.14	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	14.0	1.66	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	18.0	1.73	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	22.0	1.78	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	26.0	1.71	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	30.0	1.75	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	34.0	1.92	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF49	38.0	1.88	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	20.0	1.70	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	28.0	1.73	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	32.0	1.93	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	34.0	1.87	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	40.0	1.98	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	44.0	2.10	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF50	48.0	1.56	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF52	8.0	1.88	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF52	12.0	2.10	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF52	16.0	1.74	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF52	20.0	1.94	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF52	24.0	1.99	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	6.0	2.03	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	10.0	1.85	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	14.0	2.21	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	18.0	1.77	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	22.0	1.87	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	26.0	2.02	1976	Warman International	Paint sealed	Oxide
Sandy Flat	ASF53	30.0	1.80	1976	Warman International	Paint sealed	Oxide
Sandy Flat	SF-001	276.1	2.16	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-001	341.7	2.17	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-004	96.9	2.02	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-006	151.5	2.25	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-008	182.9	2.19	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-008	309.1	2.22	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-009	194.8	2.11	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-010	82.3	2.14	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF-011	148.4	2.21	2005	NTEL	Waxed	Sulphide

Deposit	Hole	Depth	Density	Date	Laboratory	Comments	Type
Sandy Flat	SF-011	203.9	2.31	2005	NTEL	Waxed	Sulphide
Sandy Flat	SF63	9.8	1.89	1990	Chem Centre WA	Waxed	Oxide
Sandy Flat	SF63	13.6	2.33	1990	Chem Centre WA	Waxed	Oxide
Sandy Flat	SF63	22.7	1.93	1990	Chem Centre WA	Waxed	Oxide
Sandy Flat	SF63	35.5	2.21	1990	Chem Centre WA	Waxed	Oxide
Sandy Flat	SF64	39.7	2.46	1990	Chem Centre WA	Waxed	Oxide

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