



RON GREGORY PROSPECTING

RL1/2011

LEFROY

TASMANIA

ANNUAL REPORT

Period ending 30th April 2014

June 2014

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Datum: GDA

Distribution:

- 1. Mineral Resources Tasmania**
- 2. Ron Gregory**

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1 ABSTRACT

This report details the work completed on RL1/2011 for the twelve month period ending 30th April 2014

2. INTRODUCTION

No field exploration work was done during 2013-2014, however rehabilitation of historic percussion drillhole caps was conducted, as required by the agreement with BCD Resources for the transfer of the Licence.

A collation and review of the previous exploration as well as a reconnaissance of the Pinafore/Chum workings was also conducted.

3. TENEMENT STATUS

The Retention Licence (RL1/2011) covers 6 square kilometres in north-eastern Tasmania, just north of Lefroy Township on the road to Beechford about 45km north of Launceston.

The Licence was originally granted to BCD Resources NL on 23rd April 2012 for a period of 2 years. The Licence was subsequently transferred to Ron Gregory effective from the 6th March 2013.

BCD Resources NL (previously named Beaconsfield Gold NL {BGL}) acquired the Exploration Licences covering the Lefroy Goldfield and other areas from Lefroy Resources Ltd (LRL) in 2008, of which RL1/2011 is a small remaining part thereof.

The Licence contains no excluded areas and covers the known location of the Pinafore and Chum Reefs.

4 TOPOGRAPHY AND ACCESS

RL1/2011 is located largely within the State Forest and accessed by the Council maintained Lefroy – Beechford road (bitumen), which runs south-north through the tenement.

The terrain is undulating and vegetation is mostly light, open, eucalyptus forest, which has been extensively cutover for firewood.

5. GEOLOGY AND MINERALISATION

The Lefroy Goldfield is located in the Stoney Head Sandstone within 2km contact with the Turquoise Bluff Slate. The Stoney Head Sandstone is a thick bedded and typically unfossiliferous sandstone dominated succession (Reed, 2004).

A complete synopsis of the regional geology can be found in Baxter and Fulton (2006) – included as Appendix A. 2006 Annual technical report. (Lloyd, 2007)

6 PREVIOUS EXPLORATION AND MINING

Pre 2004 and 2004-2007.is summarized in the last Lefroy Project Annual Technical Report (Lloyd, 2007)

BGL had Coffey Mining Pty Ltd reinterpreted the LRL work on the Pinafore Reef and generated a JORC compliant Inferred Resource of 810,000 tonnes @ 1.46 g/t Au for 37,900 oz. Recommendations were made for further drilling.

3.

BCD drilled 13 percussion holes in 2010, 10 of which achieved intersections in the order of 0.5-3.4 g/t Au. The drilling “confirmed the southerly dip of the Pinafore Reef, but unfortunately no evidence of higher grade mineralization in the up-dip portion of

the resource was encountered. The 2010 drilling firmed up the view that the main concentration of mineralized shoots with dip direction continuity is west of the Beechford Road and that the resource overall is of marginal size and grade and would require a prolonged stable period of very high gold price (or gold hedging) to justify development.”

“Drilling coverage through the Pinafore Reef and the abandoned underground workings is now considered sufficient and no further drilling is planned in the near future” (Morrison 2010)

An in-house report (non JORC compliant but prepared under JORC guidelines) was prepared by David Gibbons, Senior Geologist of BCD Resources in October 2011, following the above drilling. (Appendix One)

7. WORKS COMPLETED 2013-2014

Rehabilitation of historic percussion drillhole caps was conducted by Ron Gregory Prospecting

A review of previous exploration and a collation of previous reporting were conducted by Ron Gregory. As a consequence it was decided to surrender 4.5 sq. km. of the Retention Licence and retain 1.5 sq. km.

4.

8. PROPOSED EXPLORATION 2014-2015

Continue to review existing geological data

Assess the alluvial gold potential

Assess the mining of high grade resources.

9. ENVIRONMENTAL

Rehabilitation of historic percussion drill-hole caps was completed.

10. EXPENDITURE

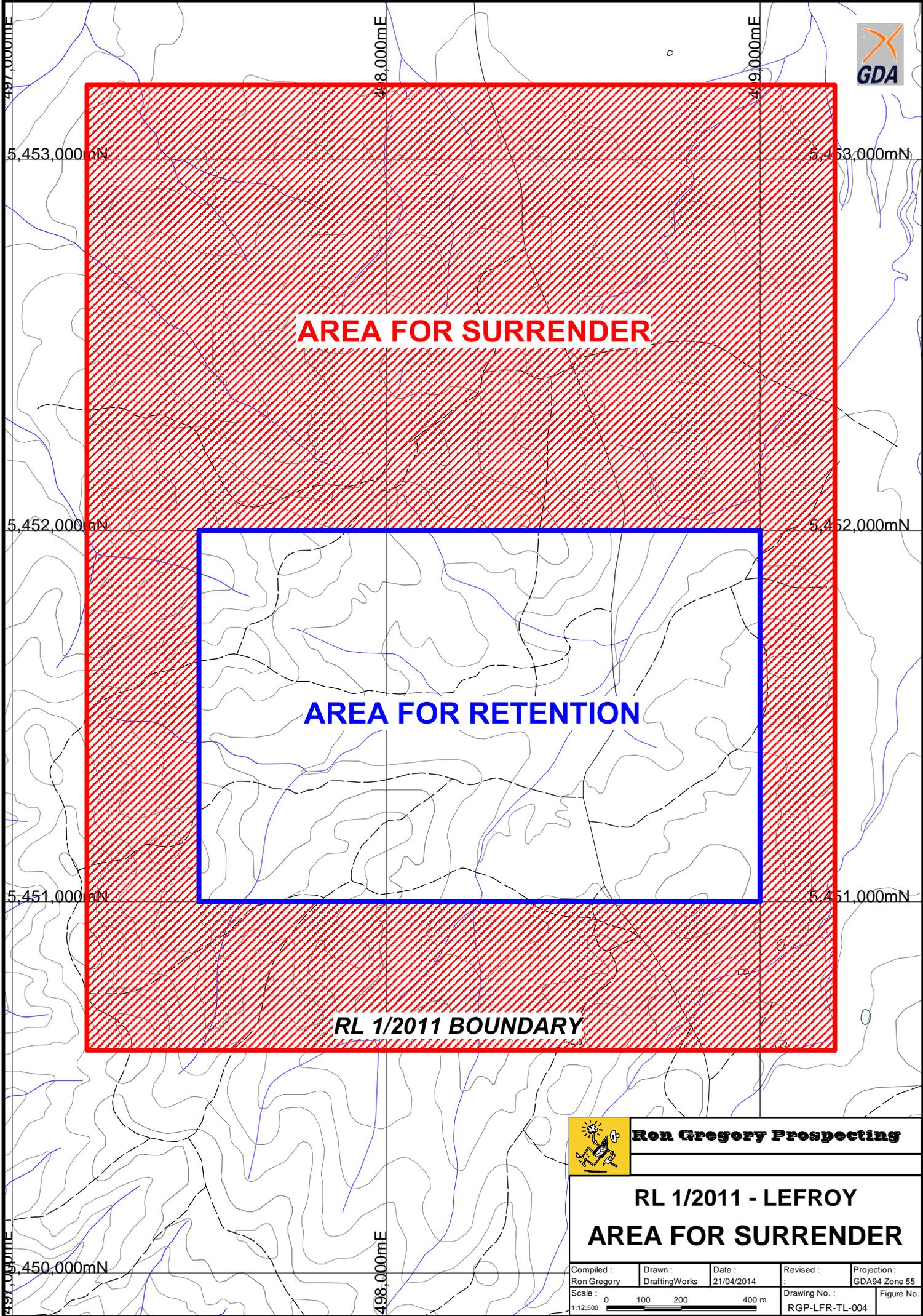
\$13,200

11. REFERENCES

Morrison, K. – BCD Resources - Annual Report, Oct 2010.

Gibbons, D. – BCD Resources –

Pinafore Gold Deposit Resource Estimate, Oct 2011.



AREA FOR SURRENDER

AREA FOR RETENTION

RL 1/2011 BOUNDARY



Ron Gregory Prospecting

**RL 1/2011 - LEFROY
AREA FOR SURRENDER**

Compiled : Ron Gregory	Drawn : DraftingWorks	Date : 21/04/2014	Revised : :	Projection : GDA94 Zone 55
Scale : 1:12,500			Drawing No. : RGP-LFR-TL-004	Figure No.:

BCD RESOURCES

Pinafore Gold Deposit

Resource Estimate

October 2011

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EXECUTIVE SUMMARY

In October 2011, BCD Resources (BCD) completed an in-house update of the Inferred Mineral Resource of the Pinafore gold deposit, incorporating new information gathered from drilling conducted during 2010. The most recent prior estimate was completed in March 2009 by Coffey Mining on behalf of BCD.

The project area is located 45km north of Launceston, and 13km east of the town of George Town, in north eastern Tasmania. The Pinafore gold deposit is part of the Lefroy Goldfield. The deposit is hosted in steeply dipping Ordovician sediments. Mineralisation occurs as a lode style deposit consisting of several veins of quartz in a "formation" of crushed and fractured rock. Gold is commonly associated with pyrite, chalcopyrite, stibnite and arsenopyrite.

The deposit has previously been mined (circa. 1900). Exploration in the area was recommenced in 1997, initially by Lefroy Resources Limited. The modern investigations at Pinafore have included geophysical surveys and various drilling programs. A resource estimate was reported in 2006 for a near surface resource at Pinafore expected to be suitable for mining by open pit methods and this report is also focused around a potentially open-pitiable resource. Based on historical records, the majority of the contained gold was hosted in a series of plunging shoots that occurred within a broader lower grade envelope. The modern drilling has failed to intersect any substantial quantity of high grade lode material, so the resource reported herein is mainly comprised of the low grade envelope that was largely left intact during historical mining.

There are limited in-situ bulk density measurements for the upper part of the reported resource of the Pinafore gold deposit (i.e. the potentially open-pitiable part). Further diamond drilling is recommended to obtain additional direct core measurements of in situ dry bulk density to increase confidence in tonnage calculations.

The resource model is based on statistical and geostatistical investigations generated using 1m composite data constrained by the mineralisation domains. Assessment of the composite outliers was completed to determine the requirement for high grade cutting (top cuts) for the input dataset to be used for grade estimation. This resulted in a 8% decrease in the average grade of the composites in the low grade domain from 1.32g/t Au to 1.22g/t Au. A sub-celled block model was constructed using parent block dimensions of 20m East by 5m North by 10mRL with sub-blocking to 2.5m Easting by 1.25m Northing by 2.5mRL for the purpose of providing appropriate definition of the topographic surface, geological and mineralisation zone boundaries.

Grade estimation was carried out for gold on the basis of analytical results available up to the 31st October 2011. As no robust experimental variograms could be generated, an Inverse Power of Distance Weighting ('IPD') method was selected as an appropriate grade estimation method given the quantity and spacing of available data and style of mineralisation under review. The geological model was derived from sectional geological interpretation and modelling of the mineralised zone. A three pass strategy was employed to generate the grade estimates. For the first pass, the number of composites for a successful estimate was restricted to a minimum of 12 and a maximum of 24, with an additional constraint of a maximum of 3 composites to be sourced from any one drill hole. The search axes were aligned with the dominant mineralisation trends. Initial search radii of 90m by 80m by 5m were applied in the first and second passes and expanded out to 180m by 160m by 20m for the third pass. For the second and third pass the minimum number of samples was reduced to 6.

The grade estimates have been classified in accordance with the guidelines set out in the Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code, 2004). Resource categories were primarily assigned on the basis of geological interpretation, data density and estimation quality. The following table represents the Mineral Resource as at 31st October 2011 for the Pinafore gold deposit. The resource estimate has been compiled by David Gibbons, Senior Geologist of BCD Resources who is *not* a Competent Person as required by the JORC Code.

Table 1 BCD Resources Pinafore Gold Deposit Summary Resource Statement – 31st October 2011 Reported At Various Gold Lower Cut off Grades				
Resource Category	Gold Lower Cut off Grade (g/t)	Tonnes (kt)	Gold Grade (g/t)	Contained Gold (ozs)
Inferred	0.5	845	1.30	35,300
	1	601	1.50	29,000
	1.5	203	2.07	13,500
	2	44	3.54	5,000

1 INTRODUCTION

1.1 Scope of Work

The 2011 resource estimate scope was to take the work done by Coffey Mining in 2009 and update it with the newer drilling data collected during 2010.

1.2 Participants

The 2011 resource estimate was undertaken by David Gibbons of BCD Resources.

1.3 Principal Sources of Information

Much of the digital data for the Pinafore gold deposit was held by Coffey Mining, and this was provided to BCD Resources by Troy Lowien, formerly of Coffey Mining. In summary, the following key data relevant to the resource estimation review and update were provided by Coffey Mining:-

- Previous reports on geology and resource estimates.
- Previous resource model.
- A database of all exploration drilling current as of March 2009
- Current topographic DTM of deposit area.
- Sectional interpretations of the mineralised domain.
- Wireframe models of the historical workings.

In addition to this, digital drill logs and assay results from the 2010 drilling were already held by BCD Resources.

1.4 Project Location and Access

The Pinafore gold deposit is located in the Lefroy goldfield in north east Tasmania, approximately 45km north of Launceston (Figure 1.4_1). The deposit is covered by a granted exploration licence (EL 35/2001) held by BCD Resources but is currently under application for a retention licence (RL1/2011) which is somewhat smaller than EL35/2001 (Figure 1.4_2). The terrain surrounding the Pinafore gold deposit is moderately undulating and the project area is accessed by sealed roads.

Figure 1.4_1
BCD Resources
Pinafore Gold Deposit
General Project Location (Lefroy marked)

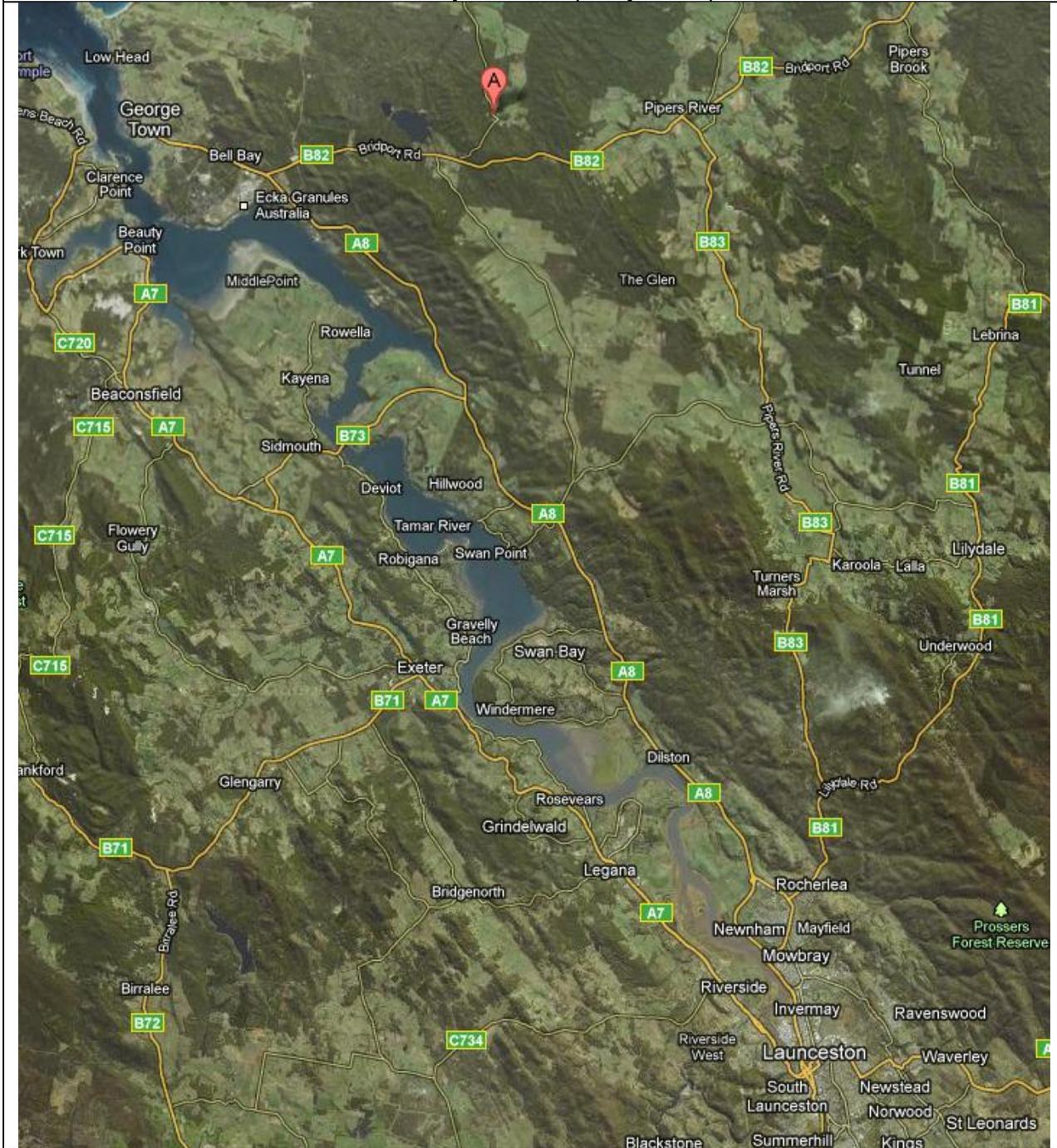
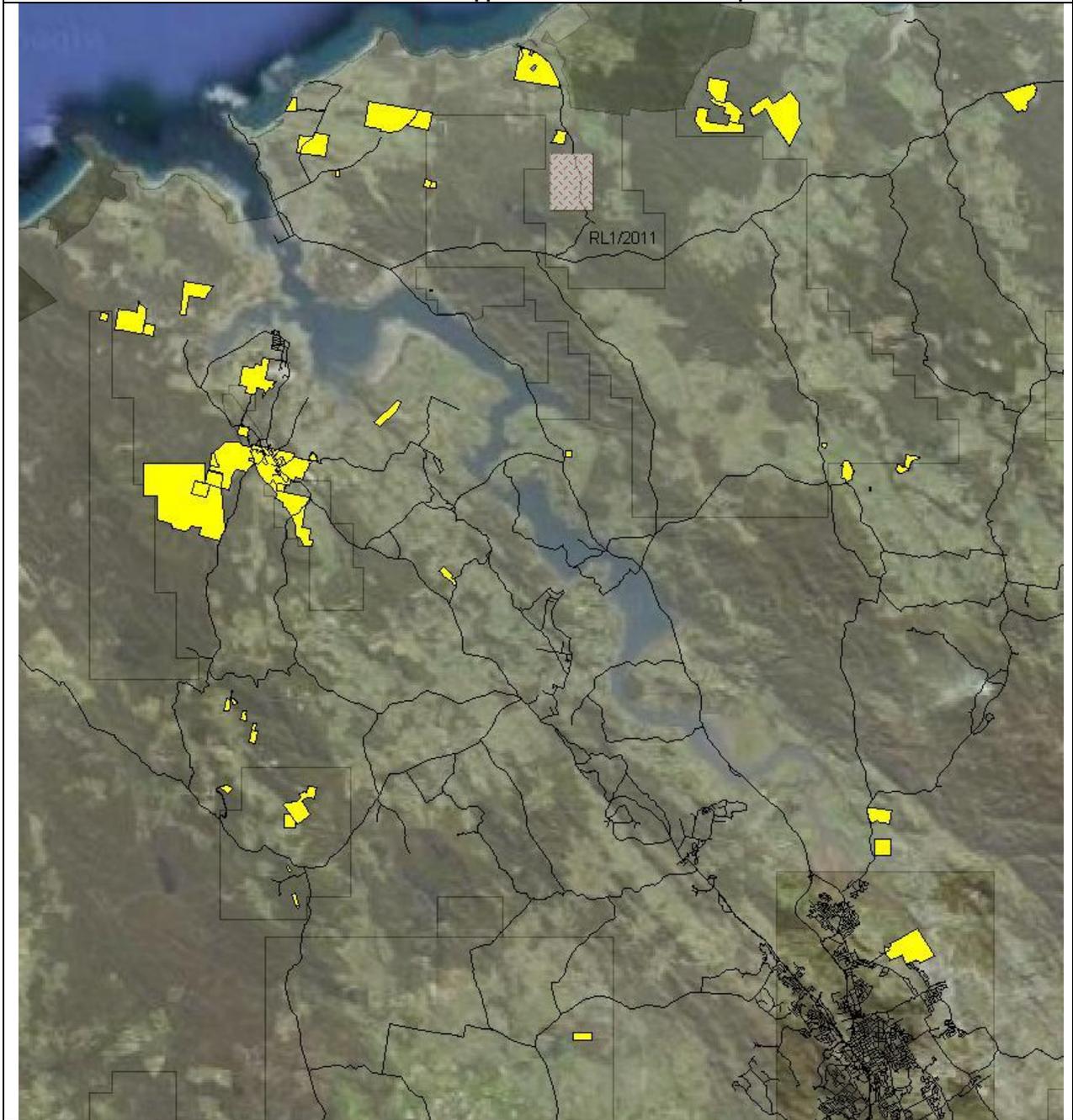


Figure 1.4 2
BCD Resources
Pinafore Gold Deposit
Retention Licence Application Area – Pinafore Deposit



1.5 List of Abbreviations

A summary of abbreviations that may be used in the report is provided as Table 1.5_1.

Table 1.5_1 Typical Abbreviations			
Abbreviation	Description	Abbreviation	Description
Au	Gold	oz	ounce (Troy) (=31.10348g)
CV	Coefficient of Variation	ppm	Parts per million
DTM	digital terrain model	QAQC	quality assurance quality control
GPS	Global Positioning System	RC	Reverse Circulation
g/t	Grams per tonne	DDH	Diamond Drill Hole
JORC	Joint Ore Reserves Committee	t	Tonne
kg	Kilogram	kt	Kilotonne
km	Kilometre	2D	Two-dimensional
m	Metre		
m ²	square metre		
mE	metres East		
mN	metres North		
mRL	metres Relative Level		

2 PROJECT BACKGROUND

2.1 Historical Production and Recent Exploration

The Pinafore gold deposit is one of a number of gold bearing lodes that are collectively called the Lefroy Goldfield. The goldfield was worked between 1869 and 1911 with records indicating that in the order of 200,000 ounces of gold was produced. Between 1997 and 2001 Allstate Explorations drilled 14 reverse circulation (RC) holes across the Pinafore deposit but failed to intersect any significant mineralisation. During 2004 to 2005 Lefroy Resources Limited (LEF) carried out a drilling program consisting of reverse circulation (RC) and diamond holes (DDH) to test for economic mineralisation below the level of the historical workings. This program intersected areas of remnant mineralisation surrounding the historical workings and LEF followed up with more RC and DDH holes during 2005 to 2006, concentrating on this near surface remnant material. As a result of this drilling, LEF reported an Inferred Mineral Resource for near surface (less than 100m depth) mineralisation at Pinafore. Subsequent to this resource estimate, an extra four RC and two DDH holes were drilled into the near surface mineralised zone. In 2008, BGNL entered into an agreement with LEF to acquire the exploration tenements covering the Lefroy Goldfield. In 2010, BGNL drilled a further 13 RC holes at Pinafore.

2.2 Previous Resource Estimates

As mentioned previously, LEF reported an Inferred Mineral Resource estimate in 2006 of near surface "open pitable" mineralisation at the Pinafore gold deposit (Table 2.2_1).

Table 2.1_1 BCD Resources Pinafore Gold Deposit 2006 Resource Estimate above -10mRL, using a 1g/t Au lower cut off grade			
Category	Tonnes (t)	Grade Au (g/t)	Ounces (oz)
Inferred	616,000	2.5	49,435

The resource was estimated by an inverse distance squared interpolation method using a combination of drilling and historical production data, utilising Micromine software. A wireframe model of the mineralised

domain was constructed using a lower cut off grade of 0.5 g/t Au and a minimum width of 2m. Samples within the mineralised domain were composited to 1m intervals with no top cut applied to the composited data. A bulk density value of 2.8t/m³ was applied to the estimation and historical stoping removed from the model.

Coffey Mining produced an updated Inferred Mineral Resource estimate in 2009 for the Pinafore gold deposit (Table 2.1_2).

Table 2.1_2 BCD Resources Pinafore Gold Deposit 2009 Resource Estimate above -10mRL, using a 1g/t Au lower cut off grade			
Category	Tonnes (t)	Grade Au (g/t)	Ounces (oz)
Inferred	810,000	1.46	37,900

The resource was again estimated using an inverse distance squared interpolation method using only drilling data. Historical production data was excluded. A new wireframe model of the mineralised domain was constructed. Samples were composited to 1m within the wireframe and a top cut to 10 g/t was applied. A bulk density value of 2.8t/m³ was applied to the estimation and historical stoping was removed from the model. Further details of the Coffey estimate can be found in the report “Review of the Pinafore Gold Deposit”, (Lowien, 2009)

3 GEOLOGICAL SETTING

The following is a brief synopsis of the geology of the deposit as described in Lloyd et al, 2005 & 2007 and reproduced verbatim from Lowien, 2009.

3.1 Regional Setting

The Pinafore gold deposit is situated in an overturned limb of a recumbent fold in the Pipers River Recumbent Zone. This fold is thought to have occurred during D₁, with D₁-D₂ events resulting in a regional thrust terrain. During the D₃ event northerly trending sinistral strike-slip faults developed easterly trending secondary shears. These easterly trending shears sourced mineralising fluids from D₃ detachment faults.

3.2 Project Geology

3.2.1 Lithology

The rocks of the Lefroy Goldfield are steeply dipping turbiditic sediments (sandstone and siltstone) considered to be Ordovician in age. Narrow, dark siltstone horizons are often favourable units for fault initiation and appear to be the focus for deformation associated with gold mineralisation.

3.2.2 Mineralisation

The Pinafore gold deposit has been historically described as a lode style deposit consisting of several veins of quartz in a “formation” of crushed and fractured rock. Gold is commonly found associated with pyrite, chalcopyrite, stibnite and arsenopyrite. The mineralisation at Lefroy has the following characteristics:

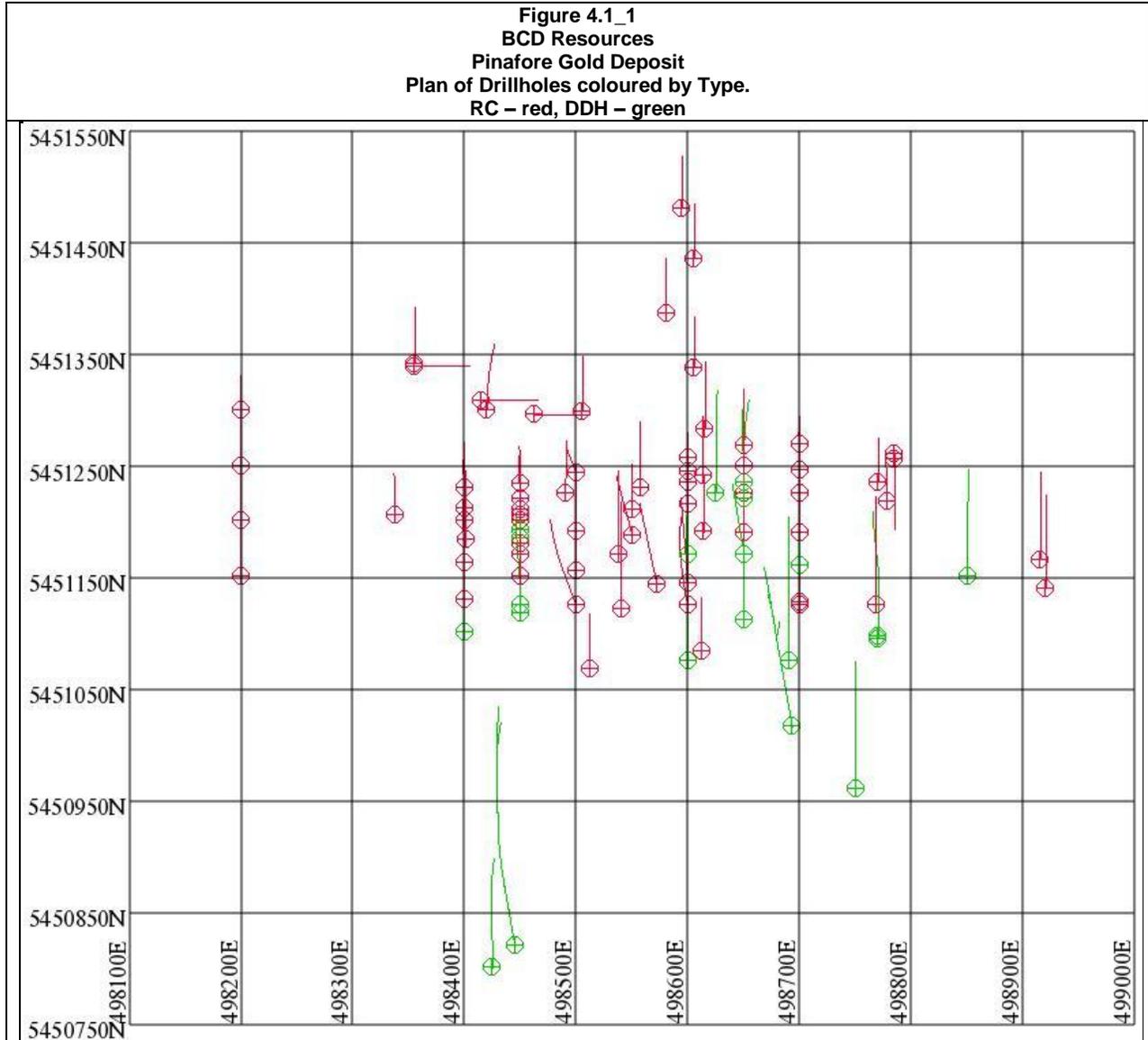
- Mineralisation is partitioned into E-W striking, steeply dipping shears formed between reactivated NW-trending low angle shears.
- The E-W mineralised shears contain flexures that separate well mineralised (>2.7g/t Au) and poorly mineralised (<2.7g/t Au). The axes of the flexures plunge shallowly to the east.
- Interaction between the E-W mineralised shears and pre-existing fabrics imposes a gross westerly plunge to the lodes.

- Partitioning of the lodes by minor (<2m) right lateral faulting has occurred with the formation of north-easterly striking D₄ faults.

4 DATA COLLECTION

4.1 Drilling

Investigation of the mineralisation at the Pinafore gold deposit has been undertaken by a combination of RC and diamond drilling techniques. Figure 4.1_1 displays a plan of the drill holes used in the resource evaluation, coloured by type.



The initial drilling was by Allstate Exploration NL between 1997 and 2001, and consisted of 14 RC holes of unknown size. This was followed up in 2004 - 2005 with LEF drilling 22 RC holes and 9 diamond drill holes. A further 11 RC and 9 diamond drill holes were drilled in the 2005 - 2006 season., followed by 4

RC and 2 DDH holes in the 2006 – 2007 season. An additional 13 RC holes were drilled by BCD Resources in 2010.

All holes were drilled by the same drilling company using a G&K 850 rig (900 CFM, 350 PSI) with booster compressor. The RC holes were 5¼ inch diameter and the diamond holes were NQ2 (50mm) inside HQ-cased RC pre-collars. Recoveries of diamond core in the mineralised zone are reported to be in the order of 95%. Table 4.1_1 provides a summary of the exploration holes drilled at the Pinafore gold deposit. Details of the procedures and equipment used to collect samples are provided in Section 4.4.

4.1.1 Drill Hole Spacing

Drill holes are drilled on nominally 50m spaced sections. Spacing between holes on sections varies between approximately 15m to 30m down dip. The most distal sections (at either end of the lateral extent of the mineralisation) are typically only informed by one or two drill holes.

Company	Number of Holes by Method		Average Length (m)	Total (m)	Number of Assays
	RC	Diamond			
Allstate Exploration NL	14		84	1,170	1,572
Lefroy Resources Ltd	37	18	87	4,791	7,909
BCD Resources	13		77	996	595
Total	64	18	85	6,957	10,076

4.2 Surveying

4.2.1 Introduction

All surveying at the Pinafore gold deposit has been recorded into Zone 55 of the MGA94 (Map Grid of Australia) coordinate system.

4.2.2 Drillhole Collars

The position of all drillhole collars was located by handheld GPS and estimated to be within +/-5m in northing, easting and RL.

4.2.3 Down Hole Surveying

The majority of RC and diamond holes were surveyed using a single shot Eastman camera, with some holes being surveyed from within the rod string and therefore only recording dip measurements. Survey intervals range from 5m to 100m, with the majority of holes surveyed approximately every 50m down hole.

4.2.4 Topography

A detailed surface topography survey was supplied which was sourced from data obtained during a detailed airborne geophysical survey conducted in 2004.

4.3 Logging

All drillholes have been geologically logged and summary logs of alteration, mineralogy and lithology were supplied in spreadsheet format.

4.4 Sampling

4.4.1 RC Drilling

RC samples were collected from the cyclone, with dry samples split using a 3-tiered riffle splitter and wet samples spear sampled. Split samples were placed in pre-numbered calico bags. These procedures are accepted industry standard for collecting RC drilling samples.

4.4.2 Diamond Drilling

All DDH core was half core sampled by cutting along the long axis of the S_0/S_1 ellipse. Sample lengths in the mineralised zone were dependent on geological contacts and were generally no longer than 1m. These procedures are accepted industry standard for collecting diamond drilling samples.

4.5 Sample Preparation and Analysis

Diamond and RC samples were submitted to Genalysis Laboratory Services in Adelaide SA for preparation where the samples were dried, crushed (if required) and ground to nominal 85% passing 75 micron. A duplicate was taken every 25th sample. The pulps (including those from the initial Allstate drilling) were then sent to the Genalysis laboratory in Perth for assay where initial assays were undertaken by aqua-regia digestion followed by Au (0.01 ppm) determination by flame AAS. Any samples that displayed Au values of greater than 0.1ppm were then re-assayed using fire assay techniques. Any fire assay results of Au greater than 0.2ppm were then assayed again using screen (100 micron) fire assay techniques.

The 2010 sampling was assayed using a 50g fire assay with AAS finish.

4.6 Quality Control Procedures

Quality control of sample assays was limited to insertion of field standards at the rate of 1 in 50 initially, followed by 1 in 100 after a few thousand metres. Every second standard submission also included a blank sample. Standards were also submitted with each batch at the sample preparation stage at the rate of 1 in 25. Standards were certified and purchased from Ore Research and Exploration. The assay laboratory also conducted its own quality control program, consisting of standards and/or blanks inserted at the rate of 1 in 26 and at the end of every job.

4.7 Rock Density Measurements

Bulk density determinations were conducted on 193 core billets from 7 separate diamond drill holes by Lefroy Resources. Measurements were made using plastic-wrapped water immersion techniques in the field and were subdivided into different lithologies. However, prior to 2011 no density measurements were available for the upper section of the deposit above -10mRL. In late 2011, all old core was recovered from Lefroy and the ore intervals were identified and relogged. At the same time, density measurements were taken using a water immersion technique for intact/non-friable lengths of core from the ore zones and from a representative selection of waste rocks from the upper parts of the deposit.

5 DATA VERIFICATION

5.1 Assessment of Quality Control Data

No analysis of quality control results has been carried out in 2011, although the assay results from the 2010 drilling indicate some duplicates and standards were submitted and assayed. In their 2009 review, Coffey Mining considered previously reported results “...acceptable for the inclusion of associated sample assays in a resource estimation exercise”.

5.2 Assessment of Project Database

The data from the various exploration programs was compiled into a Microsoft Access database by Coffey Mining as part of the 2009 update. This database was provided to BCD Resources for the 2011 update. The 2010 exploration program data was contained in a series of Excel spreadsheets held by BCD; these were reformatted and the data loaded into the Access database. Minor changes were made to the database and to the database mapping file for the interface with Surpac.

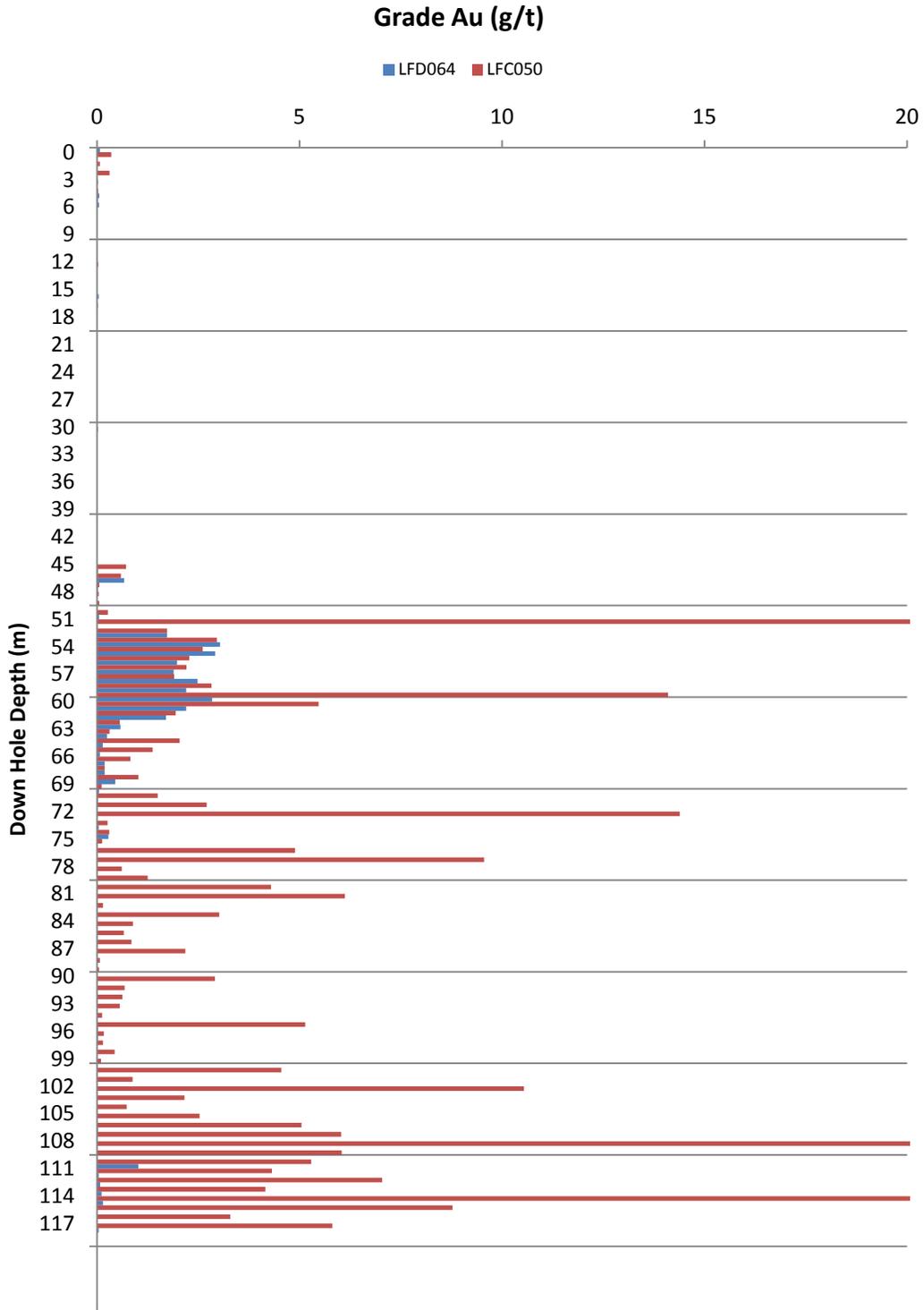
5.2.1 Validation of the Supplied Database

The database was validated by Coffey in 2009 and only the 2010 drilling was added to the database in 2011. End of hole depths and overlapping intervals for the new drilling were checked.

5.3 Drillhole Twinning

There is only one pair of holes at the Pinafore gold deposit that were drilled in close enough proximity to each other to be considered as twinned. RC hole LFC050 and DDH LFD064 have an average separation distance of 5m for the majority of their length. Comparison of the raw sample assay values at similar down hole depths is displayed in Figure 5.3_1. The main mineralised zone is apparent in both holes between 50m and 60m down hole. Continuing down hole, only the RC hole has anomalous Au values almost continuously for the next 60m until its final depth of 118m. As the initial high grade sample in the RC hole is logged as stope fill, this dramatic difference in grade between the two holes is considered to be due to down hole contamination caused by stope fill entering the hole as it is drilled.

Figure 5.3_1
BCD Resources
Pinafore Gold Deposit
Comparison of Close Spaced Holes by Down Hole Depth



5.4 Data Quality Summary

The Coffey Mining review of the database veracity, including data quality, identified one drill hole displaying evidence of possible down hole contamination of RC drilling samples due to the intersection of the hole with a backfilled stope. This raises questions about the validity of RC drill hole sample assays downhole from intersections with historical workings. However Coffey Mining were unable to find evidence of further instances of this occurring and there is no clear evidence of significant contamination in the 2010 drilling.

6 MINERAL RESOURCE ESTIMATE 2011

6.1 Introduction

Using the 2009 resource estimate as a starting point, the model was updated with new wireframes and the addition of the new drilling data. The model was also rotated to align with the overall dip of the Pinafore orebody.

6.2 Geological Interpretation and Modelling

6.2.1 Introduction

Based on all of the available geological and grade information, suitable lithology and mineralised domain boundaries have been interpreted and wireframes constructed to constrain grade estimation for the Pinafore lode. Interpretation and digitising of all constraining boundaries has been undertaken on cross sections coinciding with the dominant drill orientation. The resultant digitised boundaries have been used to construct wireframe surfaces or solids defining the 3-D geometry of each interpreted feature. Review and edit of the grade domains were carried out using the interactive modelling facilities in the Surpac mining software package. All modelling work was completed in MGA94, Zone 55 coordinates.

6.2.2 Mineralised Domain Modelling

Mineralised domain boundaries for the purpose of constraining grade estimation have been interpreted and modelled based on the geological logging and grade constraints. Outlines of the mineralised domain were interpreted on 50m spaced, north-south drill sections based on a 0.5g/t Au lower cut off grade. The mineralised domain was generally extended no more than 25m up or down dip past the last drill hole containing grade above the cut off, unless continuity was assumed. These outlines were then combined together to form a solid wireframe. The interpretation of the mineralised domain is based on the presence of footwall and hangingwall structures which converge, resulting in wider areas of mineralisation.

One of the two high grade domains/trisolations was retained from the 2009 estimate. These are based on the indicated high grade shoot dimensions of 40m long x 25m high x 2m wide as described by Lloyd and Baxter, 2007. These plunging shoots are contained within the broader mineralised domains, and plunge about 50° to the east. The second high grade shoot/trisolation from the 2009 estimate was discarded as it is penetrated by a drill hole that contains no high grade material.

A surface representing the base of the Tertiary/Quaternary cover was constructed to constrain the up dip extension of the mineralised domain wireframe. Various 3D views of this mineralised domains and drillholes are displayed in Figure 7.2.2_1 and Figure 7.2.2_2 and a representative cross section in Figure 7.2.2_3.

Figure 6.2.2_1
BCD Resources
Pinafore Gold Deposit
View of Wireframed Domains
Mineralised Domain (blue-grey) and Base of Basalt/Clay Cover (red)
Looking North East
Historical Workings also shown.

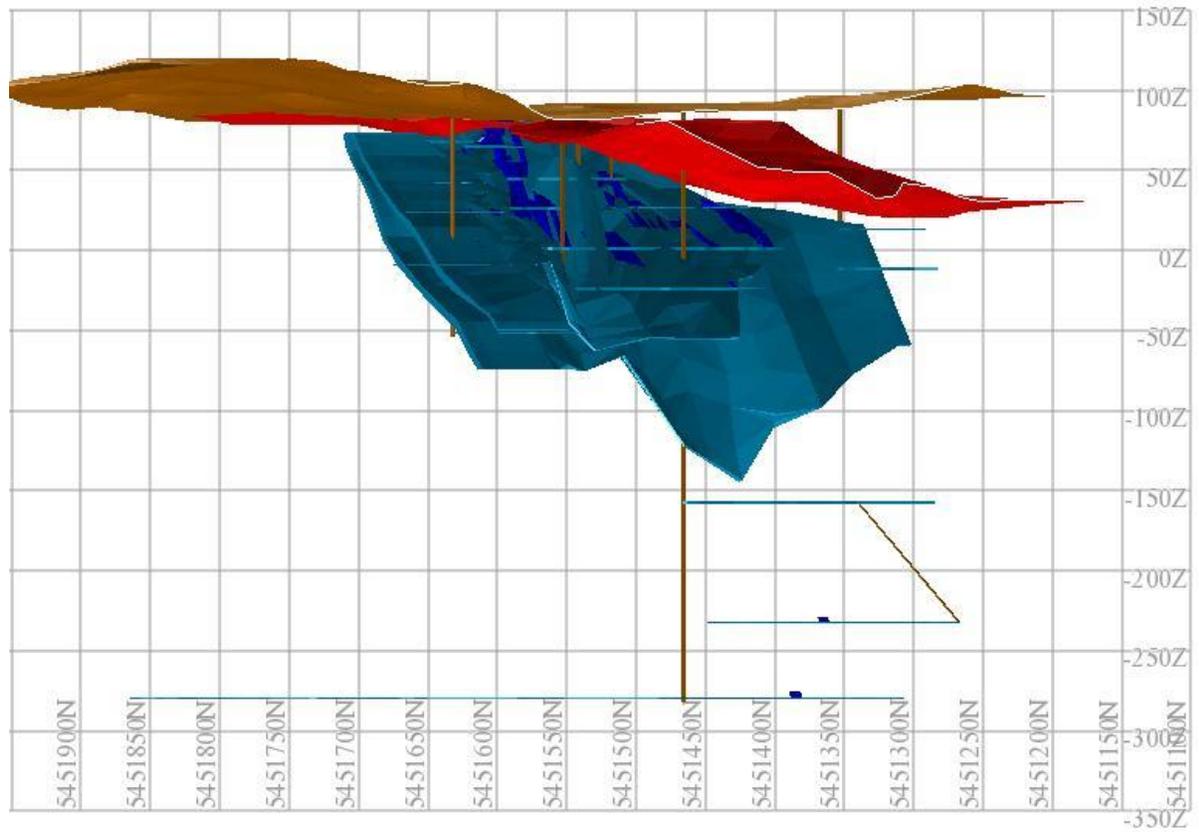


Figure 6.2.2_2
BCD Resources
Pinafore Gold Deposit
Long Section View of Low and Grade Domains Looking North.

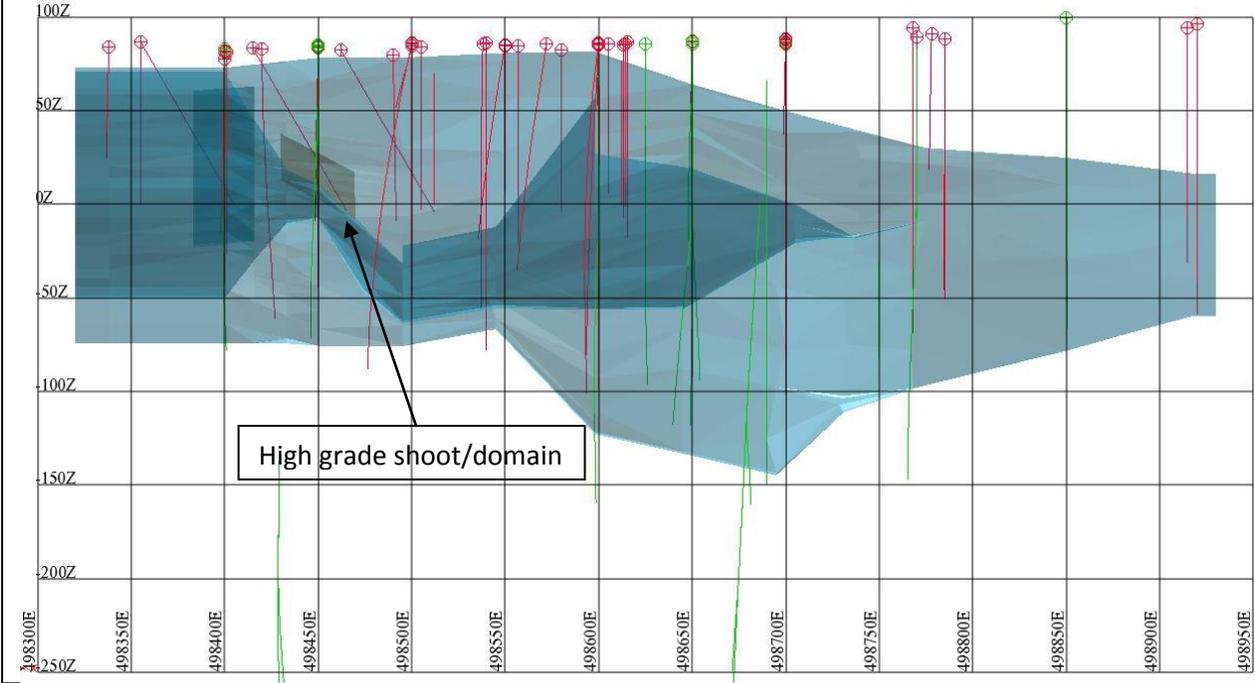
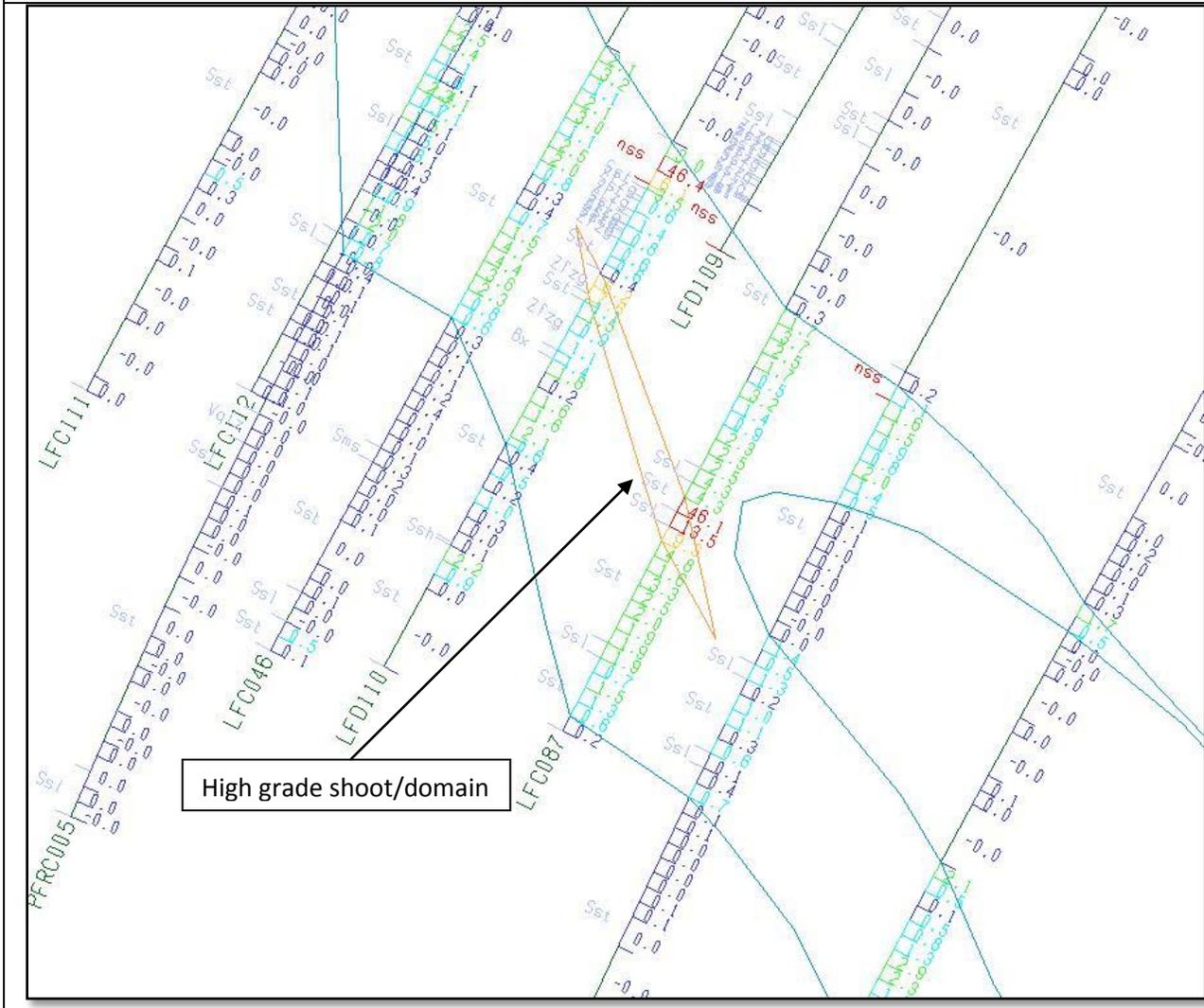


Figure 6.2.2_3
BCD Resources
Pinafore Gold Deposit
Cross Section 498450mN
Mineralised Domain (blue) and High Grade Domain (yellow).



6.3 Statistical Analysis

6.3.1 Introduction

Statistical analysis was undertaken based on sample and one metre composited datasets of the gold assays. The activities completed in this phase of the study were as follows:-

- Coding of the drillhole databases based on the geological interpretation;
- Determination of a suitable composite length;
- Compositing of the drillhole data to a nominal 1m length;
- Compilation of descriptive statistics and histogram plots of the composite gold datasets.
- Outlier grade analysis and determination of a high grade cut.

Any samples logged as stope fill or from hole LFC050 were omitted from the data set used for statistical analysis and estimation for reasons outlined in Section 6.3.

6.3.2 Data Coding

The wireframe model of the mineralisation domain has been used to assign a code into the drillhole database to allow assessment of the variations in grade inside the domain. The coding applied to the database is summarised in Table 7.3.2_1

Table 6.3.2_1 BCD Resources Pinafore Gold Deposit Domain Coding						
Domain		Wireframe		Variable		
Type	Description	Name	Description	Table	Field	Code
Low Grade Mineralisation	Inside mineralised domain	final_lode_2011.dtm	solid	tblIntercept	Code	pinafore_20111102
High Grade Mineralisation	Inside high grade mineralised domain	hg1.dtm	solid	tblIntercept	Code	pinafore_hg_20111102

The mineralisation domain coding assigned to the drillholes was visually compared with the corresponding wireframe boundaries in cross section to ensure all coding was robust.

6.3.3 Sample Length Analysis

Coffey Mining undertook sample length analysis in 2009. The significant results at that time were that:

- 98% of the drillhole samples within the mineralised domain had been collected over intervals of 1m or less, and
- a 1m unit length was selected for data compositing, and
- of the total number of composites, 94% were 1m in length

For the 2010 drilling program, samples in the mineralised zones were collected at 1m intervals. 1m has been retained as the composite length for the 2011 resource estimate.

6.3.4 Statistical Analysis of Composite Data

Detailed statistical analysis of the gold 1m composite data inside the low grade mineralised domain has been conducted. There is not enough data inside the high grade domain to generate any meaningful statistics. Descriptive statistics for the low grade mineralised domain is presented in Table 6.3.4_1. The summary chart of the dataset indicates it forms a positively skewed distribution. The histogram, log histogram and probability plots for the mineralised domain are presented in Figure 6.3.4_1. The dataset displays evidence that there may be multiple grade populations present. However, there is insufficient data available to confirm this or effectively separate these domains.

Table 6.3.4_1
BCD Resources
Pinafore Gold Deposit
Summary 1m Composite Statistics
Low Grade Mineralised Domain

Statistic	Au (g/t)
Count	585
Minimum	0.0
Maximum	42.36
Mean	1.32
Median	0.85
Standard Deviation	2.5
Coefficient of Variation	1.9

Figure 6.3.4_1
BCD Resources
Pinafore Gold Deposit
Histogram Plot
(Low Grade Domain)

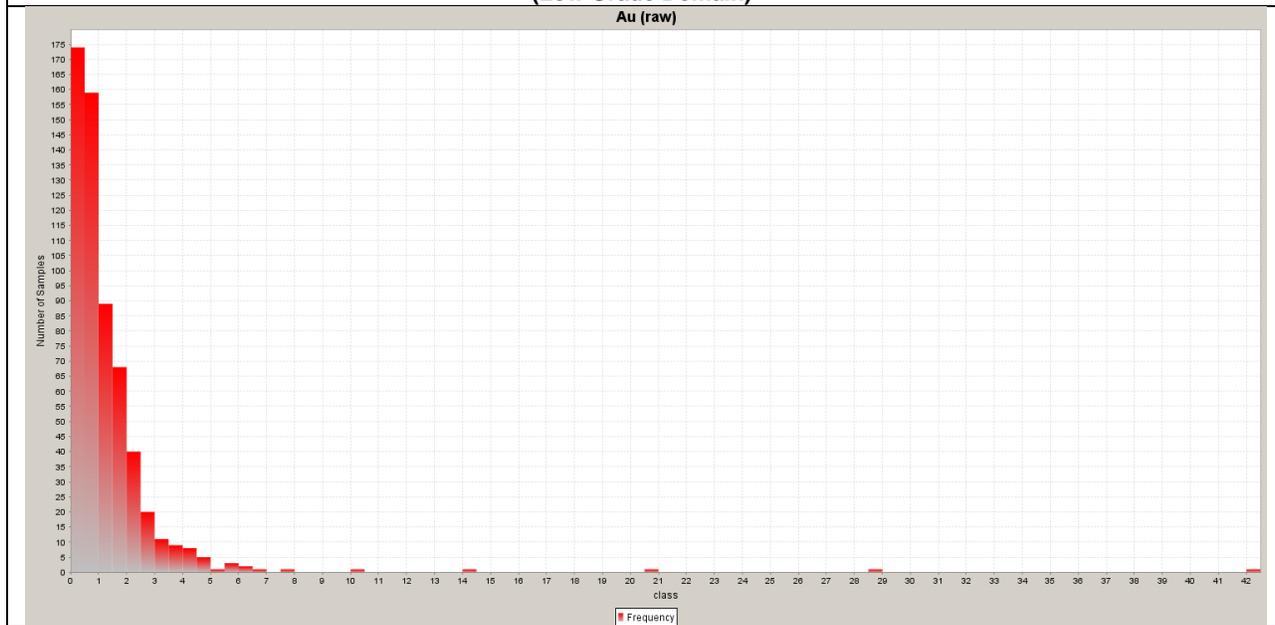


Figure 6.3.4_1
BCD Resources
Pinafore Gold Deposit
Log Histogram Plot
(Low Grade Domain)

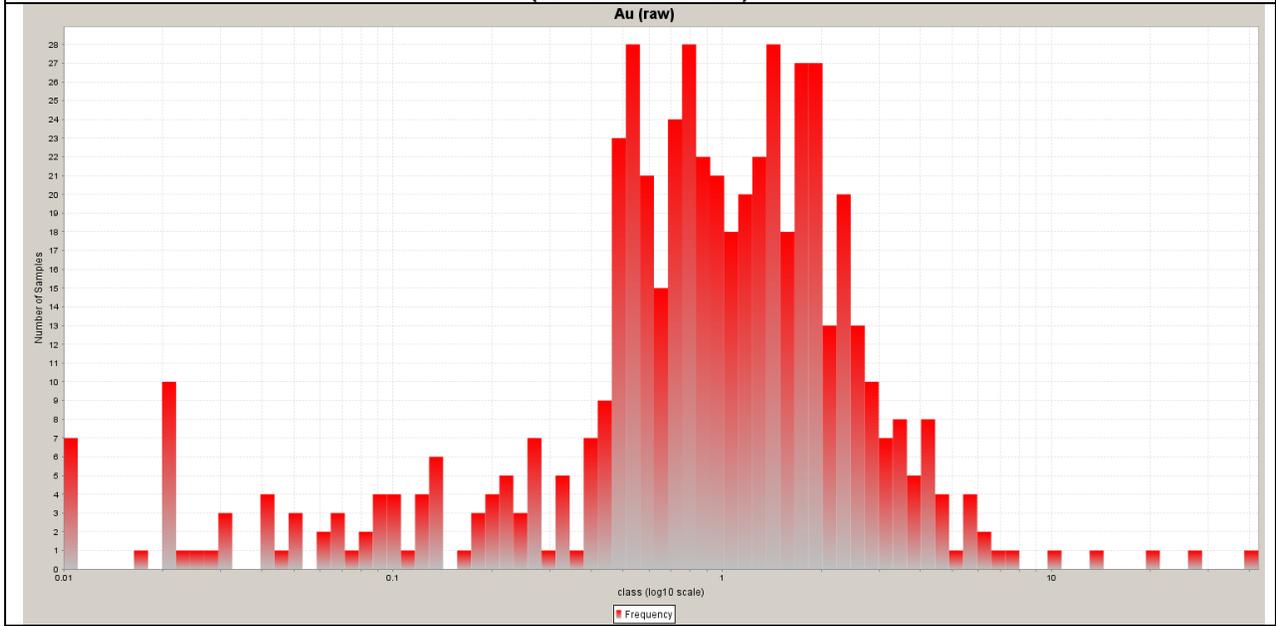
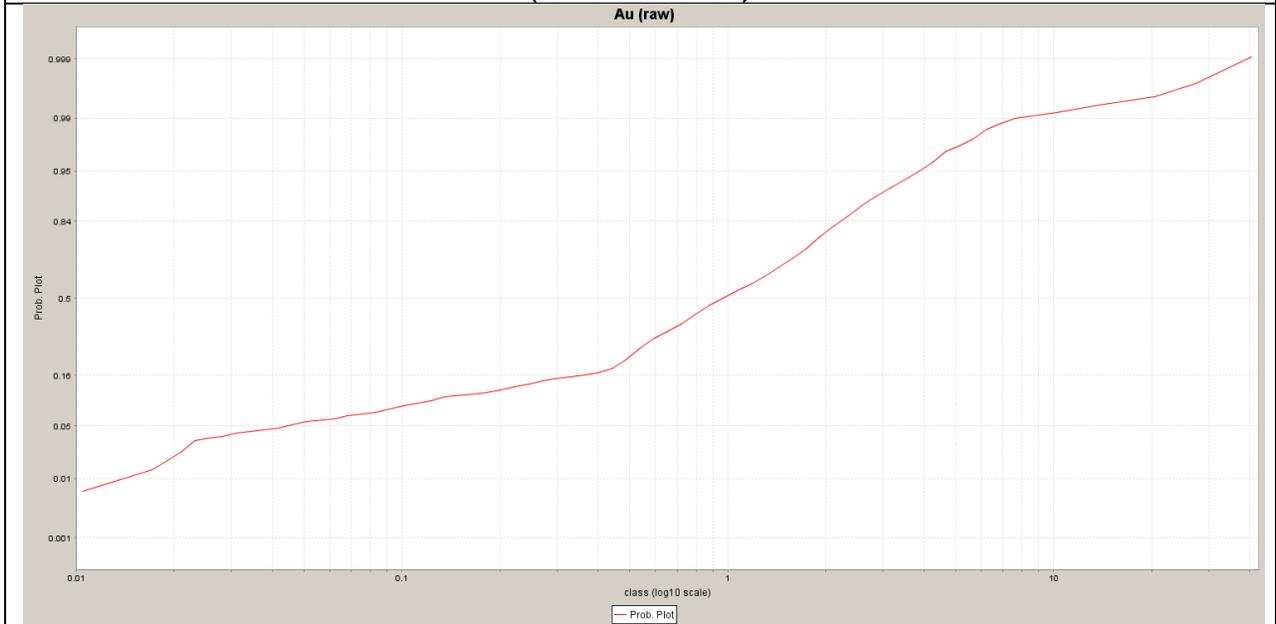


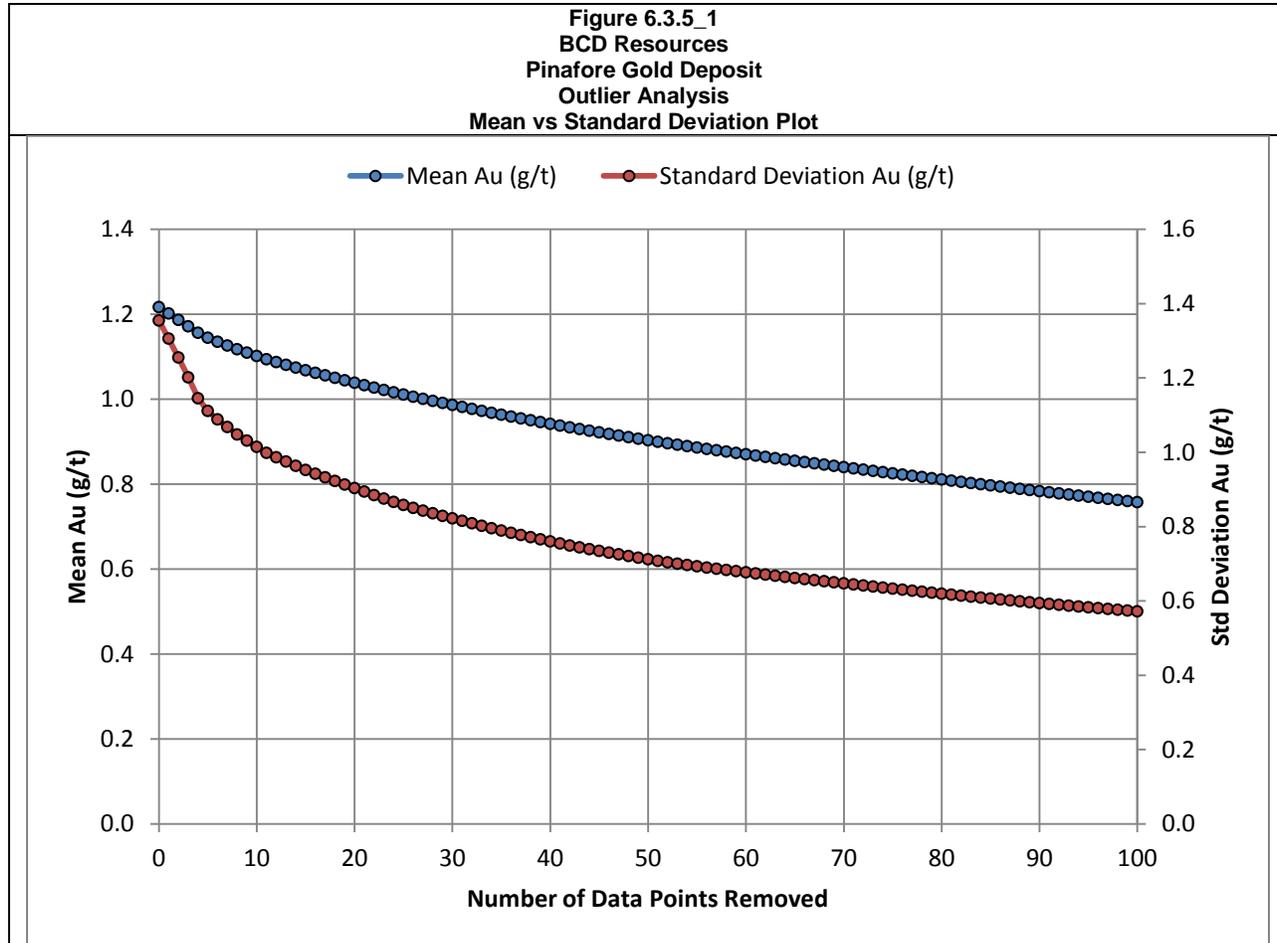
Figure 6.3.4_1
BCD Resources
Pinafore Gold Deposit
Log Probability Plot (Unweighted)
(Low Grade Domain)



6.3.5 Assessment of High Grade Cut

Assessment of the composite outliers was completed to determine the requirement for high grade cutting (high grade cut) for the input dataset to be used for resource estimation of the low grade mineralised domain. The approach taken to the assessment of the high grade composites and potential outliers is summarised as follows:-

- Detailed review of histograms and probability plots of 1m composites, with significant breaks in populations used to interpret possible outliers;
- The ranking of the composite data and the investigation of the influence of individual composites on the mean and standard deviation (mean versus std-dev plot Figure 6.3.5_1).



Following the compositing of the sample data to 1m lengths a high grade cut or cap was determined as presented in Table 6.3.5_1. The use of a high grade cut as tabulated would result in a reduction in mean grade of 8% for the low grade mineralised domain.

Table 6.3.5_1 BCD Resources Pinafore Gold Deposit Outlier Analysis - Reef Composites – Gold (g/t)											
Domain Group	No. Of Data	Raw Data				Cut Data				No. of Data Cut	Mean % Decrease
		Max	Mean	Std Dev	CV	Upper Cut	Mean	Std Dev	CV		
Low Grade	585	42.36	1.32	2.5	1.9	10	1.22	1.4	1.1	4	8

6.3.7 Bulk Density Analysis

Prior to 2011, there were 197 bulk density values available for the Pinafore gold deposit, measured using plastic-wrapped water immersion techniques by Lefroy Resources. The length weighted mean of these measurements is 2.60t/m^3 , however not all of these samples are from the ore zones. The majority (164) of these samples were either sandstone or siltstone, or a mix of these two lithologies in varying proportions. There were a limited number of shear zone, fault and/or vein lithologies generally with a lower bulk density and Lefroy reported the “*average bulk density for the quartz related lithologies is 2.28*”, and “*lower bulk density zones are associated with the fault/gouge material, or the mineralised zone.*” Lefroy assigned a flat bulk density of 2.2t/m^3 to the ore material in the resource estimates in 2005 when they were being assessed as underground projects, presumably based on the work described above.

In 2006, Lefroy re-assessed Pinafore as an open pit prospect and rather than using the bulk density data they had previously measured, they assigned a flat 2.80t/m^3 as a “*nominal*” value for the mineralised zone, with no explanation for the reason.

For the 2009 estimate and following on from the practice of Lefroy Resources, Coffey Mining also used 2.80t/m^3 for the mineralisation, as they considered it to “*be a reasonable assumption given the host lithologies and mineralisation type*”. This SG was applied to everything beneath the surface topography, although Coffey noted they expected there would “*be significant variation of in situ bulk density, especially in the vertical dimension...*”.

For 2011, all the old drill core at Lefroy was relocated to the mine site at Beaconsfield where the ore zones were relogged. Bulk density measurements were taken on core from the ore zones and from selected, representative waste rocks (siltstone, sandstone and shale/slate). This work provided an additional 57 bulk density measurements in the ore zones, mostly in the upper parts of the deposit. The average bulk density for these samples was 2.57t/m^3 , and the average for the waste rocks was 2.49t/m^3 . The core was generally in good condition and was not significantly deteriorated. The average bulk density for the waste rocks was slightly lower than that determined by Lefroy, and the average bulk density for the ore zones was higher than that determined by Lefroy. The mineralised zones are likely to have a higher bulk density than determined by Lefroy due to the fact that not all the mineralisation occurs in distinct fault lithologies; some occurs in relatively ordinary looking sandstones and siltstones with veining and/or alteration. Nevertheless, while the mineralisation has a higher bulk density than 2.2t/m^3 , it is still certainly less than the 2.80t/m^3 used later by Lefroy and then by Coffey and this is reflected in the updated model.

6.4 Variography

6.4.1 Introduction

Variography is used to describe the spatial variability or correlation of an attribute (gold, lead, silver, copper, etc). The spatial variability is traditionally measured by means of a variogram, which is generated by determining the averaged squared difference of data points at a nominated distance (h), or lag. The averaged squared difference (variogram or $\gamma(h)$) for each lag distance is plotted on a bivariate plot where the X-axis is the lag distance and the Y-axis represents the average squared differences ($\gamma(h)$) for the nominated lag distance.

6.4.2 Grade Variography

The relatively small number of data, its spacing and its variability has resulted in no robust variography for the Pinafore gold deposit. Coffey Mining reported that “the down hole variogram displays a relatively high nugget of around 60% and a short range of about 4m”. This appears correct, and the best fit variogram model appears to be a hole effect type, probably due to the stacked lens nature of many of the drillholes.

7.5 Block Modelling

7.5.1 Introduction

A three dimensional block model was constructed using Surpac mining software. The block model contains sufficient variables to record the results of grade estimates and other parameters required. The block model file name is *pinafore_2011_v4.mdl*.

7.5.2 Block Construction Parameters

Table 7.5.2_1 summarises the extents of the Pinafore block model. The block model was developed using block dimensions of 20m East by 5m North by 10mRL with sub-blocking to 2.5m East by 1.25m North by 2.5mRL for the purpose of providing appropriate definition of the topographic surface, geological and mineralisation zone boundaries.

Table 7.5.2_1 BCD Resources Pinafore Gold Deposit Block Model Dimensions				
	Origin	Extent (m)	Block Size (m)	
			Parent	Sub-block
East	498,000	960	20	2.5
North	5,450,800	1,700	5	1.25
Elevation	-160	610	10	2.5
Bearing	0			
Dip	0			
Plunge	-35			

The interpreted mineralisation zone and topography have been coded to the block model. Table 7.5.2_2 displays a listing of the variables in the Pinafore block model. Domain coding incorporated into the model is summarised in Table 7.5.2_3.

Table 7.5.2_2 BCD Resources Pinafore Gold Deposit Block Model Variables			
Variable	Default	Type	Description
au_id	0	real	Estimated Au grade (g/t) using inverse distance methods
avdis	-99	real	Average distance to nearest sample used in estimation
depleted	0	integer	1=depleted
Depleted_partial	0	real	Partial percentage for depletion calculation
dis	-99	real	Distance to nearest sample used in estimation
domain	0	integer	1=low grade lode, 2=high grade lode
material	Undefined	character	Text description of material type
numsamp	-99	integer	Number of samples used in estimation
pass	0	integer	Pass number in which block was estimated
sg	0	real	Specific gravity

Table 7.5.2_3 BCD Resources Pinafore Gold Deposit Block Model Domain Coding			
Description	Wireframe Name	Variable Name	Code
Inside Low Grade Mineralised domain	final_lode_2011.dtm	domain	1
Inside High Grade Mineralised domain	hg1.dtm 2	domain	2
Above topography	topo1.dtm	material	air
Below topography and above base of Tertiary/Quaternary but not basalt (includes material above and below basalt)	tofr.dtm	material	clay
Inside Low Grade or High Grade Mineralised domain	final_lode_2011.dtm or hg1.dtm	material	ore
Tertiary Basalt	basalt_strings.dtm	material	basalt

7.6 Bulk Density Assignment

In-situ dry bulk density was assigned to the model in a slightly different way to the previous approach discussed in section 6.3.7. For this model, the basalt was domained separately to the clays. The basalt was then assigned an SG of 2.8t/m^3 and the Tertiary/Quaternary sediments and/or weathering products (i.e. clays) were assigned an SG of 2.4t/m^3 .

The 2011 bulk density data for the ore zone was appended to the database and composites extracted from the defined mineralisation domains. These were then used to fill the model using an inverse distance squared technique. Due to the relative scarcity of data, not all blocks were filled at a $180 \times 90\text{m}$ search (along strike x vertical). These unfilled blocks were assigned a value of 2.54, which was the average bulk density of the blocks that were successfully filled.

The waste rocks (other than clay and basalt as previously described) were then assigned a bulk density of 2.55t/m^3 , a value intermediate between the Lefroy average of 2.58t/m^3 and the BCD average of 2.49t/m^3 .

7.7 Validation

The block model was extensively validated against the geological model wireframes and the surface topography. The model was validated by viewing in multiple orientations using the 3D viewing tools in Surpac. Based on the visual review, the block model is considered a robust representation of the interpreted geology.

7.8 Grade Estimation

7.8.1 Introduction

Grade estimation for the Pinafore gold deposit was undertaken using Inverse Power of Distance Weighting (IPD) method.

7.8.2 Inverse Distance Weighting Methods

The grade interpolation technique used for this exercise was IPD, one of the more common methods for estimating the block grade when the number and density of the data are insufficient to calculate robust variograms. In applying this interpolation technique, contributing composite samples are identified using a search volume applied from the centre of each block. Weights are determined by the distance from the centre of the block to the composite raised to a power. The chosen power reflects the variability in the data, with a higher power reducing the weight given to more distant samples. The weighted composite grades are then combined to generate a block grade estimate and variance.

7.8.3 Grade estimation

For the Pinafore gold mineralisation, a power of 2 was selected for IPD grade interpolation due to the high variability in the composite data. IPD gold estimates were completed using whole block discretisation of 4 points in the east dimension, 1 point in the north dimension, and 2 points in the RL dimension for a total of 8 discretisation points per whole block estimate. Any sub-blocks within the 3-D limit of each whole block were assigned the whole block IPD gold estimates. A multiple search strategy in obtaining the estimates for the low grade mineralised domain was used as follows:

- **Pass1**

The minimum and maximum number of composites was set to 12 and 24 respectively. The number of composites from any one hole was restricted to a maximum 3. This restriction is to ensure contribution from other drillholes, while acknowledging that the data density is insufficient to ensure all blocks receive estimates.

- **Pass2**

The minimum number of composites was set to 6 while the remaining parameters were maintained as per pass 1.

- **Pass3**

The search radius was expanded to 180m while maintaining the remaining parameters as per pass 2.

Table 7.8.3_1 provides the sample search parameters applied for gold.

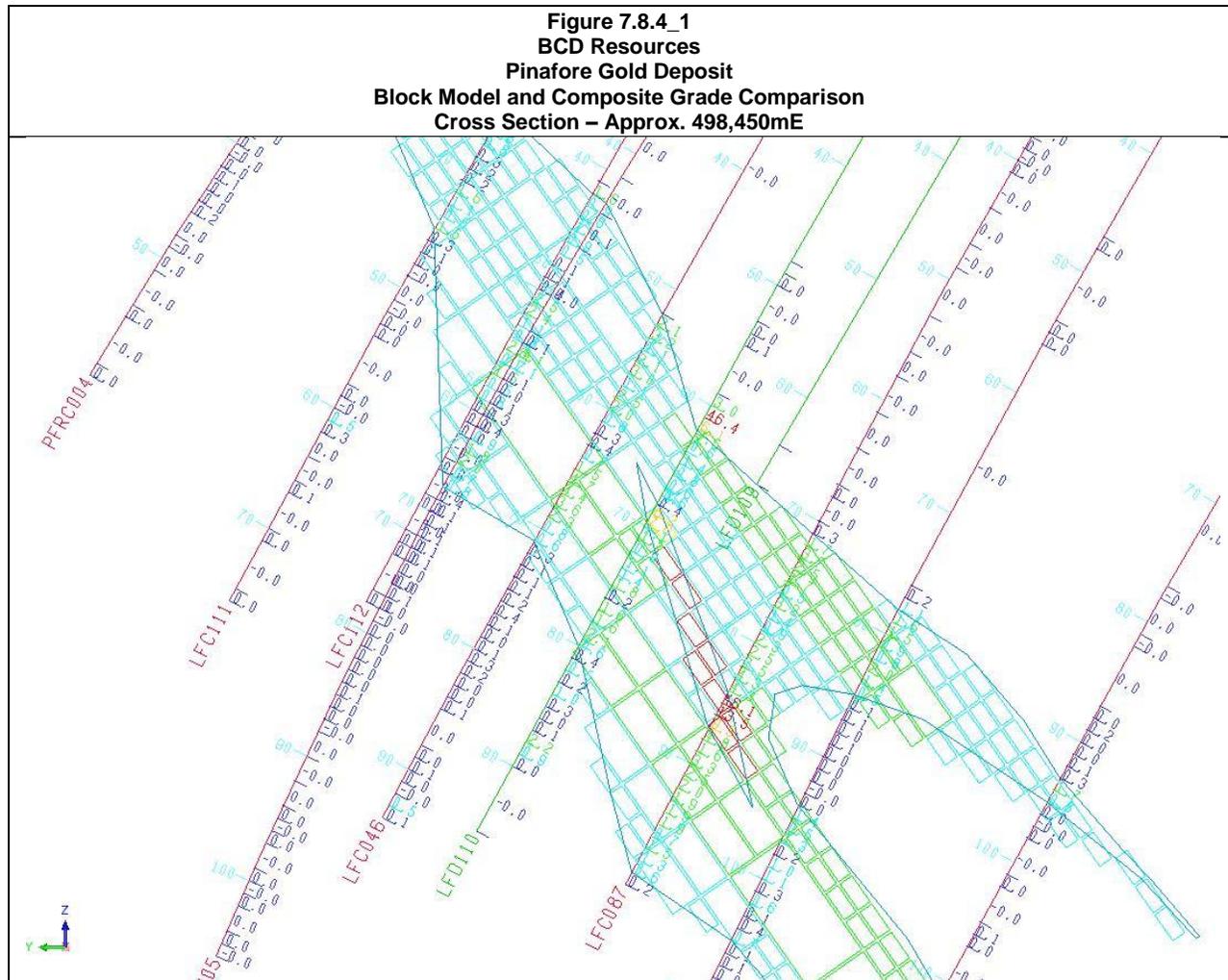
Table 7.8.3_1 BCD Resources Pinafore Gold Deposit Sample Search Parameters Inverse Distance Interpolation of Gold Grades										
Element	Pass	Bearing (Z)	Plunge (X)	Dip (Y)	Major Axis (m)	Semi-Major Axis (m)	Minor Axis (m)	Min Samp	Max Samp	Max Per Holes
High Grade Mineralised Domain										
Au	1	116	-27	-60	40	20	20	2	15	-
Low Grade Mineralised Domain										
Au	1	229	-49	41	90	80	5	12	24	3
	2	229	-49	41	90	80	5	6	24	3
	3	229	-49	41	180	160	20	6	24	3

Domain control was used for both the input composite data and block selections, wherein only the data within the domain was used to estimate block grades within the domain. The IPD grade estimates were completed using Surpac mining software. In estimating the gold grades, the standard fields relating to the search neighbourhood including number of composites selected, the distance to the nearest composite and the average distance of composites were recorded. No change of support has been applied. The resultant grade estimates are held in the model file.

7.8.4 Validation

The model was validated by visual comparison of the input data against the block model grade in plan and cross section (e.g. Figure 7.8.4_1).

The analysis clearly demonstrates that the grade variability in composites is greater than that of grade estimates. The directional trends observed in composites are more or less reproduced within the block model grade estimates. Acceptable levels of reproducibility are noted between the input composites data and the block grade estimates on the basis of visual review. On this basis, the IPD whole block grade estimates appear appropriate and robust.



7.8.5 Resource Reporting

The BCD Resources 2011 grade estimate for the Pinafore gold deposit has been classified as an Inferred Mineral Resource in accordance with guidelines as set out in the in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' of December 2004 (the Code) as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia (JORC) or JORC Code (2004). Resource categories have been defined using JORC Code key criteria determined during the validation of the grade estimates. The confidence levels of the key criteria that were considered during resource classification are presented in Table 7.8.5_1.

**Table 7.8.5_1
BCD Resources
Pinafore Gold Deposit
Confidence Levels of Key Criteria**

Items	Discussion	Confidence
Drilling Techniques	Combination of RC and diamond drilling - Industry standard approach.	Moderate
Logging	All holes logged consistently and with appropriate detail.	High
Drill Sample Recovery	Sample recoveries 95% for DD	Moderate
Sub-sampling Techniques and Sample Preparation	Industry standard approach.	Moderate
Quality of Assay Data	Industry standard assaying. No field or lab duplicates. No check assays undertaken at separate laboratory.	Moderate
Verification of Sampling and Assaying	No field or laboratory duplicates. No check assays undertaken at separate laboratory. Twinned hole assessment of 2 closely spaced holes has highlighted potential down hole contamination.	Low
Location of Sampling Points	Drill hole collars were surveyed by handheld GPS. Down hole surveys recorded	Moderate
Data Density and Distribution	Defined on notional 50m x 30m drill spacing. Sufficient to establish a small degree of confidence in grade and volume continuity. Data density insufficient to adequately define high grade shoots.	Moderate
Database Integrity	No assay certificates available. The entire database has been validated and there are no material errors identified	Low/Moderate
Geological Interpretation	The interpreted mineralisation boundary is considered robust and of moderate confidence. Insufficient data is available to model host rock lithology.	Low/Moderate
Estimation and Modelling Techniques	Insufficient data available to separate high grade domains with a high degree of confidence. The mineralisation constraints were based on a 0.5g/t Au lower cutoff grade. High grade cuts or top cuts applied to low grade domain. Au grade estimated using Inverse Power of Distance Weighting methods into block model. IPD estimation approach appropriate where data density is low. Block size of 20m x 5m x 10m was used for geological modelling.	Moderate
Mining Factors or Assumptions	Not applied	N/A
Metallurgical Factors or Assumptions	Not applied	N/A
Tonnage Factors (Insitu Bulk Densities)	Insufficient data to fully describe spatial and host material changes in density.	Low/Moderate

7.8.6 Resource Categorisation

The key parameters considered during the resource categorisation are as follows:-

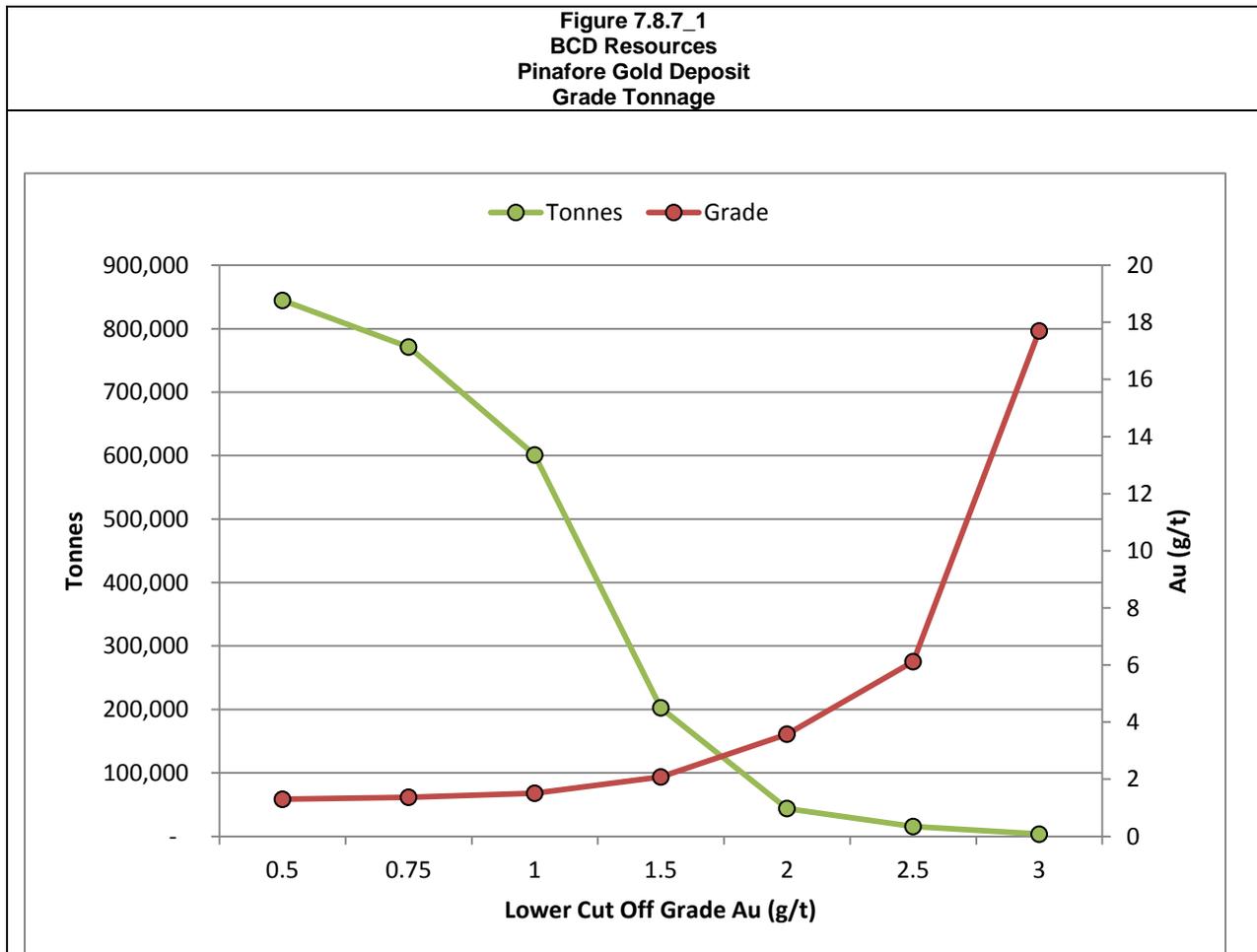
- Geological knowledge and interpretation.
- Deposit style.
- Confidence in the sampling and assay data.
- The spacing of the exploration drillholes.

Insufficient drilling data exists to generate robust local grade and in situ dry bulk density estimates with a high confidence. Therefore, the estimated domain was classified as Inferred Mineral Resource. Material in the mineralised domain below -10mRL was left unclassified due to depth limits of possible open pit designs.

7.8.7 Grade Tonnage Report

The Inferred Mineral Resource, reported at various gold lower cutoff grades, based on the 20mE x 5mN x 10mRL block model with sub-celling for volume resolution, is presented in Table 7.8.7_1. The grade tonnage curve is presented in Figure 7.8.7_1. As can be observed in the grade tonnage curve, there is a dramatic reduction in tonnes between cut offs of 1.0g/t and 1.5g/t gold. However, results from higher cut offs should be treated with caution as there is insufficient data to properly quantify the extent of any higher grade domains.

Table 1 BCD Resources Pinafore Gold Deposit Summary Resource Statement – 31 st October 2011 Reported At Various Gold Lower Cut off Grades				
Resource Category	Gold Lower Cut off Grade (g/t)	Tonnes (kt)	Gold Grade (g/t)	Contained Gold (ozs)
Inferred	0.5	845	1.30	35,300
	1	601	1.50	29,000
	1.5	203	2.07	13,500
	2	44	3.54	5,000



7.8.8 Depletion of Model

A series of wireframe models of historical workings were provided by Coffey Mining to BCD Resources for the 2011 update. It appears these were digitised by Lefroy Resources based on the old mine plans. These models were used by both Coffey Mining and BCD Resources in 2009 and 2011 (respectively) to 'deplete' the block models. However, examination of the drilling compared to these historical workings models does show some inconsistencies.

In some instances, the historical workings models are outside of the mineralisation envelope as defined by the modern drilling. This could be due to zones of mineralisation that were followed by the previous miners that have not been recognised in the modern drilling, or it could be due to inaccuracies in the model.

In other cases, historical workings apparently penetrated by modern drill holes show no indications of either stope fill or voids in the logging. This may be due to stope fill not being recognised as such during the drilling (particularly for RC) but equally it could be due to inaccuracies in the historical workings models.

There are also instances where the modern drilling shows a consistent stoping position (defined by intersections of logged stope fill and/or voids in multiple adjacent drillholes) that does not line up with the digitised historical workings model. In these cases it would seem clear that the models are not necessarily accurate, but the modern drilling is not closely spaced enough to adequately refine the models.

These factors mean that the method of depletion has some level of uncertainty associated with it.

It is worth noting that, if the deposit to be mined as an open cut, it is expected that the historical stope fill would be taken as ore. Although the sampling of this material is not representative and so cannot be taken to provide a true grade, where the backfilled stopes have been sampled the assayed grades are often higher than the overall grade of the remaining mineralisation.

8 REFERENCES

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