



RL 3/2005 - NARRAWA

ANNUAL REPORT TO MAY 12th, 2010

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Frontier Resources Ltd

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SUMMARY AND INTRODUCTION

This report details the work program and associated reporting for RL03/2005 for the year ending 12th May 2009.

In the year to 2009, a 10 drill hole (NC43 to 52; totalling 690m) resource upgrade program was undertaken at the Higgs Gold Mine, principally aimed at upgrading the existing resource from inferred to indicated and/or measured status. The drilling returned similar significant analysis intervals to that from previous work and a resource upgrade was undertaken along with review of mining economics by consultant David Swain.

Exploration completed on Retention License 3/2005 during the year to May 2010 consisted of the estimation of an Indicated and Inferred Resource for the Narrawa precious and base metal Deposit. The Conceptual Mining Study was again updated, utilising current and long term projected metal prices showing the potential for a positive cash flow.

The **resource for Narrawa** estimated by an independent consultant using Surpac software in accordance with the 2004 JORC code and was based on all drilling and trenching to date.

The Indicated and Inferred Resource at Narrawa contains 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent. This consists of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc (0.5g/t gold cut-off grade). The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc.

- An Indicated Resource was estimated for the first time and it consists of 162,755 tonnes grading 3.61 g/t gold equivalent (2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc).
- Approximately 85% of the tonnage of the previous Inferred Resource at Narrawa was converted to Indicated Resource from the latest round of work.
- There was a 9% increase in tonnage of the total resource from the mid-late 2008 drilling program, however, the gold grade decreased by 23% due to the lower overall grade associated with infill drill holes.
- The Conceptual Mining Study is now being updated, utilising current and long term projected metal prices and it will recommend possible development paths forward in combination with the Stormont Deposit (Inferred Resource to be announced forthwith).
- Narrawa is a steeply dipping, on/near surface, stratabound/stratiform skarn deposit. Significant gold and base metal intersections have been demonstrated by Frontier's drilling over the entire length of the deposit, with the Indicated and Inferred Resource being approximately to 220m long, 20m wide and 60m deep.
- There is good scope to continue to increase the Narrawa Resource along strike in both directions, within the fault offset dip component and in other relatively untested sectors of the project area. This will require additional drilling.
 - For instance, good potential exists along strike to the southeast, with additional mineralised drillholes yielding 3.7m of 1.11 g/t gold (NC016) and 1.35m of 0.19g/t gold + 42 g/t silver+ 2.0% lead + 1.46% zinc + 0.25% copper (also NC016) and 2.2m of 0.12g/t gold + 15 g/t silver+ 0.79% lead + 3.26% zinc + 0.25% copper associated with a UTEM anomaly (NC017).
 - In addition, across strike in the 666 lode (not included in the estimation), there are mineralised holes that include 1.5m of 25.2 g/t gold (NC025), 2m of 14.98 g/t gold (NC035), 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold (NC036).

The **Revised Conceptual Mining Study** relating to possible mining and processing of the gold and base metal mineralisation at the Narrawa and Stormont Deposits has demonstrated a satisfactory theoretical cash flow from processing the mineralisation at the Narrawa and Stormont Deposits, based on a capital expenditure estimated at A\$8 million (neglecting working capital and provision for contingencies).

The CMS is not a feasibility study, but a detailed evaluation designed to determine if there are economic reasons for pursuing and further advancing a project that is known to contain certain types and grades of mineralisation. The Conceptual Mining Study demonstrates that the continuation of Feasibility Studies is strongly warranted to evaluate the ultimate economic potential of the Narrawa and Stormont Deposits and to move them toward future production and cash flow for Frontier.

Mining Lease applications covering the deposits, possible satellite mineralised areas and the required plant and tailings areas, will be initiated and submitted to Mineral Resources Tasmania as the next phase toward possibly developing either a self mined/treated, self mined/toll milled or other type of extractive development.

Feasibility studies will continue in due course with:

- Expansion drilling to increase the total resources and thus further improve the overall project economics;
- Infill drilling to improve the classification or confidence of the resources associated with each deposit, so reserves can be estimated, fiscal outcomes published and development capital ultimately be raised;
- Additional metallurgical testwork to maximise metal recoveries and minimise operating costs; and
- Environmental and other evaluations.

LOCATION, TENURE AND LAND USE

RL03/2005 (Figure 1 and 2) is located in the central north of Tasmania, south of Sheffield. The terrain is rugged and forested, but accessible via sealed roads and numerous all-weather 4-wheel drive tracks. The RL lies in Crown Land, being mostly classified as State Forest, with MDC Informal Reserve lying in the northern and eastern sectors, and with a narrow sliver of Land Vested in the HEC/Aurora forming the north eastern margin.

RL3/2005 (Narrawa Creek), granted 12/5/2006 covering 3square kilometres (Figure 1) was formed as part of the retained area (also including RL4/2005 – River Lea) when EL29/2003 was relinquished. EL29/2003 was initially granted to TasGold Ltd. following a successful ERA tender in 2003. NB: TasGold Ltd. became Frontier Resources Ltd. in 2006. Datum AGD66, AMG Zone 55.

ENVIRONMENTAL CONCERNS

The exploration programs completed were all desktop based, with minor site visits only.

GEOLOGY

The geology of the Narrawa Creek area has been reported by past by Reid and McDougall (2005) and others. The following from Reid 2008, primarily explains the structural complexity of the Higgs Gold Mine, with notes on geology, mineralisation and alteration adding to past reporting.

Several principal faults are identified, however in reality a number of sub-parallel faults, dipping both NE and SW, can be identified. These are offset by a late NNE aligned fault. Two principal mineralising events identified are early stratabound and veined NE dipping base-metal followed by SW dipping Tungsten bearing greisen, both likely forming during periods of relative extension on their respective host structures.

A key finding is that mineralised stratigraphy is possibly normally displaced by SW dipping faults (e.g. HGM Fault, Section 5912mE), with mineralised strata progressively dropping down from up the slope to the NE of Higgs. More drilling targeting resource expansion is required to test the structural model presented.

Reid in the Annual Report to 2008 also discusses lode form, structure, the HGM Fault, NE dipping faults, the NC05 Fault, the Narrawa Creek Fault Zone, alteration and mineralisation, tungsten potential and a synthesis,

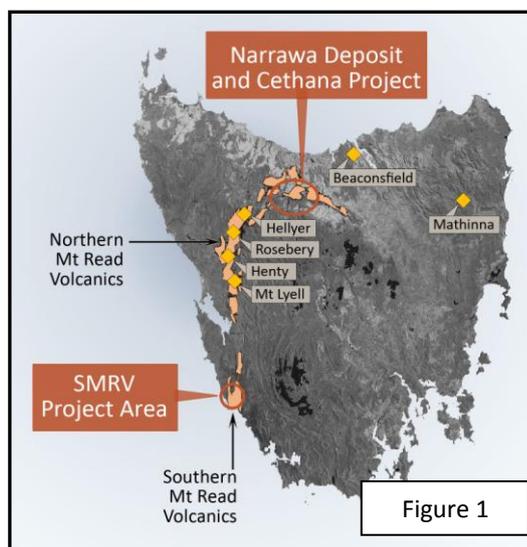


Figure 1

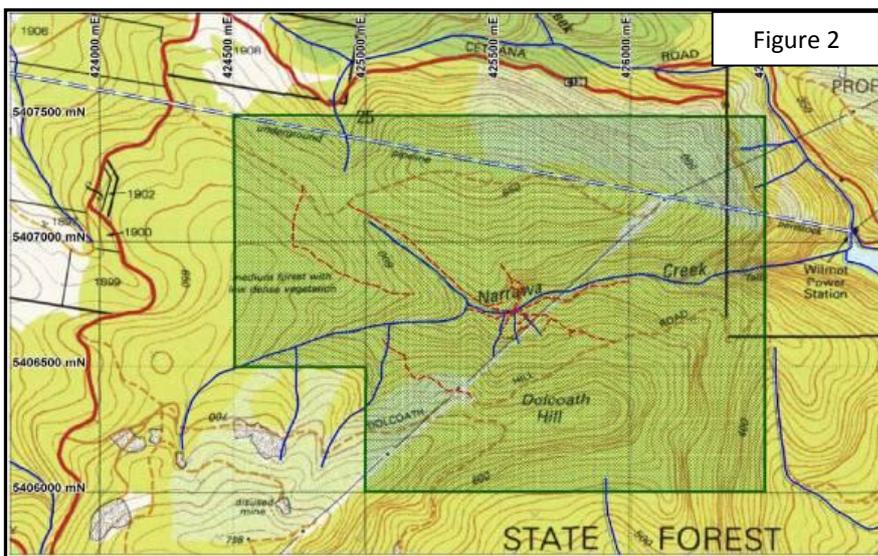


Figure 2

Potential Targets

Conceptual targets for within the resource area are shown on some sections appended with some further key targets outlined below:-

Near Resource

- Section 5912mE defines a likely scenario for normal fault offset mineralisation, revealing the potential to drill test this zone, preferable via SW directed drill holes from the access track on the NE side of Narrawa Creek.
- Further resource infill drilling, including drill testing the poorly understood section 5962mE.
- Conceptual targets SW of the 300 Lode

Strike potential

- To the SE; re targeting the magnetic anomaly between NC23 and NC16 to the SE of Higgs. Modest mineralisation was returned from NC16 with only a narrow deep weakly mineralised zone in NC23. Further targeting between NC16 and 15 could target stratabound Au-BMS with SW directed fanned holes(2) and Squib extension with NE directed holes(2). Multiple Squib Lode drill intercepts being preferable to reduce potential W “nugget effect”.
- The inferred anticline Au in soil anomaly ~250m WNW and likely in part fault dislocated from Higgs
- The Au in soil anomaly up slope SW of Higgs; requires track access up slope above Higgs.

WORK CONDUCTED

Exploration completed on the Retention License during the year consisted of an independent consultant estimating an Inferred and Indicated Resource for the Narrawa Deposit using Surpac software (See Appendix 1).

Resource Estimate

Summary

The upgraded precious and base metal resource inventory for the Narrawa Deposit in central-northern Tasmania, Australia was upgraded Indicated and Inferred. The resource was estimated in accordance with the 2004 JORC code, based on all drilling and trenching to date.

- The Indicated and Inferred Resource at Narrawa contains 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent. This consists of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc (0.5g/t gold cut-off grade). The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc.
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- In addition, across strike in the 666 lode (not included in the estimation), there are mineralised holes that include 1.5m of 25.2 g/t gold (NC025), 2m of 14.98 g/t gold (NC035), 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold (NC036).

Introduction

Mineral exploration and resource estimation Consultant Mr. G. MacDonald was commissioned by Frontier Resources Ltd (Frontier) to complete a geostatistical resource estimate of the Narrawa Deposit, using all available drilling assays, the existing Geostat Services Surpac model and an improved understanding of the deposit geology.

An Indicated and Inferred Resource was estimated geostatistically for Narrawa, using SURPAC resource estimation software. The Resource has been classified in accordance with the guidelines outlined in the “Australian Code for Reporting of Identified Mineral Resources and Ore Reserves” (JORC, 2004 edition). Assessment criteria include drillhole spacing, sample locations, sampling density, lode geometry, geological confidence and grade continuity.

The tonnes of mineralisation and associated grade of gold, silver, lead and zinc at various gold cutoff grades are shown in the Table below.

Lode	Indicated						Inferred						Total					
	Tonnes	Au (Eq g/t)	Au (g/t)	Pb (%)	Zn (%)	Ag (g/t)	Tonnes	Au (Eq g/t)	Au (g/t)	Pb (%)	Zn (%)	Ag (g/t)	Tonnes	Au (Eq g/t)	Au (g/t)	Pb (%)	Zn (%)	Ag (g/t)
100	100,443	4.28	2.51	1.73	1.39	23.1	14,025	5.21	4.58	0.06	0.04	9.1	114,469	4.39	2.77	0.16	0.13	21.4
200	21,807	2.75	2.19	0.47	0.47	8.4	1,422	3.12	2.48	0.05	0.06	8.1	23,229	2.77	2.21	0.05	0.05	8.4
300	40,503	2.41	1.06	1.17	1.14	20.6	26,039	2.33	1.08	0.11	0.10	18.8	66,542	2.38	1.07	0.11	0.11	19.9
400							5,088	1.37	0.08	0.13	0.08	23.0	5,088	1.37	0.08	0.13	0.08	23.0
Total	162,754	3.61	2.11	1.42	1.20	20.5	46,574	3.12	2.07	0.98	0.81	16.0	209,328	3.50	2.10	1.32	1.12	19.5

The mineralised zone in the estimate has been modelled as a moderate – steeply dipping, linear, stratiform/stratabound body up to approximately 220m long, 20m wide and 60m deep.

Figure3 shows gold grade versus contained tonnages for the various gold cut-off grades for all lodes (grade tonnage curve).

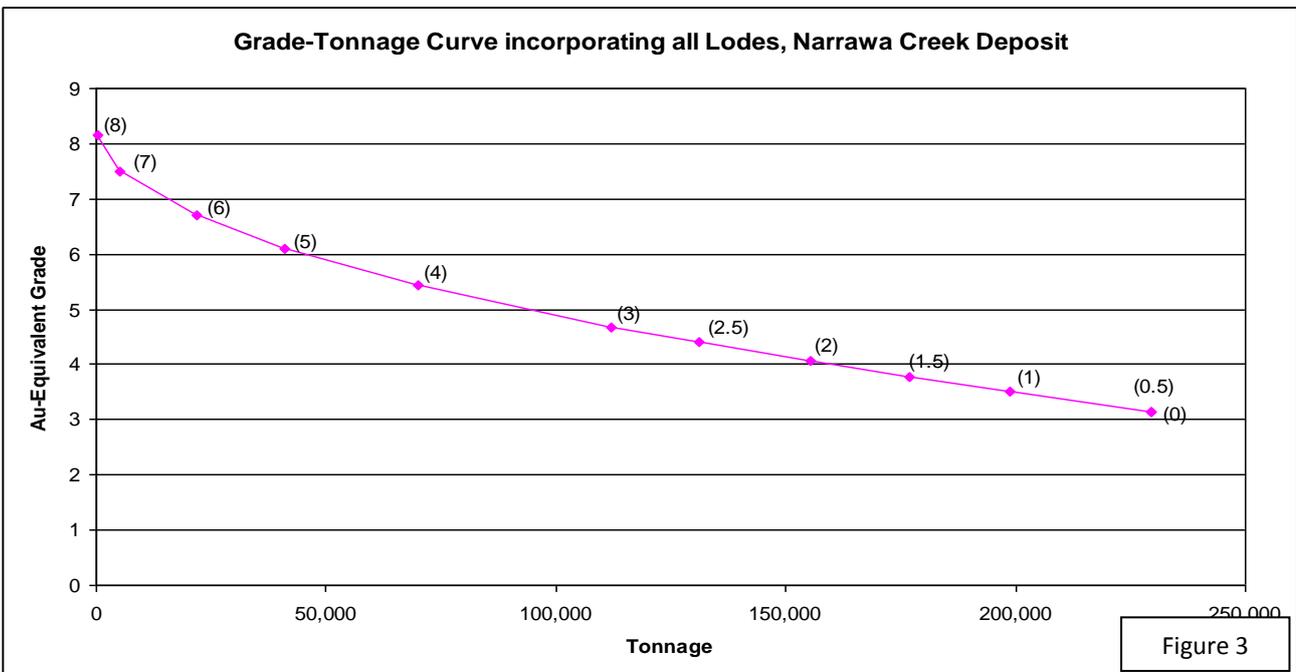


Figure 4: Mineralised lodes at the Narrawa Deposit, separated by the NC05 fault (NNE trending blue plane).

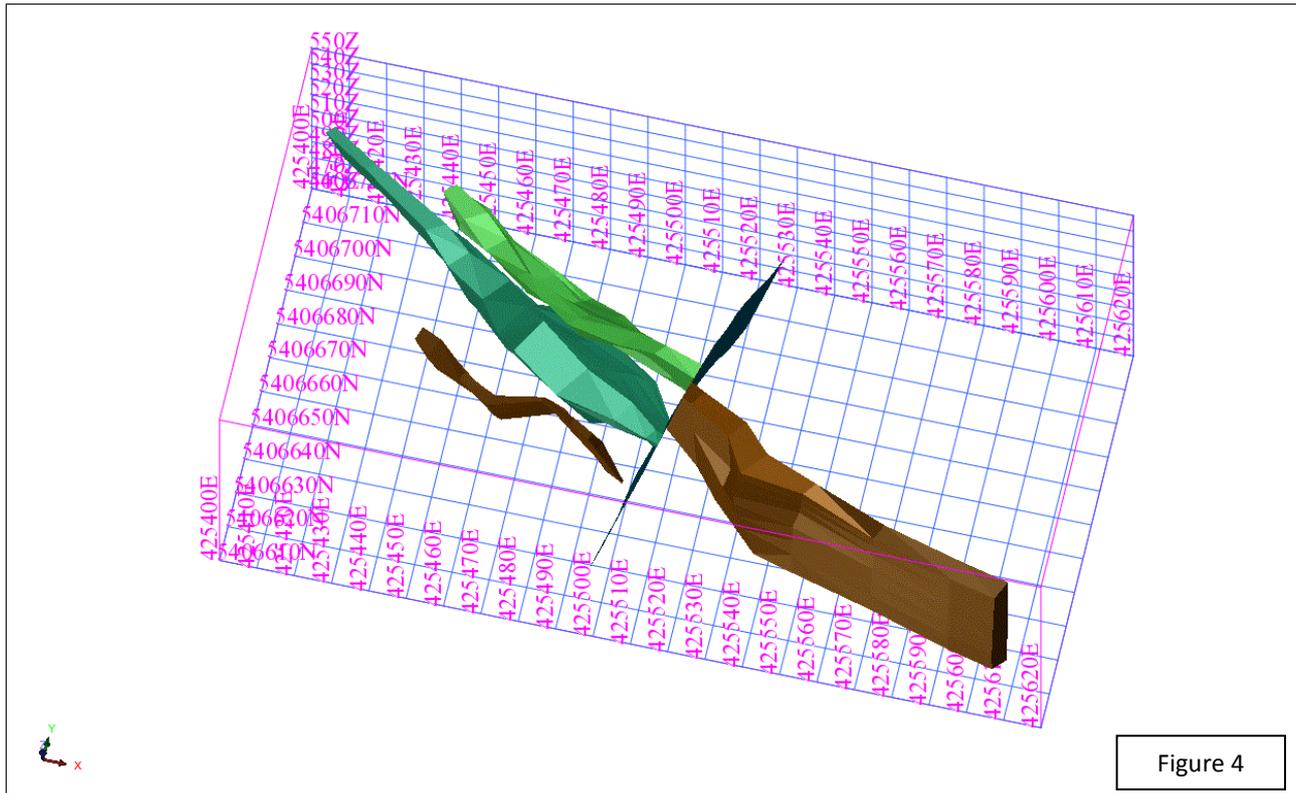


Figure 4

Cross sections that follow as Figures 5 - 11, show the downhole gold equivalent assays superimposed on colour coded block model slices from the block.

Figure 5: Section 5887.5mE

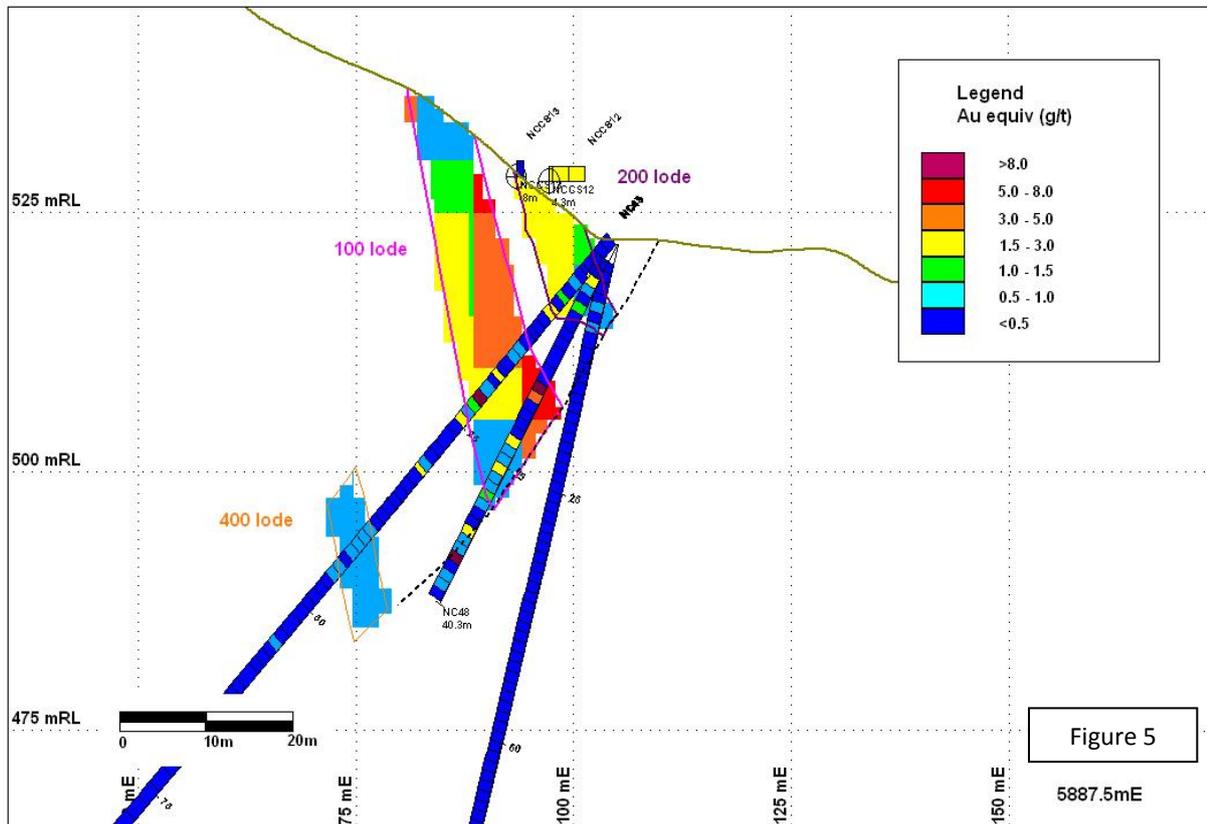


Figure 5
5887.5mE

Figure 6: Section 5900mE

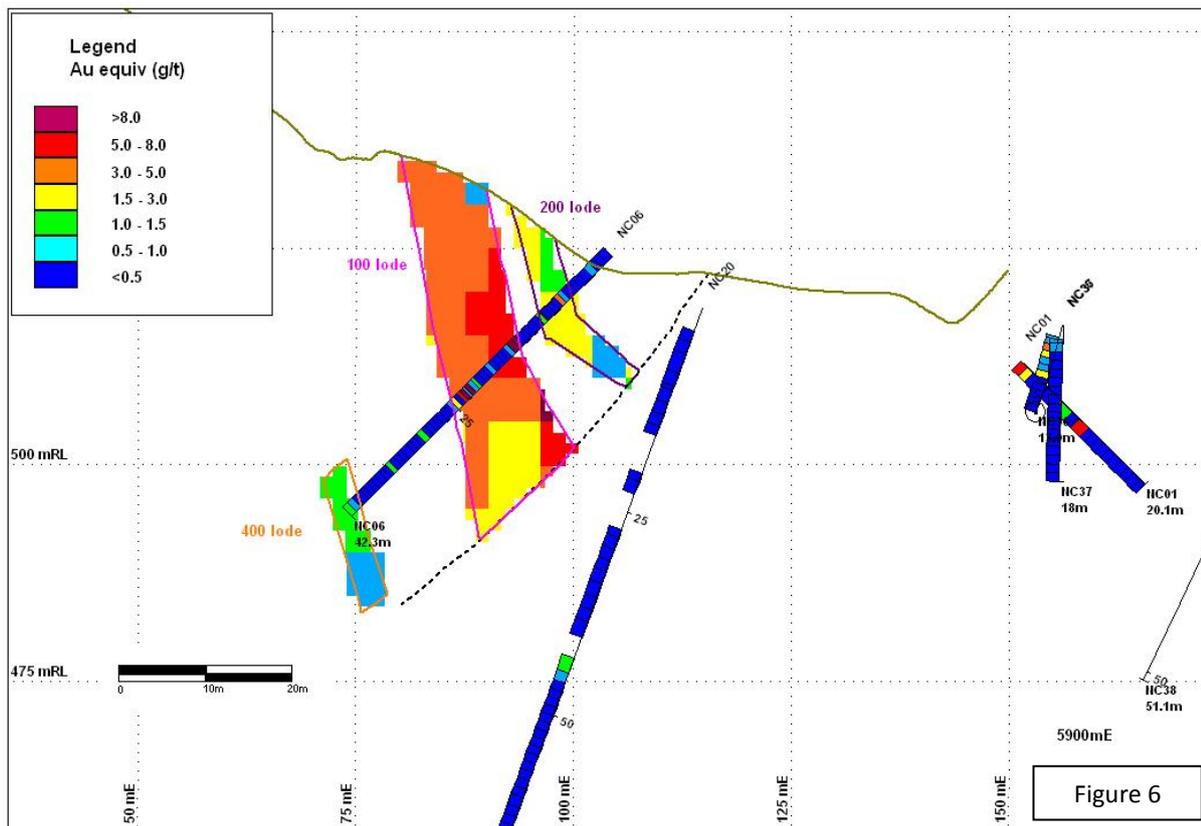


Figure 7: Section 5912.5mE

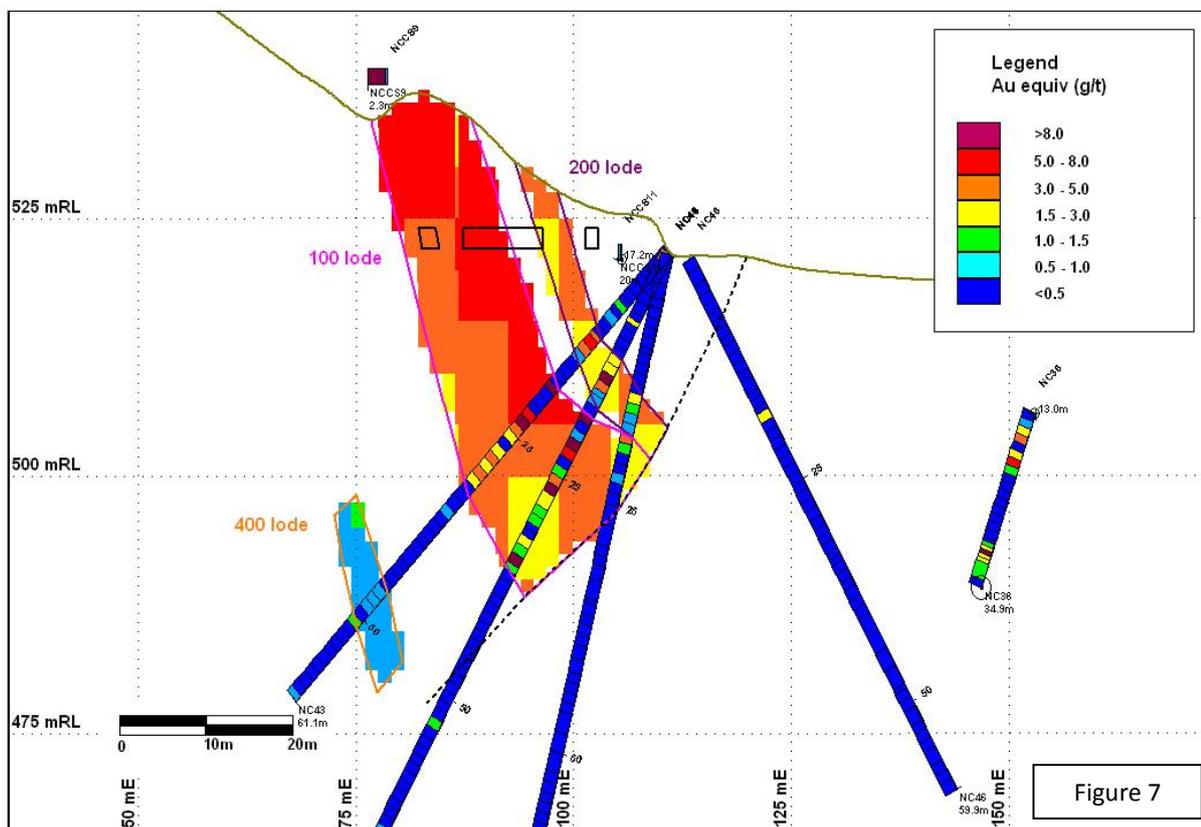


Figure 8: Section 5925mE

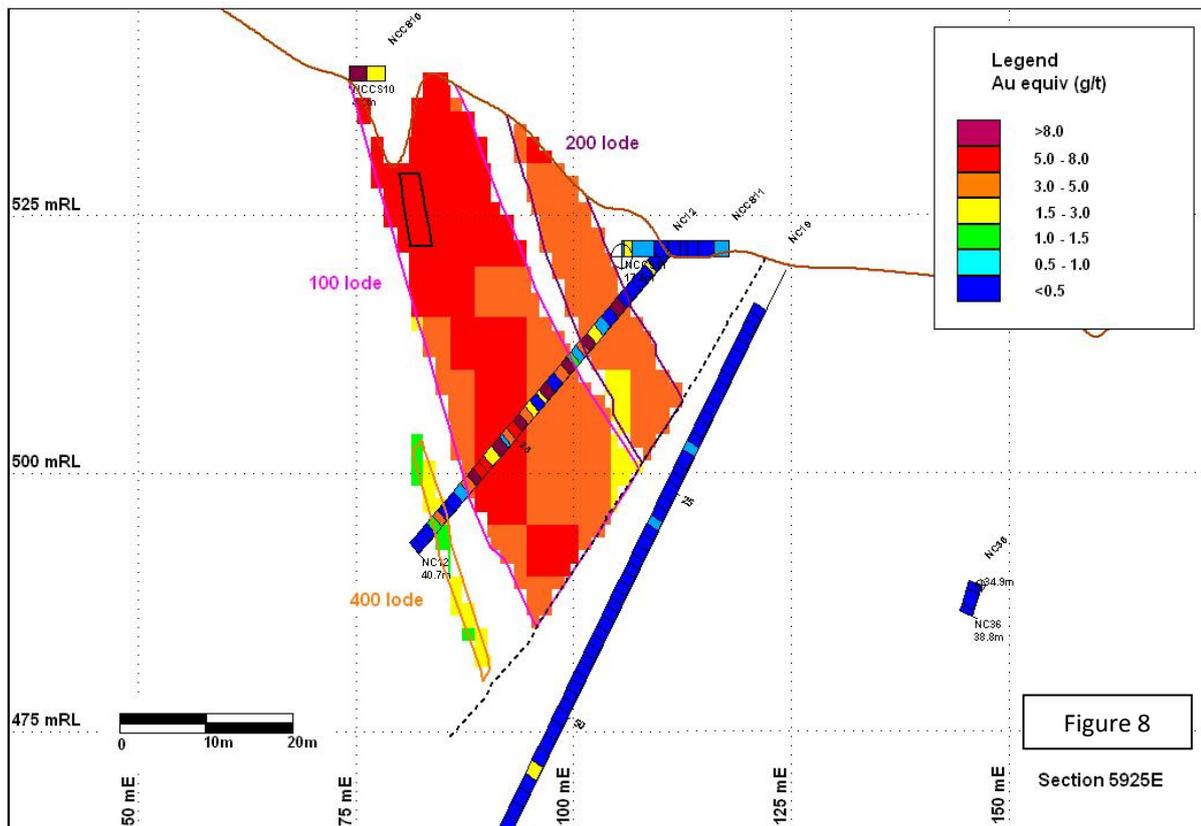


Figure 9: Section 5937.5mE

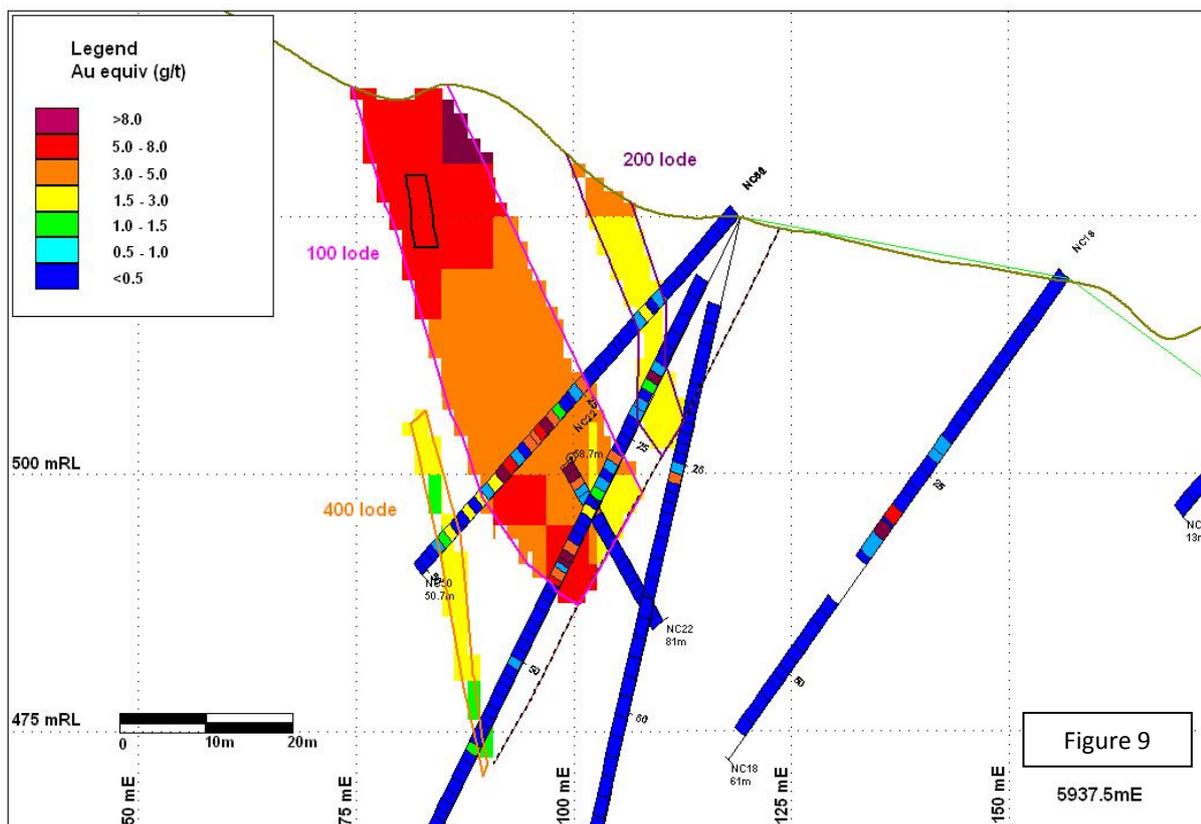


Figure 10: Section 5950mE

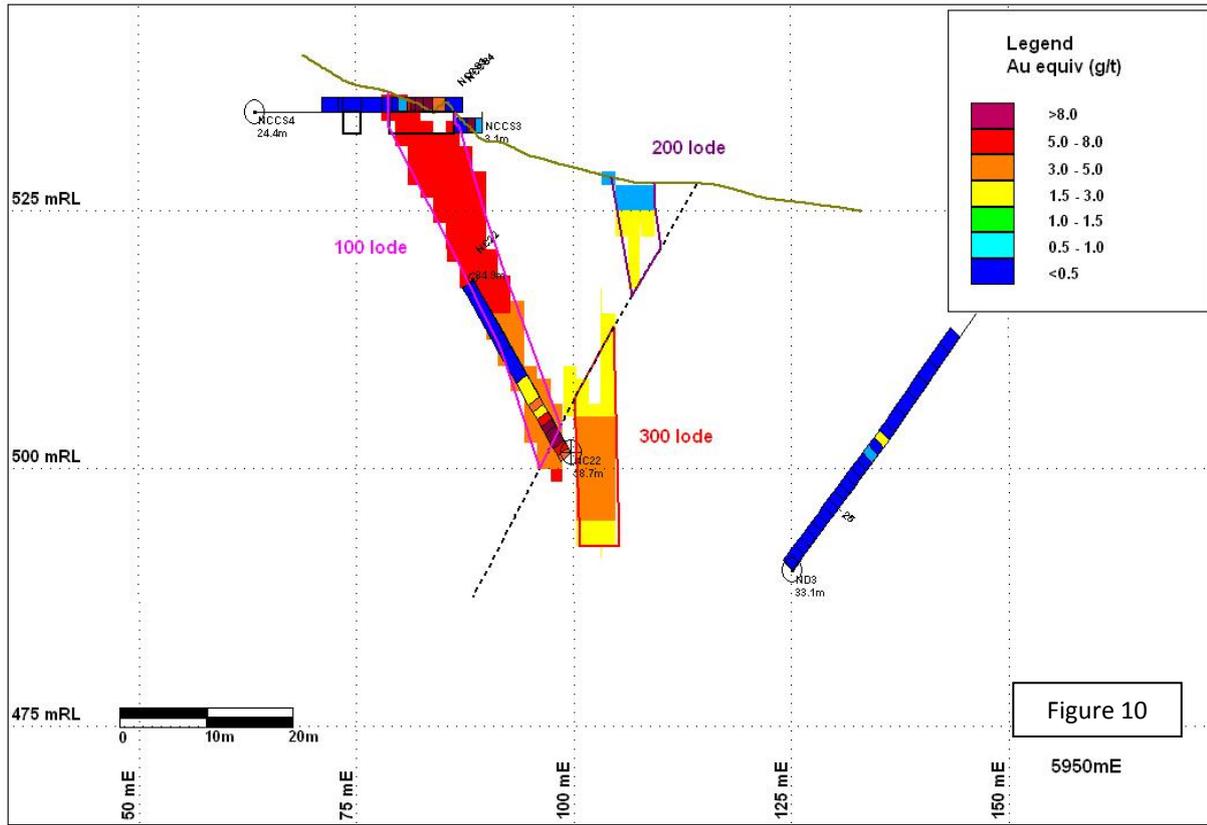
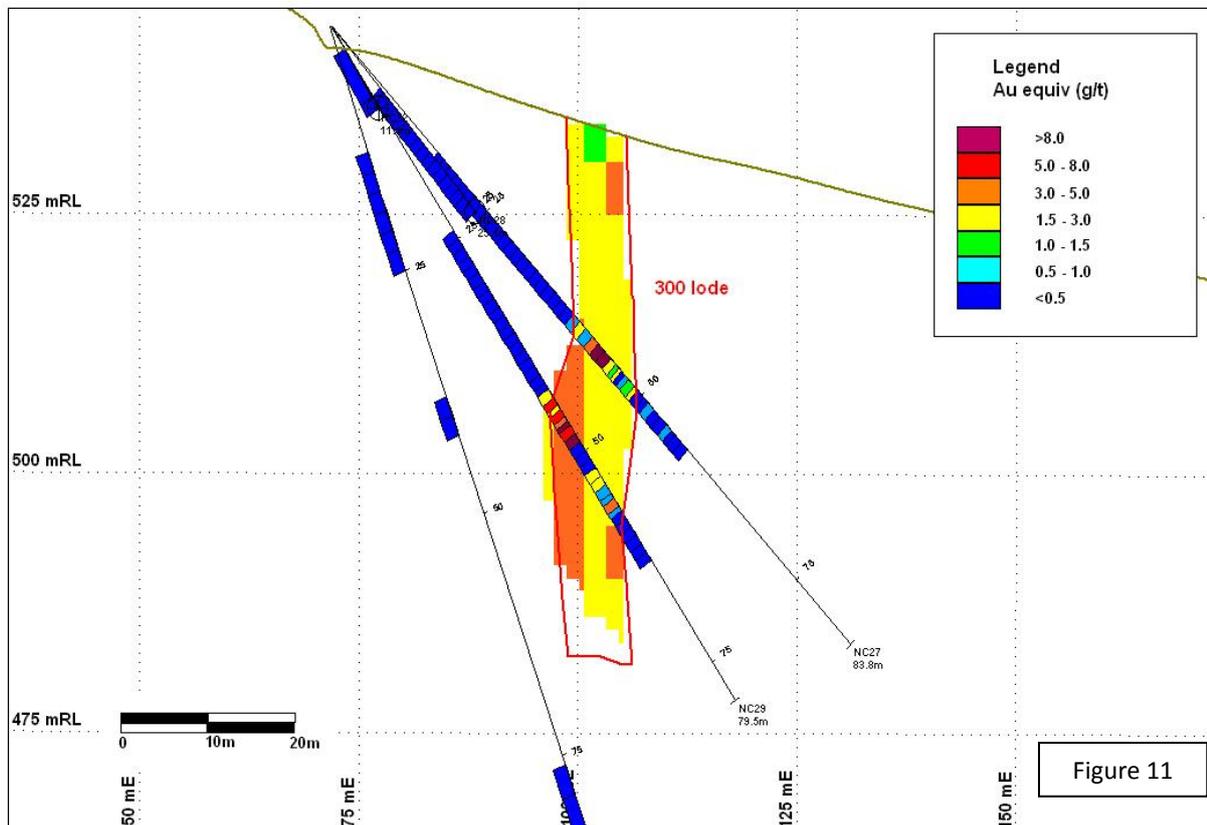


Figure 11: Section 5975mE



Geological Model

- The Narrawa Deposit is an intrusion-related gold-lead-zinc-silver skarn complex comprising a mixture of stratabound and fault/vein related lodes on the western limb of an anticline shallowly plunging to the NW.
- The deposit comprises two main lodes (100 & 200) trending 120°, truncated from lode 300 by an interpreted north-east striking, south-east dipping late brittle fault intersected by NC05. The two main lodes dip steeply towards the north-east at -65 to -70°, and are terminated at depth by the NW-SE trending, SW moderate dipping brittle HGM Fault. The 300 lode exhibits a swing in strike from 120° to 105°, with a steep sub-vertical dip towards the north-north-east twisting to the south-south-west towards the ESE. The 400 lode comprises a minor zone of mineralisation parallel to the 100 and 200 lodes. The lodes extend over a distance of 220m along-strike, with a maximum down-dip extent of 60m.
- Four wireframes were delineated from sectional outlines to represent all mineralisation in the Narrawa Deposit. A combination of assays, lithology and structural interpretations from drill core were used to define these wireframe envelopes, with a cut-off of approximately 0.5 g/t gold-equivalent to separate mineralisation from waste within the broad skarn complex lithology.
- The wireframed lodes extend over a distance of 220m along-strike, with a maximum width of approximately 20m and a down-dip extent of 60m.

Statistics

- Log histograms and probability plots of all elements exhibit mixing of populations, likely caused by the presence of both stratabound and fault/vein related mineralisation.
- Top-cuts were applied to all elements within lodes in order to constrain extreme values and reduce their impact on estimated grades. Upper inflexion points in probability distribution plots and a high coefficient of variation were used as a guide to determining top-cuts for these wireframes.
- Mineralisation was extrapolated halfway between associated drillholes on strike and down dip or 12.5m if unconstrained.

Variography

- Variography analysis using traditional and lognormal variograms was completed on combined composites to supply variogram parameters for grade interpolation.
- A strike of 120° was interpreted for all elements, with a dip of -65° to -70° towards 030°. No plunge was detected, with minor directions of mineralisation continuity attributed to associated structural features.
- Low to moderate nugget effects are inherent, ranging from 10% to 37% of the total variability, indicating good reproducibility of sampling methods.
- Maximum spatial continuity ranges indicate a range of continuity of up to 32m along-strike and 26m down-dip. Downhole variograms are well-structured, and indicate a downhole lode width of up to 9m. Quality of down-dip variograms are poor, and illustrate the need for some infill drilling in this direction.

Block model

- A block model of parent cell size 5m (N) x 10m (E) x 5m (RL) subcelled to 1.25m x 2.5m x 1.25m was constructed for the Narrawa Deposit. Grades were estimated using ordinary kriging interpolation for all lodes. A minimum of 3 composites and a maximum of 20 composites were used in interpolation of grades into blocks. Search ellipses for initial interpolation of grades comprised 30m x 22m x 10m. A second subsequent interpolation pass was employed with expanded search ellipses in order to fill blocks in areas of sparse drill density within the lodes.
- A classified mineral resource for the Narrawa Deposit was estimated (0.5g/t gold cut-off grade) to total 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent, within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc, consisting of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc.
- An Indicated Resource was estimated for the first time and it consists of 162,755 tonnes grading 3.61 g/t gold equivalent (2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc).
- Classification of the resource involved several criteria, including drillhole spacing, sampling density, sampling locations, kriging variance, lode geometry and confidence in grade continuity. Lodes were classified as Indicated and Inferred on the basis of the above criteria. A density of 2.96t/m³ was used to estimate resource block tonnage for all lodes.

Recommendations

- Infill drilling was recommended on existing sections to populate the uninformed area in the upper section of the lodes, and provide more composites for interpolation. This would improve the down-dip variography and enable a possible upgrade of the resource to Measured status.
- A formal survey of the drill collars and current Higgs pit plus all underground workings.
- Additional specific gravity values be obtained with the planned infill drilling to provide coverage of the upper portion of the lodes.

A summary assessment of the Narrawa Resource is provided in Table 2 below.

CRITERIA	COMMENTS
<i>Sampling Techniques and Data</i>	
Drilling	Diamond drillholes NC01-NC017 by Jervois using NQ core. Diamond drillholes NC018-NC053 by Frontier using NQ & HQ core. Channel holes NCSS01-NCSS13 along cross-cuts by Goldfields.
Data spacing and distribution	A total of 53 diamond holes drilled on an approximate 12.5m grid along-strike, with fan drilling on oblique cross-sections. Channel holes sampled along cross-cuts perpendicular to lodes. 1,981 samples in total, with samples collected at ~1m intervals.
Logging	Systematic logging describing the drillhole lithology, veining and structure.
Sampling and Sample Preparations	All Frontier diamond core was cut and half-core submitted for analysis. Samples were oven-dried and crushed, with the entire sample being fine pulverised to ensure a representative split. Base metal analysis was via AAS with gold determined by fire assay from a 50g charge at Burnie Research Laboratories.
Quality of Sampling and Assaying	QAQC was adequate and was assessed via submission of known standards approximately every 20 to 25 samples / metres downhole. Laboratory quality control reported very good repeatability for in-house standards, as well as for duplicate drill core analysis.
Location of Data Points	Collar positions surveyed by tape and compass covering all holes between NC05 and NC08 on SW side of Narrawa Creek to within $\pm 0.5m$ accuracy. Drillholes along access track (between NC22 and NC34) are to within $\pm 2m$ accuracy. Collars on NW side of creek re-adjusted to tape and compass survey data from 2005. These holes require re-surveying. NC18 collar location placed from spatial relationships to tape and compass surveyed locations of other holes. Other holes were transposed onto a digital terrain model constructed from 1:25000 digital contours (subcelled to 0.25m), incorporating known survey points and other georeferenced landmarks. Downhole surveys conducted by Eastman camera.
<i>Geological Knowledge</i>	
Geology	Quite good understanding of the deposit and structural controls on mineralisation. Interpreted as an intrusion-related gold-lead-zinc-silver complex with the main mineralised area striking broadly NW-SE. Lodes terminated at depth and to the SE by late brittle faults, delineated in drill core.
<i>Estimation and Reporting of Mineral Resources</i>	
Database Integrity	Reasonable database quality. A few missing silver assays from lost drill core in NC20.
Geological interpretation	Structural interpretations based on long core axis bedding, vein and fault orientations from diamond core, orientated diamond core and outcrops. 2D sectional mineralisation envelopes generated using interpreted stratabound & structural controls and an approximate 0.5g/t gold equivalent cut-off. 3D wireframes created by linking these 2D sectional envelopes for use in the resource model.
Estimation and modelling techniques	Ordinary kriging used for interpolation of lead, zinc, silver and gold grades into 5m x 10m x 5m parent blocks subcelled to 1.25m x 2.5m x 1.25m. Grade capping utilised for all elements. Hard boundaries employed between lodes. Search dimensions based on variography ranges. Model validated globally and locally, and compared to previous resource estimates.
Bulk Density	Average density of 2.96t/m ³ used from 160 SG determinations within the lodes. SG values determined by wax-encapsulation method.
Classification	Classification on basis of drill data density, kriging variance, geological controls and confidence in mineralisation continuity. Kriging variance used as a guide to differentiate Indicated and Inferred resources, with specific areas downgraded to Inferred on the basis of the above criteria.

Table 3 below lists the Narrawa Drillholes used in the Indicated and Inferred Resource

Previous Resource Estimations

Historically, the deposit was also drilled by previous owners, Jervois and TasGold (Frontier prior to name change). Jervois compiled a primitive resource estimate, based on weighted average grades from two diamond drillholes. The TasGold resource estimate was calculated on a sectional basis, using MapInfo and Discover, which uses a two-dimensional inverse distance weighted interpolator to produce a grid of interpolated values within the boundary defined for the resource, with a total of 16 diamond drillholes drilled by these companies.

An Inferred Resource was estimated by Geostat in March 2008, based on an inverse-distanced squared model and utilising 3D wireframes. Density values were calculated for samples within each lode and averaged to provide an overall mean density of 2.96 t/m³ for the resource.

Previous resources released by former owners and Frontier are tabulated below in Table 4. These estimates relied on an assumed density of 2.8 in the absence of bulk dry density information.

Table 4 Previous Resources of the Narrawa Deposit

DIAMOND DRILLHOLES						
Hole ID	Easting (m)	Northing (m)	RL (m)	Azimuth (degrees)	Dip (degrees)	Depth (m)
NC01	425496.9	5406724.8	512.0	33	-45	20.1
NC06	425471.3	5406685.5	524.0	213	-45	42.3
NC07	425451.1	5406698.9	525.0	213	-45	27.8
NC08	425434.2	5406709.5	526.0	213	-45	21.3
NC12	425491.9	5406679.9	521.0	213	-45	40.7
NC18	425521.6	5406681.0	519.0	213	-50	61
NC19	425499.2	5406693.9	517.0	213	-60	71
NC20	425476.9	5406694.2	518.0	213	-70	81.5
NC22	425514.0	5406619.0	543.0	345	-45	81
NC23	425620.0	5406655.0	534.0	215	-45	111
NC27	425514.0	5406619.0	543.0	35	-45	83.8
NC28	425514.0	5406619.0	543.0	55	-45	82.5
NC29	425514.0	5406618.9	543.0	35	-54.5	79.5
NC32	425538.0	5406615.0	545.0	35	-55	54
NC34	425573.0	5406633.0	536.0	215	-70	57.1
NC36	425496.0	5406731.0	516.0	142	-50	38.8
NC37	425495.9	5406731.2	516.0	142	-85	18
NC43	425483.2	5406685.9	521.3	213	-45	61.1
NC44	425483.2	5406685.9	521.3	213	-60	66.6
NC45	425483.2	5406685.9	521.3	213	-75	81.1
NC46	425484.6	5406688.0	521.3	33	-60	59.9
NC47	425460.5	5406693.0	521.9	213	-45	100.6
NC48	425460.6	5406693.1	521.9	213	-60	40.3
NC49	425460.6	5406693.2	521.9	213	-75	75.1
NC50	425509.9	5406677.8	525.0	213	-45	49.0
NC51	425509.9	5406677.8	525.0	213	-60	71.9
NC52	425509.9	5406677.8	525.0	213	-75	82.7
CHANNEL SAMPLE HOLES						
NCCS2	425507.8	5406635.9	535.0	-	-	5
NCCS3	425496.8	5406647.4	533.0	-	-	3.1
NCCS4	425501.8	5406644.4	533.5	-	-	31.3
NCCS9	425466.4	5406657.8	538.0	-	-	2.3
NCCS10	425471.7	5406654.0	538.0	-	-	4.1
NCCS12	425453.0	5406693.5	528.0	-	-	8
NCCS13	425447.9	5406688.4	526.0	-	-	20

Author/Model Date	Tonnes	Gold g/t	Lead %	Zinc %	Silver g/t	Method
McKenna Model (2003)	215,000	3.50	1.50	1.30	23	Weight average of NC6 & 12
TasGold Model (2005)	205,000	2.70	1.38	1.07	41	2D sectional resource
Geostat Model (2008)	190,100	2.74	1.59	1.21	22	3D ID ² resource

Conceptual Mining Study

Summary

The Revised Conceptual Mining Study relating to possible mining and processing of the gold and base metal mineralisation at the Narrawa and Stormont Deposits has demonstrated the potential for a positive theoretical cash flow and future source of income to the shareholders of Frontier Resources Ltd.

Mining Lease applications covering the deposits, possible satellite mineralised areas and the required plant and tailings areas, will be initiated and submitted to Mineral Resources Tasmania as the next phase toward possibly developing either a self mined/treated, self mined/toll milled or other type of extractive development.

Feasibility studies will continue in due course with:

- Expansion drilling to increase the total resources and thus further improve the overall project economics;
- Infill drilling to improve the classification or confidence of the resources associated with each deposit, so reserves can be estimated, fiscal outcomes published and development capital ultimately be raised;
- Additional metallurgical testwork to maximise metal recoveries and minimise operating costs; and
- Environmental and other evaluations.

DETAILS

Please refer to the Conceptual Mining Study located in Appendix 2.

The revision to the Conceptual Mining Study (CMS) for the Narrawa gold and base metals Deposit and the Stormont gold and bismuth Deposit, located 6.5km apart in central-northern Tasmania, has produced encouraging results. The Conceptual Mining Study shows a satisfactory theoretical cash flow from processing the mineralisation at the Narrawa and Stormont Deposits, based on a capital expenditure estimated at A\$8 million (neglecting working capital and provision for contingencies).

The CMS is not a feasibility study, but a detailed evaluation designed to determine if there are economic reasons for pursuing and further advancing a project that is known to contain certain types and grades of mineralisation.

The Conceptual Mining Study demonstrates that the continuation of Feasibility Studies is strongly warranted to evaluate the ultimate economic potential of the Narrawa and Stormont Deposits and to move them toward future production and cash flow for Frontier.

The CMS was based on the current Indicated and Inferred Resource for the Narrawa Deposit and the current Inferred Resource for the Stormont Deposit. The total resource at Narrawa contains 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent and consists of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc, at a 0.5g/t gold equivalent cut-off grade. The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc. The Indicated Resource at Narrawa consists of 162,755 tonnes grading 3.61 g/t gold equivalent, consisting of 2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc.

The Inferred Resource for the 'high grade' zone at Stormont contains 13,430 ounces gold, 27.7 tonnes bismuth and 10,340 ounces silver, within 91,400 tonnes of mineralised rock grading 4.57g/t gold, 0.30% bismuth and 3.52g/t silver, at a 1.5g/t gold cut-off grade. Not all known mineralisation was included in the Stormont Inferred Resource due to the limited drill holes.

Theoretical cash flows for the project were estimated for Narrawa then Stormont, vice versa and then both combined for simultaneous processing utilising extractive technology which has become available in Australia. The evaluation included order of magnitude estimates of capital, operating costs, personnel costs and logistical requirements.

The CMS determined cash flows for only the Indicated portion of the Narrawa Resource, the results of which Frontier could then report to the ASX and shareholders. This is because those figures would not be very meaningful in the present context as Frontier are not able to report the possible cash flows from the Inferred Resource at Stormont. Cash flows for the combined operation were determined and are encouraging, however, under ASX guidelines, cash flow figures and financial evaluations can only be published in relation to Indicated or Measured Resources, not Inferred Resources. As such, Frontier note that the results from the Narrawa/Stormont CMS should be regarded with appropriate caution.

The Conceptual Mining Study was undertaken by Mr H.D.Swain, Mining Engineer and Director of Frontier Resources Ltd, with more than 40 years professional experience in many different types of deposits. Mr Swain noted in the conclusions to his report:

The philosophy of mining and processing at the Narrawa and Stormont Deposits is to adopt a simple approach utilising local workforce and contractors to mine and process the low tonnage Mineral Resources.

The Conceptual Mining Study demonstrates the potential of a satisfactory investment, which will yield a future source of income to the shareholders of Frontier Resources Ltd.

Extraction of gold from the Stormont mineralised material would potentially be by the Carbon in Pulp (CIP) process, utilising the 'future' Narrawa plant/infrastructure to minimise capital costs. Metallurgical testwork was received on the Stormont mineralisation in mid 2009 (Amdel Laboratories -Perth) and it returned high recoveries of 92% for gold from gravity separation (and leaching of the gravity separation products) with normal CIP processing. The overall CIP gold recoveries were shown to improve with the fineness of the grind, as did recovery of gold into the gravity concentrate (which ranged from 22-29%). Bond Work Index was 14kWhr/t.

Mineralised material from the Narrawa Deposit would potentially be mined and concentrated onsite, then smelted at Hobart's Risdon refinery. The metallurgical testwork concentrate for Narrawa showed high recoveries for each metal, low reagent consumption, low Bond Work Index and production of a high quality concentrate. As a result, low Operating Costs are anticipated. Metallurgical testwork was conducted in 2008 on the Narrawa mineralisation (Amdel Laboratories -Perth) and it returned very high recoveries of 96.7% for gold, 98.5% for zinc, 95.6% for lead and 92.4% for silver, indicating non-refractory gold plus zinc, lead, copper and silver mineralisation. Bond Work Index was 14kWhr/t.

Simple mining practices and low waste to ore ratios are anticipated at both deposits, given the orientation of the mineralised zones relative to local topography. The Narrawa Deposit is anticipated to have a good stripping ratio of 1.0 tonne of waste to 1.0 tonne of ore and Stormont should have an excellent stripping ratio of 0.5 tonnes of waste to 1.0 tonne of ore.

Cash operating costs are estimated to be \$46/tonne for Narrawa and \$55/tonne for Stormont. Non-labour operating costs are estimated to be A\$10.97/tonne for Narrawa and A\$14.19/tonne for Stormont. These costs could be markedly reduced for a larger scale simultaneous operation and/or if alternate metallurgical processes live are successful.

Due to the complex polymetallic nature of the mineralised material at Narrawa Deposit, toll smelting and refining is likely to be relatively expensive but due to the unusually high quality of the concentrate, charges and losses are anticipated to be low at say about 5% of the value of contained metal (compared to the normal charges approaching 7% to 10% of the value of the metal). The charge would be deducted from gross revenue as a royalty by the smelter company.

The Conceptual Mining Study has indicated that there could be a theoretical pre-tax profit after the return of capital expenditure costs for an operation based solely on the Narrawa Deposit, but the possible profit improves significantly with an increase in total available resources from a combined operation and would improve further from a larger operation. This finding rationalises why Frontier will undertake additional resource expansion and infill definition drilling at the Narrawa and Stormont Deposits when possible.

The establishment of an 'extractive processing centre' in the region of Retention Licenses 3/2005 (Narrawa) and 4/2005 (Stormont) would allow other known gold and polymetallic mineralisation to be targeted for conversion to resources by additional drilling and for possible subsequent exploitation.

There is very good exploration potential to further increase the size of both deposits and thus improve possible cash flows for the project. Future resource expansion drilling at both deposits will target:

1. Strike extensions to the known deposits
2. Depth extensions
3. Fault offset extensions
4. Satellite deposit mineralisation and
5. High grade tungsten mineralisation proximal to and within the Narrawa Deposit.

The Stormont resource is wholly classified as Inferred and was included in the CMS to evaluate the robustness of the overall project. The 2004 JORC Code states "Caution should be exercised if this category (Inferred) is considered in technical and economic studies". Metals prices utilised in the CMS were from 3/7/2009, being US\$940/oz gold, US\$0.71.44/lb zinc, US\$0.7738/lb lead, US\$13.70/oz silver.

Mining Lease applications will be initiated and submitted to Mineral Resources Tasmania as the next phase toward developing either a self mined/treated, self mined/toll milled or other type of mining/extractive operation.

RECOMMENDATIONS

Mining Lease applications covering the deposits, possible satellite mineralised areas and the required plant and tailings areas, should be initiated and submitted to Mineral Resources Tasmania as the next phase toward possibly developing either a self mined/treated, self mined/toll milled or other type of extractive development.

Feasibility studies are suggested to continue with:

- Expansion drilling to increase the total resources and thus further improve the overall project economics
- Infill drilling to improve the classification or confidence of the resources associated with each deposit, so reserves can be estimated, fiscal outcomes published and development capital ultimately be raised
- Additional metallurgical testwork to maximise metal recoveries and minimise operating costs and
- Environmental and other evaluations.

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APPENDIX 1

RL 3/2005 - NARRAWA - ANNUAL REPORT TO MAY 12TH, 2010

FRONTIER RESOURCES LTD - NARRAWA PROJECT

RESOURCE ESTIMATE

MAY 2009

DISCLAIMER

This report has been prepared for Frontier Resources Ltd by Geostat Services Pty Ltd and is based on information available at the time of preparation. While all care has been taken with the compilation of this report, Geostat Services does not accept any legal responsibility to any person, organisation or company for any loss or damage suffered by them resulting from their use of the report however caused, and whether by breach of contract, negligence or otherwise. The information contained is based on Geostat Services' experience and data supplied by Frontier personnel. While it is believed that the information contained herein is reasonable given the conditions and subject to the limitations contained herein Geostat Services does not guarantee the accuracy thereof and the use of this report or any part thereof shall be at the users' risk.

EXECUTIVE SUMMARY

Geological model

- The Narrawa Deposit is characterised by an intrusion-related Au-Pb-Zn-Ag complex with the main mineralised area striking 120°. The lodes are interpreted as dipping -65° to -70° towards the north-east, with a late brittle NE fault truncating the resource to the south-west, and the HGM fault forming the basal termination at depth.
- Four wireframes were delineated from sectional outlines to represent all mineralisation in the Narrawa Deposit. A combination of assays, lithology and structural interpretations from drillcore were used to define these wireframe envelopes, with a cut-off of approximately 0.5 g/t Au-equivalent to separate mineralisation from waste within the broad skarn complex lithology.
- The wireframed lodes extend over a distance of 220m along-strike, with a maximum down-dip extent of 60m.

Statistics

- Log histograms and probability plots of all elements exhibit mixing of populations, likely caused by the presence of both stratabound and fault/vein related mineralisation.
- Top-cuts were applied to all elements within lodes in order to constrain extreme values and reduce their impact on estimated grades. Upper inflexion points in probability distribution plots and a high coefficient of variation were used as a guide to determining top-cuts for these wireframes.

Variography

- Variography analysis using traditional and lognormal variograms was completed on combined composites to supply variogram parameters for grade interpolation.

- A strike of 120° was interpreted for all elements, with a dip of -65° to -70° towards 030°. No plunge was detected, with minor directions of mineralisation continuity attributed to structural features associated with mineralisation.
- Low to moderate nugget effects are inherent, ranging from 10% to 37% of the total variability, indicating good reproducibility of sampling methods.
- Maximum spatial continuity ranges indicate a range of continuity of up to 32m along-strike and 26m down-dip. Downhole variograms are well-structured, and indicate a downhole lode width of up to 9m. Quality of down-dip variograms are poor, and illustrate the need for infill drilling in this direction.

Block model

- A block model of parent cell size 5m (N) x 10m (E) x 5m (RL) subcelled to 1.25m x 2.5m x 1.25m was constructed for the Narrawa Deposit. Grades were estimated using ordinary kriging interpolation for all lodes. A minimum of 3 composites and a maximum of 20 composites were used in interpolation of grades into blocks. Search ellipses for initial interpolation of grades comprised 30m x 22m x 10m. A second subsequent interpolation pass was employed with expanded search ellipses in order to fill blocks in areas of sparse drill density within the lodes.
- A classified mineral resource for the Narrawa Deposit was calculated as at 7th April 2009 above a cut-off of 0.5 g/t AuEq, totalling 199,000 tonnes at 3.5 g/t AuEq, 2.09 g/t Au, 1.33% Pb, 1.13% Zn and 20 g/t Ag. Classification of the resource involved several criteria, including drillhole spacing, sampling density, sampling locations, kriging variance, lode geometry and confidence in grade continuity. Lodes were classified as Indicated and Inferred on the basis of the above criteria. A density of 2.96t/m³ was used to estimate resource block tonnage for all lodes.

Recommendations

- Infill drilling is recommended on existing sections to populate the uninformed area in the upper section of the lodes, and provide more composites for interpolation. This would improve the down-dip variography and enable a possible upgrade of the resource to Measured status.
- Drillhole collars are currently surveyed using a compass and tape method, with varying degrees of accuracy from ±0.5m up to ±2m. It is recommended that these holes be surveyed more accurately to provide accurate positions of hole collars.
- A formal survey of the current Higgs pit and all underground workings where possible is recommended to enable an accurate topography surface to be applied to the model.
- QAQC was not conducted for the Narrawa Deposit, as field duplicates and laboratory repeat assays were not supplied. It is recommended that a thorough analysis be undertaken of these duplicates to gauge the accuracy and precision of assays within the database.
- It is recommended that more specific gravity values be obtained with the planned infill drilling to provide coverage of the upper portion of the lodes.
- A local grid is recommended for the Narrawa Deposit, such that the mineralised lodes strike directly north. This will allow optimal filling of blocks and thorough interrogation of the block model.

FRONTIER RESOURCES LTD

NARRAWA CREEK RESOURCE ESTIMATE

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1.0 INTRODUCTION

Geostat Services (Geostat) was commissioned by Frontier Resources Ltd (Frontier) to undertake a geostatistical resource estimate of the Narrawa Deposit in March 2009. This Deposit is located in the central north of Tasmania, approximately 20km south-west of Sheffield and 40 km from Devonport. The aim of this work was to provide an updated 3D geostatistical resource of the Narrawa Deposit, using drilling assays from the recent drilling campaign and the greater understanding of the Deposit geology.

Historically, the Deposit was drilled by previous owners, Jervois and TasGold. Jervois compiled a primitive resource estimate, based on weighted averaged grades from two diamond drillholes. The TasGold resource estimate was calculated on a sectional basis, using MapInfo and Discover, which uses a two-dimensional inverse distance weighted interpolator to produce a grid of interpolated values within the boundary defined for the resource, with a total of 16 diamond drillholes drilled by these companies.

An Inferred resource was estimated by Geostat in March 2008, based on an inverse-distanced squared model and utilising 3D wireframes. Density values were calculated for samples within each lode and averaged to provide an overall mean density of 2.96 t/m³ for the resource.

Previous resources released by former owners and Frontier are tabulated in Table 1.1 below. These estimates have relied on an assumed density of 2.8 in the absence of bulk dry density information. The Geostat resource is also listed below for comparison with previous resources.

Author/Model Date	Tonnes	Au g/t	Pb %	Zn %	Ag g/t	Method
McKenna Model (2003)	215,000	3.50	1.50	1.30	23	Weight average of NC6 & 12
TasGold Model (2005)	205,000	2.70	1.38	1.07	41	2D sectional resource
Geostat Model (2008)	190,100	2.74	1.59	1.21	22	3D ID ² resource

Table 1.1 Previous Resources of the Narrawa Deposit

2.0 DATA

Geostat was provided with comma-delimited files comprising drillhole collar, assay, survey and lithology data covering the Narrawa Deposit by Frontier. Drillholes comprise a mixture of diamond holes and channel face samples, with a total of 34 holes drilled for 1,735m. Diamond drillhole depths vary from 18m to 111m, with an average depth of 61.5m. Table 2.1 lists the drillholes used in the resource.

Drillhole data spacing throughout the Narrawa Deposit is variable, with 13 oblique drill sections spaced from 12.5m to 25m along-strike. Drillholes were often drilled in fans on these sections and oriented to intersect the lodges at various depths.

Limited validation of the database was performed by Geostat, however, a thorough validation was considered to have been completed by Frontier prior to receiving the data. It was not within the scope of the brief to assess data quality and integrity. No information was provided regarding different analytical procedures and all assays have been processed as one dataset.

DIAMOND DRILLHOLES				
HOLE	EASTING	NORTHING	RL	DEPTH
NC01	425496.93	5406724.78	523.048	20.1
NC06	425471.28	5406685.49	524	42.3
NC07	425451.09	5406698.87	525	27.8
NC08	425434.18	5406709.54	526	21.3
NC12	425491.9	5406679.93	521	40.7
NC18	425521.6	5406680.95	519	61
NC19	425499.2	5406693.86	517	71
NC20	425476.9	5406694.2	518	81.5
NC22	425514	5406619	543	81
NC23	425620	5406655	536.751	111
NC27	425514	5406619	543	83.8
NC28	425514	5406619	543	82.5
NC29	425514	5406618.85	543	79.5
NC32	425538	5406615	545	54
NC34	425573	5406633	536	57.1
NC36	425496	5406731	526.997	38.8
NC37	425495.9	5406731.2	527.007	18
NC43	425483.19	5406685.9	521.33	61.1
NC44	425483.25	5406685.99	521.094	66.6
NC45	425483.31	5406686.06	521.094	81.1
NC46	425484.58	5406688.01	521.319	59.9
NC47	425460.5	5406693	522.203	100.6
NC48	425460.55	5406693.1	522.203	40.3
NC49	425460.62	5406693.17	522.216	75.1
NC50	425509.86	5406677.79	525.053	50.7
NC51	425509.93	5406677.88	525.044	71.9
NC52	425510	5406677.97	525.044	82.7
CHANNEL SAMPLE HOLES				
HOLE	EASTING	NORTHING	RL	DEPTH
NCCS2	425507.75	5406635.92	535	5
NCCS3	425496.79	5406647.38	533	3.1
NCCS4	425501.8	5406644.41	533.5	31.3
NCCS9	425466.45	5406657.8	538	2.3
NCCS10	425471.69	5406654.04	538	4.1
NCCS12	425452.98	5406693.5	528	8
NCCS13	425447.94	5406688.41	526	20

Table 2.1 Narrawa Drillholes used in Resource

3.0 WIREFRAMING

The Narrawa Deposit characterises an intrusion-related gold skarn complex, comprising a mixture of stratabound and fault/vein related lodes on the western limb of an anticline shallowly plunging to the north-west. Four 3D wireframe envelopes were delineated for the Narrawa Deposit, based primarily on assays, lithology and structural interpretations from drillcore, with an approximate 0.5g/t Au equivalent cut-off used to separate mineralisation from waste within the broad sulphidic skarn lithology. Consideration was also given to anomalous Pb, Zn and Ag assays in the absence of gold assays. The Deposit comprises two main lodes (100 & 200) trending 120°, truncated from lode 300 by an interpreted north-east striking, south-east dipping late brittle fault intersected by NC05 (Figure 3.1). The two main lodes dip steeply towards the north-east at -65 to -70°, and are terminated at depth by the NW-SE trending, SW moderate dipping brittle HGM Fault. The 300 lode exhibits a

swing in strike from 120° to 105°, with a steep sub-vertical dip towards the north-north-east twisting to the south-south-west towards the ESE. The 400 lode comprises a minor zone of mineralisation parallel to the 100 and 200 lodes. The lodes extend over a distance of 220m along-strike, with a maximum down-dip extent of 60m.

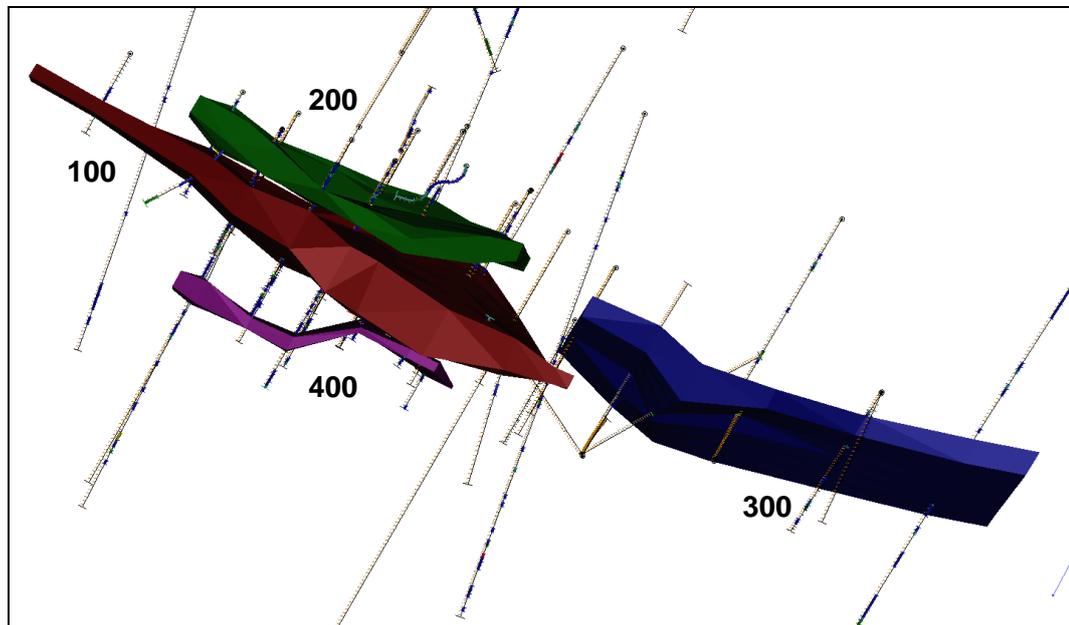


Figure 3.1 3D plan- view of Narrawa wireframes

4.0 STATISTICS

4.1 Compositing of sample data

Sample intervals within the resource database were examined to determine the dominant sample length. Within the mineralisation wireframes, the majority of all samples comprised 1m interval lengths, and thus the data was composited to 1m intervals, honouring drillhole-wireframe intersections.

4.2 Top-cutting of composite data

Composite data within the resource database was assessed for the need of a top-cut to be applied to data prior to grade estimation. The determination of a high-grade cut is made on the basis of probability plots and ranked data values, with the general criteria for the top-cuts being a marked change, a kink, or pronounced disintegration at the higher end of the probability distribution, or a clear break within ranked composite data. Top-cuts were only applied to grade variables within these lodes where the coefficient of variation was high, and/or there was a large variance present, in addition to the above criteria. These top-cuts are conservative, with a very low impact to the overall mean grade. Top-cuts for each lode are summarised below in Table 4.1.

4.3 Descriptive Statistics

Statistics were run within the resource database for all constrained uncut and cut composite data by lode, and are presented in Table 4.2.

ELEMENT	LODE			
	100	200	300	400
Pb	100,000	20,000	40,000	-
Zn	90,000	20,000	40,000	-
Ag	120	30	60	40
Au	12	10	10	0.25

Table 4.1 Top-cuts applied to Lodes, Narrawa

Location statistics of mineralised composites reveal the highest Pb and Zn grades in lodes 100 and 300, with moderate grades present in lodes 200 and 400. Silver is consistent in all lodes with the exception of 200, which contains silver grades in the order of values close to the lower detection limit. The 400 lode is prospective for base metals, with only background Au values present. This lode contains a limited number of composite data, and more composites are needed to assess the true grade population of this lode. Narrawa lodes also contain low copper and arsenic grades, which are considered to be at background levels for these elements.

Log histograms and log probability plots of each element for all combined data are shown in Figures 4.1 to 4.4. All elements exhibit varying degrees of population mixing, which is likely due to the presence of both stratabound and fault/vein related mineralisation within the lodes.

Element/ Statistic	PB				ZN			
	100	200	300	400	100	200	300	400
Number	185	69	70	20	185	69	70	20
Minimum	21.5	34	50.75	505	31	62.5	87	383
Maximum	187000	49200	71120	36000	150000	62225.898	90700	15100
Mean	18196	4166	10920	9684	14424	4666	10273	6391
Median	4786	1070	6500	5988	3503	689	5410	4917
Std Dev	28813	7823	13864	8293	22530	9923	14230	3946
Variance	830209680	61198543	192200635	68770235	507608083	98457091	202485238	15574162
Std Error	155.75	113.38	198.05	414.64	121.79	143.81	203.28	197.32
Coeff Var	1.58	1.88	1.27	0.86	1.56	2.13	1.39	0.62
Topcut	100,000	20,000	40,000	-	90,000	20,000	40,000	-
No cut	5	2	2	-	3	3	2	-
Cut Mean	17180	3557	10165	-	13801	3586	9310	-
Cut COV	1.41	1.44	1.11	-	1.42	1.51	1.09	-

Element/ Statistic	AG				AU			
	100	200	300	400	100	200	300	400
Number	185	66	70	20	185	69	70	20
Minimum	0.5	0.5	0.5	1	0.005	0.005	0.005	0.005
Maximum	460	49	110	72.4	23.01	19.70	28.00	1.51
Mean	26.33	7.78	18.84	19.51	2.27	1.76	1.24	0.12
Median	10	2.25	11	13	0.57	0.78	0.15	0.02
Std Dev	48.44	10.57	19.54	15.52	3.63	3.13	3.58	0.34
Variance	2346.51	111.79	381.67	240.77	13.18	9.81	12.78	0.11
Std Error	0.26	0.16	0.28	0.78	0.02	0.05	0.05	0.02
Coeff Var	1.84	1.36	1.04	0.80	1.60	1.78	2.89	2.79
Topcut	120	30	60	40	12	10	10	0.25
No cut	4	4	2	1	4	2	1	1
Cut Mean	22.88	7.30	18.10	17.89	2.14	1.59	0.98	0.06
Cut COV	1.28	1.25	0.93	0.59	1.44	1.48	1.89	1.42

Table 4.2 Uncut & Cut Composite Statistics by Lode

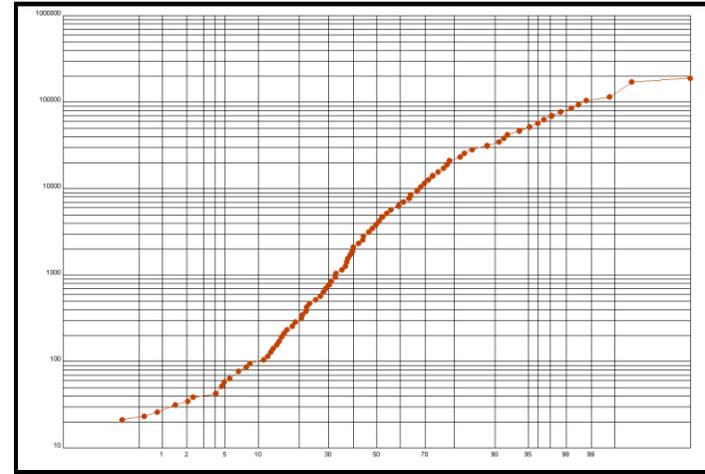
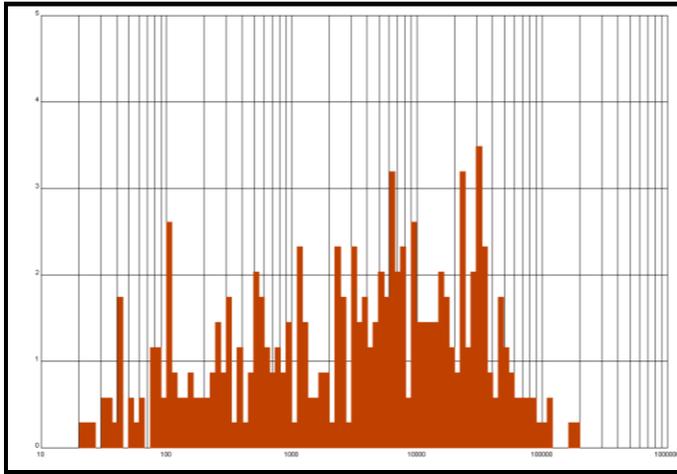


Figure 4.1 Pb log histogram and log probability plot, all lodes

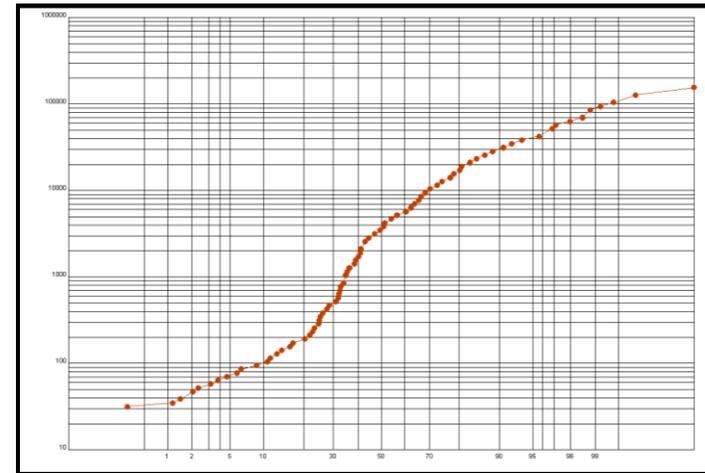
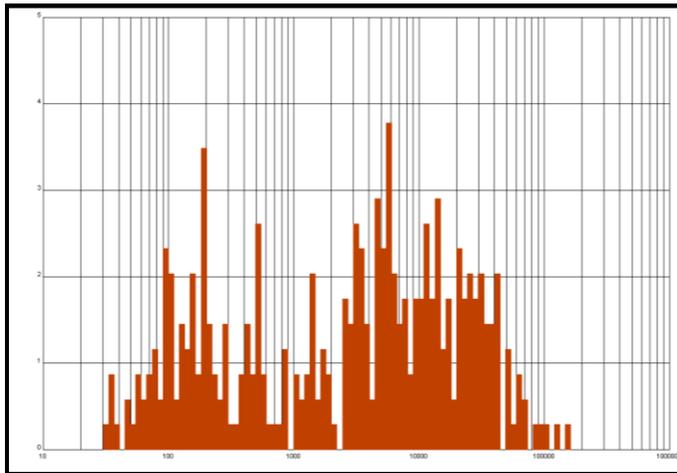


Figure 4.2 Zn log histogram and log probability plot, all lodes

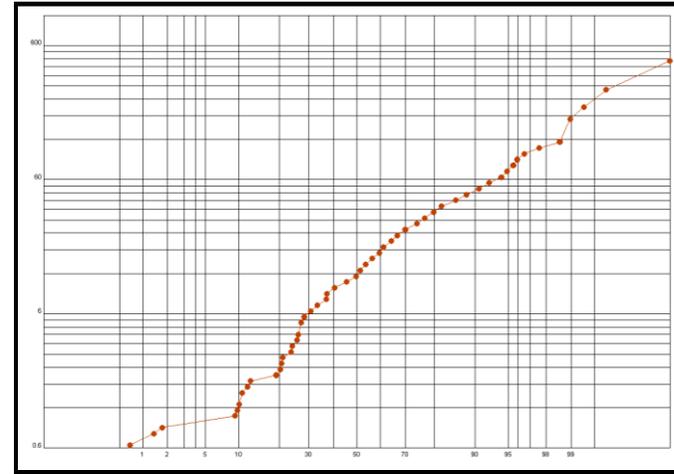
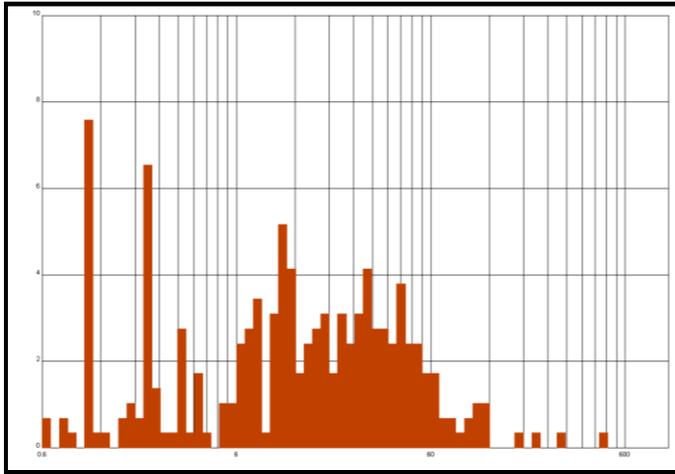


Figure 4.3 *Ag log histogram and log probability plot, all lodes*

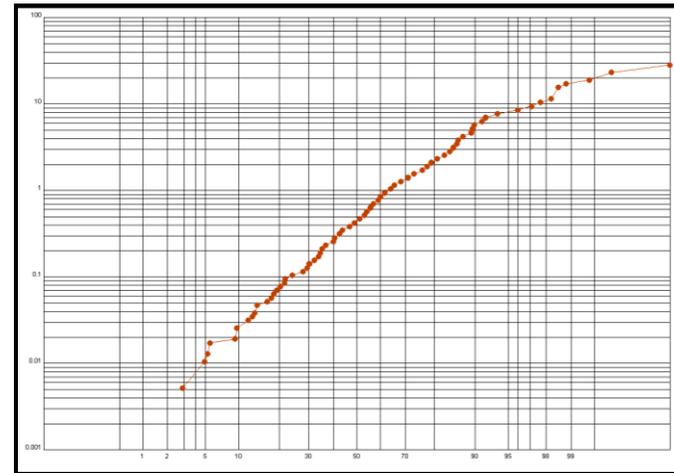
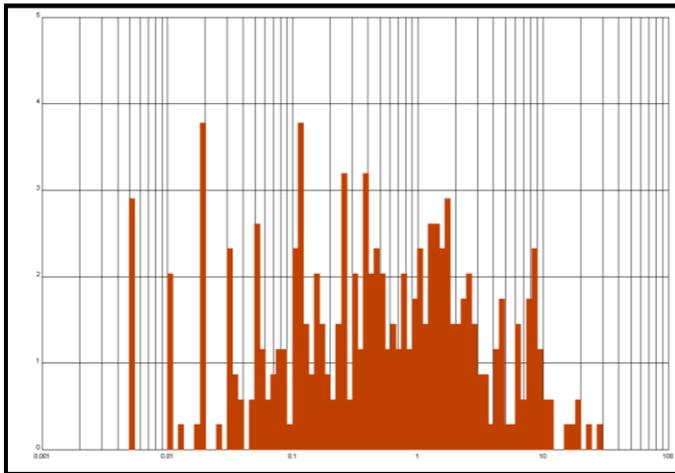


Figure 4.4 *Au log histogram and log probability plot, all lodes*

5.0 VARIOGRAPHY

Variography analysis using traditional and log variograms was performed on composite data to provide variography parameters for the resource model. Lode composites were combined together to sufficient data levels for variography analysis. Traditional variograms were employed for Pb and Zn, whereas log variograms were used for Ag and Au, with the results back-transformed to traditional parameters.

Interpretation of variogram fans in the horizontal plane show a 120° strike, with across-strike plane interpretations showing a steep dip of -70° towards 030°. No consistent plunge was detected, and the plunge was set to the strike, as being the direction of greatest known mineralisation continuity. Two directions of continuity are present in the dip plane variogram, which are likely related to structures influencing mineralisation rather than reflecting the mineralisation itself. One direction of continuity, along -28/109° is likely related to the NW-SE fault forming the basal termination of the lodes. The other direction of continuity, along -68/003° is likely associated with the N to NE trending late brittle fault truncating the main lodes to the SE.

Variograms with two spherical structures were modelled for all elements within both domains, with results in Tables 5.2. A low nugget effect is present for Pb & Zn, representing 10% of the total variability. Ag and Au are exhibited by a low to moderate nugget effect representing 25% and 37% of the total variability, which suggest that the current sampling methods are reasonable and no significant error is being introduced through drilling and sampling. Downhole variograms for all elements with the exception of Au are reasonably well-structured, with reasonable definition of the nugget effect and downhole lode width. The continuity of Au does not extend to the width of the lodes, resulting in a more erratic and poorly structured downhole variogram. The quality of directional variograms for all elements is fair, with the down-dip variograms particularly poor. A lack of data exists down-dip, with some sections only containing one drillhole intercept intersecting mineralisation (e.g. 5900mE, 5925mE). Infill drilling down-dip should improve the quality of these variograms.

ELEMENT	DIRECTION	ORIENTATION	NUGGET EFFECT	STRUCTURE 1		STRUCTURE 2	
				SILL	RANGE	SILL	RANGE
PB	Major	0/120	0.1	0.35	22m	0.55	26m
	Semi-major	-70/030			23m		26m
	Minor	20/030			3.5m		9m
ZN	Major	0/120	0.1	0.25	12m	0.65	22m
	Semi-major	-70/030			12m		22m
	Minor	20/030			3m		5.5m
AG	Major	0/120	0.25	0.37	10m	0.37	32m
	Semi-major	-70/030			3.5m		22m
	Minor	20/030			2.5m		8m
AU	Major	0/120	0.37	0.35	13m	0.28	30m
	Semi-major	-70/030			23m		25m
	Minor	20/030			2.5m		8m

Table 5.1 Model variogram parameters, Narrawa
Variogram model plots are included as Appendix 1.

6.0 BLOCK MODELLING AND GRADE INTERPOLATION

6.1 Block model creation and extents

A 3D block model, *narrawacreek_march2009.mdl* was generated using Surpac software with origin, extents and attributes defined below in Table 6.1. Parent blocks of 5m x 10m x 5m size (Y x X x Z) were subdivided into sub-blocks of 1.25m x 2.5m x 1.25m in order to fill areas adjacent to wireframe boundaries. The wireframes were used to limit the blocks available for grade interpolation, with block centroid locations used to define the blocks and sub-blocks for interpolation.

Model Parameters	Y	X	Z
Minimum Coordinates	5406550	425350	460
Maximum Coordinates	5406650	425550	550
Model Extent	100m	200m	90m
Parent Block Size	5m	10m	5m
Minimum Block Size	1.25m	2.5m	1.25m
Attribute	Type	Description	
ag	Float	Ag estimated grade	
au	Float	Au estimated grade	
density	Float	SG	
lode code	Integer	Lode code	
no_samp	Integer	No of samples used to fill block	
pb	Float	Pb estimated grade	
resclass	Integer	Classification code	
zn	Float	Zn estimated grade	

Table 6.1 Narrawa Resource Model Extents

6.2 Estimation parameters and methodology

Ordinary kriging using parameters derived from the traditional and back-transformed log variograms was used to estimate Pb, Zn, Ag and Au grades for the Narrawa Deposit. The skewed nature of the data distribution makes this technique ideal, whereas other techniques such as inverse distance interpolation assume a normal distribution, which can lead to errors if the data is not cut appropriately. Inverse distance techniques also do not utilise the information obtained from the variogram in interpolation of blocks, and thus the spatial correlation between composites is not taken into account.

6.2.1 Grade interpolation

Each lode was treated as a separate hard boundary, restricting the grade interpolation to drillhole data located within each lode. A minimum of 3 samples and a maximum of 20 samples were used to interpolate grades into each block. A discretisation array of 5 (east) by 5 (north) by 5 (RL) was used to refine the kriging weights for each model block.

Two interpolation passes were conducted for all lodes. Search ellipse parameters were guided by variography ranges, with 30m x 22m x 10m used for all lodes in the initial pass of interpolation. For the second interpolation pass, search ellipses for all lodes were expanded to 45m x 33m x 15m. Only those blocks unfilled by the first pass were interpolated by the second pass, and grades estimated from the first interpolation pass were left unchanged. All blocks within the lodes were filled after these interpolation passes.

Element	SEARCH ELLIPSE DIMENSIONS
---------	---------------------------

	1st Pass	2nd Pass
Pb	30m x 22m x 10m	45m x 33m x 15m
Zn	30m x 22m x 10m	45m x 33m x 15m
Ag	30m x 22m x 10m	45m x 33m x 15m
Au	30m x 22m x 10m	45m x 33m x 15m

Table 6.2 Search Ellipse Dimensions for each Interpolation Pass

Table 6.3 below lists the strike and dip orientations employed for each lode. The 300 lode was split into two domains using 425,540mE as a boundary, as the dip of this lode steepens from -87° to vertical around this easting, in line with the twisting of the orebody dip towards the south-west.

LODE	STRIKE	DIP
100	120°	-70/030
200	120°	-65/030
300 west	120°	-87/030
300 east	105°	-90/030
400	120°	-70/030

Table 6.3 Search Ellipse Orientations

6.2.2 Density

A total of 160 density values were supplied for the block model, with bulk density determinations using the wax-encapsulation method. The drillcore samples were weighed, and then sprayed with a lacquered hair spray, with multiple coats used for porous samples to protect pores and voids from water saturation. The samples were then weighed in water. The SG was determined by:

$$SG = \text{weight in air} / (\text{weight in air} - \text{weight in water})$$

Density values were averaged for all lodes, with a combined average of 2.96 t/m³ used in the resource model. One outlier value of 5.70 was removed from the dataset prior to the average calculations, as this value was deemed to be incorrect and likely resulted from erroneous analysis.

6.3 Block model validation

The Narrawa block model was validated by several methods, including visual validations on-screen, global statistical comparisons of input and block grades, and local grade/depth relationships. The model was validated visually by viewing vertical sections and plans of the block model, with spatial comparison of interpolated block grades against input composite grades to ensure grade trends were represented correctly.

6.3.1 Global statistical validations

Declassified average cut composite grades were statistically compared with mean block grades by lode, with summary results tabulated in Table 6.4 below.

ELEMENT	LODE	NO OF COMPOSITES	CUT COMP DECLUST MEAN AU	MODEL MEAN AU	% DIFFERENCE COMPS VS MODEL
PB	100	185	15593	14412	-7.6%
	200	69	3693	4406	19.3%
	300	70	9795	10167	3.8%
	400	20	11473	10265	-10.5%
ZN	100	185	12566	11412	-9.2%
	200	69	3703	4336	17.1%
	300	70	9188	9564	4.1%
	400	20	7876	6856	-13.0%
AU	100	185	2.49	2.79	12.2%

	200	69	1.60	2.12	32.8%
	300	70	0.83	0.76	-8.0%
	400	20	0.06	0.06	6.7%
AG	100	185	20.92	19.40	-7.3%
	200	66	7.46	8.00	7.2%
	300	70	17.54	17.40	-0.8%
	400	20	21.68	19.00	-12.4%

Table 6.4 Global statistical validation of model grades

A good overall reconciliation exists between average input composite grades and mean block grades, with most model mean grades reporting within 10% of composite averages. Grade reconciliations within the 200 lode are over-represented by the model, due to the information effect created by the clustered location of composites at the bottom of the lode. Figure 6.1 shows the composite locations within this lode below.

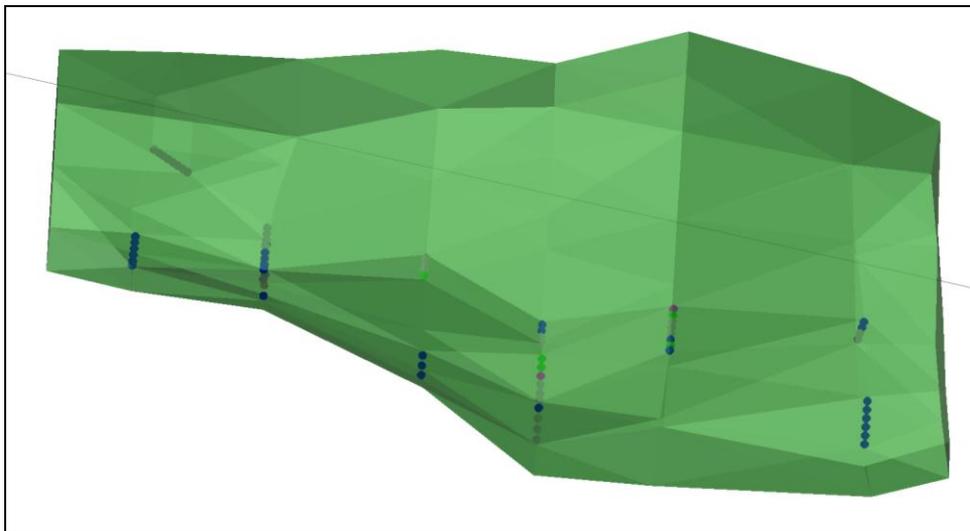


Figure 6.1 Location of composites within the 200 Lode

Hence, higher grade composites located at upper depths have disproportionately influenced block grades in the upper half of the lode, resulting in elevated model grades relative to composite grades. This phenomenon is also present to a lesser degree in the 100 lode, with a negative reconciliation caused by the presence of lower-grade composites at the periphery of informed areas spreading into uninformed areas.

6.3.2 Grade/Depth validations

Figures 6.2 to 6.5 illustrate the grade/depth relationship of all elements for the combined lodes within the Narrawa Deposit. Both input composite data and model grade data were averaged within 10m depth increments, and plotted together with the number of composites to assess the reliability of the block model.

Comparisons of model grades with composite grades illustrate a reasonable reconciliation, with model grades reproducing the broad trends in composite grades. Deviations between the model and composite grades occur in areas of low data density, illustrating the need for more composites in these areas.

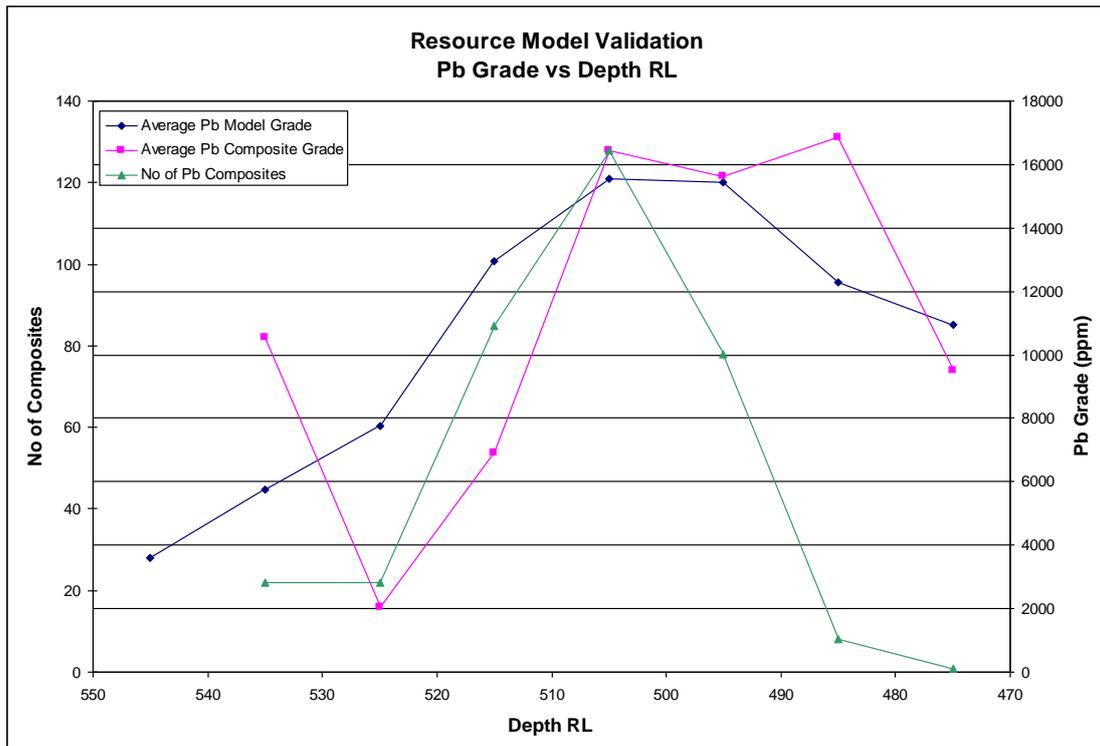


Figure 6.2 Pb Grade vs. Depth validation plot – All Lodes

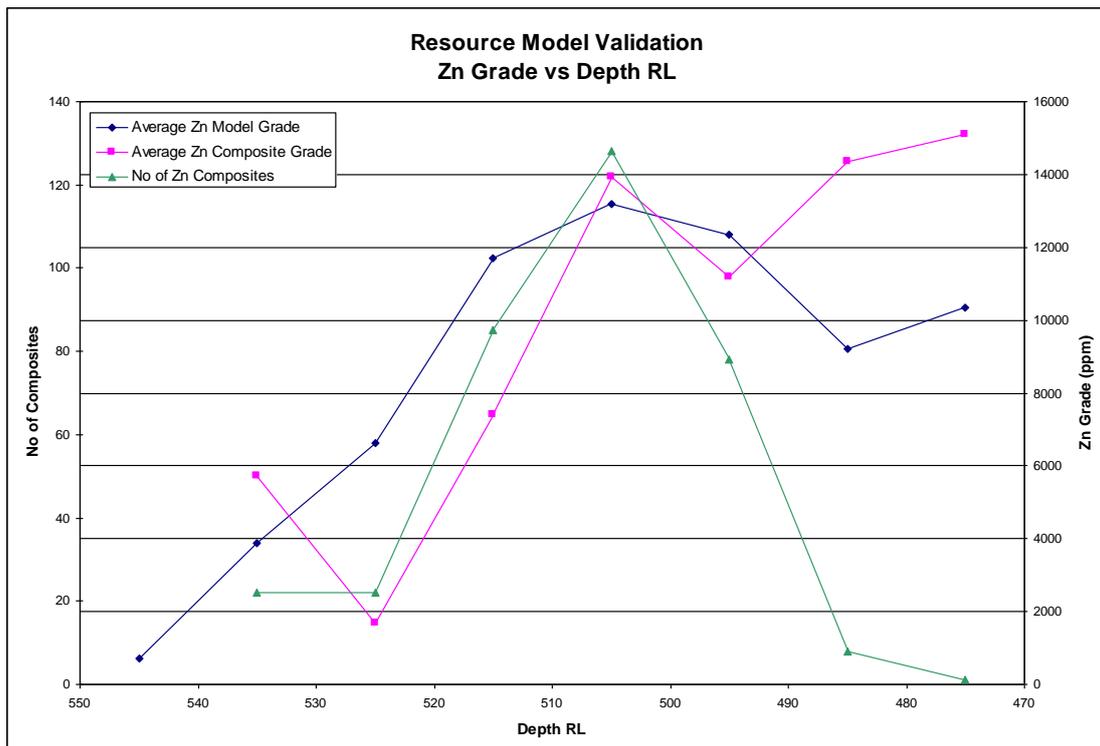


Figure 6.3 Zn Grade vs. Depth validation plot – All Lodes

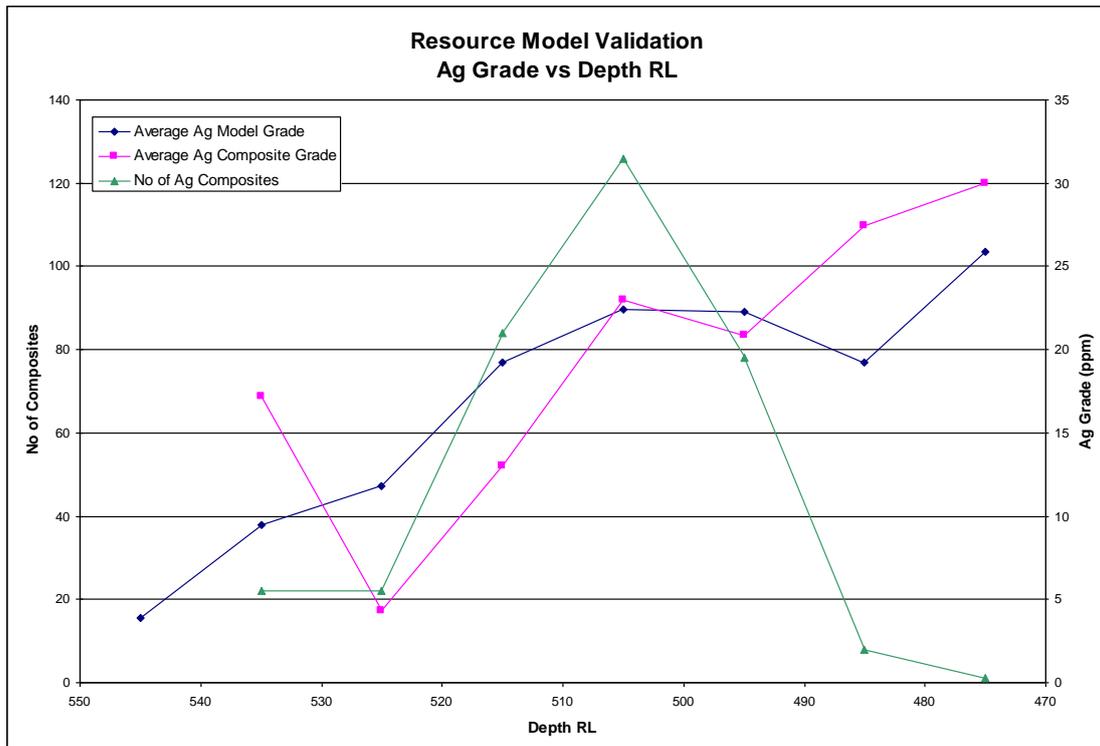


Figure 6.4 Ag Grade vs. Depth validation plot – All Lodes

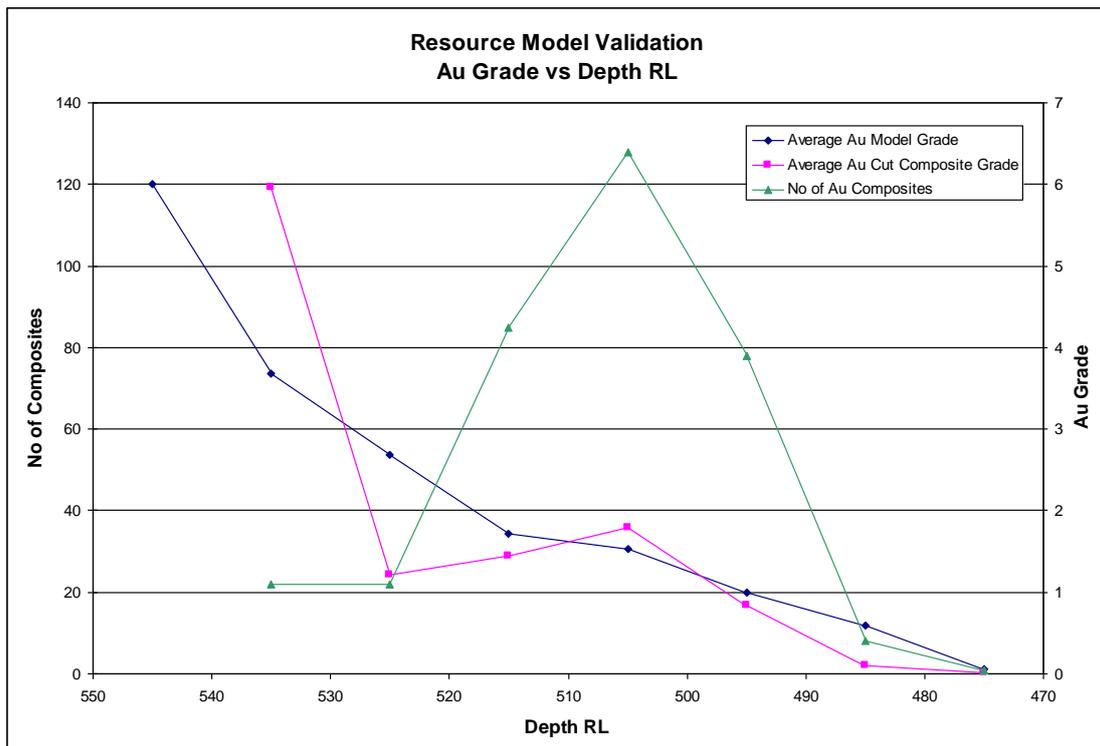


Figure 6.5 Au Grade vs. Depth validation plot – All Lodes

7.0 RESOURCE CLASSIFICATION AND REPORTING

The Mineral Resource for the Narrawa Deposit has been classified in accordance with the guidelines outlined in the “Australian Code for Reporting of Identified Mineral Resources and Ore Reserves” (JORC, 2004 edition). Assessment criteria include drillhole spacing, sample locations, sampling density, lode geometry, geological confidence and grade continuity. A summary assessment of the Narrawa Resource is provided in Table 7.1 below.

CRITERIA	COMMENTS
Sampling Techniques and Data	
Drilling	Diamond drillholes NC01-NC017 by Jervois using BQ core. Diamond drillholes NC018-NC053 by Frontier using NQ & HQ core. Channel holes NCSS01-NCSS13 along cross-cuts.
Data spacing and distribution	A total of 53 diamond holes drilled on an approximate 12.5m grid along-strike, with fan drilling on oblique cross-sections. Channel holes sampled along cross-cuts perpendicular to lodes. 1,981 samples in total, with samples collected at ~1m intervals.
Logging	Systematic logging describing the drillhole lithology, veining and structure.
Drill Sample Recovery	Not documented – unknown.
Sampling and Sample Preparations	Diamond core cut and 1/2 core submitted for analysis. Samples crushed, weighed, oven-dried, riffle split, weighed again, oversize screened out and final 80-100g sub-sampled and analysed.
Quality of Sampling and Assaying	No field duplicate assays or laboratory repeat assays supplied to Geostat for analysis.
Location of Data Points	Collar positions surveyed by tape and compass covering all holes between NC05 and NC08 on SW side of Narrawa Creek to within ± 0.5m accuracy. Drillholes along access track (between NC22 and NC34) are to within ± 2m accuracy. Collars on NW side of creek re-adjusted to tape and compass survey data from 2005. These holes require re-surveying. NC18 collar location placed from spatial relationships to tape and compass surveyed locations of other holes. Other holes were transposed onto a digital terrain model constructed from 1:25000 digital contours (subcelled to 0.25m), incorporating known survey points and other georeferenced landmarks. Downhole surveys conducted by Eastman camera.
Geological Knowledge	
Geology	Quite good understanding of the deposit and structural controls on mineralisation. Interpreted as an intrusion-related Au-Pb-Zn-Ag complex with the main mineralised area striking broadly NW-SE. Lodes terminated at depth and to the SE by late brittle faults, delineated in drillcore.
Estimation and Reporting of Mineral Resources	
Database Integrity	Reasonable database quality. A few missing Ag assays from lost drillcore in NC20.
Geological interpretation	Interpretation completed by Frontier personnel. Structural interpretations based on bedding, vein and fault orientations from diamond core, and outcrops. 2D sectional mineralisation envelopes generated using interpreted stratabound & structural controls and an approximate 0.5g/t Au equivalent cut-off. 3D wireframes created by linking these 2D sectional envelopes for use in the resource model.
Estimation and modelling techniques	Ordinary kriging used for interpolation of Pb, Zn, Ag and Au grades into 5m x 10m x 5m parent blocks subcelled to 1.25m x 2.5m x 1.25m. Grade capping utilised for all elements. Hard boundaries employed between lodes. Search dimensions based on variography ranges. Model validated globally and locally, and compared to previous resource estimates.
Bulk Density	Average density of 2.96t/m ³ used from 160 SG determinations within the lodes. SG values determined by wax-encapsulation method.
Classification	Classification on basis of drill data density, kriging variance, geological controls and confidence in mineralisation continuity. Kriging variance used as a guide to differentiate Indicated and Inferred resources, with specific areas downgraded to Inferred on the basis of the above criteria.

Table 7.1 Summary Assessment of the Narrawa Resource

7.1 Methodology

The Narrawa resource has been classified as Indicated and Inferred, on the basis of sampling density and confidence in grade continuity. Kriging variance was used as a guide to assign Indicated and Inferred blocks throughout the Narrawa Deposit. Indicated blocks located within the periphery of the larger lodes were downgraded to Inferred, in line with lower sampling density and sparse drillhole

spacing present in these areas. The 400 lode was classified as wholly Inferred, on the basis of 5 drillhole intercepts defining the entire lode.

Figure 7.1 shows an oblique view of the model colour-coded by resource class, with the Indicated resource coded as magenta, and Inferred resource coded as green.

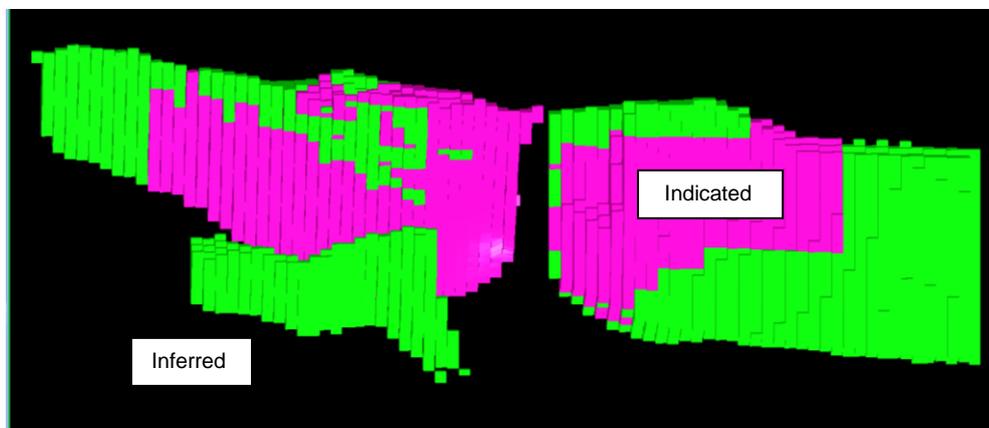


Figure 7.1 Narrawa Deposit Classification Categories

Whilst the drill spacing of 12.5m along strike would normally boost part of the resource to Measured status, a number of criteria to enable this classification still remains to be addressed. These outstanding criteria to enable blocks within the Narrawa Deposit to attain Measured status are listed as follows:

Formal survey of drillhole collars. A number of drillhole collar positions were estimated based on a compass and tape survey from 2005, and require re-survey by more precise methods;

Quality of variography, particularly down-dip. This is best addressed by infilling the uninformed areas in the upper section of the lodes on existing sections;

External analysis of quality assurance and quality control via analysis of field duplicates and laboratory repeat assays; and

Infilling along drill sections where one mineralisation intercept is present (e.g. 5900, 5912mE).

Collection of density determinations in locations within the upper section of the lodes.

Results

The classified Mineral Resource is tabulated in Table 7.2 as at 7th April 2009 and is reported using 0g/t and 1g/t Au-equivalent cut-off grades. The model was reported beneath the topography surface, which includes the shallow Higgs pit, and also excluded all historical underground workings.

The gold equivalent formula used to calculate the gold equivalent values is as follows:

$$\text{Au Equivalent (g/t)} = \text{Au g/t} + (\text{Pb\%} \times 0.46269) + (\text{Zn\%} \times 0.4644) + (\text{Ag g/t} \times 0.01386)$$

This formula is based on metal prices obtained on 7th April 2009, these being US\$884/oz Au, US\$0.5965/lb Pb, US\$0.5987/lb Zn and US\$12.26/oz Ag.

Figure 7.2 illustrates the grade-tonnage relationship for all wireframes for Narrawa at a range of AuEq cut-off grades from 0 to 8 g/t AuEq, to test the sensitivity of the model to the cut-off grade applied. AuEq cut-off grades are bracketed next to points representing the tonnage and average grade applicable at these cut-off grades.

Y axis is Gold Equiv.

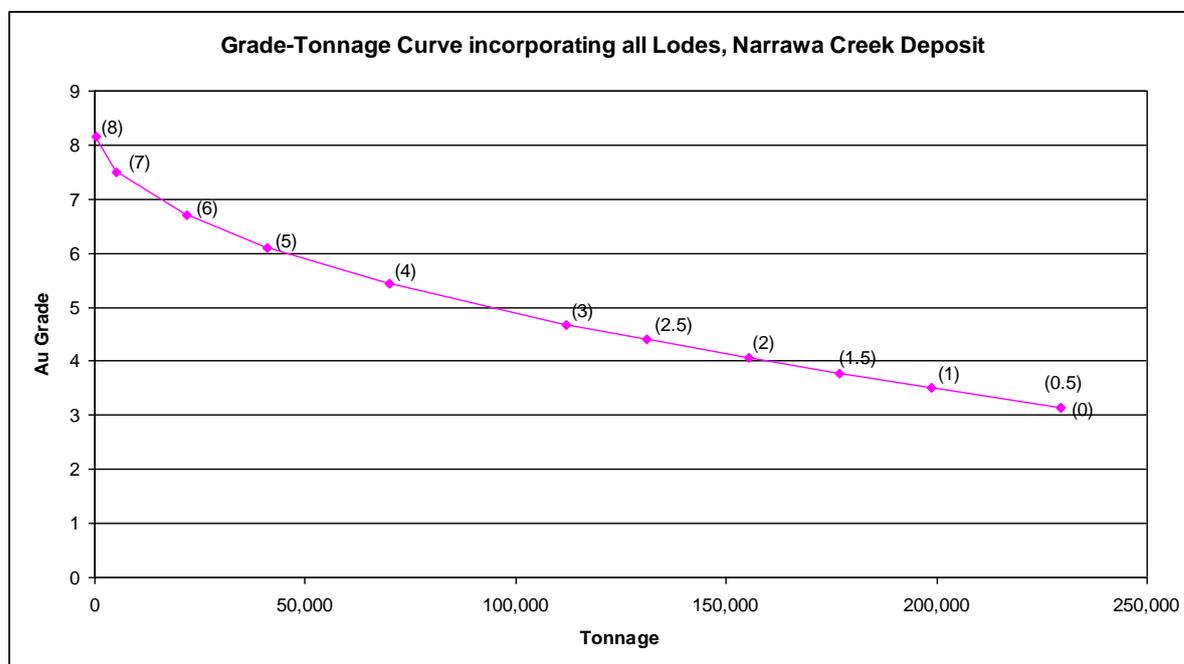


Figure 7.2 Grade Tonnage Curve for all Lodes

8.0 RECOMMENDATIONS

A number of recommendations are made in light of the completed resource model for Narrawa, including infill drilling across-strike, additional drilling to test the extent of wireframes, formal survey of drill collars, QAQC and more specific gravity values.

A large uninformed area exists in the upper half of wireframes, particularly the 100 and 200 lodes. This has resulted in large extrapolation of composites located at the upper limits of informed areas into these areas. It is recommended to infill the current drilling on some existing sections to provide more composites down-dip, and to improve the down-dip variography. Suggested drillhole intersection locations are illustrated below in Figures 8.1 & 8.2, with a total meterage of approximately 200m. Information from these holes will increase confidence in the down-dip variography, and potentially upgrade part of the resource to Measured status.

The area around the interpreted brittle fault in the south-west is lacking in definition, and more drilling information is needed in this area to further define the throw of this fault, its offset and impact on mineralisation.

Drillholes are currently surveyed using a compass and tape method, with varying degrees of accuracy up to $\pm 2m$. It is recommended that these holes be surveyed by an external surveying company to provide accurate positions of hole collars.

Lode	INDICATED						INFERRED						TOTAL					
	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t
100	100,964	4.21	2.46	1.71	1.38	22.9	19,020	3.90	3.44	0.47	0.3	6.7	119,984	4.16	2.61	1.52	1.21	20.33
200	22,420	2.63	2.09	0.46	0.45	8.3	913	3.72	2.99	0.64	0.7	9.0	23,333	2.67	2.13	0.46	0.46	8.33
300	39,787	2.37	1.03	1.16	1.13	20.4	37,197	1.44	0.48	0.87	0.8	14.1	76,984	1.92	0.77	1.02	0.96	17.36
400	-	-	-	-	-	-	9,343	1.12	0.06	1.03	0.7	19.0	9,343	1.12	0.06	1.03	0.7	19.0
TOTAL	163,170	3.54	2.06	1.40	1.19	20.3	66,473	2.13	1.31	0.78	0.63	12.6	229,643	3.13	1.84	1.22	1.03	18.1

Lode	INDICATED						INFERRED						TOTAL					
	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t
100	99,380	4.26	2.49	1.74	1.40	23.2	13,632	5.15	4.52	0.65	0.4	9.1	113,012	4.37	2.73	1.61	1.29	21.50
200	20,870	2.76	2.21	0.48	0.47	8.4	913	3.72	2.99	0.64	0.7	9.0	21,783	2.80	2.24	0.48	0.48	8.43
300	39,440	2.39	1.04	1.16	1.14	20.5	19,587	2.05	0.84	1.04	1.0	18.3	59,027	2.27	0.97	1.12	1.10	19.77
400	-	-	-	-	-	-	5,088	1.37	0.08	1.33	0.8	23.0	5,088	1.37	0.08	1.33	0.8	23.0
TOTAL	159,690	3.60	2.09	1.43	1.21	20.6	39,220	3.08	2.07	0.93	0.78	15.5	198,910	3.50	2.09	1.33	1.13	19.6

Table 7.2 Narrawa Classified Mineral Resource as at 7th April 2009 – above 0g/t AuEq (top) and above 1g/t AuEq (bottom)

Quality assurance and quality control analysis was not undertaken, as field duplicates and laboratory repeat assays were not supplied. It is recommended that an analysis be undertaken of these assays, including comparisons with the original assays to gauge the precision and accuracy of existing assays within the Narrawa Deposit.

Density values from wax-encapsulation analysis were supplied for use in the current resource model. However, these density values are clustered towards the bottom of the main lodes. It is recommended that further SG values are obtained with all planned drillholes to provide SG information at upper levels of the resource, and to enable interpolation of SG values throughout the model.

The AMG grid is currently used for the Narrawa Deposit, with the lodes oriented at an obtuse angle to this coordinate system. It is recommended that a local grid be employed for this Deposit such that the lodes strike directly north. This will enable improved filling of model blocks and interrogation of the resource model.

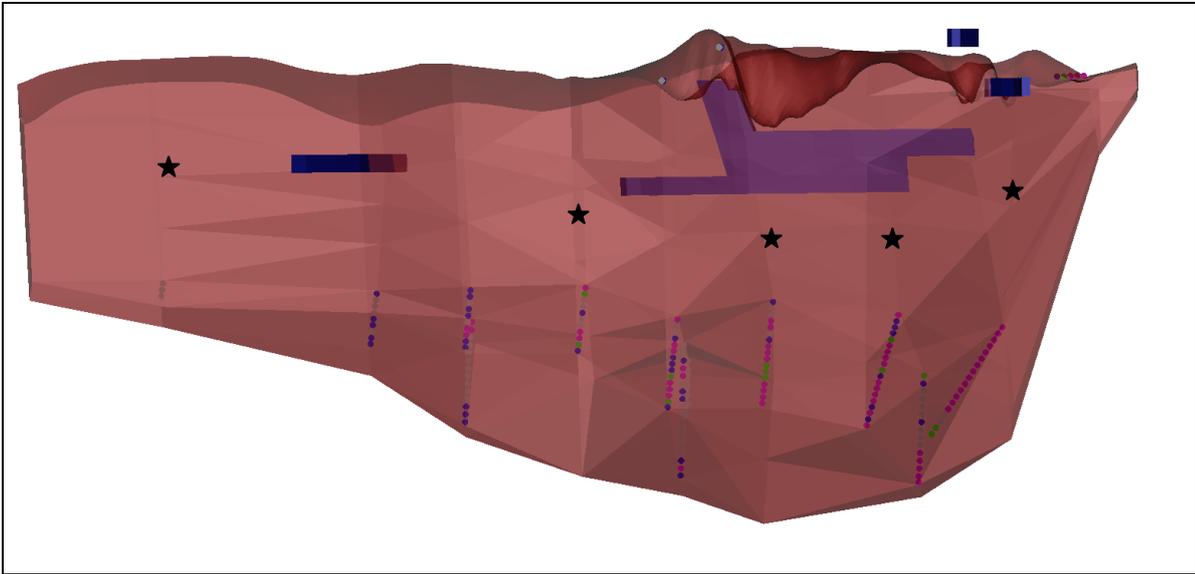


Figure 8.1 Recommended drillhole intercept locations, 100 lode

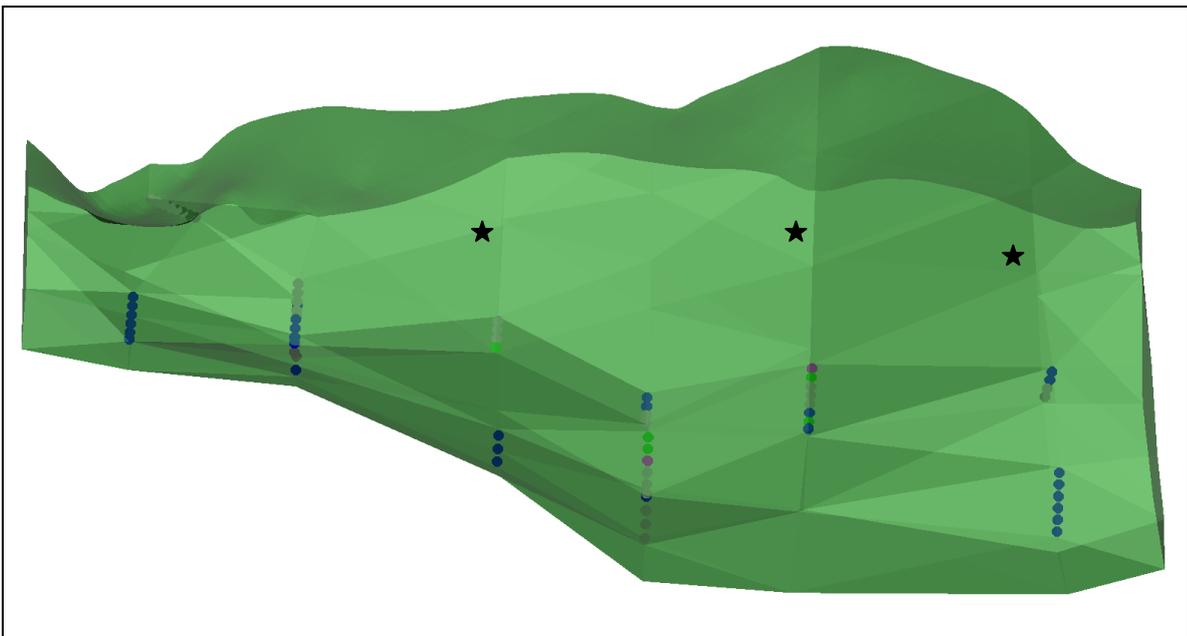
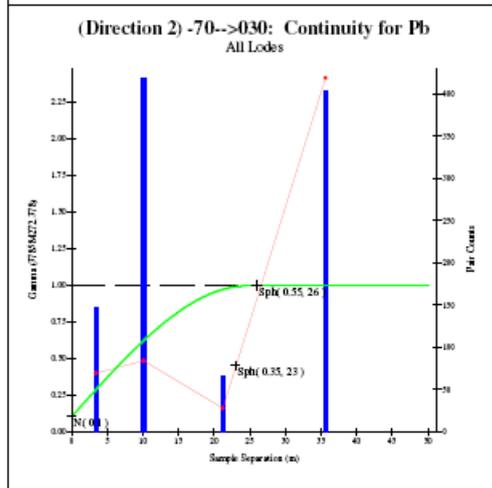
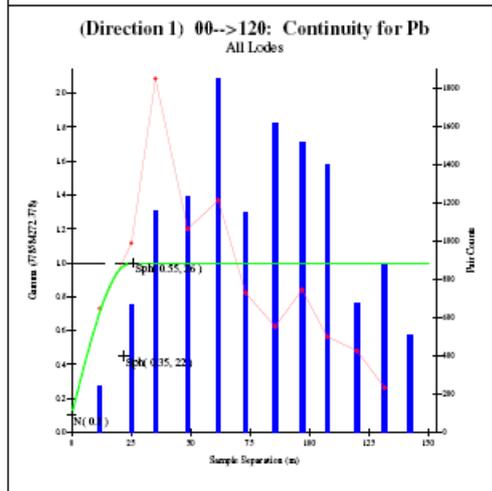
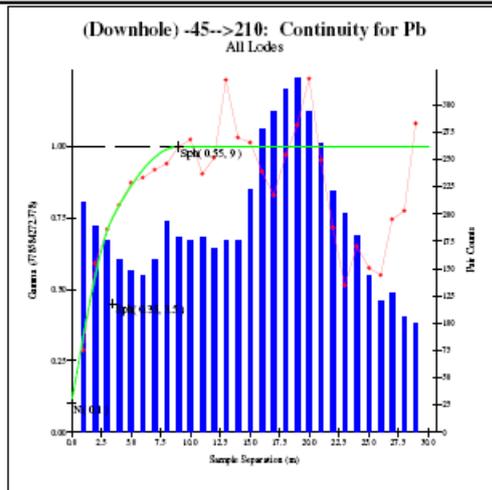


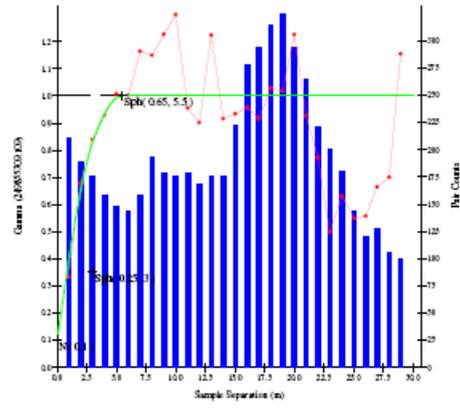
Figure 8.2 Recommended drillhole intercept locations, 200 lode

APPENDIX 1

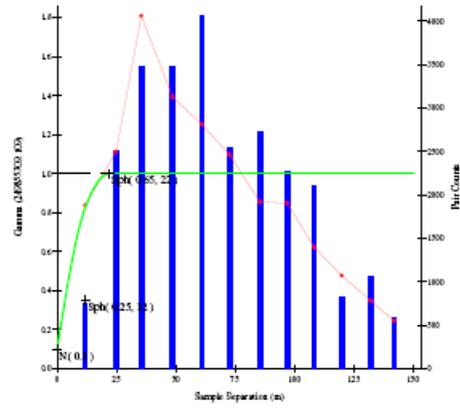
NARRAWA CREEK DEPOSIT VARIOGRAPHY MODEL PLOTS



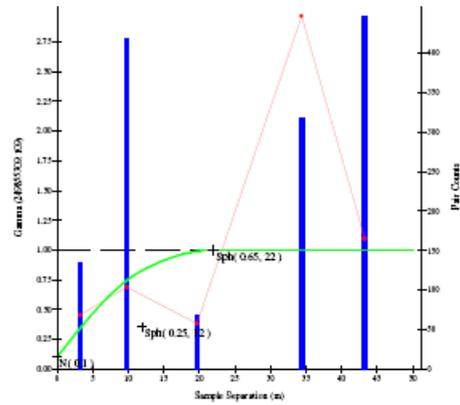
(Downhole) -45-->210: Continuity for Zn
All Lodes



(Direction 1) 00-->120: Continuity for Zn
All Lodes



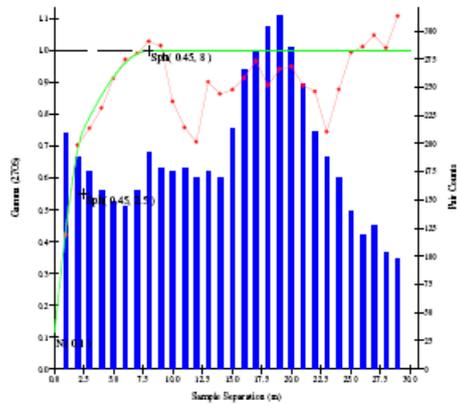
(Direction 2) -70-->030: Continuity for Zn
All Lodes



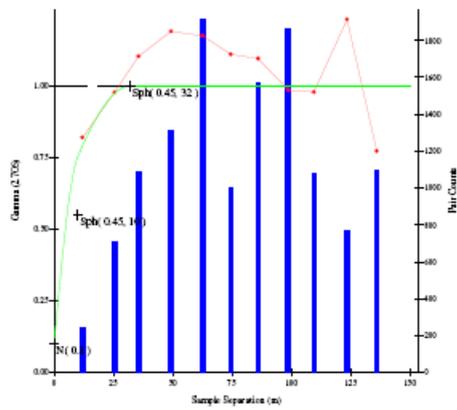
Narrawa Creek Variography
1m Composites



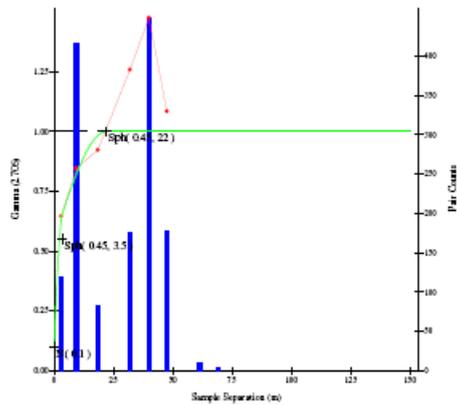
(Downhole) -45-->210: Log Continuity for Ag
All Lodes



(Direction 1) 00-->120: Log Continuity for Ag
All Lodes



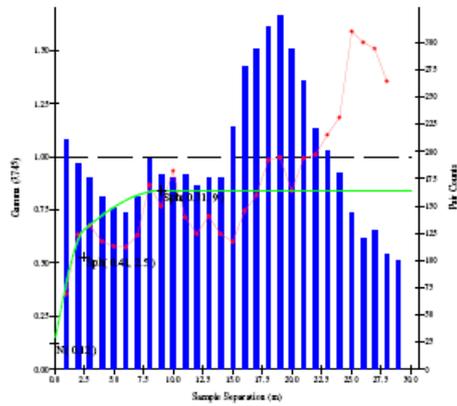
(Direction 2) -70-->030: Log Continuity for Ag
All Lodes



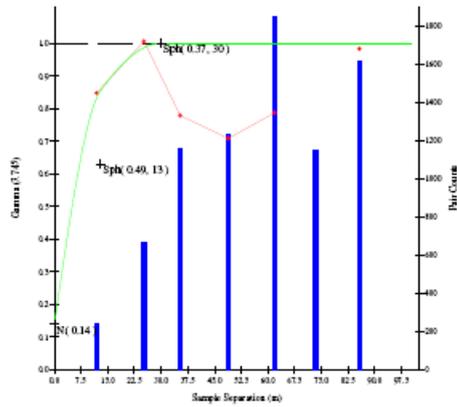
Narrawa Creek Variography
1m Composites



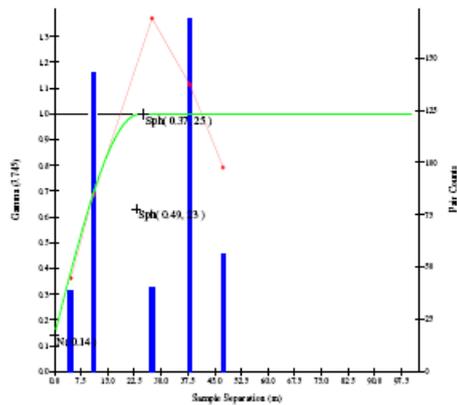
(Downhole) -45-->210: Log Continuity for Au
All Lodes



(Direction 1) 00-->120: Log Continuity for Au
All Lodes



(Direction 2) -70-->030: Log Continuity for Au
All Lodes



Narrawa Creek Variography
1m Composites



APPENDIX 2

RL 3/2005 - NARRAWA - ANNUAL REPORT TO MAY 12TH, 2010

SWAIN ENGINEERS

Consulting Mining Engineers

CONCEPTUAL MINING STUDY FOR THE NARRAWA AND STORMONT DEPOSITS
RETENTION LICENCES 3/2005 AND 4/2005 ; NORTH - CENTRAL TASMANIA

EXECUTIVE SUMMARY

Frontier have rights to explore and potentially develop Narrawa and Stormont Deposits located in RL3/2005 and RL4/2005 near Gowrie Park in North Central Tasmania. The RL's are valid on a renewable basis until 12 May 2009 and 6th August 2010. Exploration was completed at Stormont during 2008 and the following statement of an Inferred Resource has been issued shown in Table 1. (Grant MacDonald & Associates)

Table 1 : Stormont : Tonnage and Grade and possible Mineralised Resource

Classification*	COG	Tonnes	AuEq g/t	Au (g/t)	Bi (ppm)	Ag (g/t)
Inferred	0.5g/t	124300	3.88	3.65	2588	3.35
Inferred	1.0g/t	112500	4.18	3.94	2718	3.41
Inferred	1.5g/t	91400	4.83	4.57	3037	3.52
Inferred	2.0g/t	75500	5.43	5.16	3175	3.32
Inferred	2.5g/t	63200	6.01	5.72	3414	3.38
Inferred	3.0g/t	54400	6.52	6.22	3531	3.39
Inferred	3.5g/t	50800	6.73	6.43	3609	3.34

NB AuEq (g/t) = Au(g/t) + 0.00009 x ppm Bi + 0.01462 x g/t Ag

The Narrawa area shows many interesting sample results. Drill samples taken from the vicinity of the old open cut in early 2008 have enabled Frontier to state the Indicated and Inferred Resource (*Classifications per the JORC Code) shown in Table 2 (Geostat Pty. Ltd. Perth).

Table 2 : Narrawa Deposit : April 2009

Classification*	COG	Tonnes	AuEq g/t	Au g/t	Pb %	Zn %	Ag g/t
Indicated	0.0g/t	163,170	3.77	2.06	1.40	1.19	20.3
Inferred	0.0g/t	66,473	2.26	1.31	0.78	0.63	12.6
Total @	0.0g/t	229,643	3.33	1.84	1.22	1.03	18.1
Indicated	1.0g/t	159,690	3.83	2.09	1.43	1.21	20.6
Inferred	1.0g/t	39,220	3.23	2.07	0.93	0.78	15.5
Total @	1.0g/t	198,910	3.71	2.09	1.33	1.13	19.6

NB AuEq (g/t) = Au g/t + (Pb% x 0.56447) + (Zn% x 0.52113) + (Ag g/t x 0.01462)

Table 3 : Snapshot Metal Prices USD as at 3 July 2009

Gold	\$30.23/g	\$940/oz Troy
Zinc	\$0.7144/lb	\$1,574.5/t
Lead	\$0.7738/lb	\$1,705.5/t
Silver	\$0.4405/g	\$13. 7/oz Troy
Bismuth	\$5/lb	11,020/t

The study has assessed the possible return on investment to shareholders of Frontier Resources Ltd. from exploitation of the Mineralised Resource shown in Table 1 and Table 2 at current metal prices shown in Table 3. The results using traditional process technology are shown in Table 4 including estimated Capital Investment in Table 5.

Also in Table 5, in blue, are the returns to the project of new technology which may be available at start up. These results are presented for comparison and if sustained in practice demonstrate advantages above the conventional process technology.

The advantage of the new technology is, if proven after a pilot plant study to the satisfaction of Frontier, that :-

- 1) All ores, whatever metals present, are processed simultaneously. In the case of the Narrawa & Stormont project, this means that by increasing throughput by 5tph to 45 tph, total ROM ore from each orebody is processed in one year of operations.
- 2) All metals contained in the ore can be selectively recovered. The metals are produced in a native state and are finely divided which we understand commands a better sale price in the Metal Markets. There are no Smelting and Refining costs in the traditional sense. Another advantage is the reduced power consumption for comminution of the ores.
- 3) As no reagents are used, tailings are chemical free and harmless to the environment.

Please note that the cost structure for the possible new process is INDICATIVE at this time and is subject to revision. Similarly the value used for recovery has yet to be confirmed.

Table 4 : Summary of Net Cash Flow in AUD for the Inferred Mineralisation at Stormont and the Indicated and Inferred Resource at Narrawa before Tax for Discount 0% & 10%

Stormont First					
Quantity Mined & Processed			Cash Operating Cost per Ounce	Discount	
Site	In Situ t	ROM t		0%	10%
Stormont	112,500	224,000	54.7	\$14,000,000	\$10,365,000
Narrawa	200,000	220,000	44.3		
Narrawa First					
Narrawa	200,000	220,000	44.3	\$13,700,000	\$10,400,000
Stormont	112,500	224,000	54.7		
Narrawa & Stormont Material Processed Simultaneously					
	312,500	344,000	40	\$26,500,000	\$20,700,000

An assessment of Capital Investment is shown in Table 5.

Table 5 : Estimated Capital Investment

Year -1	Year 1
Common Plant + Stormont CIP	Narrawa Flotation
\$7,670,000	\$1,150,000
Common Plant + Narrawa Flotation	Stormont CIP
\$8,220,000	\$600,000
Narrawa & Stormont	
Est. \$8,760,000	nil

CONCLUSION

The philosophy of mining and processing at the Narrawa and Stormont Deposits is to adopt a simple approach utilising local workforce and contractors to mine and process the low tonnage Mineral Resources.

The Conceptual Mining Study demonstrates the potential of a satisfactory investment, which will yield a future source of income to the shareholders of Frontier Resources Ltd.

OPERATING PARAMETERS : STORMONT & NARRAWA CREEK DEPOSITS

Mining parameters for Stormont and Narrawa Deposits are found in Table 6 and Table 7. Stormont will be mined and processed first as the plant is simple and process well established.

Due to a combination of fortuitous circumstances listed below, Waste Ore Ratio at Stormont is low at 0.5:1.

1. Overburden cover is minimal allowing easy access to the mineralised material from surface.
2. The shape of the synclinal structure is such that the contact (orthogonal to strike) between mineralised material and host rock has a low slope angle.
3. The sub dip coincident with strike of the orebody is about 8°, which permits access to the mineralised material without internal ramps.
4. The thickness of the structure is limited.

A limited exploration programme by a previous explorer (Jervois) estimated an Inferred Resource for Stormont of 135,000t at a grade of 3.44g/t gold and 0.21% Bismuth.

Table 6 : Stormont Deposit : Mining Parameters for Target Mineralisation

Length	160	
Thickness	Variable 5m to 16m	
Width	Variable 25m to 55m (estimated)	
SG	≈2.75	
Dip	8°	Tasmanian Government Map
Total Tonnes	See Table 1	Distributed in syncline structure
Grades	See Table 1	

At Narrawa, which is situated on a hillside dipping North at about 8%, the strike of the mineralised structure is orthogonal to dip on an East West axis strikes northwest, dipping 70° north east with the slope. Historic mining removed about 4,000t of material and in doing so, have excavated overburden from above the mineralised structure and in particular, waste rock from the South wall of the open pit (upslope in relation to the mineralised structure). The bench and batter wall remains exposed and stable.

The new drilling program has increased the size of the mineralised structure extending in depth and along strike. Mining of the new mineralised structure will result in further excavation on all perimeters particularly to the South where the crest of the pit wall bisects the surface of the hillside. Whilst this is balanced to some extent with the bisection of the crest of the North wall lower on the hillside, waste volumes increase and the Waste Ore ratio at Narrawa is 1.0.

Table 7 : Narrawa Deposit : Mining Parameters for the Resource

Length	115	From 5875m to 5987.5E + extension >6000mE =130m
Thickness		Variable 5m to 20m
Depth		Variable 25m to 60m
SG	≈3.0	Assumes 17% sulphides
Dip	30°	Sectional analysis utilising MapInfo; add on Discover
Total tonnes	See Table 2	Distributed in four adjacent lodes (-4000t mined before WW11)
Grades	See Table 2	

Processing of the Stormont Resource will be via a grinding circuit and CIP plant installed at a suitable site relative to Narrawa so that mineralised material from both can be transported economically (downhill or horizontally) to the crusher bin. Tables 8 and 9 list operating parameters and results from metallurgical tests for each deposit.

At Stormont, metallurgical results for recovery, reagent consumption and BWI of 14kWhr/t favour a low cost operation. High gold recovery indicates a non-refractory gold mineralised material. Bismuth is not leached in the CIP process and other process routes are yet to be evaluated. Enquiries have indicated that the small quantity of bismuth does not affect gold recovery in the CIP metallurgical process.

Table 8 : Operating Parameters ; Stormont Deposit

Stormont			
Waste : Ore Ratio	0.5t Waste to 1.0t Ore		
Mining Dilution	10%		
Cut Off Grade	AuEq g/t	1.0g/t	
	<u>Metal</u>	<u>Grade</u>	<u>Recovery</u>
Grades and Metallurgical Recoveries	Gold	3.94g/t	92.3%
	Bismuth	2718ppm	0.01%
	Silver	3.41g/t	80.5%
Power Cost at power cost \$0.12/kWhr	\$2.52/t, (BWI = 14kWhr/t + 50% Works Power)		
Transport Stormont to Plant at Narrawa	Company owned and operated Trucks		
Total Project			
State Royalty - All products	5% of metal Value		
Smelting/Refining (Narrawa only)	5% of metal value (includes process losses}		

At Narrawa, the mineralised material will be processed by flotation. This process is well established and reliable and a high quality concentrate is anticipated for smelting and refining. The metallurgical results (from Amdel) can be used to derive the quantity of recovered metal for calculation of gross revenue.

Table 9 : Operating Parameters ; Narrawa Deposit

Narrawa			
Waste : Ore Ratio	1.0t Waste to 1.0t Ore		
Mining Dilution	10%		
Cut off Grade	AuEq g/t	1.0 g/t	
	<u>Metal</u>	<u>Grade</u>	<u>Recovery %</u>
Grades and Metallurgical Recoveries	Gold	2.09g/t	96.7%
	Zinc	1.13%	98.5%
	Lead	1.33%	95.6%
	Silver	19.59g/t	92.4%
Flotation Reagent Costs	\$1.71/t		
Power Cost at power cost \$0.12/kWhr	\$2.52/t, (BWI = 14kWhr/t + 50% Works Power)		
Transport to Risdon	Company owned and operated Trucks		

Alternatively, two other methods of extraction are being investigated utilising new and proven technology now available in Australia. The advantage of each new technology is that each metal is produced at site and there is no reliance on other parties for completion of the extraction process.

A : Metal specific absorbent resin pellets within a cyanide solution medium. This process is well established and can be tailored to recover all metals from ROM material. Viz At Stormont, the process will recover the Bismuth as well as the gold and silver. At Narrawa, the process will recover all metals in the ROM material. Previous experience indicates high recoveries of selected metals.

As with the CIP process proposed for the Stormont material, disposal of a cyanide solution at Narrawa Creek is a major problem. The area lies in a watershed draining into a hydroelectric reservoir (Lake Cethana) to the east and rich farmland to the north. There are methods of treatment of tailing effluent which neutralise the cyanide before possible release but these would affect profitability of the project.

Frontier will draw electrical power for processing mineralised material from scheme sources. Due to the modest BWI for rock material at both sites, power costs are not a significant component of operating costs in the plant. If a lower cost for supply of electrical power can be found then the project benefits. A High Voltage Transmission Line is situated about 1km north of the Narrawa Deposit site (Transend) and two Intermediate Voltage Transmission Lines (Aurora Energy) are situated near All Nations Gold Mine about 600m South of Narrawa and about 4km East of Stormont. A budget cost for power has been obtained at \$0.12/kWhr which is lower than for diesel generation. We recommend that Transend and Aurora Energy Ltd both of Tasmania be approached with the objective of connection to this supply.

MINING

The Stormont Deposit contains gold and minor bismuth, whilst the Narrawa Deposit contains gold, zinc, lead and silver. Stormont is situated about 5km distant from the Narrawa Deposit at +80m greater elevation.

Both structures are situated on sloping hillsides, but the strike of the Stormont structure is sub-parallel to the slope of the hillside and the strike of the Narrawa Deposit structure is orthogonal to the slope of the hillside. Access to the working floor in both deposits is achieved via ramps exterior to the pit wall commencing from an appropriate elevation.

Stormont Deposit

The mineralisation at Stormont has been mined previously and is located on a slope with a sub dip to the South East at about 8°. A small open pit and a small adit is found at the lower north west end of the resource. Ground cover/overburden is thin in this lowermost part of the mineralised structure and increases gradually up slope to the south east.

Mineralisation is contained in a synclinal structure with a NW/SE trending axis, the distance between the mineralisation and surface is therefore variable on an orthogonal section with the result that the (South West and North East) wings of the syncline are closer to the surface than at the centre. A syncline axis parallel reverse fault on the northern syncline limb limits full extension of the North West limb of the syncline to surface.

The mining programme will commence with cleanup of the surface (anticipated to be mostly waste material) using a tractor. There is a small quantity of sidecast material which could be mineralised and require treatment. As the mineralised resource is situated on a gentle slope, access for drilling and blasting and subsequent loadout of mineralised material is provided by ramps bisecting the resource at chosen intermediate levels down dip. Experience during exploration drilling indicates a competent mineralised material and blasting will be either required or prudent.

Removal of overburden from the ground surface on the hangingwall of the mineralised structure will be carefully controlled to ensure access for mining. A balance must be maintained between sidecast material remaining and overburden removed so that a working platform is maintained for access to broken material for load and haul after blasting.

Drilling of the next part of the mineralised structure will proceed whilst removal of the overburden continues below the drilling level for unconstrained blasting. Due to the shallow dip of the mineralised structure, frequent intermediate levels or flitches may be required to ensure low dilution.

If the ore can be ripped, then no blasting will be required and the ore can be mined by ripping and/or careful breakout/stripping to the footwall using the grouser plate on the blade of a tractor. (as developed and used for mining at the Telfer Deposit, WA).

Narrawa Deposit

Surface mineralisation at Narrawa was previously mined approximately 70years ago by open pit methods; now known as the Higgs Open Cut. The old workings are small and are situated on a

hillside which dips to the north. The mineralised structure lies with a strike orthogonal to dip. The old workings have remained open since mining ceased without serious deterioration. A tunnel system is found in the floor of the pit parallel to strike and is connected to an adit which enters from the north (downslope from the workings).

Depth of mineralisation delineated by the exploration drilling programme, varies between surface to about 40m below the original surface. As the slope of the hillside is moderate and stable, the shallow depth of the resource allows for a pit design with steep walls and with the toe of the slope on the contact of the mineralisation with the waste rock. Mining regulations are met as long as there is a safety berm and the batters can be made safe within the reach of the bucket of the loading machine. Operating benches will be 10m to 15m in depth according to the machinery available with a 5m berm for safe operation. On this basis, the Waste to Ore Ratio is 1.0.

The mining programme will commence with careful clean up of the sidecast from the old Higgs Open Cut on the slope below the open cut perimeter. Some of this material is mineralised and purchase of a portable XRF machine is recommended, which will enable direct readout of the grade of chip samples taken in the field. When mineralised material is identified, it can be picked up by an excavator and stockpiled for later processing.

Upon completion of clean up of the sidecast material, the surface above the footprint of the final open cut will be cleared to refusal using tractors (with blasting if necessary). The perimeter of this surface will extend 5m beyond the crest of the batter of the walls of the final pit and expose the surface expression of the open pit design in full. A perimeter drain will be cut 5m outside the crest and a safety bund dumped on the crest side of the drain.

On the south perimeter, mineralised material will be bisected 10m below the cleaned surface and will extend to about 40m below the cleaned surface extending east and west along strike. In the north, ore is found in the floor of Higgs open pit and as extensions 20m below and to the east from the current pit structure. Access to the mineralised material will be from exterior ramps designed to bisect the contact at say -10m and -20m from surface etc. In this way pit volumes are minimised. A Waste Ore Ratio of 1.0t Waste to 1.0t Ore has been estimated.

Narrawa Creek passes west to east down the north side of and partly over the resource. This will need to be diverted before mining. After discussions with Mr R Reid, (Frontier Exploration Manager) the cross section of the creek in full flood during the wet season is not great as the slope of the ground results in high velocity flow. The diversion is anticipated to be a simple channel of blade width cut by a tractor on the West side of the final open pit boundary from a suitable point above the open pit.

General

At both sites, a perimeter drain will be cut upslope of the open pit to catch/divert water from flowing over the crest where it may cause a wash out and endanger the operators. The floor of the drain will fall to the nearest watercourse, being Narrawa Creek and Stormont Creek respectively. A Safety Bund constructed from waste produced by construction of the drain will be located on the open pit side of the drain to prevent persons and water entering the open pit. A Safety fence will be located on/at the bund.

Mining will proceed during daytime only and utilise the services of a mining contractor selected, if the quotation is satisfactory, from a local source. Operators will live in their own homes in the locality and travel to work each day.

Dry hire is recommended and fuel and lubricants will be supplied by Frontier from the same fuel supply company used by Frontier. The contractor will be allocated a bowser at the mine for fuel supply (diesel) and that outlet will be charged to the mining contract at cost as part of the mining cost per tonne. Contractors will require an area for maintenance which should be convenient to the process plant thereby minimising the number of areas damaged by the operation. The cost of Drilling and Blasting, Fuel and Lubricants and all ancillary mining costs are included in the cost of

mining Ore and Waste in Table 10 below. At many operations in Australia, dilution is less than 5% due entirely to strict supervision and awareness by operators of the importance of precision when operating their equipment. In this study, mining dilution is set at 10% (which should never be exceeded).

Survey Control of the mining operation is essential to ensure that excavations are strictly limited to plan and that care is taken to reduce waste dilution to a minimum. A local base GPS system operating on a mine grid will determine location with an accuracy of $\pm 0.25\text{m}$ which is sufficient for most practical purposes.

All mining plant and equipment will be supplied by the mining contractor including his own demountable units at site for office, ablutions and maintenance. Explosives will be mixed at site and the intrinsically safe Orica Nonel Detonating system (or similar) will be used.

Mining costs for Ore and Waste normally include allowance for ex pit transport to crushers and waste dumps. It is desirable that if Stormont commences operations first and the process plant is located to serve Stormont and Narrawa in the future, all infrastructure including the substantial concrete foundation necessary for heavy rotating machinery, e.g. ball mill, crusher, etc. and offices, warehouse, changerooms etc will be installed at Narrawa to serve both Mineralised resources and avoid need for reinstallation/relocation.

Table 10 : Estimate of Mining Costs, Stormont Deposit

Stormont Deposit	In Situ	ROM Diluted 10%
Inferred Resource COG1.0g/t	112,500t	124,000t
Specific Gravity	2.75t /m ³	
Ore Mining Volume	41,000 m ³	67,000m ³ (Broken)
Waste Material @ W:O Ratio = 0.5	20,500 m ³	33,000m ³ (Broken)
Total Volume Broken Material	61,500 m ³	100,000m ³ (Broken)
NB Assumes similar SG		\$
Ore Mining Cost per tonne in situ	\$6.5/t	805,000
Waste Mining Cost per cubic metre in situ	\$7.0/m ³	231,000
Sub Total		1,036,000
Site Preparation and Access Roads		300,000
Transport Stormont Material to Plant		200,000
Mobilisation/Demobilisation Contractor		150,000
Total		1,696,000

Table 10 (Continued) : Estimate of Mining Costs, Narrawa Deposit

Narrawa Deposit	In Situ	ROM Diluted 10%
Indicated and Inferred Resource COG 1.0g/t	200,000t	220,000t
Specific Gravity	Ore 3.0t/m ³	Waste 2.5t/m ³
Ore Mining Volume	70,000 m ³	112,000 m ³ (Broken)
Waste Material @ W:O Ratio = 1.0	80,000 m ³	128,000 m ³ (Broken)
Total Volume Broken Material		240,000 m ³ (Broken)
NB Assumes similar SG		\$
Ore Mining Cost per tonne in situ	\$6.5/t	1,300,000
Waste Mining Cost per cubic metre in situ	\$7.0/ m ³	560,000
Sub Total		1,860,000
Site Preparation and Access Roads		300,000
Mobilisation/Demobilisation Contractor		150,000
Total		2,310,000

NB Tonnages rounded off

Correct location of the plant at Narrawa plant for processing mineralised material from Stormont and Narrawa will ensure that all trucks travelling fully laden with ROM Material will travel downhill or horizontal with minimum uphill haul thereby reducing operating costs and haul time. Operating

cost and haul time are much reduced and excessive charges avoided. Frontier should be able to negotiate low cost per tonne of ore and waste. Table 11 shows anticipated Capital Expenditure for the mining operation.

Table 11 : Capital Expenditure by Frontier for Supervision of Mine & Plant

Items delivered to site	\$
*6 room Office at Narrawa Creek, ablutions (demountable units)	150,000
Air conditioning	20,000
2 room Office at Stormont, ablutions (demountable units) say	70,000
4 wheel drive Toyota Covered Tray tops x 4 for supervision/transport	150,000
Office furniture, computers, etc (8 Offices)	100,000
Portable XRF Machine for analysis of samples at site	50,000
Other - Consultants etc.	150,000
Total \$	600,000

*inc. Prefabricated Mess for 15 persons + 5 ancillaries being guests, caterers, etc.
Hot water is drawn from Solar systems for Laundry, Drying Room, etc

METALLURGICAL PROCESSING

Common to processing of Mineralised material from Stormont and Narrawa is a conventional crushing and grinding plant. ROM material will be dumped on a grizzly above the primary Jaw Crusher and the underflow conveyed into a 50t Primary Bin. A brute force feeder will draw off material into a SAG Mill at 40tph. The outflow is pumped to an elevated DSM Screen or cyclone cluster and the correct size underflow is transferred by a launder to the next stage of the process, either the first tank in a CIP Plant (Stormont material) or a Conditioner Storage Vessel in a flotation plant (Narrawa Material). The overflow is transferred by launder to the SAG Mill for regrind. Provision for a secondary crusher or regrind mill is included in the Capex list in case a single SAG mill is unable to complete grinding of all components of the ROM feed to the desired size range of P80/75 μ . It may be necessary to change the SAG Mill to a Ball Mill as well. The ore is of moderate hardness with a Bond Work Index ("BWI") of 14kWhr/t which may not be suitable to SAG milling. The following text is individual to each source of ROM Material.

Stormont Deposit

Mineralised material containing Gold and minor Bismuth will be mined and processed to P80/75 μ for leaching in a CIP plant. Sufficient tanks will be installed for 48 hours residence time with associated carbon transfer, lime and cyanide handling facilities. However, Atomaer oxygen enhancement is recommended which will increase reaction rate and reduce residence time and tankage volume. In WA, lime and cyanide are available premixed but if this service is not available in Tasmania, then bagged lime and cyanide will be used. A gold room will be established for recovery of bullion from the pregnant carbon. Stormont ore is the same hardness as Narrawa ore (14kWhr/t) and contains very low Copper, Lead, Zinc and Silver values. Recoveries and BWI shown in Table 8 have been determined by Amdel of Perth. Table 12 shows Gross Revenue from Stormont Material.

Table 12 : Stormont Deposit : Possible Gross Revenue from Target Tonne & and Grade

Estimated In-Situ Tons	112,500t	Mining Dilution	10%	Currency Exchange Rate			
Diluted Tons	124,000t			USD 0.77 =	AUD 1.00		
	Grade	In Situ	Estimate of	Value	Net Revenue		
	In Situ	Diluted	Metal	Metal Recovered	USD	USD	AUD
Gold	3.94g/t	3.58g/t	443kg	410kg (92.3%)	940/oz	12,385,000	16,040,000
Silver	3.41g/t	3.10g/t	384kg	309.kg (80.5%)	13.7oz	136,000	177,000
Totals =						12,555,000	16,217,000

Table 13 lists reagents required for CIP extraction of gold and Table 14 lists Non Labour Operating Costs based on information from industry sources.

Table 13 : Stormont : List of Reagents, Consumption and Cost/t

Reagent	Consumption kg/t	Cost/Tonne	\$/t Ore Processed
Carbon	0.3	3000	0.9
Lime	1.5	2200	3.3
Cyanide	2.0	1500	3.0
Oxygen	1.0	600	0.6
Total Cost Reagents			7.8

Table 14 : Stormont Deposit : Non Labour Operating Costs

Operating Costs - non Chemical	Notes	\$/t
Grinding - Gowrie Park Basics	} Accumulative accounts for purchase of wear metals	0.30
Mill Liners		0.30
Maintenance Spares	Mechanical/Electrical Spares	0.50
Protective Clothing	Allowance	0.30
Light Vehicles	4 Units	0.10
Fuel Costs BWI = 18kWhr/t	Say 27 kWhr/t inc Works Power	2.52
Fuel Costs Remote Pumps	Tailings Dam Water Recovery	0.10
Maintenance of all Power Plant	+15% Fuel Cost	0.60
Analytical Supplies & Services	Wet and Dry analysis	1.00
Hire of Atomaer plant		0.30
Gold Room : Recovery of Metal		0.30
Tailings Disposal		0.06
Operating Costs - Non Chemical	Total	6.38
Reagents from Table 14		7.80
Total Operating Cost without Labour Costs \$/t		14.19

Production of Dore

Gold Dore from Stormont will be produced in the Gold Room and refined to separate and recover the Silver from the Gold. The products will be sent with established security measures to the nearest refinery for processing.

Narrawa Deposit

Due to the location of the Narrawa Deposit relative to the smelting/refining complex at Risdon 250km South of Narrawa, it is necessary to minimise transport costs by processing ore material into a concentrate at site. Processing will utilise conventional crushing and milling of the ore followed by flotation to produce a concentrate which contains gold, lead, zinc, silver metals. Tailings will be discarded in a tailings dam at site. Table 15 shows gross revenue which has been calculated from the Metal prices and resource estimate shown in Table 2 and metallurgical characteristics of the mineralised material from the Narrawa Deposit are shown in Table 8 as established by Amdel, Perth.

Table 15 : Narrawa Deposit : Estimate of Gross Revenue

	In Situ Tonnes 200,000t		Diluted (ROM) Tonnes 222,000t			Ex Rate A\$1 = US\$0.77	
	Grade		In Situ	Estimate of	LME\$/unit	Net Revenue	
	In Situ	Diluted	Metal	Metal Recovered	USD	USD	AUD
Gold	2.09g/t	1.90g/t	419kg	404kg (96.7%)	940/oz	12,217,000	15,866,000
Zinc	1.13%	1.02%	2,260t	2,210 (98.5%)	1,574.5/t	3,500,000	4,520,000
Lead	1.33%	1.21%	2,660t	2,395t (90.0%)	1,705.5/t	4,086,000	5,306,000
Silver	19.60g/t	17.81g/t	3.92t	3.62t (92.4%)	13.7/oz	1,594,000	2,071,000
					Total	21,397,000	27,763,000
Total Metal Content			4,910	4,610t	Value/t	USD 3946/t	AUD5,125/t

Reagents are added in the vessel ready for flotation. The Flotation circuit contains three stages being Roughing, Cleaning and Scavenging. The circuit is simple with recycling of underflow between stages as necessary to enhance recovery of all metals.

The concentrate is dewatered on a drum filter and then dried and stored in a weatherproof hopper. Concentrate is drawn off into reusable impermeable Bulka Bags which are sealed for transport from site direct to the

Operating Costs - non Chemical	Notes	\$/t
Grinding - Gowrie Park Basics	} Accumulative accounts for purchase of wear metals	0.20
Mill Liners		0.20
Maintenance Spares	Mechanical/Electrical Spares	0.50
Protective Clothing	Allowance	0.30
Light Vehicles	4 Units	0.10
Power BWI = 5kWhr/t inc works power	\$12/kwhr	0.60
Analytical Supplies & Services	Wet and Dry analysis	1.00
Tailings Disposal		0.65
Estimated Cost of Reagents		0.50
Total Operating Cost without Labour Costs \$/t		4.05

smelting/refining facility.

Concentrate production is about 40t/day to 50t/day and the company will own its own trucks for transport of loaded Bulka Bags to Risdon and of supplies to site. Note that road Transport regulations in Tasmania regarding axle loadings are very strict and are savagely enforced.

Table 16 : Narrawa Deposit ; List of Reagents, Consumption and Costs

Reagent	Consumption g/t	Expenditure \$/t
Potassium Amyl Xanthate	150	0.45
Cytec reagent 3418A	15	0.08
Lime	740	0.74
Sodium Cyanide	15	0.03
Copper Sulphate	100	0.28
Aerofroth 65	30	0.12
Total Cost Reagents per Tonne Processed \$		1.70

Table 17: Narrawa Deposit ; Non Labour Operating Costs

Operating Costs - non Chemical	Notes	\$/t
Grinding - Gowrie Park Basics	} Accumulative accounts for purchase of wear metals	0.20
Mill Liners		0.20
Maintenance Spares	Mechanical/Electrical Spares	0.50
Protective Clothing	Allowance	0.30
Light Vehicles	4 Units	0.10
Fuel Costs BWI = 14kWhr/t	Say 21 kWhr/t inc Works Power	2.52
Fuel Costs Remote Pumps	Tailings Dam Water Recovery	0.20
Haulage Trucks Fuel + Tyres	600km Haul Return to Risden	3.50
Analytical Supplies & Services	Wet and Dry analysis	1.00
Tailings Disposal		0.65
Operating Costs - Non Chemical	Total	9.17
Reagents from Table 13		1.70
Total Operating Cost without Labour Costs \$/t		10.87

Table 18 shows the effect of the new process on Non Labour Costs and Reagents. In particular, please note the decrease in Power Consumption. The costs apply to both Stormont & Narrawa.

Table 18: Stormont and Narrawa Deposits ; Non Labour Operating Costs including reagents

Table 19 contains a list of probable process equipment for conventional processing of the mineralised material into a saleable product.

Table 19 : Installed Cost of Process Equipment : 40t/hr

		AUD x 1.0M	AUD x 1.0M	
Narrawa	Conditioner/Storage Vessel 200t	0.300		
	Flotation Circuit 50tph capacity	0.500		
	Filter/Dryer Cyclones	0.150		
	Storage Shed with hopper and bagging appliance	0.200		
Stormont	50t Primary Bin + Feed Conveyor	0.150		
	Jaw Crusher 150mm x 150mm + Conveyor	0.450		
	SAG Mill or Ball Mill 100tph	1.000		
	Regrind Mill 40tph	0.500		
	Mill Recirculation Pumps	0.200		
	Classification Screen (DSM)	0.050		
	3 Tanks CIP Plant installed complete	0.350		
	Gold Room	0.250		
	Support Steelwork/pipework/Valves	0.400	3.350	
	Common	Concentrator Building & Offices etc.	0.350	
Portable XRF		0.050		
Electrical Switchgear & Distribution		0.400		
Concrete 500/m ³ Delivered \$300/m ³ (total plant)		0.150		
Water Supply Dam and Pipeline (gravity supply)		0.050		
Tailings Dam, water recovery pump and Pipeline		0.100		
Site Preparation for mill		0.100		
Design Construction Supervision		1.200		
Diesel powered forklift		0.100		
Prestart Wages for 21 days		0.220		
2 x 30t Trucks hauling Concentrates/General supplies		0.800		
**Mess + Laundry + Change rooms		0.200		
Mining Capex (Table 8)		0.600	4.320	
Total			\$8.820M	

A contingency of say \$2M should be held in reserve as part of the capital facility for this project. At this time in Tasmania, there are many items of pre-owned equipment available for sale which should reduce the costs of some of the above items. Table 20 is a list of Capital Equipment and allocated costs of purchase for the new process

Table 20 : Estimated Cost of Equipment for New Process: 45t/hr ROM mineralised material

	AUD x 1.0M	AUD x 1.0M
50t Primary Bin + Feed Conveyor	0.150	
Jaw Crusher 150mm x 150mm + Conveyor	0.450	
Support Steelwork/pipework/Valves/Concrete		0.400
Concentrator Building & Offices/Facilities (Laboratory)		0.250
Portable XRF	0.050	
Water Supply Dam and Pipeline (gravity supply)		0.050
Tailings Dam, water recovery pump and Pipeline	0.100	
Site Preparation for mill	0.100	
Prestart Wages for 21 days	0.220	
2 x 30t Trucks hauling Product/General supplies	0.800	
Mess + Laundry + Change rooms	0.200	
Mining Capex (Table 8)	0.600	
Storage Shed with export container equipment		0.200

Diesel powered forklift

0.100 3.670

NEW PLANT FOR CRUSHING GRINDING METAL RECOVERY 4,000
Including Design and Supervision of Construction 1,000 5,000
Total \$8.670,000

Processing Of Concentrates

Due to the complex polymetallic nature of the mineralised material at Narrawa Deposit, Toll Smelting and Refining is likely to be expensive but due to the unusually high quality of the concentrate, charges and losses are anticipated to be low at say about 5% of the value of contained metal compared to the normal charges approaching 7% to 10% of the value of the metal. The charge is deducted from gross revenue as a royalty by the Smelter Company.

PROCESS PLANT LABOUR REQUIREMENTS

Table 21 shows a list of Plant Labour based on a process time of 357 days per year (51 weeks/year) at 40t/hr.

Table 21 : Manpower (per annum basis) ; 360 days Processing

Production		3 Shifts	357	Days/Year
	Position	Number	Salary/annum	Total
	General Foreman	1	140,000	140,000
	Primary Crusher	2	110,000	220,000
	Concentrator + Tailings	3	110,000	330,000
	Mechanic/Fitter	1	120,000	120,000
	TA	2	110,000	110,000
	Metallurgical	1	150,000	150,000
	Analytical	1	120,000	120,000
		11	\$	1,190,000
3	Rotation Teams	7	Days per week	3,570,000
Insurance/Taxes/Superannuation/Leave Loading			+27%	975,000
Total Establishment for Processing		21	Annual Wages \$	4,545,000

The process plant will work continuously achieving a 21 hours of production per day (87% utilization). From experience at other operations, 9 men per 12 hour shift will be sufficient to operate and maintain the process plant. There will be 3 teams each working a 14 day on/7 day off shift regime with one team changing each week. Annual Leave of 28 days will be taken at the end of processing of the Narrawa Ore material.

Safety

Prior to start up, the workforce will begin with lectures on safety and procedures and 15 days wet operation of the process plant using mineralised material from cleanup and recovery of mineralised sidecast material from Stormont and Higgs Open Cut. Mechanics/Fitters will check bearing temperatures, alignments etc and correct as necessary before serious production commences.

All motors and switchgear will be confined to common size(s) and connected to the power supply by plugs and sockets. If a motor or switch unit fails then it can be changed out by the mechanic/fitter without an electrician.

PROCESSING SCHEDULE

Table 22 shows the schedule of operations for the project and commencing with training.

Table 22 : Proposed Schedule for Processing Stormont Material followed by Narrawa Creek Material

Operation	Resource	Rate	Hours/day	Days/year	3 Week Cycles
Year 1	Safety/Training and Commissioning/Start up of Plant			21	1

Stormont	124,000t	40tph	21	148	7 ±0.5
Changeover to Flotation Circuit					±0.5
Year 1 & 2 Narrawa Creek	220,000t	40tph	21	262	13±0.5
Production Totals	344,000t	40tph	21hours/day	431days = 1.25 years	

NB Schedule allows 7 days for public holidays

MANAGEMENT

Part of the Management group listed in Table 21 will work with the Process Plant construction group to install plant and equipment inside a concentrator building, offices etc. Construction of these buildings provides weatherproof workspace for assembly of the plant and equipment.

A contract surveyor will mark out the open pit access roads and position structures and supply other survey services during construction and operations. The Group will monitor on behalf of Frontier, construction of the process plant.

Table 23 lists the management team who will be housed at Gowrie Park. Members will be employed as necessary for prestart works and construction leading to commissioning of the plant with the operator workforce who will be recruited at an appropriate time. The Manager will then cooperate with the Mining Contractor to ensure that purest ore will be delivered to the process plant at all times.

Table 23 : Management say 357 days per year at site

Position	Number	Salary/annum	Total
Manager	1	250,000	250,000
General Foreman	1	150,000	150,000
Contract Surveyor	1		2450,000
Assistant	1		
Road Haul Truck Drivers	3	120,000	360,000
Management Total	7	Annual Salaries \$	1,000,000
+Insurance/Taxes/Superannuation/Leave Loading			1,300,000

After all mineralised material has been processed, the management team will remain for 3 months to supervise removal of all equipment from site and rehabilitate any damage or continue operations processing mineralised material from another part of the lease. Rehabilitation will require heavy earthmoving equipment supplied by the mining contractor.

HEAD OFFICE COSTS

Table 24 shows estimates of costs attributed to/administered by Head Office in Hobart.

Table 24 : Head Office Costs

Item of Expenditure	Cost per Annum \$
Computer/Word Processor/Office Consumables	35,000
Power/Heating/Air Conditioning	50,000
Rental of Housing at Gowrie Park for Staff	120,000
Office Rent, Tel.	50,000
Country Rates	50,000
Comprehensive Insurance for the project	150,000
Salaries Expenses etc.	400,000
Total Head Office Costs	855,000

SUMMARY OF OPERATING COSTS

Table 25 and Table 26 list the estimated operating costs for each site and Table 27 lists the (reduced) Operating costs using the new technology.

Table 25 : Stormont Deposit : Summary of Operating Costs

Throughput	124,000 tonnes per annum	
Expenditure per Cost Centre	Total Cost/annum	Total Cost/t
Mining Costs	1,696,000	13.68
Operation Costs non Labour	1,770,000	14.27
Operating Labour = 169 days	1,884,000	15.19
Management = 169 days	827,000	6.66
Head Office	615,125	4.96
Totals	6,792,000	55.00

Table 26 : Narrawa Deposit : Summary of Operating Costs

Throughput	211,500 tonnes per annum	
Expenditure per Cost Centre	Total Cost/annum	Total Cost/t
Mining Costs	2,310,000	10.50
Operation Costs ex Labour	2,391,000	10.87
Operating Labour = 262 days	3,308,000	15.04
Management = 352 days	1,300,000	5.91
Head Office	855,000	3.89
Totals	9,746,000	46.00

Table 27: Stormont & Narrawa : Summary of Operating Costs

Throughput	344,000 tonnes per annum	
Expenditure per Cost Centre	Total Cost/annum	Total Cost/t
\$	\$	\$
Mining Costs	4,006,000	11.65
Operation Costs non Labour	1,393,000	4.05
Operating Labour = 365 days	4,600,000	13.37
Management = 450days	2,206,000	6.41
Head Office	1,451,000	4.21
Totals	\$ 13,656,000	40.00

Management includes allowance for Year -1 and Year 2 activities

FINANCIAL RETURN ON INVESTMENT

Table 28 shows the cash flows which result from mining and processing 112,500t in situ Inferred resource at Stormont using CIP technology and 200,000t of in situ Indicated and Inferred Resource at Narrawa using conventional process technology : Stormont material processed first :-

Table 28: Summary of Net Cash Flow; Sequential Process due to Flotation/CIP incompatibility

Item	ROM t	Days	Year -1	Year 1	Year 2
Training/Commissioning		21	\$	\$	\$
Stormont	124,000	148		16,200,000	
Narrawa	220,000	262		19,000,000	8,800,000
Totals				35,200,000	8,800,000
- Government Royalty		5%		1,760,000	440,000
- Smelting Charges (Narrawa)		5%		960,000	440,000
Operating Costs		Stormont		6,792,000	
		Narrawa		7,293,000	2,871,000
Capital Costs (Investment)		Stormont	3,350,000		
		Common	4,320,000		
		Narrawa		1,150,000	
Total Debits			7,670,000	17,955,000	3,751,000
Net Cash Flow before Tax			-7,670,000	17,955,000	3,751,000
Net Present Value at		Discount 0%	\$14,000,000	Discount 10%	\$10,700,000

Table 29 shows the cash flows which result from mining and processing 200,000t of in situ Indicated and Inferred Resource at Narrawa using conventional process technology followed by 112,500t in situ Inferred resource at Stormont using CIP technology : Narrawa material processed first :-

Table 29: Summary of Net Cash Flow; Sequential Process due to Flotation/CIP incompatibility

Item	ROM t	Days	Year -1	Year 1	Year 2
Training/Commissioning		21	\$	\$	\$
Stormont	124,000	148		10,400,000	5,800,000
Narrawa	220,000	262		27,800,000	
Totals				37,200,000	5,800,000
Less Government Royalty		5%		1,860,000	290,000
Less Smelting Charges (Narrawa)		5%		1,390,000	
Operating Costs		Stormont		4,400,000	2,400,000
		Narrawa		10,164,000	
Capital Costs (Investment)		Stormont		600,000	
		Common	4,320,000		
		Narrawa	3,900,000		
Total Debits			8,220,000	18,400,000	2,690,000
Net Cash Flow before Tax			-8,220,000	18,800,000	3,110,000
Net Present Value at		Discount 0%	\$13,700,000	Discount 10%	\$10,400,000

Table 30 shows the cash flows which result from mining and processing 112,500t in situ Inferred resource at Stormont and 200,000t of in situ Indicated and Inferred Resource at Narrawa SIMULTANEOUSLY using new process technology if available and proven : Stormont material processed first :-

Table 30: Summary of Net Cash Flow; Simultaneous Processing of Mineralised Materials

FINANCIAL RESULTS : STORMONT AND NARRAWA PROJECTS					
NEW PROCESS					
Throughput	45	tph	Weeks/Year	51	
Hours Available	21	hrs/day	Availability	87.5%	
Days worked per Annum	357	days/year			
Production		Tonnes	Hours	days/year	
Year -1 Training & Commissioning				21	
Year 1 Stormont		124,000	2,755.6	131.22	
Narrawa		220,000	4,888.9	232.80	
	Totals	344,000	7,644.4	364.02	
USD	.0.77	AUD 1.0			
AUD	1.2987	USD 1.0			
Mineralised Resource Stormont		ROM t =	124,000		Year 1
Recovered Value	98	% all metals	In Situ Metal	AUD	A\$
		Au kg	443	39.26/g	22,135,355.
		Ag kg	384	0.57/g	279,590.
		Bi ppm	2718	0.0000/g	2,037.
Mineralised Resource Narrawa		ROM t =	220,000		
Recovered Value	98	% all metals	In Situ Metal	AUD	
		Au kg	419	39.26/g	16,120,000
		Zinc t	2,260	2,044/t	4,530,000
		Lead t	2,660	2,214/t	5,770,000
		Ag kg	3920	0.57	2,190,000
		Total Gross Income before Tax			51,027,000
Less Government Royalty	5%				2,550,000
Less Operating Costs		Stormont and Narrawa			13,656,000
Less Capital Costs		Stormont and Narrawa			8,760,000
Less Licensor Licence Fee		Stormont and Narrawa			75,000
		Income before Tax for Calculation of Royalty			26,000,000
		Licensor Royalty @ 5%			1,250,000
		Income before Tax for after payment of Royalty			\$24,750,000
CASH FLOWS BEFORE TAX			Year -1	Year 1	
Capital :: Stormont and Narrawa			-\$ 8,760,000	nil	
Income :: Stormont and Narrawa			nil	\$ 34,760,000	
ANNUAL CASH FLOWS			-\$ 8,760,000	\$ 34,760,000	
LICENCE FEES AND ROYALTY TO LICENSOR			RETURN ON INVESTMENT		
ROYALTY		\$1,250,000	NPV @ 0% discount	\$ 26,500,000	
LICENCE FEE		\$ 75,000	NPV @ 10% discount	\$ 20,700,000	
TOTAL INCOME		\$ 1,375,000	-0 -	- 0 -	

APPENDIX 3

RL 3/2005 - NARRAWA - ANNUAL REPORT TO MAY 12TH, 2010

**List of appended digital data files
RL 3/2005 - NARRAWA**

- 1. RL 3/2005 Annual Report to May 12th, 2010.pdf**