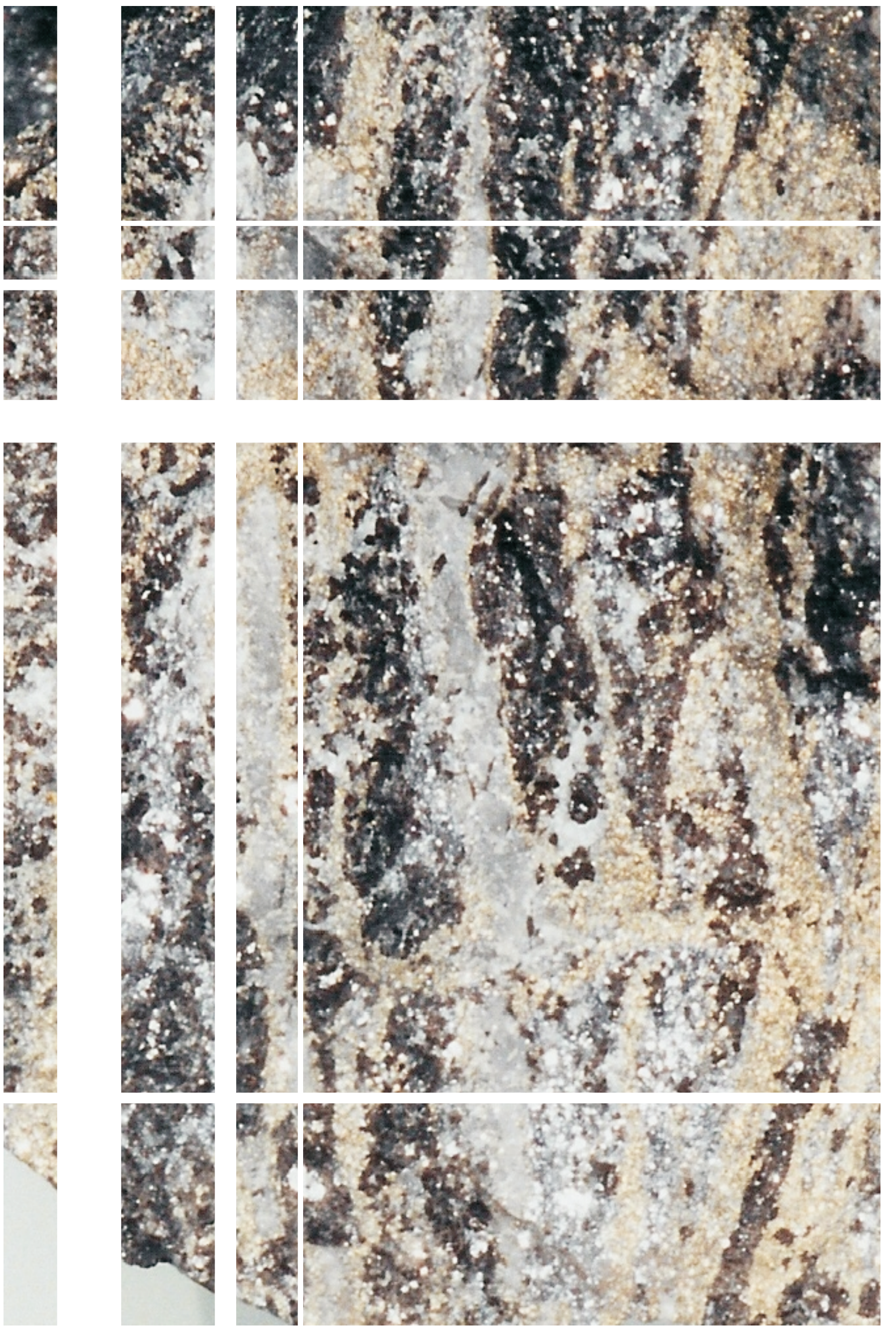
JORC Resource Statement for the Allison's Lode

Zeehan – West Tasmania

Prepared for :

Oceania Tasmania Pty Ltd

November 2005



SMG CONSULTANTS

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Statement of Competency

Simon Tear, Senior Geologist, has a BSc (Hons) from The Royal School of Mines, London, U.K. and has over 20 years worldwide experience in the mineral exploration industry. He was Team Leader for Rio Tinto's Tasmanian exploration program from 1995-1996. That program successfully explored some of the area around the Comstock Prospect, accounting for nickel and lead/zinc discoveries. In addition he undertook a zinc exploration programme in Tasmania for Noranda Pacific in 2001 and a nickel prospect target generation exercise for Falconbridge in 2002. Other zinc experience held by the author includes resource definition for the Lady Loretta zinc deposit, regional exploration around the Century Zinc mine in NW Queensland, Irish-style carbonate hosted mineralisation and Cambro-Ordovician aged VHMS type deposits. He also has experience in late Pre-Cambrian hosted vein mineralisation. The author has just completed 3 years as a Senior Resource Geologist for the Birla Mt Gordon Copper Operations.

The information used in this report was supplied by Oceania Tasmania Pty. Ltd and comprises a mixture of open file data from the Mineral Resources Tasmania (MRT) Library, Oceania Tasmania in-house data and reviews of core held at MRT's store in Hobart. In addition a total of 14 days were spent either on site at the property or at the Oceania Tasmania's Hobart office. SMG Consultants has relied upon and assumed without verification the accuracy and completeness of all information provided by Oceania Tasmania and cannot take any responsibility to guarantee its accuracy.

This resource report completed during November 2005 is to JORC Standards.

The information in this report that relates to zinc resources at the Allison's Lode deposit is based on information compiled by Simon Tear, who is a Member of the Australasian Institute of Mining and Metallurgy. Simon Tear is employed by SMG Consultants. Simon Tear has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Simon Tear has over 10 years experience in exploration and mining of base metal deposits and has over 5 years experience of West Tasmanian geology and base metal mineral deposits. Simon Tear consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

1. SUMMARY

SMG Consultants (SMGC) was commissioned by Oceania of Tasmania to write a JORC Resource Statement for the remaining in situ resource of the Allison's Lode at its Comstock Zinc Project, near Zeehan, West Tasmania.

This report reviews the geology, sampling techniques, data quality and resource estimation and classification methodologies for the Allison's Lode.

The deposit is a fissure fill vein deposit comprising zones of massive sphalerite, galena and pyrite mineralisation. It is hosted by flat-lying silicified dolomites of the Late Proterozoic-aged Oonah Formation.

The deposit has been subject to both small scale mining techniques of the late 19th Century and trial open pit mining in 1999/2000.

Recent exploration work has consisted of geological mapping, channel sampling and aircore drilling. This work has allowed for a new geological interpretation and the definition of a 3D geological model in Surpac software. A new mineral shape has been designed and a block model report created.

A review of the block model report indicates the remaining resource at Allison's is:

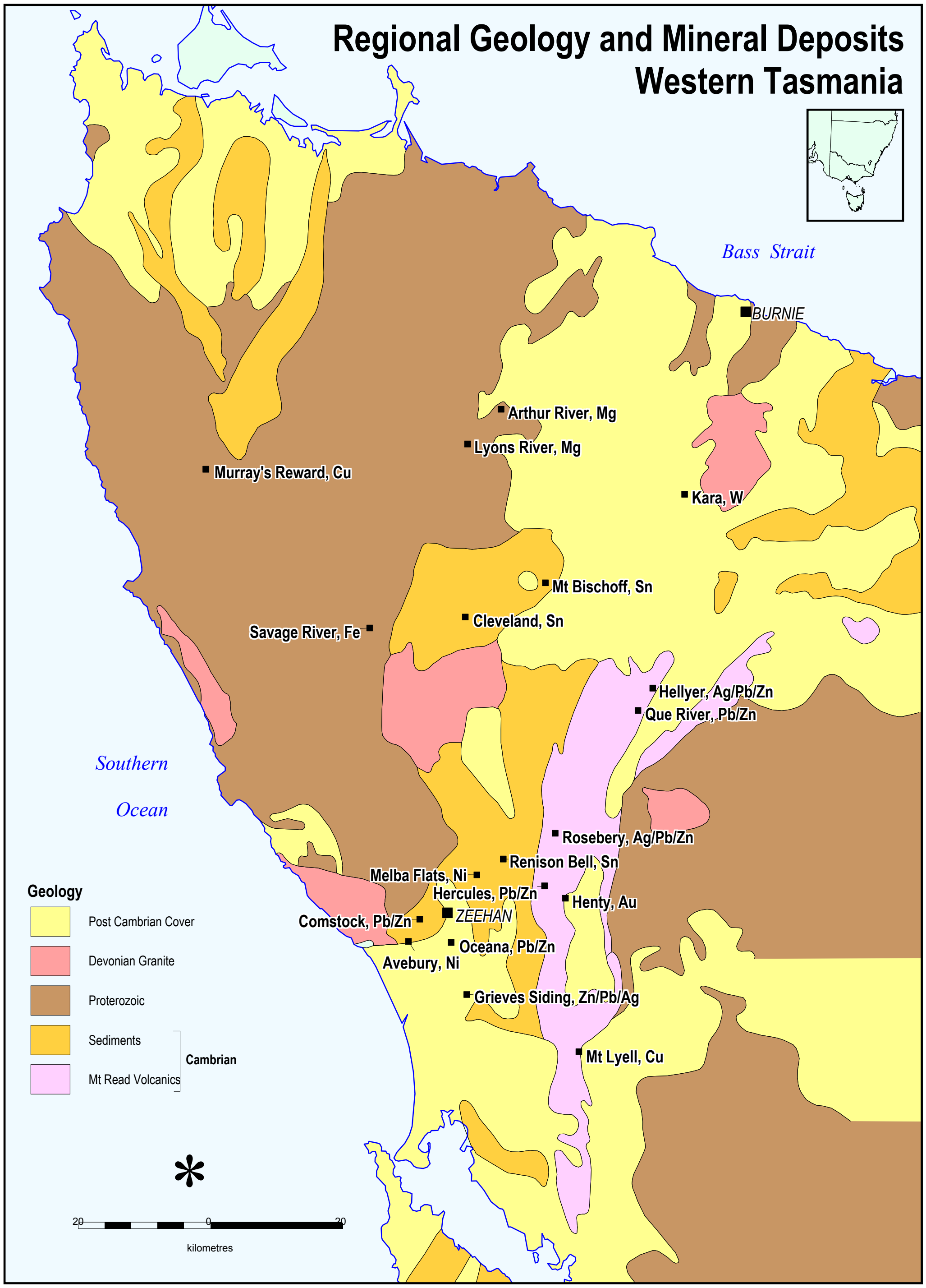
Classification	Volume	Tonnes	Zn %	Pb %	Ag ppm
Measured	9375	32028	5.86	1.46	29.0
Indicated	18734	62637	4.74	1.12	23.2
Inferred	1125	3563	2.25	0.67	17.1
Mineralisation	0	0	0.00	0.00	0.0
Grand Total	**29234**	**98228**	**5.01**	**1.21**	**24.9**
Corrected Figures for Degree of Accuracy	29200	98000	5.0	1.2	25

Based on aircore results only, a 25m search radius, a top cut of 30% Zn & a base density of 2.6g/cm$^{3.}$

2. INTRODUCTION

Oceania Tasmania Pty Ltd has requested SMG Consultants to compile a JORC Resource Report for their Allison's Lode zinc/lead/silver deposit, 4km west of Zeehan in Western Tasmania (Figure 1).

Figure 1
Location Map



Recent exploration work has consisted of trial mining and stockpiling of high grade material from the southern part of the lode. A small amount of channel sampling (60m) accompanied this work along with some geological mapping. In the first part of 2005 eleven aircore holes were sunk for a total of 280m covering the whole length of the lode.

SMGC have recently finished a new 3D geological interpretation for the lode and have followed up with the completion of a block model for the deposit.

Simon Tear, the author of this report, has had intermittent involvement with this project over the last 6 years and has completed several geological reports and assessments, including researching the old workings of the area.

3. OBJECTIVES

The objectives of SMGC's work on the Comstock Zinc Project are described in terms of :-

1. Overall Objective
2. Specific Objectives

3.1 OVERALL OBJECTIVE

The overall project objective was to provide a JORC Resource Statement for the Allison's Lode.

3.2 SPECIFIC OBJECTIVES

The specific objectives for the project, as summarised in SMG Consultants' proposal, were:

- review the geology of the deposit,
- assess the exploration sampling methodologies and results,
- examine the 3D geological model and the resource block model,
- comment on the resource estimation parameters,
- confirm the resource estimation and classification of resources, and
- provide comment on other relevant data.

4. LIMITATIONS, QUALIFICATIONS AND UNDERSTANDINGS

This report is governed by:

- uncertainties – in its extent and claims that could be made on it – as listed in the following disclaimer,
- various qualifications – grouped below as assumptions, conditions and limitations, and
- technical understandings – the concept of carbonate hosted zinc vein deposits in the Comstock area.

These limitations, qualifications and understandings are given here without prejudice to probable omissions and errors.

4.1 DISCLAIMER

The project objectives mentioned above were geological in nature, and as such the consultant was fully qualified to address them.

However the overall objectives of Oceania Tasmania Pty Ltd work on this project were not known in detail, and thus this consultant does NOT make any claims on the suitability of these objectives to the overall project.

There are uncertainties or unknowns, with the disclaimer, included (but were not limited to):

- specific objectives of Oceania Tasmania: the consultant does NOT make any claims on second guessing specific Oceania Tasmania requirements, only on addressing the overall objective of this project,
- assay techniques and accuracy: the consultant does NOT make any claims to certify Oceania Tasmania assays – they are simply taken at face value after the review indicated that Oceania Tasmania methods and intentions mirrored common practice. No external assay verification was performed,
- surveying: the consultant does NOT make any claims to certify Oceania Tasmania geographical positioning of such things as exploration and leases and borehole positions (generically performed by surveying). All survey here is simply taken at face value as correct. No external survey verification was performed, and
- mining implications: the consultant does NOT through this report imply any specific implications for mining, other than the naturally presumed generic purpose of mining for which mineral resources are estimated. The resource estimation will have made general assumptions on mining practicality and method.

4.2 ASSUMPTIONS, CONDITIONS & LIMITATIONS

This review was made using various assumptions, conditions and limitations. These are listed below without prejudice to probable omissions.

4.2.1 Assumptions

- all previous work has been reported faithfully and comprehensively, and
- all relevant documentation and data available and necessary to make such a review has been supplied.

4.2.2 Conditions

- a one day site visit was made to the property, and
- no physical oversight or contact has been made with:
  - drilling or channel sampling practices,
  - sample preparation,
  - assaying,
  - survey of borehole collars or topography.

4.2.3 Limitations

- no geostatistics were performed on the data,
- statistical data on different sample types indicated different populations which precluded the mixing of assay data, and
- resource modelling was constrained by the 3D geological shape.

4.3 TECHNICAL UNDERSTANDING

The geological understanding of the lead/zinc veins in the Comstock area comprise sub-vertical vein structures hosted as fissure fill lodes within silicified dolomites. The mineralisation consists of massive sulphide veins with quartz (and talc/calcite) gangue. Some of the veins within the structure are discontinuous giving a poddy nature to some of the potential mined ore material.

5. TENEMENT

The Allison's Lode deposit lies within Mine Lease 123M/1947 which is held by Oceania Tasmania Pty Limited as per the Mineral Resources Tasmania (MRT) Mine Lease map dated 10 October 2005 (Figure 2).

6. PREVIOUS MINING

Old workings aimed at extracting lead/silver-rich fissure fill veins dot the Comstock area and comprise small scale shafts and levels completed by previous miners, some of which date back to the 19th Century. Various records e.g. Blake (1936), Twelvetrees (1900), Blisset (1962) and Summons (1981) have accounts of the old workings and some of these reports have supplied maps although these have in some cases been referred to as sketch maps. Recent attempts have been made to create 3D shapes of these old workings from scanned hardcopy images of the old maps but with mixed results. Digitisation of old workings' outlines was undertaken by RGC and Western Metals but these too have some georegistering issues affecting accuracy.

In the case of the Allison Lode there are some old workings in the central parts which appear to have been stoped to the 49' level (15m below the original surface). The ore thickness of the inferred stoped material between the No. 2 Shaft and the No 3A shaft ranges from 0.5m and 4.3m (Summons 1983). Recent aircore drilling appears to have located the old stope, recorded in the logs as a cavity and as a result a small 3D solid was created but out of synchronisation with Blake's (1936) map of the workings. The volume of this shape is put at 1364m^3, equivalent to 4500t. This shape was used as part of a constraint in the block model reporting of resources. The shapes created based on Blake's and Summons' work were not used to constrain the block model report due in part to their location uncertainty.

Nearby mining at South Comstock and Sylvester in the late 1980's resulted in small open pits being developed and a reported quantity of 70,000t of material was extracted with 7000t of ore trucked to Rosebery for processing at an estimated grade of 14.8% Zn and 3.6% Pb (Hancock & Stephenson 2000).

In 1996 trial costeaning and sampling produced a bulk sample from Allison's. This was reported as 500t at 19% Zn (zinc) and 2.3% Pb (lead) that was trucked to the nearby Rosebery Zinc mine. A second shipment contained 740t at 11.8% Zn and 2.5% Pb (Hancock & Stephenson 2000).

In 2000/2001 Oceania Tasmania began trial mining of the Allison's Lode and produced a high grade stockpile containing 3300t @14.5%Pb, 21.5% Zn and 540g/t Ag (Cottle, 2005). The floor of the pit is now 20m below the original surface.

7. GEOLOGY

7.1 REGIONAL GEOLOGY

The geology of the West Coast of Tasmania comprises a complexly folded series of late Pre-Cambrian to Ordovician-aged sediments and volcanics intruded by Late Devonian-aged granites (Figure 2). Structurally there have been many overprints that have produced a complexly folded and faulted sequence of rocks. Thrust faulting e.g. the Tenth Legion Fault, has substantially dislocated rock sequences whilst even later, ESE-striking normal faulting e.g. the Balstrup Fault and Bendall's Fault, has further complicated the picture.

In the southern half of the Oceania Tasmania mine leases a flat lying interbedded sequence of dolomite and phyllite units occurs (locally graphitic) belonging to the Late Pre-Cambrian Oonah Formation. These rocks lie in the hanging wall of the Tenth Legion Fault. Whilst in the northern half there is a mixed sequence of volcanoclastics and arenaceous rocks of the Lower Cambrian-aged Crimson Creek Formation butted against the Oonah by the Balstrup Fault.

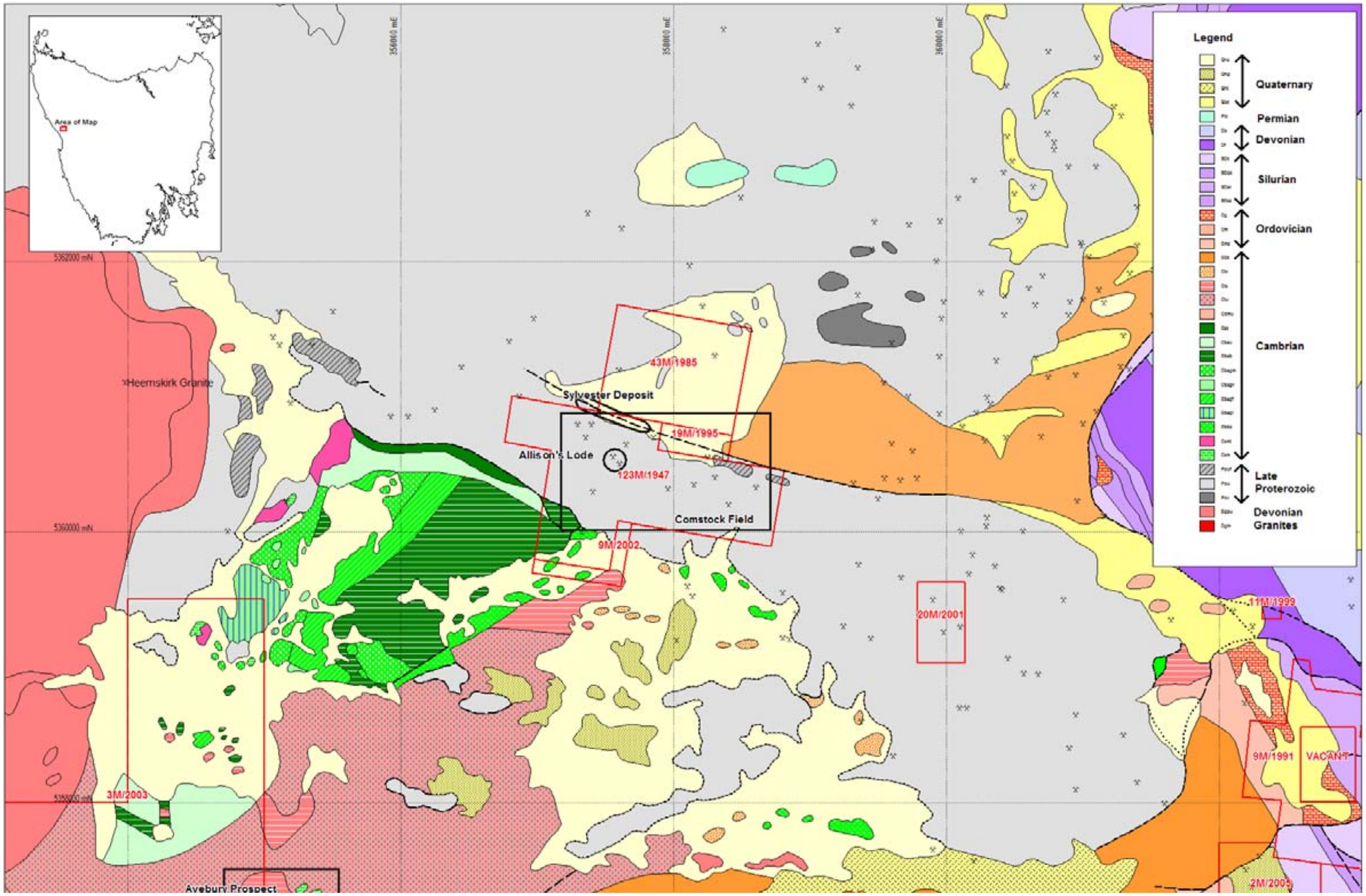
The structure of the area is complicated by having flat lying beds being gently folded and disjointed by normal, wrench and possibly reverse faulting (see Tear 2005a and 2000a). The presence and effect of shallow dipping structures, perhaps parallel to or splays off the Tenth Legion Fault, is not known and can only be inferred to exist at this point. In addition flexural slip on major bedding planes is an unknown quantity.

Just southwest of the leases, in the footwall of the Tenth Legion Fault, lies the mafic and ultramafic rocks of the McIvor Complex. To the west of the leases lies the Heemskirk Granite, which has been thought responsible for substantial amounts of mineralisation in the area.

The Comstock Mineral field consists of a series of lead/zinc vein-like, 'fissure-fill' structures mainly hosted by the Oonah Formation, which were the subject of substantial mining efforts in the late 19th Century.

The Avebury Nickel deposit lies a further 3km southwest of the Comstock area, whilst the recently suspended operations of the Renison Bell Tin Mine lie 16km to the northeast.

Figure 2
Comstock Mineral Field & Regional Geology



7.2 LOCAL GEOLOGY

The Allison's Lode appears to be an axial planar sub-vertical 'fissure-fill' structure located in the anticlinal hinge of an upright, N to NNW striking open fold (Figure 3). Host lithologies comprise silicified dolomites, which can be friable when weathered, underlain by locally silicified carbonaceous phyllites, all belonging to the Upper Oonah Formation (Tear 2005a, Farrell 2001). Sporadic lineations infer a possible shallow plunge direction to the north (Farrell 2001).

The exposed lode comprises a N to NNW striking sulphide vein system/structure that may be up to 200m long by a maximum width of 20m, with the first 5m of overburden regarded as totally weathered, barren, sandy material. A series of parallel, semi-continuous sulphide zones consist of coarse grained sphalerite, galena and pyrite with a quartz (+calcite) gangue (more details are provided by Farrell (2001) and Radonich (2001)). Some individual sulphide veins are discontinuous and poddy in nature. The vein system appears to have a silicification envelope up to several metres away from the sulphide bodies, particularly evident in the carbonaceous phyllites. Trace levels of chalcopyrite are associated as inclusions within the sphalerite.

At the southern margin of the vein system there appears a broadening out of the structure although this may be attributable to dilation and movement associated with the Bendall's Fault System (Tear 2001). This fault system is a WNW mineral-bearing structure that truncates the Allison's Lode structure and is parallel to the Balstrup Fault (Figure 4).

The likely mode of ore formation is via a significant fracture within the axial plane of the flat lying, gently folded sediments acting as host to zinc and lead mineralisation sourced from the Heemskirk Granite. However where the vein cuts across carbonate units there has been more substantial replacement of the carbonate (dolomite) host giving a much thicker mineralised zone relative to the underlying (and overlying?) phyllite units. Pb-isotope data for the Allison's Vein confirms a Devonian lode style whilst the sulphur source is thought to be magmatic but modified and enriched by another source.

Weathered brown sandy/clay material is found in the carbonate unit, peripheral to and within the zinc mineralisation and has been identified as talc (Wong, 2000). This material forms an alteration halo to the main mineralisation.

A recent geological interpretation by SMG Consultants Pty Ltd has defined the geological units and these parameters are listed in Appendix 1

Figure 3
Allison's Lode Geology Map

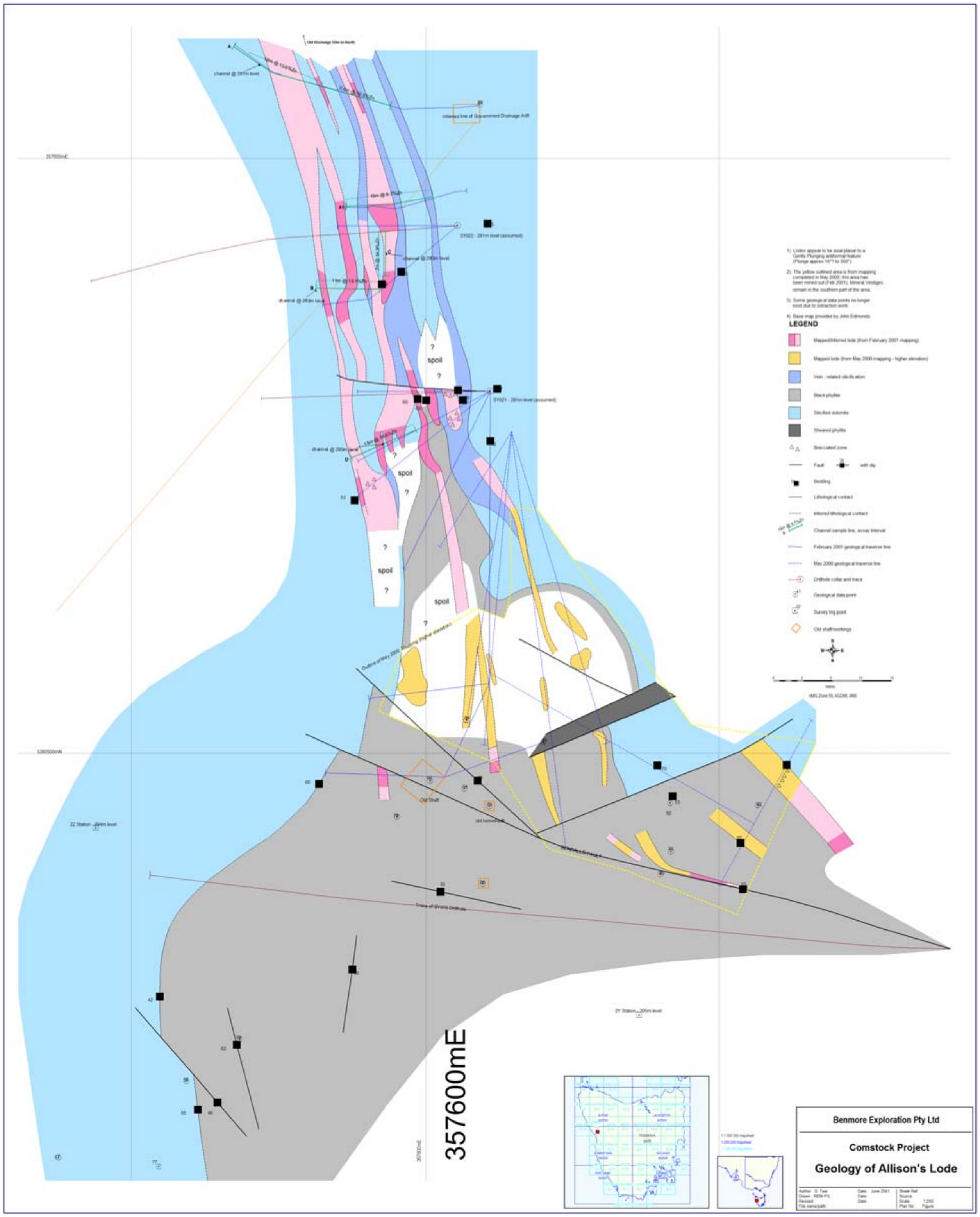
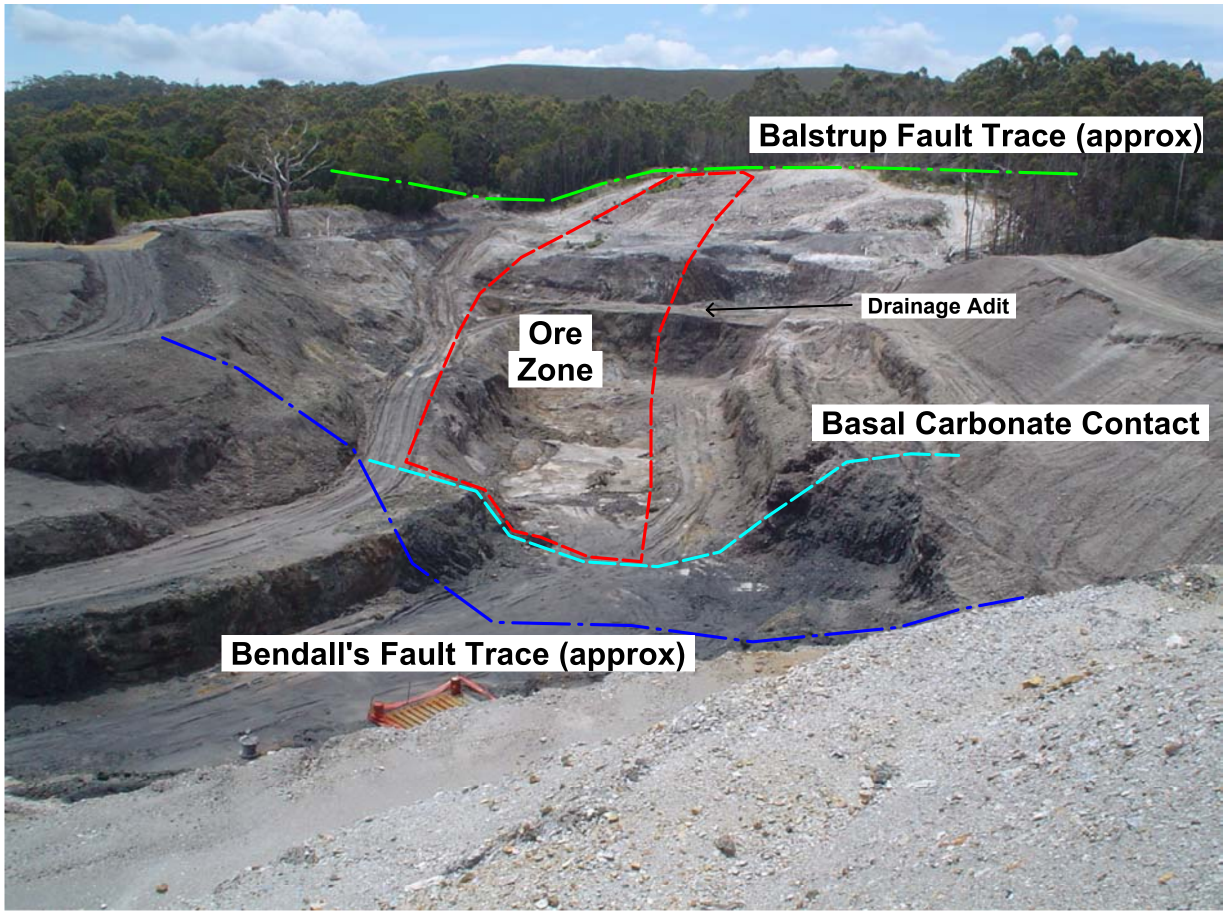


Figure 4
The Allison's Lode



8. SAMPLING TECHNIQUES

Sampling mediums for the Allison's Lode comprise trial mining, aircore drilling, channel sampling, stockpile rock sampling and geological mapping.

8.1 TRIAL MINING

In 2000 trial mining was undertaken on the Allison's Lode. Mining consisted of using an excavator and a small truck to remove ore and waste material. The friable nature of the dolomite meant that no drill and blasting was required and a selective mining process was adopted with mineralised boulders stockpiled away from the pit, estimated at 3300t @14.5%Pb, 21.5% Zn and 540g/t Ag (Cottle, 2005). At its deepest point the estimated thickness of material removed from the pit is thought to be 20m.

8.2 DRILLING

The aircore drilling was completed with a custom-made 4WD truck Edson 3000 capable of diamond drilling, RC and aircore. The face of bit was a 'kit bit' tungsten blade and the hammer was a 100mm flat face.

There is no record of sample recovery for the aircore drilling. None of the holes had downhole surveys although each hole had its collar surveyed for azimuth and dip angle.

The aircore drilling is considered to have been a success with seemingly no real problems with recovery (P.Heath personal communication) except in the old stope area. Based on past experiences with diamond drilling in the Allison's Pit (SY021 and SY022) it is considered that aircore gives a better recovery through the upper mineralised zones. The lack of groundwater in the immediate area is most likely due to the dewatering tunnel at the 251.4m level put in by the Tasmanian Mines Department in the late 1940's.

The drilling produced aircore samples at 1m intervals throughout the length of the drillhole, which were contained in polyweave bags. Sample preparation consisted of sending all the material for each bagged sample to the SGS Laboratory at the Renison Bell Mine for drying, crushing and pulverising (90% of material passing 75microns). A sub-sample aliquot of 100/150g was sent to SGS analytical labs at Welshpool in WA. Analysis was by AA (AAS43B method) for Ag, Pb and Zn and by ICP (ICP4Q method) for Cu, Fe, Mg, Ni, As, Bi, Ca, Sb and Ag.

The intercepts used for block modelling for both the aircore data and the channel sampling are included in Appendix 2. Basic statistics for the data are supplied in Table 1.

Table 1
Allison's Lode: Summary Statistics for Aircore & Channel Sampling

AC = Aircore Data Ch = Channel Sample	Zinc		Lead		Silver		Iron	
	AC Zn	Ch Zn	AC Pb	Ch Pb	AC Ag	Ch Ag	AC Fe	Ch Fe
Mean	6.263	14.080	1.432	5.170	29.376	85.789	11.352	13.248
Standard Error	0.759	1.568	0.163	0.620	3.514	14.354	0.592	0.944
Median	2.790	11.800	0.765	2.550	16.030	37.960	9.580	12.988
Mode	3.630	15.400	1.980	12.700	1.500	41.000	11.400	21.600
Standard Deviation	8.524	12.144	1.828	4.800	39.440	111.188	6.650	7.315
Sample Variance	72.651	147.485	3.341	23.038	1555.487	12362.688	44.226	53.503
Kurtosis	6.021	-1.142	8.145	-0.633	7.846	4.505	0.536	-0.381
Skewness	2.457	0.518	2.690	0.920	2.730	2.126	1.095	0.361
Range	40.31	39.75	10.14	16.44	208.50	486.50	29.94	30.33
Minimum	0.19	0.35	0.06	0.26	1.50	0.50	2.76	1.40
Maximum	40.50	40.10	10.20	16.70	210.00	487.00	32.70	31.73
Sum	789.156	844.790	180.436	310.227	3701.348	5147.340	1430.306	794.903
Count	126.000	60.000	126.000	60.000	126.000	60.000	126.000	60.000
Confidence Level (95%)	1.503	3.137	0.322	1.240	6.954	28.723	1.173	1.890

Histogram plots and interpretation of this data is included below in chapter nine and are also available in more detail in the block model report by Tear 2005c.

Additional elemental analysis of the aircore samples showed the statistical distributions tabulated below (Table 2). A histogram of the magnesium data indicates two distinct populations, one related to talc alteration (of dolomite?) in the carbonate unit and one representing the underlying phyllites. Bismuth had a detection limit of 20ppm with all samples below detection limit. No anomalism was associated with nickel as values were generally less than 100ppm. Arsenic values suggested a relationship with the amount of pyrite present in the sample, possibly as arseniferous pyrite, and seemingly showed no relationship with the zinc assays i.e. sphalerite.

Table 2
Allison's Aircore Data: Summary Statistics of Other Elements

	As ppm	Sb ppm	Mg %	Cu ppm
Mean	511.327	52.945	7.288	117.544
Standard Error	90.183	2.876	0.361	10.862
Median	170	40	4.91	67
Mode	110	40	18.2	2.5
Standard Deviation	1495.520	47.701	5.993	180.122
Sample Variance	2236578.98	2275.417	35.915	32443.810
Kurtosis	91.530	9.311	-1.294	26.338
Skewness	8.922	2.719	0.447	4.500
Range	17895	335	18.7	1617.5
Minimum	5	5	0.1	2.5
Maximum	17900	340	18.8	1620
Sum	140615	14560	2004.174	32324.5
Count	275	275	275	275
Confidence Level(95.0%)	177.540	5.663	0.711	21.383

8.3 CHANNEL SAMPLING

The channel sampling consisted of 5 traverse lines, four cross cutting and one parallel to the vein system. A diamond blade circular saw was used to make two 3cm deep cuts, 3cm apart. A hammer and bolster chisel were then used to remove the rock material between the two cuts for a 1m continuous sample, repeated each 1m along the traverse line. A summary of the results for the channel sampling is included as Table 3.

Table 3
Weighted Average Results for Channel Sampling of the Allison's Lode

Traverse	Width	Grade % Zn	Grade % Pb	Peak Zn% Value	Peak Pb% Value
A	16m	13.6	3.7	34.1	12.4
A1	15m	8.7	4.6	40.1	12.7
B	11m	13.1	3.7	32.3	14.2
C	7m	14.9	9.5	24.7	16.7
D	11m	15.6	4.8	35.0	13.0

Sample preparation consisted of sending all the material for each bagged sample to the Analabs laboratory in Burnie for drying, crushing and pulverising (90% of material passing 75microns). A sub-sample aliquot of 100g was used for further analysis. Analysis was by AA (method A330) for Ag, Pb, Zn, Cu, Fe and Mg, and by ICPMS (method M104) for Ni, As, Bi, Ca, Sb and Ag.

A substantial photographic record exists for the channel sampling (Heath 2001) and this report also includes representations of the data and discusses the results.

Three of the five channel sample traverses have now been mined out i.e. B, C & D.

8.4 GEOLOGICAL MAPPING

Two days of mapping within the open pit were undertaken in May 2000, believed to be at the 286m level, and a further two days were completed in February 2001 covering the 281m level (Tear 2005a). This work comprised seven and nine geological traverse lines respectively. A geological map of this work is included as Figure 4. This mapping demonstrated the vertical and lateral continuity of the vein system and confirmed the partial poddy nature of the sulphide mineral. Problems with the mapping occurred due to spoil dumps masking the exposed geology in the floor of the open pit.

In addition structural mapping of the lode and the South Comstock open pit was undertaken by Farrell (2001) as part of a BSc Honours thesis.

Logging of the aircore drillholes was cursory based on visual observation at the time of drilling, lithological identification was confirmed and improved by co-relating additional element assays e.g. Ca for dolomite, Mg (and low Ca) for talc and Fe for pyrite.

8.5 QAQC

There has been no use of standards or duplicates in aircore drilling and hence no measure of data reliability can be supplied.

Duplicate sampling of channel sample traverse D was undertaken to give a measure of the variability of two different collection methods i.e. the initial 1m cut samples and a parallel set of chip rock samples taken immediately adjacent to the cut samples for the same sample intervals. The results show that the overall average grade for the mineral system of each traverse was similar as shown in Table 4, but there was considerable variation for individual matching samples between each set, particularly with higher grades.

Table 4
Average Values for Traverse D Ore Intercept

Zn% (S)	Zn% (C)	Pb% (S)	Pb% (C)	Ag ppm (S)	Ag ppm (C)	Fe% (S)	Fe% (C)
14.2	16.05	4.28	4.38	74	95	16.3	16.61

(S = Cut by saw C = Chip sample)

See Appendix 3 for data & graph showing variance.

9. DATABASE INTEGRITY

Random checks of original assay results sheets with database entries showed that there were no data entry errors. This was confirmed in Cotlco's 2005 report.

The positional agreement between the old workings dtm and the collar positions for the EZ underground drill holes CP47, CP49 and CP58 is poor (as stated previously) and for this reason these holes have been ignored for interpretive purposes. The collar positions appear incorrect relative to the inferred position of the old workings, i.e. too high by 17m and too far east by 15m.

Basic statistical analysis by SMG Consultants Pty Ltd of the channel sample and aircore data for zinc indicated two different populations (Figure 5 and Figure 6). There appears to be a bias in the channel sampling with the data positively skewed i.e. towards higher results. The channel sample numbers were not used by SMG Consultants Pty Ltd to calculate the block model resource but were used to aid the design of the mineralised shape and the classification of resources. However as an exercise the channel samples were interpolated with the aircore data to gain a measure of the effect on the grade of including the results (see later).

Oceania Tasmania have undertaken a considerable number of density measurements (>80) on a variety of lithologies, grades of mineralisation and types of sample (e.g. rock chip, drill core etc). The Archimedes Principle was the method of measurement and was performed in the MRT core shed.

Figure 5
Histogram Plot for Aircore Zinc Values (Logged to Base 10)

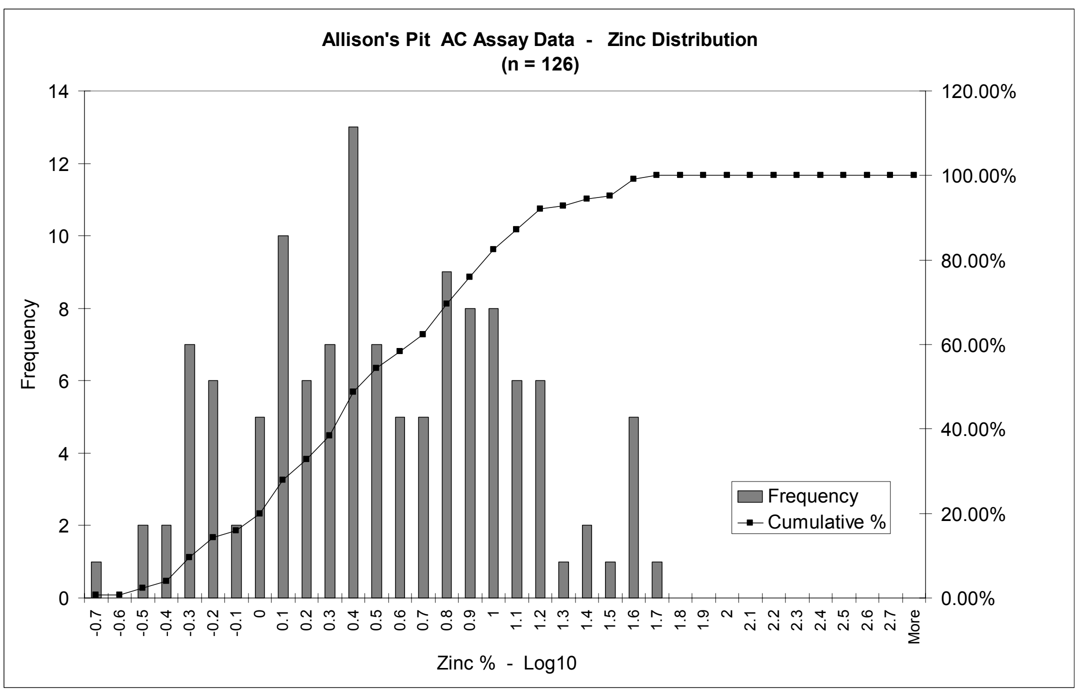
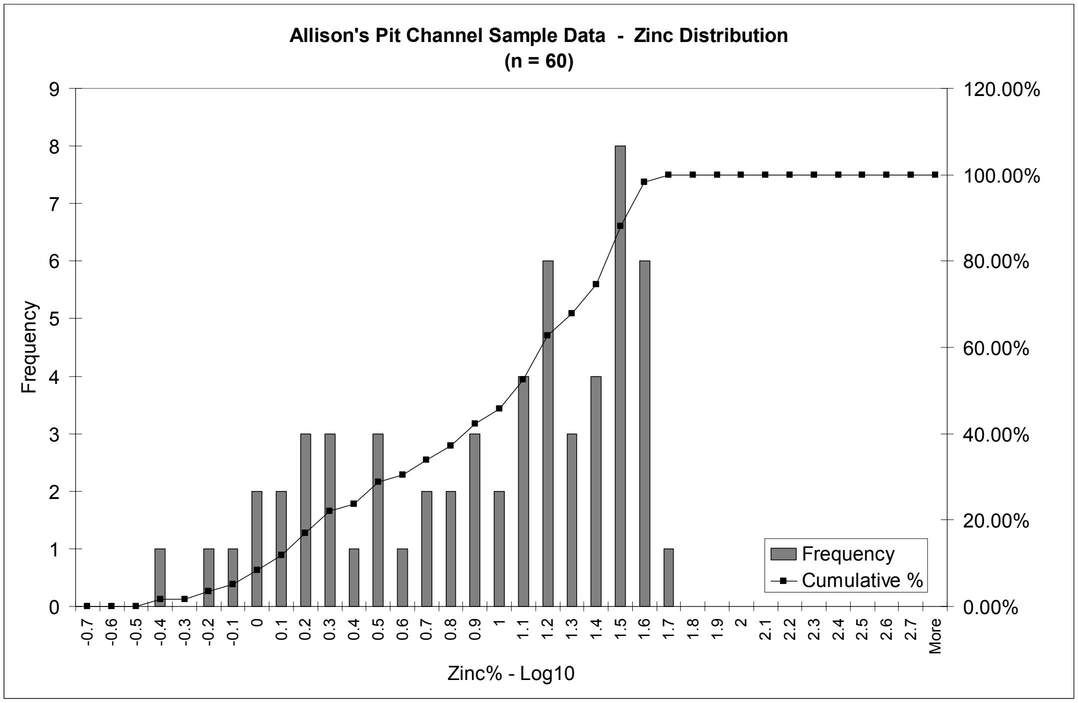


Figure 6
Histogram Plot for Channel Sample Zinc Values (Logged to Base 10)



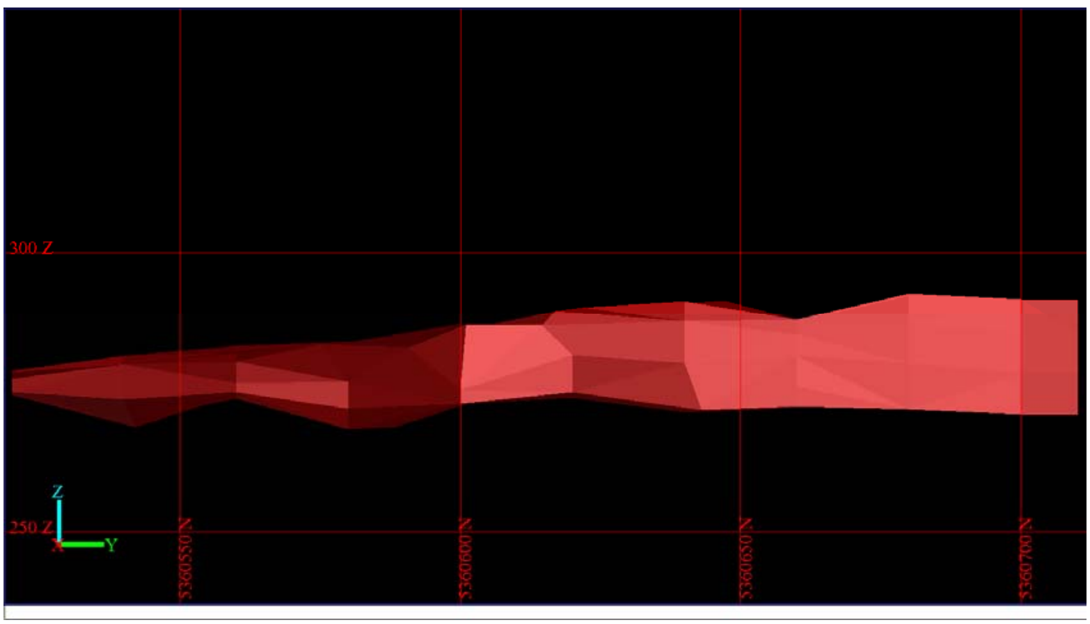
Other conclusions from basic statistical analysis of the aircore data include the correlation between lead and silver and the apparent lack of correlation between zinc and lead and zinc and iron (Tear 2005c).

10. RESOURCE MODELLING

10.1 DIMENSIONS OF THE RESOURCE

The resource is bounded at depth by the carbonate contact with the underlying phyllite unit. Its upper boundary is a combination of the current pit floor and the base of a weathered zone for the northern half of the deposit. The northern boundary to the mineralisation is likely to be the Balstrup Fault, although this fault has not been exactly delineated in this northern area. The fault's current inferred position is based on a combination of topographic change and electromagnetic geophysics. Thus the deduced resource dimensions are 193m long by an average of 13m wide (range of 5.3m to 19.7m) by an average 12m deep (range of 0m to 20.6m). The southern boundary of the resource is determined by the base of the carbonate contact which outcrops at the south end of the pit. The SMG Consultants Pty Ltd 3D mineralisation shape (Figure 7) is a notional 1% zinc cut off outline blended with the geology, as defined in the drillholes and in the surface mapping, into a coherent geological shape.

Figure 7
Allison Lode: Mineralisation Solid Model (Looking West)



10.2 MODELLING METHOD

SMG Consultants Pty Ltd initially produced a 3D geological interpretation using Surpac software. One of the shapes is a mineralised solid based on the aircore drilling, channel sampling and trial pit mapping (Tear 2005b).

SMG Consultants Pty Ltd have subsequently produced a block model report for the Allison's Lode (Tear 2005c). In that report SMG Consultants Pty Ltd used an inverse distance squared interpolation technique to generate block grades. It was considered the most suitable based on the relatively low number of aircore samples (126).

10.3 IMPLEMENTATION

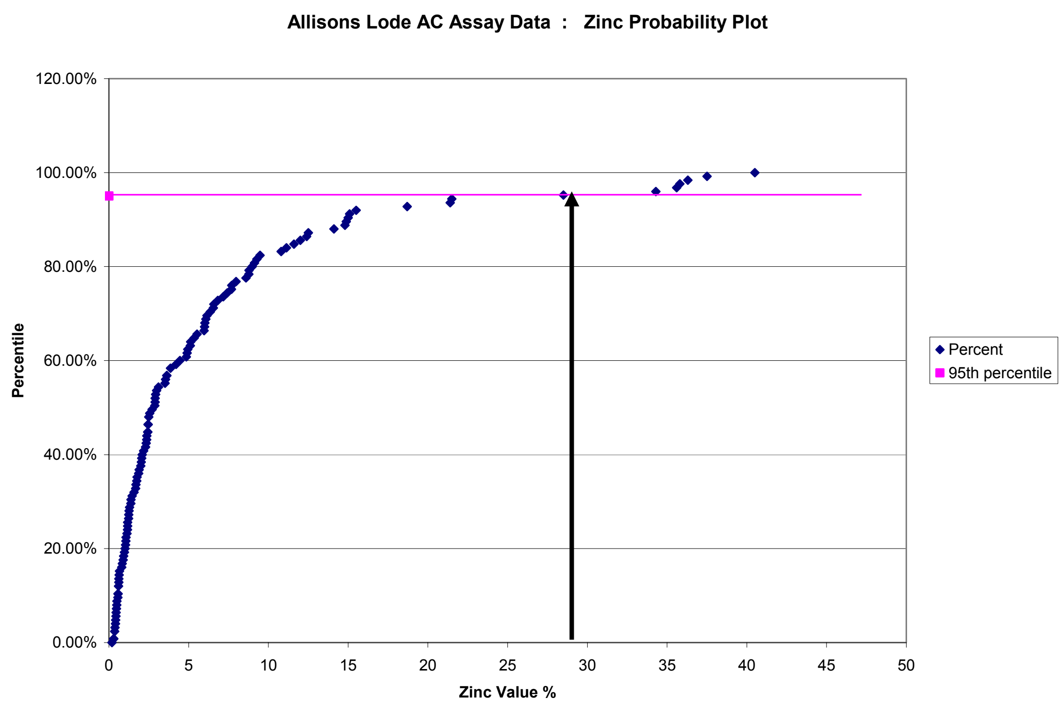
A Surpac string file for the drillhole intercepts was created which then had a top cut applied to it. A block model was created according to the parameters and with attributes listed in Appendix 5. The interpolation of the aircore data into the block model was performed with the parameters listed in Appendix 5 with the interpolation not constrained. In Tear 2005c several interpolation parameters were applied using modified versions of the input string file in order to demonstrate a range of effects on the resultant resource model.

Different search radii were applied by SMG Consultants Pty Ltd in the interpolation process with 25m being deemed the optimum distance on account of there being no unassigned grades to blocks with this distance, within the SMG Consultants Pty Ltd mineralised shape.

10.4 TOP CUT

A probability plot (Figure 8) for the zinc data indicated that for the 95th percentile a top cut of 30% zinc should be applied. This affected 6 samples.

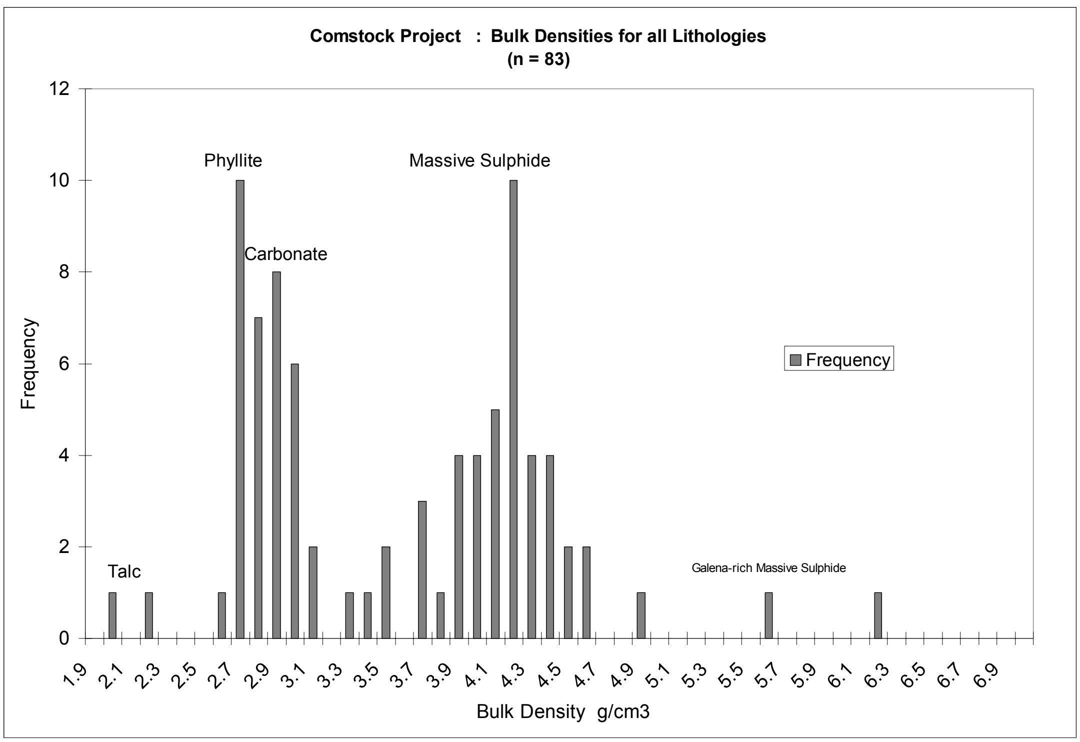
Figure 8
Cumulative Probability Plot for Aircore Zinc Values



10.5 BULK DENSITY

A conservative default density of 3.3g/cm^3 was assigned to the SG attribute in the block model; this matches the averaged measured density of fresh carbonate and sulphides (Figure 9 & Appendix 4). However it is possible to calculate a more accurate density for each aircore sample based on its zinc, lead and iron assays. The complex calculation utilises the assay value of each element to calculate the amount of corresponding sulphide in the assay sample, assuming each element value is attributable to the main sulphide species for that element. Thus the zinc assays are used to estimate the amount of sphalerite (at a density of 4) present within the sample, lead is used to estimate the galena content (density 7.2) and iron is used to estimate pyrite amounts (density 5). The remaining percentage of the sample is ascribed a base density of either 2.6g/cm^3 in the first instance or 2.75g/cm^3 in the second.

Figure 9
Allison Lode: Distribution of Measure Density Values
(Archimedes Method)



The formula used for the calculation of bulk density from assay results with remaining material having a base density of 2.6g/cm^3 is as follows:

Bulk Density = (fe*0.1071)+(pb*0.0855)+(zn*0.0632)+((100-((fe*2.1413)+(pb*1.1547)+(zn*1.561)))*0.026)

The density of that remaining material is difficult to ascertain, hence the two values that were used, as in some instances it will be vuggy quartz (about 2.3-2.6), powdery talc (2-2.6) or partially weathered carbonate (2.6-2.9) as well as possibly fresher carbonate (2.8-3.1).

10.6 BLOCK GRADE ESTIMATION

A 10m by 10m by 10m block size with sub-celling to 2.5m was used for the Allison Lode block model.

An isotropic search ellipse was used with the search specifying a minimum of three samples and a maximum of fifteen samples to be used for assigning a grade to a block. The majority of the resource recorded blocks with fifteen samples. A review of the ads25_id attribute indicates the average distance for before fifteen samples are encountered is 11.4m with a majority of the central part of the resource averaging between 5m and 10m.

A review of the block model statistics (Table 5) indicates results consistent with the original aircore drill intercepts.

Table 5
Allison's Lode: Block Model Summary Statistics

AC = Aircore Data Bk = Ore Block Data	Zinc		Lead		Silver	
	AC Zn	Bk Zn	AC Pb	Bk Pb	AC Ag	Bk Ag
Mean	6.263	5.227	1.432	1.237	29.376	26.485
Standard Error	0.759	0.096	0.163	0.022	3.514	0.487
Median	2.790	4.540	0.765	0.980	16.030	21.600
Mode	3.630	2.290	1.980	0.760	1.500	19.600
Standard Deviation	8.524	3.189	1.828	0.729	39.440	16.163
Sample Variance	72.651	10.172	3.341	0.532	1555.487	261.228
Kurtosis	6.021	-0.601	8.145	-0.466	7.846	1.431
Skewness	2.457	0.658	2.690	0.643	2.730	1.359
Range	40.31	14.050	10.14	3.300	208.50	93.800
Minimum	0.19	0.690	0.06	0.140	1.50	4.000
Maximum	40.50	14.740	10.20	3.440	210.00	97.800
Sum	789.156	5754.710	180.436	1361.400	3701.348	29159.500
Count	126	1101	126	1101	126	1101
Confidence Level (95%)	1.503	0.189	0.322	0.043	6.954	0.956

11. RESOURCES

11.1 SMGC RESOURCE MODELLING SCENARIOS

SMGC have created a block model for the resource presenting several interpolation case scenarios in Table 6 (see also Tear 2005c).

Table 6
Allison's Lode: SMGC Different Interpolation Scenarios

Case No.	Data Used	Search Radius	Top Cut	Base S.G.
1	Aircore	25m	30% Zn	2.6g/cm^3
2	Aircore	25m	30% Zn	2.75g/cm^3
3	Aircore	30m	none	2.75g/cm^3
4	Aircore & Channel	30m	none	2.6g/cm^3
5	Aircore & Channel	30m	none	2.75g/cm^3
6	Aircore & Channel	25m	33% Zn	2.6g/cm^3

Table 7
SMGC Global Resource Calculations for the Allison's Lode

Case No	Volume	Tonnes	Zn%	Pb%	Ag%
1	29234	98227	5.02	1.22	24.4
	Volume	Tonnes	Zn25m	Pb25m	Ag25m
2	29234	101144	5.01	1.21	24.8
	Volume	Tonnes	Zn	Pb	Ag
3	29234	101144	5.31	1.22	24.96
	Volume	Tonnes	Zncs	Pbcs	Agcs
4	29234	98227	6.90	2.01	36.09
	Volume	Tonnes	Zncs	Pbcs	Agcs
5	29234	101144	6.89	2.01	36.03
	Volume	Tonnes	Zn25chtc33	Pb25chtc33	Ag25chtc33
6	29234	98227	6.64	1.80	35.54

Please note that in Table 7 the actual zinc attribute name is included in the table to demonstrate which attribute was used for the block model reporting.

The most conservative resource estimate for the Allison's Lode is the first case listed in Table 7.

From the above data it can be seen that a 5.6% change in SG produces only a 3.9% change in tonnage and no significant change in grade.

The 30% zinc top cut has a 5.8% impact on zinc grade and virtually no impact on the lead and silver grades.

The inclusion of the channel samples has the greatest impact on the grade of the initial resource estimation.

Table 8 indicates the impact of the channel samples on the grade and hence the metal content of the resource.

Figure 10 and Figure 11 show the block grade distribution for the Case 1 scenario.

Figure 10
Allisons Lode: Block Model Zinc Grades % (Looking North-East)

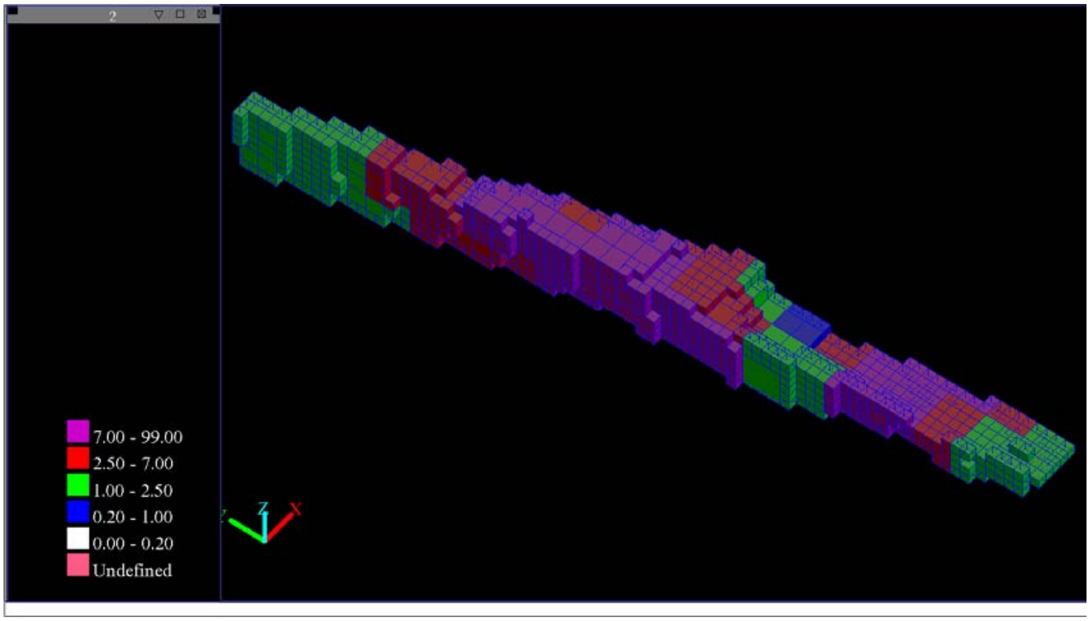


Figure 11
Allison's Lode: Block Model Zinc Grades % (Looking North-West)

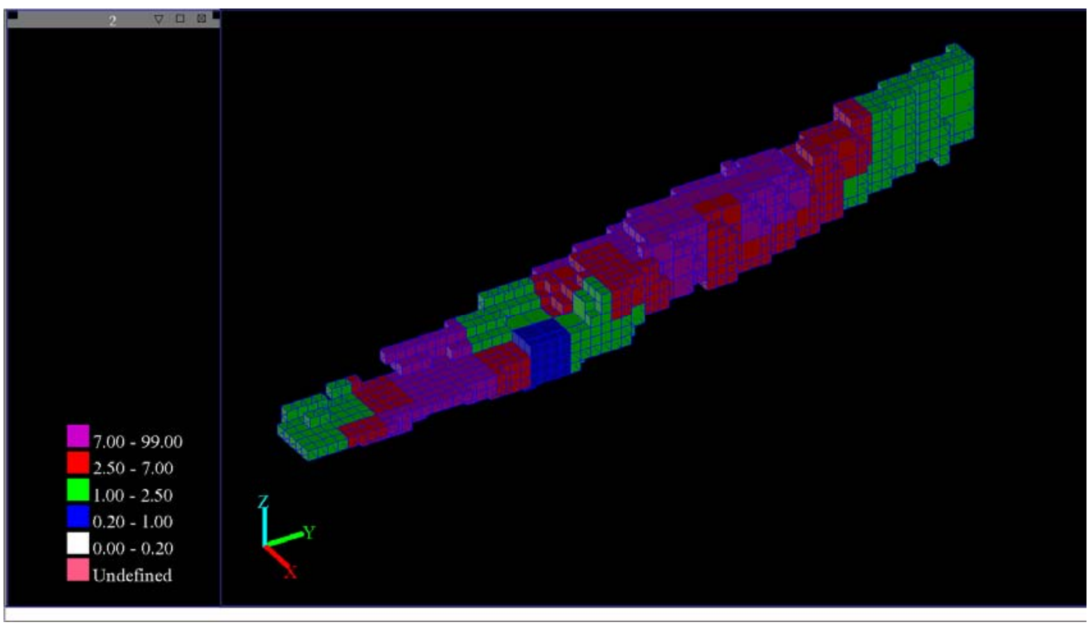


Table 8
Allison's Lode: Metal Content for the Different Case Scenarios

	Volume	Tonnes	Zn %	Pb %	Ag ppm	Zn metal (t)	Pb metal (t)	Ag metal (kg)
Case 1	29234	98227	5.02	1.22	24.4	4931.0	1198.4	2396.7
Case 2	29234	101144	5.01	1.21	24.8	5067.3	1223.8	2508.4
Case 3	29234	101144	5.31	1.22	25.0	5370.7	1234.0	2524.6
Case 4	29234	98227	6.90	2.01	36.1	6777.7	1974.4	3545.0
Case 5	29234	101144	6.89	2.01	36.0	6968.8	2033.0	3644.2
Case 6	29234	98227	6.64	1.80	35.5	6522.3	1786.1	3487.1

11.2 CLASSIFICATION

Information supplied in the block model report by SMGC (Tear 2005c) detail the classification parameters. In order to assign classification status to the resource, the block attributes nos, dns_id and rescat2v were used. The first attribute is a measure of the number of samples used in estimating the individual block grade. In most instances this was fifteen as per the block model specifications. The second attribute measures the distance to the nearest sample and the third attribute ascribes an integer value to that distance based on a selected range according to the formula below:

iif(dns_id>0 and dns_id<=5,1,iif(dns_id>5 and dns_id<=20,2,iif(dns_id>20 and dns_id<=100,3,4)))

Whereby the Measured Resource category is for the nearest sample distance between 0m and 5m (i.e. around each drillhole), the Indicated Resource is for the nearest sample distance being between 5m and 20m and the Inferred Resource being from 20m to 100m. The resulting block model indicates that about 65% of the resource is in the indicated category, with 30% classed as measured and a small remaining proportion of the resource at the extreme north end is inferred. These distances were based on the author's considered opinion utilising all the geological information as no geostatistical analysis was completed.

In an attempt to accommodate the channel sampling results it was felt that additional resources could be classified as measured based on the combination of the channel sampling and the mapping in the southern area of the pit. Thus the remaining unmined blocks from within the ore shape from the pit floor upwards and from 5360620N southwards have been included in the Measured Resourced category (277.5mRL upwards). This measured resource volume was calculated using a simple solid shape 12measured_solid.dtm to isolate the blocks but the evaluated metal grades used the assigned block grades from the interpolation without the channel sample data but with the aircore data (comcomp2v2.str) to obtain a resource value and added to the Measured Resource delineated by the equation above (outside the solid 12measured_solid.dtm).

Table 9 shows the effect of using the 12measured_solid.dtm solid to excise out the near surface measured resource related to the mapping, with and without the channel sample data. The first pair of figures shows the difference of grade for the volume whilst the second pair shows the overall effect on the Measured Resource category. That is, there is a substantial increase in metal content if the channel sample data is included in the interpolation for the resource estimation.

Table 9
Allison's Lode: Effect on Resource of Channel Sample Data

Data Source	Volume	Tonnes	Zn %	Pb %	Ag ppm
Near surface Measured					
With Channel data	6359	22077	7.86	2.76	42.5
Without Channel data	6359	22077	4.93	1.53	27.0
Effect on Resource					
Measured with channel	10297	35252	7.54	2.27	38.8
Measured minus channel	10297	35252	5.71	1.50	29.1

11.3 RESOURCE FIGURES

As a result of the above classification conditions a conservative estimate of the remaining in situ resource at the Allison's Lode is presented in Table 10.

The measured category comprises close spaced sampled material based on a deduced sample distance of <5m for the aircore holes and a volume based on the channel sampling and mapping but not including the channel sample assays.

Table 10
Allison's Lode: Classification of Resources at October 2005
S.J.Tear (Competent Person)

Category	Volume	Tonnes	Zn%	Pb%	Agppm
Measured	10297	35252	5.71	1.50	29.1
Indicated	17813	59412	4.77	1.08	22.8
Inferred	1125	3563	2.25	0.67	17.1
Mineralisation	0	0	0.00	0.00	0.0
Grand Total	**29235**	**98227**	**5.02**	**1.21**	**24.9**
Corrected Figures for Degree of Accuracy	29200	98000	5.0	1.2	25

This assumes the following interpolation parameters:

1. Aircore only data.
2. A 25m search radius.
3. A 30% zinc top cut.
4. A base case density of 2.6g/cm^3.

And block model constraints:

1. Within the SMGC mineralisation shape (notional 1% zinc cut off).
2. Below current topography.
3. Not including anything within the old mining cavity/stope.

12. MINING FACTORS OR ASSUMPTIONS

In defining the resource no mining factors have been assumed.

13. METALLURGICAL FACTORS OR ASSUMPTIONS

In defining the resource no metallurgical factors have been assumed. The reader is referred to the 2000 reports on testwork by K Wong of Optimet Laboratories Pty Ltd. In addition the reader is also referred to the 2001 metallurgical testwork report by Independent Metallurgical Laboratories Pty Ltd.

14. PREVIOUS AUDITS AND REVIEWS

14.1 COTLCO PTY LTD
RESOURCE ESTIMATION AND CLASSIFICATION UPDATE 2005

This report provided a resource estimation and classification of three deposits held by Oceania Tasmania and Zeehan Zinc Pty Ltd. Two of the deposits are at Comstock, namely the Allison's Lode and the West Lode. The geological shapes created by Tear (2005b) were not available to Cotlco.

The in situ resource at Allison's was based on using a 'polygons of influence' method of resource estimation. The report confirms the perception that there is insufficient data for geostatistical analysis and hence no variography or kriging was attempted. The report questioned the spatial continuity of the mineralisation based on the drilling and channel sampling data. The report concluded that the uncertainty to the continuity meant that the majority of the resource was in the inferred category. No reference was made to the continuity of the vein system as shown with the Allison's geological map.

The Allison Lode resource estimation also included the stockpiled material from the 2000/2001 mining which used a volumetric method, the 'two thirds marbles in a jar' rule, and a density of $3.8 g/cm^3$ from the recent bulk density work.

Included in the estimation was underground drillhole CP47 which has been omitted from the SMGC calculations. The measured in situ resources category includes several of the channel sampling traverses which according to the topographic data lie above the current pit floor i.e. they have been mined out.

The conclusions of Cotlco's work are tabled below (Table 11):

Table 11
Allison's Lode: Estimated Resources (Cotlco)

	Tonnes	Pb %	Zn %	Ag g/t
Measured				
Stockpiled Ore	3,300	14.5	21.5	540
Insitu Resource	4,120	3.9	12.1	67
Total Measured	**7,420**	**8.6**	**16.3**	**277**
Indicated				
Insitu Resources	30,160	2.0	7.2	36
Inferred				
Insitu Resources	26,150	1.9	7.0	35
Sub-Total Resources	**63,730**	**2.7**	**8.2**	**64**

14.2 COFFEY'S REPORT ALLISON PIT REDESIGN – 2002

This report was commissioned by Oceania Tasmania to redesign the Allison's Pit Decline taking into consideration the revised mineralisation shape and topographical survey information as at March 2002. They created a 'best guess' mineralisation shape extending up to the Balstrup Fault, developed some parameters for mining the resource and produced a pit design. Based on information supplied by Oceania Tasmania they calculated a resource of 93,482m^3 and using a density of 3.81g/cm^3 suggested a mineral resource of 355,619t. This figure is higher than the current resource because the average width is now less than 20m, no account of the northern near surface weathered zone was included and the base of mineralisation was assumed to be greater than the recent aircore drilling has indicated. This work was completed prior to the recent aircore drilling.

14.3 BEHERE DOLBEAR AUSTRALIA (BDA) PTY LTD INTERIM REPORT AND VALUATION – 2000

This report was a review of the development and exploration work undertaken on the Comstock mine leases held by Oceania Tasmania in order to complete an interim valuation report on the property. It included two site visits and a review of relevant reports. There was no audit on the information supplied by Oceania Tasmania.

Valuation was based primarily on the *past exploration expenditure* method and the *joint venture or options terms* method as per the VALMIN Code.

The channel sampling work was reviewed and concluded that there was mineral continuity over 70m from four 20m spaced sample lines. Weighting the assay results by width and along strike influence they indicated that the average grade for the exposed vein system was 14% Zn, 4.5% Pb and 90g/t Ag. Removal of low grade assays so as to simulate upgrading by selective mining increased the average grade to 21% Zn, 6.5% Pb and 130g/t Ag. These grade estimates are similar to the previous mining/milling material sent to Rosebery and to the Allison stockpile sampling.

BDA assumed a strike length of 120m for the mineralisation (although they saw potential for 200m) and concluded that there was scope for a rough resource tonnage figure of 200,000t to 300,000t based on a mining depth of 50m and a presumed density of 3.8g/cm^3. The 50m mining depth is likely to be flawed based the recent aircore drilling and the average width is also likely to be less as well as the average bulk density used.

Also mentioned was that closer spaced drilling would be required in the order of 20m to 40m so as to increase both the amount of the resource and the confidence levels applied to the classification.

The report quoted various mined material figures which have been referenced in this report. It also quoted resource figures for other deposits in the immediate vicinity of the Allison's Lode.

15. DISCUSSION OF RELATIVE ACCURACY/CONFIDENCE

The majority of the data used in the Allison's Lode resource estimation is recent data having been collected within the last five years. All drillhole locations and channel sample sites have been surveyed in by a qualified surveyor. Where there are discrepancies e.g. underground drillhole CP47, it has been omitted from the calculations.

There are discrepancies with the interpretation of the location and extent of the old workings from old maps relative to the known surveyed shafts. This may impact on the in situ Allison's resource by reducing it slightly. The cavity shape designed by SMGC in Tear 2005c may account for some of the potential for lost mineralisation.

The aircore drilling, roughly on 25m spacing, has identified an elongated mineralised zone up to 180m long and up to 25m wide. Design of the ore shape was relatively straightforward based on the parameters described in Appendix 1. The aircore holes collars were surveyed for azimuth and dip but no downhole surveys were undertaken and thus there is a risk of hole deviation. However with the relative shallow depths of the mineralisation it would require very significant early deviation to seriously impact on the spatial distribution of the ore shape.

Judging by the amount of returned material in the polyweave bags, it is believed that most of the drilled rocks were recovered (no sample weights were supplied). A look at the zinc assay data showed no obvious downhole smearing/contamination trends. Cavities in an expected old stope position accounted for most of the poor recoveries. The main cavity was factored into the resource reporting.

The channel sampling produced good quality samples for analysis and has helped to define the ore shape and provide an additional measure of geological continuity for the vein system.

There are no perceived problems with the sampling or the assaying although it would have been preferred if standards and duplicates had been used to verify this perception. A commercial laboratory, SGS, with an appropriate ISO9001 ranking was used for the analysis.

The low numbers of the sampling populations has restricted the use of geostatistics and affected what resource estimation methods can be used. However it was possible to establish a legitimate top cut value for zinc.

SMGC considered the number of aircore assay samples (126) as being insufficient for any meaningful geostatistical analysis; hence kriging (and variography) was not considered a suitable method for the resource calculation. It was felt that a simple Inverse Distance Squared would be the best method for calculating the resources. The method does tend to promote more 'bull's-ey' features but this may be considered more reflective of the poddy nature of the Allison's mineralisation.

Several scenarios were tested with the block model including varying the base SG, using a top cut and adding in the channel sample results. All results appeared consistent with the data.

Risks to the conservative resource estimate are:

- the underground workings are more extensive than currently interpreted, a small additional amount of tonnage may be lost from the resource due to this possibility,
- the Balstrup Fault occurs further to the south than indicated from geological interpretations. At this stage only low grade inferred resource material would be lost,
- the Northern third of the deposit is narrower than the southern two thirds and may narrow even further north. Conversely, the lode may widen; an additional two drillholes should be sunk at the northern end to clarify this situation and better locate the Balstrup Fault, and

- there is a possibility of smoothing out of high grade material into low grade areas in the block model creating exaggerated metal content. Again, conversely there are potential situations where low grade material has reduced the real influence of the higher grade material.

Including the channel sample data in the block model resource was considered a major risk based on the statistics which indicated a bias in the dataset and hence they were omitted. However the reader's attention is drawn to the geological map of the southern half of the trench which was constructed while the trial mining was in progress and ore material was being stockpiled. The channel sample results were not inconsistent with the geology at the time and hence their use in ascribing additional resources to the Measured category.

16. CONCLUSIONS

The Allison's Lode has been tested by various suitable geological methods including aircore drilling, channel sampling, trial mining and geological mapping. There is a good geological understanding of the nature of the mineralisation.

There are no major issues impacting negatively on sampling methods and analysis of sample material.

Sample density and mapping details have allowed for the construction of a potential ore shape with a high degree of confidence.

Inverse distance squared was the resource estimation technique used.

A conservative estimate of the remaining in situ resource of the Allison's Lode is:

Classification	Volume	Tonnes	Zn %	Pb %	Ag ppm
Measured	9375	32028	5.86	1.46	29.0
Indicated	18734	62637	4.74	1.12	23.2
Inferred	1125	3563	2.25	0.67	17.1
Mineralisation	0	0	0.00	0.00	0.0
Grand Total	**29234**	**98228**	**5.01**	**1.21**	**24.9**
Corrected Figures for Degree of Accuracy	29200	98000	5.0	1.2	25

Based on aircore results only, a 25m search radius, a top cut of 30% Zn & a base density of $2.6g/cm^{3.}$

Constraints for resource reporting are the SMGC ore shape, below the current topographic surface and excluding material associated within the collapsed stope(s). Additional constraints for the measured resource category include a shape based on the continuity of the channel sampling data.

Respectfully submitted,

Simon Tear

BSc(Hons), ARSM, PGEO, MAusIMM, MIMM, EurGeol

November 2005

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Appendix 1
Description of Parameters
for Geological Interpretation (SMGC)

Allison Lode: Parameters for Defining the Shapes

Ore Zone

These solids are based on a combination of zinc and lead assay grades (notionally a 1%Zn cut off) and geology; the mineral vein zone usually comprises massive sulphide in the form of coarse grained pyrite, sphalerite and galena. The mineralisation consists of variable amounts of sulphide sometimes as discrete massive pods, and at other times as a stockwork of veining.

The ore zone for Allison's has been extended above the post mining topography surface so as to allow for the incorporation of the channel sampling data. The latter data needs some statistical work in order to confirm its compatibility with the RC work so that it can be used in any resource calculation.

Vugs were ignored when defining the ore shape with the assumption being that they are related to old mining and hence once contained mineralisation. A solid shape has been created from the aircore drilling to represent a mined out area.

Talc alteration was identified in the drillholes but no solid was created due to the holes often beginning in the alteration. The talc forms on the immediate margin to the mineralised zone.

Feeder zone

This solid comprises anomalous zinc zones (notional 0.5%Zn) representing the vein in the underlying phyllite. It is a much narrower zone than that in the overlying dolomite and has some correlation with the SY021 and SY022 diamond drillholes. There is a question over the location of EZ drillhole CP47 as the feeder lode has been intersected in core but 8m west of the main zone. Therefore it is possible that either the drillhole location is out by 8m in its easting or there is a second lode in the hanging wall of the main Allison's Lode. The drill log for CP47 reports that "penetrated commercial mineralisation…lies west of the Road Stopes [Allison's] but east of any other workings" which seems to indicate the latter.

Carbonate Contact

These solids represent a DTM surface based on the lower contact of the flat-lying, ore-hosting, carbonate unit with the underlying phyllite unit (Figure 3). There are some undulations in this shape which may indicate effects of later folding and/or faulting.

Bendall's Fault

This DTM surface was generated from its surface trace in the geological mapping draped over the post-mining topography and projected 500m down dip. There is some diamond drillhole evidence for this fault projection to have validity e.g. drillhole SY019. This fault provides a southern boundary to the Allison's Lode mineralisation.

There is some mineralisation associated with the footwall of Bendall's Fault but it has not been modelled here due to insufficient information. The mineral is thought to be related to Allison's but has been rotated by sinistral shearing on Bendall's Fault (see Tear's reports 2000a, 2000b, 2001 & 2005).

Balstrup Fault

This DTM surface was generated from its interpreted surface trace in the geological mapping draped over the pre-mining topography and projected 1000m down dip. There is diamond drillhole evidence for this fault projection to have validity, although this data has not yet been incorporated into the fault's interpretation. This fault provides a northern boundary to the Allison's Lode mineralisation. The dimensions and style of the fault are likely to be of a complex fault zone rather than a discrete plane.

Weathering Zone

This surface occurs in the northern half of Allison's Lode resource over an area relatively untouched by recent mining and indicated from the recent RC drilling.

Appendix 2
Allison's Lode Assay Intercepts

Allison Data: List of Intercepts

Aircore Drilling										
Holeid	**From**	**To**	**Coord y**	**Coord x**	**Coord RL**	**Zn**	**Pb**	**Ag**	**Fe**	**Length**
SY032	3	4	5360647	357571.4	291.055	2.87	6.61	171	26.1	1
SY032	4	5	5360647	357571.8	290.149	2.09	4.13	167	11.7	1
SY032	5	6	5360647	357572.3	289.242	6.55	3.15	118	9.94	1
SY032	6	7	5360647	357572.7	288.336	36.3	5.05	130	8.92	1
SY032	7	8	5360647	357573.1	287.43	4.94	1.74	52	6.24	1
SY032	8	9	5360646	357573.5	286.523	4.45	0.76	28	4.81	1
SY032	9	10	5360646	357573.9	285.617	8.59	0.85	29	5.62	1
SY032	10	11	5360646	357574.3	284.711	34.3	1.98	91	9.25	1
SY032	11	12	5360646	357574.7	283.804	8.99	1.87	31	7.16	1
SY032	15	16	5360646	357576.4	280.179	12	2.18	33	6.63	1
SY032	17	18	5360645	357577.2	278.367	7.7	2.24	40	7	1
SY032	23	24	5360645	357579.6	272.929	3.63	0.88	21	6.31	1
SY032	24	25	5360645	357580	272.022	1.23	1.98	27	6.79	1
SY033	13	14	5360679	357565.7	284.74	2.71	0.66	16	9.44	1
SY033	14	15	5360679	357565.9	283.874	2.44	0.7	18	9.98	1
SY033	15	16	5360680	357566	283.008	3.54	1.12	34	11.5	1
SY033	16	17	5360680	357566.1	282.142	4.9	2.63	63	12.1	1
SY033	17	18	5360681	357566.3	281.276	1.77	1.01	28	7.85	1
SY033	18	19	5360681	357566.4	280.41	0.57	0.28	5	3.26	1
SY033	19	20	5360682	357566.5	279.544	1.9	1	23	7.3	1
SY033	20	21	5360682	357566.7	278.677	1.01	0.69	14	5.73	1
SY033	21	22	5360683	357566.8	277.811	0.97	0.48	13	4.65	1
SY033	22	23	5360683	357566.9	276.945	3.1	0.39	15	5.1	1
SY033	23	24	5360684	357567	276.079	2.46	0.49	11	5.72	1
SY033	24	25	5360684	357567.2	275.213	1.37	0.44	9	8.18	1
SY033	25	26	5360685	357567.3	274.347	0.84	0.3	6	4.4	1
SY033	26	27	5360685	357567.4	273.481	5.11	0.8	25	24.6	1
SY033	27	28	5360686	357567.6	272.615	2.17	0.62	16	17.5	1
SY034	14	15	5360655	357569.1	282.381	1.99	0.64	8	3.72	1
SY034	15	16	5360655	357569.6	281.474	9.47	1.48	35	5.8	1
SY034	16	17	5360655	357570	280.568	1.24	0.38	5	3.47	1
SY034	17	18	5360655	357570.4	279.662	15.5	2.52	58	8.67	1
SY034	18	19	5360655	357570.8	278.755	4.86	1.2	20	4.76	1
SY034	19	20	5360655	357571.2	277.849	1.07	0.44	4	3.57	1
SY034	20	21	5360655	357571.7	276.943	0.5	0.19	1.5	3.09	1
SY034	21	22	5360655	357572.1	276.036	2.46	0.09	1.5	3.64	1
SY034	22	23	5360655	357572.5	275.13	0.6	0.09	1.5	2.76	1
SY034	23	24	5360655	357572.9	274.224	0.36	0.18	1.5	3.86	1
SY034	24	25	5360655	357573.4	273.317	14.1	1.24	32	16	1
SY034	25	26	5360655	357573.8	272.411	5.35	0.56	13	8.55	1
SY035	0	1	5360606	357588.8	286.87	6.15	2.43	61	21.8	1
SY035	1	2	5360607	357588.4	286.004	5.52	6.62	120	26.3	1
SY035	2	3	5360607	357588	285.138	3.63	1.45	24	13.3	1
SY035	3	4	5360607	357587.6	284.272	0.9	0.56	8	7.46	1
SY035	4	5	5360608	357587.2	283.406	1.06	0.59	9	8.95	1
SY035	5	6	5360608	357586.7	282.54	2.38	1.38	21	14.3	1
SY035	6	7	5360608	357586.3	281.674	1.57	1.35	20	7.42	1
SY035	7	8	5360608	357585.9	280.808	1.74	0.54	8	6.16	1
SY035	8	9	5360609	357585.5	279.942	1.67	0.87	8	7.8	1
SY035	9	10	5360609	357585.1	279.076	2.55	1.95	26	10.9	1
SY035	10	11	5360609	357584.7	278.21	0.92	1.47	18	9.94	1
SY035	11	12	5360610	357584.3	277.344	0.57	0.19	1.5	5.2	1
SY035	12	13	5360610	357583.9	276.478	6.07	1.19	28	18.8	1

Holeid	From	To	Coord y	Coord x	Coord RL	Zn	Pb	Ag	Fe	Length
SY035	13	14	5360610	357583.5	275.612	1.13	0.35	10	15.2	1
SY036	7	8	5360599	357577.3	278.813	1.38	0.32	1.5	6.18	1
SY036	8	9	5360599	357577.5	277.947	6.36	3.52	42	9.3	1
SY036	9	10	5360600	357577.7	277.081	40.5	7.05	123	13.2	1
SY036	10	11	5360600	357577.9	276.215	37.5	10.2	134	11.2	1
SY036	11	12	5360601	357578.1	275.349	7.42	1.79	26	5.35	1
SY036	12	13	5360601	357578.2	274.483	2.9	0.77	10	3.79	1
SY036	13	14	5360602	357578.4	273.617	1.29	0.37	3	3.24	1
SY037	0	1	5360588	357593.8	278.766	0.3	0.12	1.5	4.97	1
SY037	1	2	5360588	357593.3	277.9	1.7	0.34	13	18.3	1
SY037	2	3	5360588	357592.8	277.034	2.03	0.17	9	32.7	1
SY037	3	4	5360588	357592.3	276.168	0.66	0.27	6	26.2	1
SY037	4	5	5360588	357591.8	275.302	0.45	0.11	3	11.4	1
SY037	5	6	5360588	357591.3	274.436	0.62	0.07	1.5	11.7	1
SY037	6	7	5360588	357590.8	273.57	0.19	0.06	5	23.1	1
SY037	7	8	5360588	357590.3	272.704	0.42	0.09	4	14.8	1
SY037	8	9	5360588	357589.8	271.838	0.64	0.13	5	17.2	1
SY037	9	10	5360588	357589.3	270.972	0.49	0.06	1.5	8.45	1
SY037	10	11	5360588	357588.8	270.106	0.56	0.11	1.5	8.55	1
SY037	11	12	5360588	357588.3	269.24	0.4	0.15	1.5	7.37	1
SY038	1	2	5360539	357593.6	276.184	0.38	0.13	3	2.78	1
SY038	2	3	5360539	357593.3	275.318	2.44	0.26	8	4.21	1
SY038	3	4	5360539	357593.1	274.452	2.36	0.33	9	7.88	1
SY038	5	6	5360540	357592.5	272.72	1.86	0.3	9	11.4	1
SY038	6	7	5360541	357592.3	271.854	1.16	0.14	6	8.66	1
SY038	7	8	5360541	357592	270.988	1.26	0.22	9	10.8	1
SY038	8	9	5360541	357591.7	270.122	0.3	0.22	9	26.7	1
SY038	9	10	5360542	357591.5	269.256	0.47	0.1	8	14.2	1
SY039	0	1	5360550	357600.7	276.813	18.7	1.98	48	12.3	1
SY039	1	2	5360550	357600.1	275.994	12.5	0.63	17	13	1
SY039	2	3	5360550	357599.6	275.175	5.12	0.21	7	12.9	1
SY039	3	4	5360550	357599	274.356	1.17	0.12	5	6.59	1
SY039	4	5	5360549	357598.4	273.537	2.92	0.22	8	11.4	1
SY040	0	1	5360556	357600.7	277.335	35.6	8.76	210	6.61	1
SY040	1	2	5360556	357600.2	276.516	35.8	8.9	200	5.44	1
SY040	2	3	5360556	357599.6	275.697	15.1	2.35	77	11.8	1
SY040	3	4	5360557	357599	274.878	2.98	0.73	22	9.72	1
SY041	4	5	5360622	357586.1	289.747	2.34	1.09	25	16.5	1
SY041	5	6	5360622	357585.7	288.84	14.8	1.91	53	12.6	1
SY041	6	7	5360622	357585.3	287.934	11.6	2.45	44	15.4	1
SY041	7	8	5360622	357584.9	287.028	8.77	2.36	44	12.1	1
SY041	8	9	5360622	357584.5	286.121	12.4	3.77	58	24.8	1
SY041	9	10	5360622	357584.1	285.215	15	4.59	59	18.9	1
SY041	10	11	5360622	357583.6	284.309	28.5	4.25	74	10.2	1
SY041	11	12	5360622	357583.2	283.402	7.69	1.3	21	6.11	1
SY041	12	13	5360622	357582.8	282.496	9.27	1.35	27	9.8	1
SY041	13	14	5360623	357582.4	281.59	3.52	0.86	14	7.91	1
SY041	14	15	5360623	357582	280.684	3.86	0.46	8	8.3	1
SY041	15	16	5360623	357581.6	279.777	8.78	0.73	17	27.2	1
SY041	16	17	5360623	357581.2	278.871	21.5	0.6	22	25.5	1
SY041	17	18	5360623	357580.7	277.965	21.4	1.31	32	22.8	1
SY041	18	19	5360623	357580.3	277.058	10.8	1.09	20	14.7	1
SY041	19	20	5360623	357579.9	276.152	6.02	0.45	11	10.5	1
SY041	20	21	5360623	357579.5	275.246	6.83	0.7	16	11.3	1
SY042	3.22	4.22	5360627	357584.9	290.033	1.0338	1.334	20.82	6.9364	1
SY042	4.22	5.22	5360627	357584.6	289.126	1.4618	0.9866	13.92	8.678	1
SY042	5.22	6.22	5360627	357584.3	288.22	2.8978	2.712	34.3	20.8978	1

Holeid	From	To	Coord y	Coord x	Coord RL	Zn	Pb	Ag	Fe	Length
SY042	6.22	7.22	5360628	357584	287.314	0.6204	0.4082	6.78	9.8302	1
SY042	7.22	8.22	5360628	357583.7	286.407	1.1692	0.4008	9.3	14.146	1
SY042	8.22	9.22	5360628	357583.4	285.501	2.2872	1.5094	26.5	23.754	1
SY042	9.22	10.22	5360629	357583.1	284.595	2.0566	3.054	38.3	26.9124	1
SY042	10.22	11.22	5360629	357582.8	283.688	0.4364	0.7116	8.91	8.2604	1
SY042	11.22	12.22	5360629	357582.5	282.782	0.8022	0.3106	3.37	7.2872	1
SY042	12.22	13.22	5360630	357582.2	281.876	6.571	1.2012	16.16	8.838	1
SY042	13.22	14.22	5360630	357581.9	280.969	14.8808	2.1574	32.72	13.339	1
SY042	14.22	15.22	5360630	357581.6	280.063	2.4906	1.367	13.34	6.8956	1
SY042	15.22	16.22	5360630	357581.3	279.157	7.1706	1.5068	16.06	7.4094	1
SY042	16.22	17.22	5360631	357581	278.251	9.1328	3.1268	29.16	17.652	1
SY042	17.22	18.22	5360631	357580.7	277.344	7.9746	0.6718	11.34	20.556	1
SY042	18.22	19.22	5360631	357580.4	276.438	5.97	0.43	9	12.6	0.78
SY042	19.22	20.22	5360632	357580.1	275.532	4.21	0.75	10	13	0.22
SY042	20.22	21.22	5360632	357579.8	274.625	5.9898	0.8996	12.42	15.904	1
SY042	21.22	22.22	5360632	357579.5	273.719	11.13	1.3483	19.4483	24.1993	0.87

Channel Sample Data

Holeid	From	To	Coord y	Coord x	Coord RL	Zn	Pb	Ag	Fe	Length
TRAVA	0	1	5360592	357587.5	283	1.47	1.66	26	3.57	1
TRAVA	1	2	5360592	357588.5	283	1.08	1.34	0.5	5.76	1
TRAVA	2	3	5360592	357589.5	283	1.51	1.51	1	7.59	1
TRAVA	3	4	5360592	357590.5	283	15.4	3.92	30	21.6	1
TRAVA	4	5	5360592	357591.5	283	12.2	2.85	26	21.6	1
TRAVA	5	6	5360591	357592.5	283	15.116	6.362	104	12.976	1
TRAVA	6	7	5360591	357593.5	283	31.1	12.4	179	16.3	1
TRAVA	7	8	5360591	357594.5	283	34.1	4.97	82	17.6	1
TRAVA	8	9	5360591	357595.5	283	30	4.39	70	19	1
TRAVA	9	10	5360591	357596.4	283	30.1	7.86	107	19.5	1
TRAVA	10	11	5360591	357597.4	283	27.6	2.73	41	22.1	1
TRAVA1	0	1	5360615	357576.5	287	12.4	12.7	104	11.5	1
TRAVA1	1	2	5360615	357577.5	287	1.28	2.34	9	1.81	1
TRAVA1	2	3	5360615	357578.5	287	40.1	7.83	51	12.4	1
TRAVA1	3	4	5360615	357579.5	287	32.5	9.94	66	13	1
TRAVA1	4	5	5360615	357580.5	287	5.27	2.1	20	8.17	1
TRAVA1	5	6	5360615	357581.5	287	0.52	1.05	11	4.36	1
TRAVA1	6	7	5360615	357582.5	287	0.35	1.41	13	1.4	1
TRAVA1	7	8	5360615	357583.5	287	2.68	2.26	17	3.55	1
TRAVA1	8	9	5360615	357584.5	287	0.81	1.41	5	5.73	1
TRAVA1	9	10	5360615	357585.5	287	1.74	2.22	10	2.13	1
TRAVA1	10	11	5360615	357586.5	287	2.63	1.72	9	13.9	1
TRAVA1	11	12	5360615	357587.5	287	1.48	2.79	12	2.46	1
TRAVA1	12	13	5360615	357588.5	287	8.48	5.91	137	24.4	1
TRAVA1	13	14	5360615	357589.5	287	19.2	11.7	192	9.38	1
TRAVA1	14	15	5360614	357590.5	287	1.11	3.07	14	4.35	1
TRAVB	0	1	5360579	357582.5	283	1.8	2.5	29	8.8	1
TRAVB	1	2	5360579	357583.5	283	15.5	11.8	463	10.7	1
TRAVB	2	3	5360579	357584.5	283	13.4	2.12	41	15.7	1
TRAVB	3	4	5360579	357585.5	283	8.93	1.63	13	7.23	1
TRAVB	4	5	5360579	357586.5	283	7.2	1.5	12	9.16	1
TRAVB	5	6	5360579	357587.5	283	30.7	1.56	31	13.7	1
TRAVB	6	7	5360579	357588.5	283	32.3	1.36	28	13	1
TRAVB	7	8	5360579	357589.5	283	1.95	1.15	14	11	1
TRAVB	8	9	5360579	357590.5	283	26.2	2.32	71	11.6	1
TRAVB	9	10	5360579	357591.5	283	2.77	14.2	487	23.8	1
TRAVB	10	11	5360579	357592.5	283	3.42	0.48	9	4.3	1
TRAVC	0	1	5360581	357594	283	18.5	1.45	18	13.4	1
TRAVC	1	2	5360580	357594	283	21.8	1.46	69	21.5	1
TRAVC	2	3	5360579	357594	283	24.7	11.4	150	14.9	1
TRAVC	3	4	5360578	357594	283	7.48	12.8	151	19.2	1
TRAVC	4	5	5360577	357594	283	11.4	15.7	191	20.7	1
TRAVC	5	6	5360576	357594	283	5	16.7	170	21.4	1
TRAVC	6	7	5360575	357594	283	15.4	7.27	69	21.7	1
TRAVD	0	1	5360550	357588.5	280	32.7	13	199	11.4	1
TRAVD	1	2	5360550	357589.5	280	27	2.6	41	11.1	1
TRAVD	2	3	5360550	357590.5	280	1	0.26	4	3.36	1
TRAVD	3	4	5360551	357591.4	280	2.05	0.64	12	5.49	0.42
TRAVD	3.92	4.92	5360551	357592.4	280	0.6516	0.318	4.64	9.4	1
TRAVD	4.92	5.92	5360551	357593.3	280	12.8304	11.7072	210.08	23.2272	1
TRAVD	5.92	6.92	5360551	357594.3	280	11.324	6.2048	96.44	21.64	1
TRAVD	6.92	7.92	5360551	357595.3	280	22.6	5.4836	92.36	16.248	1
TRAVD	7.92	8.92	5360551	357596.3	280	4.0316	1.0172	16.64	14.88	1

Holeid	From	To	Coord y	Coord x	Coord RL	Zn	Pb	Ag	Fe	Length
TRAVD	8.92	9.92	5360552	357597.3	280	21.1624	1.826	32.08	18.296	1
TRAVD	9.92	10.92	5360552	357598.3	280	5.9364	2.39	34.92	31.02	1
TRAVD	10.92	11.92	5360552	357599.2	280	7.69	0.5072	13.84	31.732	1
TRAVD	11.92	12.92	5360552	357600.2	280	15.9096	12.1712	230.04	16.428	1
TRAVD	12.92	13.92	5360552	357601.2	280	31.412	1.8104	57.64	13.628	1
TRAVD	13.92	14.92	5360553	357602.2	280	34.816	11.7496	361.16	9.728	1
TRAVD	14.92	15.92	5360553	357603.2	280	35	12.7	389	9.4	0.08

Appendix 3
Channel Sample Field Duplicates
Variance Plot & Data

Allison's Pit: Duplicate Channel Sampling

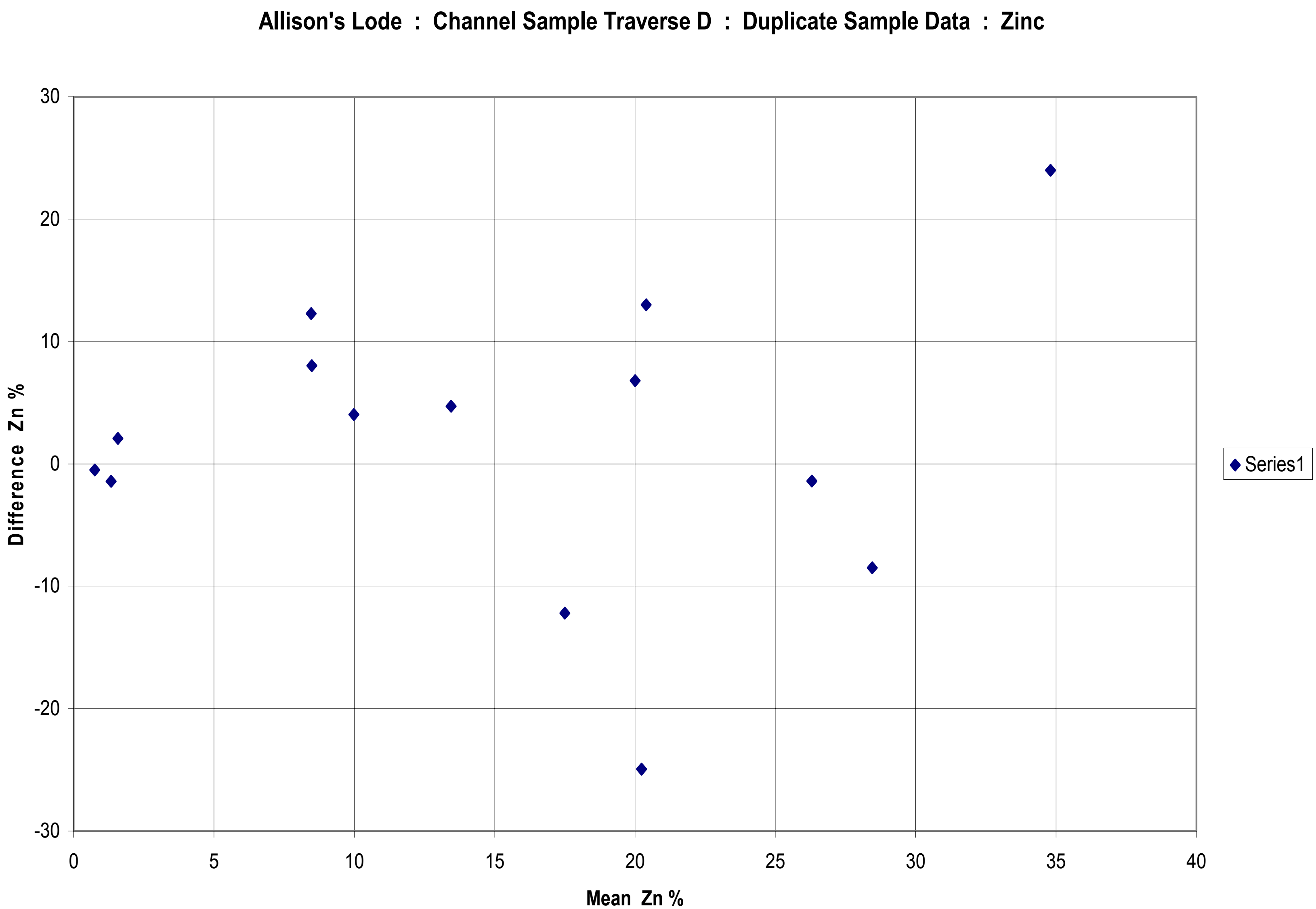
C	S		
Pb (%)	Pb (%)	Mean	Difference
6.31	13	9.655	-6.69
2.43	2.6	2.515	-0.17
0.25	0.26	0.255	-0.01
0.1	0.64	0.37	-0.54
1.18	0.29	0.735	0.89
10.16	12.7	11.43	-2.54
14	5.64	9.82	8.36
3.09	5.47	4.28	-2.38
0.39	0.63	0.51	-0.24
1.64	1.93	1.785	-0.29
1.4	2.43	1.915	-1.03
0.45	0.34	0.395	0.11
14.6	13.2	13.9	1.4
5.3	0.82	3.06	4.48

C	S		
Ag (ppm)	Ag (ppm)	Mean	Difference
213	199	206	14
67	41	54	26
19	4	11.5	15
14	12	13	2
18	4	11	14
161	228	194.5	-67
265	85	175	180
57	93	75	-36
18	10	14	8
35	34	34.5	1
26	35	30.5	-9
11	12	11.5	-1
344	249	296.5	95
91	41	66	50

C	S		
Zn (%)	Zn (%)	Mean	Difference
24.2	32.7	28.45	-8.5
25.6	27	26.3	-1.4
0.5	1	0.75	-0.5
0.62	2.05	1.335	-1.43
2.62	0.53	1.575	2.09
26.9	13.9	20.4	13
15.8	11.1	13.45	4.7
11.4	23.6	17.5	-12.2
14.6	2.33	8.465	12.27
46.8	22.8	34.8	24
12.5	4.47	8.485	8.03
12	7.97	9.985	4.03
23.4	16.6	20	6.8
7.76	32.7	20.23	-24.94

C	S		
Fe (%)	Fe (%)	Mean	Difference
21.8	11.4	16.6	10.4
12.9	11.1	12	1.8
5.25	3.36	4.305	1.89
3.65	5.49	4.57	-1.84
19.3	9.74	14.52	9.56
16.8	24.4	20.6	-7.6
15.8	21.4	18.6	-5.6
18.3	15.8	17.05	2.5
21	14.8	17.9	6.2
10.4	18.6	14.5	-8.2
27.8	32.1	29.95	-4.3
23.4	31.7	27.55	-8.3
12.2	15.1	13.65	-2.9
24	13.5	18.75	10.5

C = Chip **S = Sawn**


Allison's Lode : Channel Sample Traverse D : Duplicate Sample Data : Zinc
30
20
10
0
-10
-20
-30
Difference Zn %
0
5
10
15
20
25
30
35
40
Mean Zn %
Series1

Appendix 4
Details of Density Measurements

Bulk Density for Altered Carbonate	
Mean	2.6179
Standard Error	0.06268
Median	2.63263
Mode	#N/A
Standard Deviation	0.16583
Sample Variance	0.0275
Kurtosis	3.06638
Skewness	-0.73599
Range	0.5662
Minimum	2.3048
Maximum	2.87099
Sum	18.3253
Count	7
Confidence Level(95.0%)	0.15336

Bulk Density for Fresh Carbonate	
Mean	2.88764
Standard Error	0.01332
Median	2.88375
Mode	#N/A
Standard Deviation	0.03263
Sample Variance	0.00106
Kurtosis	1.53866
Skewness	0.98635
Range	0.09498
Minimum	2.84915
Maximum	2.94414
Sum	17.3258
Count	6
Confidence Level(95.0%)	0.03425

Bulk Density for Phyllite	
Mean	2.71257
Standard Error	0.0116
Median	2.71944
Mode	#N/A
Standard Deviation	0.04017
Sample Variance	0.00161
Kurtosis	-0.7618
Skewness	-0.19329
Range	0.13315
Minimum	2.64322
Maximum	2.77638
Sum	32.5508
Count	12
Confidence Level(95.0%)	0.02552

Summary Bulk Densities	
Lithology	BD
Altered Carbonate	2.62
Carbonate & sulphides	3.29
Fresh Carbonate	2.89
Massive Sulphide	4.29
Phyllite	2.71
Talc	2.03

Bulk Density for Carbonate & Sulphides	
Mean	3.2919
Standard Error	0.09054
Median	3.23845
Mode	#N/A
Standard Deviation	0.41491
Sample Variance	0.17215
Kurtosis	-1.37379
Skewness	0.17089
Range	1.37001
Minimum	2.59459
Maximum	3.96461
Sum	69.1298
Count	21
Confidence Level(95.0%)	0.18886

Bulk Density for Massive Sulphide	
Mean	4.29174
Standard Error	0.07674
Median	4.16902
Mode	#N/A
Standard Deviation	0.45403
Sample Variance	0.20614
Kurtosis	9.81846
Skewness	2.90247
Range	2.34609
Minimum	3.84244
Maximum	6.18852
Sum	150.211
Count	35
Confidence Level(95.0%)	0.15596

Bulk Density for Talc	
Mean	2.03517
Standard Error	0.12065
Median	2.03517
Mode	#N/A
Standard Deviation	0.17063
Sample Variance	0.02911
Kurtosis	#DIV/0!
Skewness	#DIV/0!
Range	0.2413
Minimum	1.91452
Maximum	2.15583
Sum	4.07035
Count	2
Confidence Level(95.0%)	1.53303

Zeehan Zinc Limited - Bulk Density on selected rocks within the Comstock Mine, Zeehan, Tasmania. Completed by Paul Heath 21-9-05									
Hole ID	**Deposit**		**Depth (m) (from)**	**Depth (m) (to)**	**Width (m)**	**Weight in air (g)**	**Weight in water (g)**	**Bulk Density**	**Lithology**
SY021	Allison's Lode	NQ	21.1	21.4	0.3	1375.3	859.9	2.67	ph
SY021	Allison's Lode	NQ	24.15	24.45	0.3	1183.9	736	2.64	ph
SY021	Allison's Lode	NQ	39.9	40.2	0.3	1166.3	738.5	2.73	ph
SY021	Allison's Lode	NQ	46.9	47.5	0.6	1552.3	1183.3	4.21	ms
SY021	Allison's Lode	NQ	56.1	56.7	0.6	3025	1963.2	2.85	cs
SY021	Allison's Lode	NQ	63.75	64.4	0.65	2966	1942.9	2.90	fc
SY021	Allison's Lode	NQ	68.8	69.4	0.6	3018.3	2002.1	2.97	cs
SY021	Allison's Lode	NQ	79.1	79.6	0.5	2595.7	1748.1	3.06	cs
SY021	Allison's Lode	NQ	96.1	96.63	0.53	2674	1741	2.87	fc
SY022	Allison's Lode	HQ	3.9	4	0.1	422.7	239.3	2.30	ac
SY022	Allison's Lode	HQ	9.9	10.25	0.35	2272.8	1410.5	2.64	ac
SY022	Allison's Lode	HQ	10.25	10.6	0.35	2402.8	1490.1	2.63	ac
SY022	Allison's Lode	HQ	29.65	29.82	0.17	1414.7	889.3	2.69	ph
SY022	Allison's Lode	HQ	31.2	31.65	0.45	3459	2188.4	2.72	ph
SY022	Allison's Lode	HQ	37.9	38.25	0.35	2726.7	1733.1	2.74	ph
SY022	Allison's Lode	HQ	45.73	46.2	0.47	3490.1	2181.5	2.67	ph
SY022	Allison's Lode	HQ	52	52.45	0.45	3578.5	2261.2	2.72	ph
SY022	Allison's Lode	HQ	56	56.83	0.83	1744.4	1151.9	2.94	fc
SY022	Allison's Lode	HQ	72.7	72.9	0.2	514.2	373.3	3.65	cs
SY022	Allison's Lode	HQ	92.9	93.8	0.9	2343.3	1699.8	3.64	cs
SY022	Allison's Lode	HQ	93.8	94	0.2	550.9	401.9	3.70	cs
SY022	Allison's Lode	HQ	158	159	1	2299.6	1527.5	2.98	cs
SY022	Allison's Lode	HQ	183.5	184	0.5	2343	1531.5	2.89	fc
SY022	Allison's Lode	HQ	201.4	201.9	0.5	2398.7	1556.8	2.85	fc
SY022	Allison's Lode	HQ	219.3	220	0.7	3268.8	2133.9	2.88	fc
SY022	Allison's Lode	HQ	230	231	1	3324.5	2565.6	4.38	ms
SY022	Allison's Lode	HQ	231.3	232.15	0.85	3059.4	2360.2	4.38	ms
SY022	Allison's Lode	HQ	235.3	235.65	0.35	1694.8	1119.6	2.95	cs

Hole ID	Deposit		Depth (m) (from)	Depth (m) (to)	Width (m)	Weight in air (g)	Weight in water (g)	Bulk Density	Lithology
SY023	West Lode	HQ	0	1	1	3363.3	2507.7	3.93	ms
SY023	West Lode	HQ	1.15	1.3	0.15	547.6	413.3	4.08	ms
SY023	West Lode	HQ	1.65	2.45	0.8	3341	2471.5	3.84	ms
SY023	West Lode	HQ	8.7	8.8	0.1	159.1	85.3	2.16	ta
SY023	West Lode	HQ	9.3	9.42	0.12	230.7	110.2	1.91	ta
SY023	West Lode	HQ	25.1	26.1	1	3377.8	2124.6	2.70	ph
Comsock Stock pile (Allison's Lode)									
1	Allison's Lode	Stock pile	N/A	N/A	N/A	1370.9	893.4	2.87	ac
2	Allison's Lode	Stock pile	N/A	N/A	N/A	1223.9	853.8	3.31	cs
3	Allison's Lode	Stock pile	N/A	N/A	N/A	2153.2	1446.6	3.05	cs
4	Allison's Lode	Stock pile	N/A	N/A	N/A	1891.6	1451.1	4.29	ms
5	Allison's Lode	Stock pile	N/A	N/A	N/A	2297.9	1702.8	3.86	cs
6	Allison's Lode	Stock pile	N/A	N/A	N/A	934.3	708.5	4.14	ms
7	Allison's Lode	Stock pile	N/A	N/A	N/A	2233.8	1689.2	4.10	ms
8	Allison's Lode	Stock pile	N/A	N/A	N/A	3062.7	2314.5	4.09	ms
9	Allison's Lode	Stock pile	N/A	N/A	N/A	924.4	697.5	4.07	ms
10	Allison's Lode	Stock pile	N/A	N/A	N/A	3284.7	2505.9	4.22	ms
11	Allison's Lode	Stock pile	N/A	N/A	N/A	738.4	547.1	3.86	cs
12	Allison's Lode	Stock pile	N/A	N/A	N/A	1121.1	868.7	4.44	ms
13	Allison's Lode	Stock pile	N/A	N/A	N/A	1804.9	1365.7	4.11	ms
14	Allison's Lode	Stock pile	N/A	N/A	N/A	538.1	418.6	4.50	ms
15	Allison's Lode	Stock pile	N/A	N/A	N/A	386.1	293.7	4.18	ms
16	Allison's Lode	Stock pile	N/A	N/A	N/A	850.3	646.8	4.18	ms

Hole ID	Deposit		Depth (m) (from)	Depth (m) (to)	Width (m)	Weight in air (g)	Weight in water (g)	Bulk Density	Lithology
17	Allison's Lode	Stock pile	N/A	N/A	N/A	1181.5	898.1	4.17	ms
18	Allison's Lode	Stock pile	N/A	N/A	N/A	1950.3	1390.1	3.48	cs
19	Allison's Lode	Stock pile	N/A	N/A	N/A	481.7	360.2	3.96	cs
20	Allison's Lode	Stock pile	N/A	N/A	N/A	2438.9	1820.3	3.94	ms
21	Allison's Lode	Stock pile	N/A	N/A	N/A	1561.1	1159.2	3.88	ms
22	Allison's Lode	Stock pile	N/A	N/A	N/A	169.9	128.7	4.12	ms
23	Allison's Lode	Stock pile	N/A	N/A	N/A	2271.7	1704.2	4.00	ms
24	Allison's Lode	Stock pile	N/A	N/A	N/A	1981.6	1515.3	4.25	ms
25	Allison's Lode	Stock pile	N/A	N/A	N/A	937.7	743.9	4.84	ms
26	Allison's Lode	Stock pile	N/A	N/A	N/A	1065.1	784.7	3.80	cs
27	Allison's Lode	Stock pile	N/A	N/A	N/A	6200	4700	4.13	ms
28	Allison's Lode	Stock pile	N/A	N/A	N/A	4300	3200	3.91	ms
29	Allison's Lode	Stock pile	N/A	N/A	N/A	6600	5151	4.55	ms
30	Allison's Lode	Stock pile	N/A	N/A	N/A	4800	2950	2.59	cs
31	Allison's Lode	Stock pile	N/A	N/A	N/A	7550	6330	6.19	ms
32	Allison's Lode	Stock pile	N/A	N/A	N/A	1965.9	1492.5	4.15	ms
33	Allison's Lode	Stock pile	N/A	N/A	N/A	1457.4	1096.7	4.04	ms
34	Allison's Lode	Stock pile	N/A	N/A	N/A	3035.4	2098.1	3.24	cs
35	Allison's Lode	Stock pile	N/A	N/A	N/A	3036.4	2345.9	4.40	ms
36	Allison's Lode	Stock pile	N/A	N/A	N/A	1563.8	1210	4.42	ms
37	Allison's Lode	Stock pile	N/A	N/A	N/A	3102	2214.3	3.49	cs
38	Allison's Lode	Stock pile	N/A	N/A	N/A	1180.3	778.3	2.94	cs

Hole ID	Deposit		Depth (m) (from)	Depth (m) (to)	Width (m)	Weight in air (g)	Weight in water (g)	Bulk Density	Lithology
39	Allison's Lode	Stock pile	N/A	N/A	N/A	882.4	580	2.92	cs
40	Allison's Lode	Stock pile	N/A	N/A	N/A	2465.9	1595.7	2.83	cs
41	Allison's Lode	Stock pile	N/A	N/A	N/A	2174	1343.3	2.62	ac
42	Allison's Lode	Stock pile	N/A	N/A	N/A	2307.8	1441.3	2.66	ac
43	Allison's Lode	Stock pile	N/A	N/A	N/A	1647.8	1014.2	2.60	ac
44	Allison's Lode	Stock pile	N/A	N/A	N/A	683.9	434.3	2.74	ph
45	Allison's Lode	Stock pile	N/A	N/A	N/A	1255.2	803.1	2.78	ph
46	Allison's Lode	Stock pile	N/A	N/A	N/A	1448.7	923.5	2.76	ph
Comsock Stock pile (West Lode)									
47	West Lode	Stock pile	N/A	N/A	N/A	1266.5	960	4.13	ms
48	West Lode	Stock pile	N/A	N/A	N/A	1231.8	1010.7	5.57	ms
49	West Lode	Stock pile	N/A	N/A	N/A	193	148.7	4.36	ms
Legend		**Code**							
carbonaceous phyllite		ph							
talc		ta							
massive sulphide (lode)		ms							
fresh carbonate		fc							
altered carbonate		ac							
carbonate with sulphide		cs							

Appendix 5
Block Model Details

Table 2 – Block Model Summary

Comstockv3.mdl

Type	Y	X	Z
Minimum Coordinates	5360500	357550	250
Maximum Coordinates	5360730	357650	300
User Block Size (m)	10	10	10
Min. Block Size (m)	2.5	2.5	2.5
Rotation	0	0	0

Total Blocks	2991
Storage Efficiency %	95.93

Attribute Name	Type	Decimals	Background	Description
ads20_id	Real	3	-99	Average distance to samples used in 20m search
ads_id	Real	3	-99	Average distance to samples used in 25m search
ag	Real	2	-9999	Silver with 30m search radius
ag20m	Real	1	-9999	Silver with 20m search radius
ag25m	Real	1	-9999	Silver with 25m search radius
agcs	Real	2	-9999	Silver with the Channel samples
calcsg	Calculated	-	-	Specific Gravity (2.6 base SG) (fe*0.1071)+(pb*0.0855)+(zn*0.0632)+((100-((fe*2.1413)+(pb*1.1547)+(zn*1.561)))*0.026)
calcv2sg	Calculated	-	-	Specific Gravity (2.75 base SG) (fe*0.1071)+(pb*0.0855)+(zn*0.0632)+((100-((fe*2.1413)+(pb*1.1547)+(zn*1.561)))*0.0275)
dns20_id	Real	3	-99	Distance to nearest sample for 20m search radius
dns_id	Real	3	-99	Distance to nearest sample for 25m search radius
fe	Real	2	-9999	Iron with 30m search radius
fe20m	Real	2	-9999	Iron with 20m search radius
fe25m	Real	2	-9999	Iron with 25m search radius
fecs	Real	2	-9999	Iron with 30m radius with channel samples
nos	Integer	-	-99	Number of samples in 25m search
num	Integer	-	-99	Number samples with 20m radius

Attribute Name	Type	Decimals	Background	Description
pb	Real	2	-9999	Lead with 30m search radius
pb20m	Real	2	-9999	Lead with 20m search radius
pb25m	Real	2	-9999	Lead with 25m search radius
pbcs	Real	2	-9999	Lead with 30m search radius and channel samples
rescat	Calculated	-	-	iif(dns_id>0 and dns_id<=10,1,iif(dns_id>10 and dns_id<=25,2,iif(dns_id>25 and dns_id<=100,3,4)))
rescat2v	Calculated	-	-	iif(dns_id>0 and dns_id<=5,1,iif(dns_id>5 and dns_id<=20,2,iif(dns_id>20 and dns_id<=100,3,4)))
sg	Real	2	3.3	Default SG value
sgcs	Real	2	3.3	Default SG value with channel samples
zn	Real	2	-9999	Zinc with 30m search radius
zn20m	Real	2	-9999	Zinc with 30m search radius
zn25m	Real	2	-9999	Zinc with 30m search radius
zn_cut30	Real	2	-9999	Zinc with 30m search radius
zn_diff	Calculated	-	-	Difference between with and without channel samples zncs-zn
zncs	Real	2	-9999	Zinc with 30m search radius and channel samples included

Block Model Estimation Parameters

Interpolation Method: INVERSE DISTANCE SQUARED

MODEL NAME: comstockv3.mdl

CONSTRAINT VALUES USED

Data Constraints

Unconstrained

Model Constraints

a. INSIDE 3DM allisonoremodified 510

Keep blocks partially in the constraint: False

SEARCH PARAMETERS

ELLIPSOID SEARCH PARAMETERS

ANGLES OF ROTATION OF THE MAJOR AXIS

Bearing	0.00
Dip angle	0.00
Tilt angle	0.00

ANISOTROPY FACTORS

Semi-major axis	1.00
Minor axis	1.00

OTHER INTERPOLATION PARAMETERS

Max search distance of major axis	25.000
Max vertical search distance	9999.000
Maximum number of informing samples	15
Minimum number of informing samples	3