

Copper Mines of Tasmania Pty Ltd

Exploration Licence EL 52/1994 – Linda

Annual Report for the period ending 13th January 2005



Held By: Copper Mines of Tasmania Pty Ltd

Manager & Operator: Copper Mines of Tasmania Pty Ltd

Author:

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Prospects: Glen Lyell, Chamounix Zinc, Copper Clays, Burbury Volcanics

Map Sheets: 1:100,000 Map 6, Mount Read Volcanics
1:25,000 Gormanston, Owen

Geographic Coords: Min East: 380,000mE Max East: 388,000mE
Min North: 5,339,000mN Max North: 5,346,000mN

Commodity(s): Cu, Au, Pb, Zn

Distribution: MRT – Hobart
CMT – Queenstown

Date: 7th February 2005
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SUMMARY

No exploration was carried out during the annual review period (14th January 2004 to 13th January 2005). The proposed budget expenditure for the work programme outlined in the last report was deferred to later on in the CMT financial year and after the end of the reporting period.

Work is planned to be carried out over the months of February through April and then continue through to the end of December. The work programme is planned to tie in with the expiry date of the licence (1st May 2005) although the planned exploration will not be expended before the licence expiry date.

Work planned includes surface geochemistry, geophysics and drilling. Exploration will focus on the southern part of the EL and the Linda valley. In the southern part of the EL prospective geology is contiguous with the Glen Lyell area on Mining Lease 1M/95 held by CMT. In the Linda valley the Chamounix Zinc prospect requires additional interpretation and drilling, the native copper resource (i.e. the Copper Clays) in the Gormanston area is to be validated, and exploration of the Burbury Volcanics needs to be progressed. The actual work programme is subject to submission to MRT and expenditure approval by CMT, and as a minimum timeframe is expected to continue up to the EL expiry date.

INTRODUCTION

Exploration Licence EL52/94 was granted on 2nd February 1995 and is held 100% by Copper Mines of Tasmania Pty Ltd (CMT). Towards the end of 2002 EL52/1994 was consolidated with some of the area formerly held under EL5/98 Queenstown following relinquishment by CMT of that and other ELs. The consolidated EL52/1994 includes some of the area immediately south of the Mine Lease ML1M/95, which is currently held and operated by CMT. The expiry date of the new EL 52/1994 changed to 1st May 2005.

This report summarises EL activity over the last twelve months and outlines future proposed exploration on the EL.

LAND TENURE

EL 52/94 Linda covers an area of 24km². The EL wraps around the southern and eastern parts of ML1M/95, extending eastwards through the Linda valley to Lake Burbury, and containing ground that CMT considers prospective for copper, gold and base metals.

The western boundary of EL52/1994 is the eastern boundary of the Mt Lyell Mine Lease ML1M/95. Lake Burbury lies on the eastern boundary of the EL. The central part of the licence is covered by the Chamounix (Linda) Valley and to its north east by the Burbury Volcanics and part of the Comstock (Sedgewick) Valley. The southern part of the EL encompasses Mt Owen and, in the south western corner part of the town of Queenstown. The Lyell Highway runs through the bottom part of the EL and includes the town sites of Gormanston and Linda.

Exclusions from EL52/1994 include Crown Reserves, HEC land and a small mining lease.

A tenement location map is included as Figure 1.

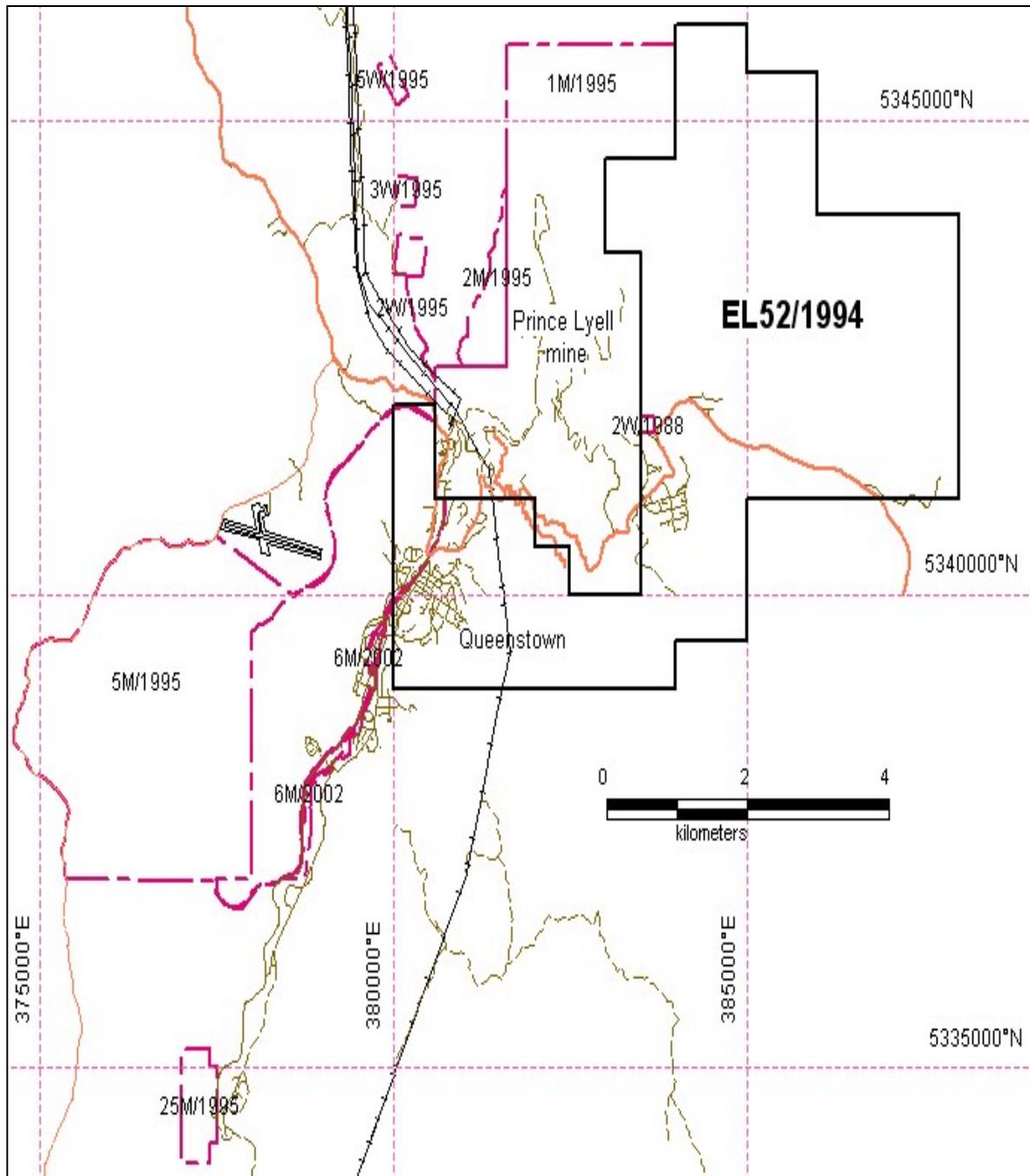


Figure 1
EL52/1994 – Tenement Location Map
(and showing other tenements held by CMT,
lease boundaries shown as a broken line)

REGIONAL GEOLOGY AND PREVIOUS EXPLORATION

1) Regional Geology

Salient features of the regional geology can be summarised as follows:

- Central Volcanic Complex (CVC) rocks present in the south of the EL (strike extension to ML1M/95) showing distinctive foliated hydrothermal alteration assemblages similar to those lithologies and rock types that host economic sulphide mineralisation on the Mt Lyell mine lease.
- Tyndall Group lithologies hosting the Burbury Volcanics prospect at the eastern limit of Mt Lyell and which is bounded to the east by Lake Burbury and Eldon Group rocks.
- Prominent Owen Group conglomerates and sandstones that dominate the topography (Mt Lyell and Mt Owen).
- Minor Gordon Group limestones outcropping extensively in the west, dipping at a low angle (approximately 40° to the east and south east) and underlying the glacial sediments in the core parts of the Linda and Comstock valleys; associated with the younger age (Cainozoic) native copper mineralisation in the Lyell Blocks - King Lyell - Lyell Consols area (i.e. the copper clays resource).
- Glacial and fluvial sediments blanketing the geology of the northern and central parts of the EL (Linda and Comstock valleys).
- Structure is dominated by several regional features:
 - ◇ the Linda Disturbance; A structure of probable Cambrian age that was reactivated during Devonian times. This zone strikes SE - NW through the middle portion of the Exploration Licence. It is expressed as a series of broadly sub parallel faults that have been traced in the West Lyell Open Cut and subsurface in the Prince Lyell orebody underground workings. The Firewood Siding fault close to the southern boundary of the EL is possibly part of this major regional structure.
 - ◇ the North Lyell Fault; Forms the northern boundary to the Linda valley where it has a reverse sense. It acts as a constraining feature to economic copper mineralisation on the Mt Lyell mine lease and where it has a normal sense (i.e. deposits in the North Lyell area).
 - ◇ the Great Lyell Fault (GLF); An enigmatic structure defined in the Mt Lyell area on the contact between the Owen Conglomerate and CVC volcanics. It strikes north - south towards the western end of the Linda valley and on the Mt Lyell mine lease broadly demarcates the eastern limit of sulphide mineralisation. Fault splays and offshoots from the GLF are generally sub parallel to the Linda Disturbance.

The regional geology covering EL52/1994 and ML1M/95 is shown in Figure 2.

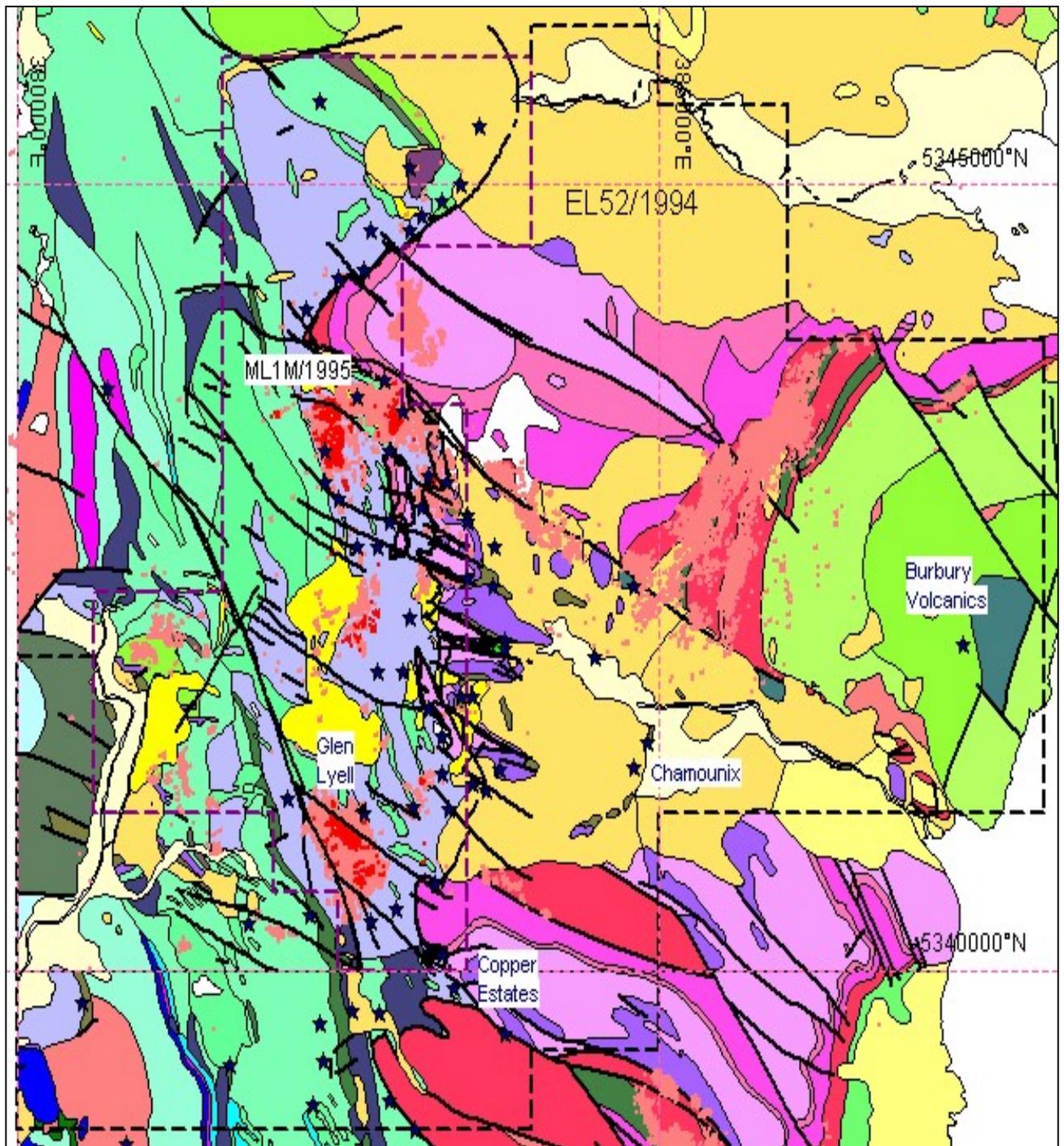


Figure 2

Regional Geology
Showing rock type, faults, exploration areas and pyrophyllite and topaz alteration zones

(adapted from MRT 1:25000 regional geology sheets)

2) Pre CMT Exploration

Details of pre CMT exploration activities in the area covered by the EL are summarised in Table 1.

Table 1 Summary of Pre – CMT Exploration			
Year	Company	Licence	Exploration Summary
1966-67	Placer Exploration Ltd.	SPL-6	Linda Valley - gridding, SP survey, soil geochemistry.
1966-84	Mt Lyell Mining and Railway Co. Ltd.	ELs 9/66, 10/69 and Leases	Linda Valley - gridding, IP, SP and EM surveys. Drilling; King Lyell (Copper Clays), Gormanston (conceptual Great Lyell fault), Comstock Valley (IP anomaly, Gordon Limestone).
1984-87	Goldfields Exploration Pty. Ltd.	ATP Queenstown	Linda Valley - stream sediment survey and moss geochemistry. Drilling; Gormanston (conceptual Great Lyell fault) McDowells – old gold workings and North Lyell fault.
1985-88	CRA Exploration Pty. Ltd.	EL 5/85	Comstock Valley - stream sediment geochemistry.
1987-91	BHP Minerals Ltd.	EL 102/87	Comstock Valley – gridding and EM survey. Drilling; Comstock Valley (EM anomaly, Gordon Limestone). Relogging MLMRC Comstock and McDowells drill core. Comstock and Linda Valleys - stream sediment geochemistry.
1988-93	Aberfoyle Resources Ltd.	EL 5/85	Reconnaissance mapping – east Mt Lyell.

3) CMT EL 52/1994 Exploration Summary and Tenement History

Year 1 - 1995 (12 month period ending 13th January 1996)

- Helimagnetics survey flown by UTS.
- Literature review of previous exploration.
- Copper Clays study (CMT reference: Wills, 1995).
- Reconnaissance mapping and prospect confirmation at:

- Chamounix Zinc
- Burbury Volcanics
- King Lyell Copper Clays
- North Lyell Fault Zone

Year 2 - 1996 (12 month period ending 13th January 1997)

- Chamounix Zinc: Outcrop plus costean mapping and rock chip sampling. Two percussion drill holes gave best intersection down hole of 12 metres @ 2.1% Zn in the weathered zone.
- King Lyell: Outcrop mapping and sampling. Three percussion gave best intersection down hole of 8 metres @ 3.5% Cu.
- Burbury Volcanics: Stream sediment survey produced several gold and base metal anomalies. Weak copper, gold and lead mineralisation detected in outcrops of silica-hematite-pyrite altered Tyndall Group volcanoclastics.

Year 3 - 1997 (12 month period ending 13th January 1998)

- ERA Maptec study of major structures based on local and regional geology, magnetics and gravity.
- King Lyell resource estimate of 1.2 million tonnes @ 1.37% Cu. Preliminary metallurgy and economic investigations concluded the project was probably sub-economic and further exploration was postponed.
- Burbury Volcanics: Grid based magnetics and soil surveys completed. A broad gold in soil anomaly detected over the basal Tyndall Group stratigraphy.

Year 4 - 1998 (12 month period ending 13th January 1999)

- Chamounix Zinc
A CSAMT anomaly identified on a single regional survey line was drill tested with an RC percussion hole that was diamond tailed to depth of 120 metres. Surface geology was interpreted to be synformal Gordon Limestone overlain by glacial gravels. The drill hole returned base metal assays of 0.14% Zn and 0.012% Pb at a depth of 78-79 metres, as well as elevated background Ag throughout the interval sampled. Conductivity measurements did not show any significant variations. Lead isotopes yielded a typical Ordovician Gordon signature ($Pb_{206}/_{204} = 18.143$, $Pb_{208}/_{204} = 38.469$) with one interpretation being redeposition of Cambrian-aged lead by Ordovician fluids.
- Comstock Valley
Review of previous exploration identified weakly developed sulphide mineralisation at the base of dolomitised carbonaceous limestone identified by EM survey. Reassessment and interpretation indicated potential for the stratabound EM anomaly to extend to the SE under Eldon Group cover. The

similar geological setting and geophysical responses to the Linda Valley enhances the prospectivity of the Comstock Valley.

- McDowells prospect

Previous work was reviewed and followed up by mapping, rock chip sampling, and relogging/resampling of drill hole G14/14A. The resampling exercise focused on gold with all results being below detection limit (<10 ppb). Reinterpretation concluded a substantial original carbonate content to the host rocks, and reverse movement on the North Lyell Fault. No further work was recommended on this prospect.

At the end of year 4 approximately 50% of the tenement was relinquished reducing the size of the EL from 37km² to 20km².

Year 1999 (12 month period ending 13th January 2000)
Year 2000 (12 month period ending 13th January 2001)

No exploration carried out by CMT, - *Exemption From Conditions* granted from 1st April 1999 to 31st March 2001.

Year 5 - 2001 (12 month period ending 13th January 2002)

No work carried out.

Year 6 - 2002 (12 month period ending 13th January 2003)

Tenement was reduced in size and amalgamated with part of EL5/1998 Queenstown. The remainder of that EL was relinquished and the consolidated EL52/1994 increased in size from 20km² to 24km² with the licence expiry date changed to 1st May 2005.

Year 7 - 2003 (12 month period ending 13th January 2004)

- EL and Mine Lease

The EL was explored as part of a broader CSAMT survey carried out over ML1M/95 and which was extended into parts of EL52/1994. Two traverses were carried out in the EL. One comprised 450 metres of IP work in the Chamounix Zinc prospect. The other comprised two CSAMT lines (lines 5500N and 5750N) that targeted the area south of the mine lease between Glenn Lyell and Copper Estates. The second of these lines (line 5750N) ran across the tenement boundary into the mine lease. Two other CSAMT lines were also extended east of the mine lease into the Gormanston area.

- Regional (Mount Read Volcanics)

A regional hyperspectral aerial survey that covered the CMT tenements was acquired by the CSIRO in February 2003 as part of a collaborative venture aimed at spectral mapping of characteristic MRV alteration minerals.

- PhD Study

Start of a three year PhD study (CODES SRC – University of Tasmania) with CMT providing funding in kind. Broad focus on the mining lease ML1M/95 with direct implications for exploration strategies, particularly where the geology is contiguous across the lease boundary into the EL.

Year 8 - 2004 (12 month period ending 13th January 2005) (this report)

- EL (and mine lease)

No significant work was done during the twelve month reporting period. The proposed exploration programme is intended to be executed over the months leading up to the expiry date of the licence.

- Regional (Mount Read Volcanics)

Results received for the regional CSIRO hyperspectral survey. Zones of significant pyrophyllite identified and vector assemblages linked to copper mineralisation.

- PhD Studies

Continuation of three year PhD studies under the supervision of CODES.

WORK DONE

a) EL52/1994

No specific work was done on the EL during the period under review. Planned work is intended to be carried out in the timeframe leading up to the expiry date of the licence (i.e through to 1st May 2005).

b) Regional Hyperspectral Survey

Results for the regional hyperspectral survey were received from CSIRO. A letter outlining CMT's involvement is included as Appendix II.

A regional aerial spectral survey (HyMap) that covered the CMT tenements was acquired by the CSIRO in February 2003. Ground truthing was carried out in January 2004 and results (data plus images) received not long after. The survey was a collaborative-type venture, the major drivers being CSIRO and HyVista Corporation with significant input from Mineral Resources Tasmania and contributions from relevant industrial companies.

The objective of the survey was to test and update regional exploration vectors through spectral imaging of characteristic MRV alteration minerals. Seven flight lines were flown, approximately 2.5kms wide, length of 34kms, covering an area of approximately 475km² and with data acquired to a spatial resolution of 5metres.

The survey covered both EL52/1994 and ML1M/95. Figure 2 is a composite image from the survey over the EL and mine lease, showing zones that include pyrophyllite, topaz, white micas (muscovite, sericite, phengite), chlorite, goethite, hematite and jarosite. Colour coding emphasises areas where mineral occurrences are significant.

Of particular interest is pyrophyllite and topaz occurrence in the broader Glen Lyell area mainly in the southern part of the ML1M/95 but also crossing over into the adjoining EL52/1994. Also of interest is the zonation in the vicinity of the Burbury Volcanics prospect where a linear band of pyrophyllite alteration occurs close to the contact between Owen Group rocks and Tyndall lithologies.

On a macro scale compositional variations in the white micas make up vector assemblages that are potentially useful tools in delineating copper mineralisation :

Al-rich white mica + pyrophyllite + topaz proximal to bornite mineralisation

Al-poor white mica + chlorite distal to Cu mineralisation.

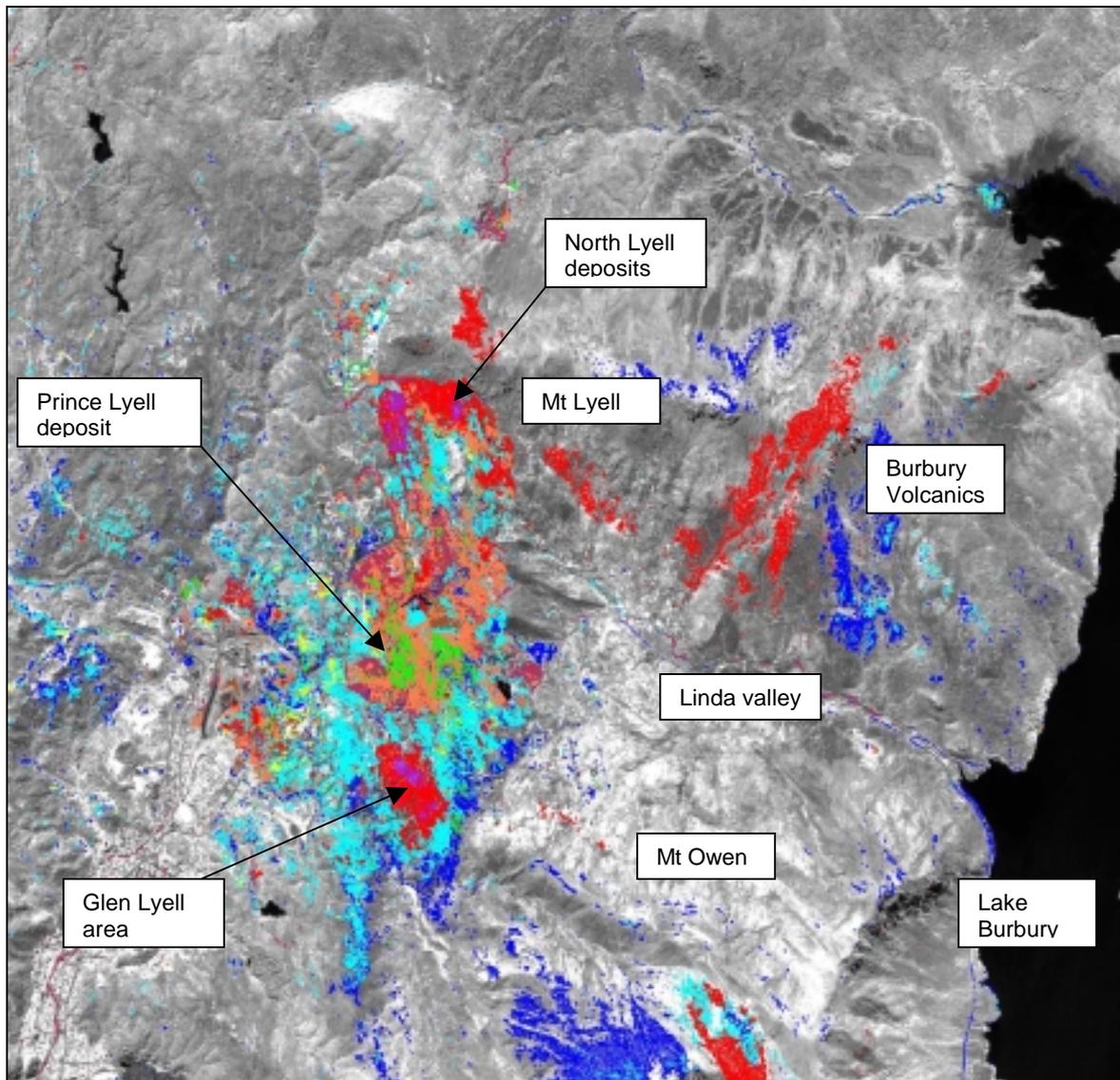


Figure 3

**CSIRO-HyVista Hyperspectral Survey Composite Image
Showing Mineral Distribution Across Mt Lyell Mine Lease and EL52/1994**

Mineral colours code:

red = pyrophyllite green = chlorite orange/brown = jarosite and hematite
purple and mauve = topaz and kaolin within pyrophyllite
blues and yellows = white micas/sericite (light blue = muscovite , dark blue = phengite)

c) Other – PhD Studies

The PhD study referred to in the last annual report focused mainly on the mine lease during this reporting period. The study is examining the Mt Lyell alteration zone through geochemical and isotopic investigation. Some of the preliminary findings are summarised below. These have implications for CMT exploration strategies and will be incorporated in the proposed work programmes:

- Magmatic fluids dominant in the Mt Lyell mineralisation system.
- Confirmation of pyrophyllite as identified by the CSIRO hyperspectral survey, with the occurrence at Glen Lyell considered highly prospective for exploration success.
- PIMA and magnetic susceptibility measurements in the Prince Lyell deposit indicating a level or horizontal zonation that is influenced by structure and geography, with transitions in alteration assemblages that point to a redox control on mineralisation and to a vertical zonation within the deposit.
- High grade mineralisation (Iron Blow and North Lyell) that is possibly syn or post Devonian deformation, a key observation being hematite alteration that occurs in both the CVC and Owen Conglomerate and which crosses the GLF.
- High grade mineralisation (North Lyell) often proximal to alteration assemblages that have a dominant pyrophyllite content and typically hosted in massive chert.
- Hg and volatiles at the Iron Blow of similar tenor to those at the Chamounix Zinc prospect.

d) Expenditure

There was no expenditure for exploration work on EL52/1994 during the twelve month review period.

PLANNED EXPLORATION PROGRAMME

Exploration work is planned to commence in February and to continue through the expiry date of the licence (1st May 2005). A detailed programme is currently being drawn up for submission to MRT and expenditure approval by CMT management.

The provisional programme and expenditure is summarised in Table 2. The total shown will not be expended before the expiry date of the licence, with exploration provisionally planned to continue through to December. The exploration rationale and strategy for each area is outlined in the text. Figure 4 shows the licence area with prospect locations, major structural features and the dominant alteration zones.

Table 2 Planned Exploration Expenditure		
Area	Activity	Estimated Costs
<u><i>Glen Lyell</i></u>		
	Geophysics - CSAMT, ±IP	\$ 50,000
	Geochemistry and PIMA	\$ 5,000
	<i>Sub total - Glen Lyell</i>	\$ 55,000
<u><i>Chamounix Zinc</i></u>		
	Remodel data, gridding	\$ 5,000
	Geochemistry and PIMA	\$ 10,000
	Target generation	\$ 5,000
	Diamond drilling	\$ 180,000
	Interpretation + resource evaluation	\$ 5,000
	<i>Sub total - Chamounix Zinc</i>	\$ 205,000
<u><i>Copper Clays</i></u>		
	Data collation, validation, modeling and resource estimation	\$ 10,000
	<i>Sub total - Copper Clays</i>	\$ 10,000
<u><i>Burbury Volcanics</i></u>		
	Gridding and mapping	\$ 7,000
	Geochemistry, PIMA + alteration study	\$ 13,000
	Geophysics - CSAMT, IP	\$ 20,000
	Drilling	\$ 108,000
	Interpretation + modeling	\$ 20,000
	<i>Sub total - Burbury Volcanics</i>	\$ 168,000
Total Planned Exploration Expenditure		\$ 438,000

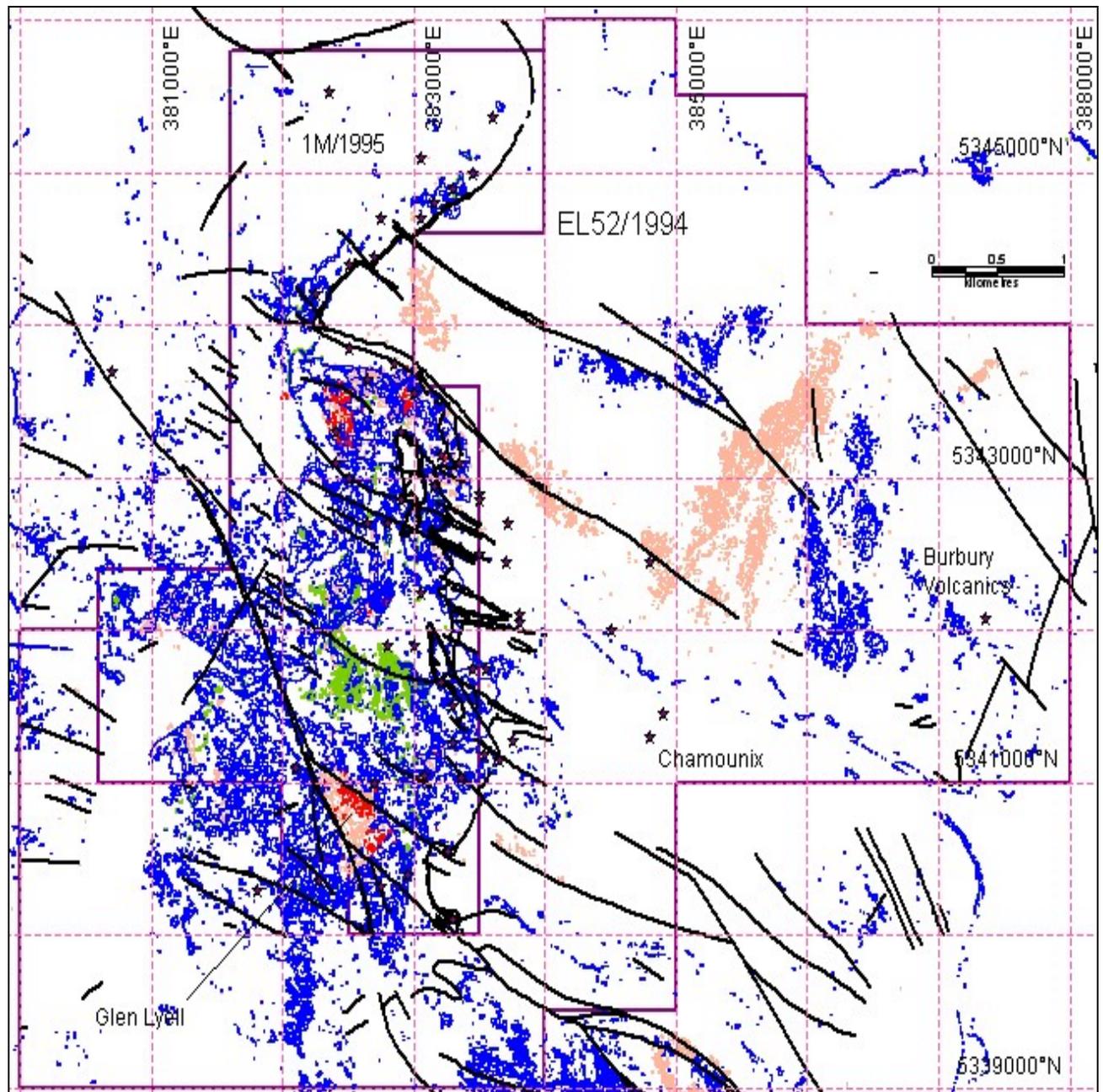


Figure 4

Diagram showing licence area with prospect locations, major structural features, and dominant alteration zones

mineral colour codes:

green = chlorite, orange = pyrophyllite, blue = white micas, red = topaz

Exploration Targets

- Glen Lyell Area: southern part of the EL52/1994 – ML1M/95 extending eastwards to the Copper Estates area

The Glen Lyell project zone encompasses the area straddling conglomerate creek in EL52/1994 extending into the southern part of the mining lease ML1M/95 and eastwards to the Copper Estates prospect at the base of Mt Owen (near the Horseshoe Falls). Subtle geochemical and geophysical responses from previous exploration work have not been fully explained. The geology has distinctive rock types, alteration assemblages, sulphide mineralisation and structural controls all of which make the area highly prospective for major resource discoveries. The CSIRO hyperspectral survey shows a very prominent fault bounded pyrophyllite and topaz zone over this area (see Figure 4), while the most recent CSAMT survey returned responses at surface and a weak conductor located towards the Copper Estates prospect.

The proposed work programme plans to extend the suite of survey lines, initially in the acquisition of CSAMT data and this to be possibly further supplemented by IP traverses. Geochemical work in the form of PIMA ±magnetic measurements with selected sampling (historic core and rock chips) are expected to further identify targets for drilling. Drilling is included as part of the overall work programme but will be expended as part of mine lease exploration.

3D modeling of the alteration of Prince Lyell is in progress as part of the PhD study by Kim Denver. In excess of 7,000metres of core and 1,000metres of underground development have been PIMA analysed on two sections and two level plans. Once the modeling is completed at the Prince Lyell it will be compared with previous work at Western Tharsis (ref: Huston 2001) to create a 3D alteration model of the field. This will then be used at Glen Lyell as a predictive tool.

- Chamounix Zinc

The drill tested but still unexplained CSAMT anomaly in the Linda valley requires further exploration. The anomaly has been further refined by the most recent geophysical data (IP survey). Additional interpretation on the testhole drilled in 1998 is necessary. Chamounix Zinc samples have a similar Hg tenor to the Iron Blow (as well as Tasman Crown and North Lyell) and this has implications for any target(s) that will ultimately be tested by drilling.

The planned work programme calls for PIMA and geochemical analyses followed by modeling and reinterpretation of drill data. The IP data indicates

the test drillhole was not optimally positioned particularly in view of the apparent attitude of the anomaly. Drill testing of the reappraised target is included in the proposed expenditure.

□ Native Copper (Copper Clays)

The Copper Clays comprise near surface native copper mineralisation located at King Lyell, Lyell Blocks and Lyell Consol. The work programme will remodel the Copper Clays deposit and re-evaluate the known resource (ref: Wills, 1995) to JORC standards. The work has potential for flow on effects into the Gormanston area where subsurface geology has not been fully tested by earlier work on the EL.

□ Burbury Volcanics

The planned work programme is aimed at rapidly expanding on prospect knowledge which is still at a grassroots level. Additional mapping is intended to resolve structural and stratigraphical relationships. PIMA and geochemistry will further delineate the two known (small) bodies of Cu-Au mineralisation, while geophysics in the form of CSAMT and \pm IP surveys will be acquired to test potential depth extensions to the surface outcrops. The near surface expressions are included as targets for modeling and drilling in the proposed expenditure.

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Appendix I

CD Contents

APPENDIX 1 CD Contents

Folder / File Name	File Type	Description / Contents
EL_52-94-annual_report_2004	Adobe Acrobat .PDF	This report. Includes: <ul style="list-style-type: none">▪ Title Page▪ Contents▪ Text + Figures▪ Appendices
52-94-annreport2004-fig1	.JPG	Figure 1
52-94-annreport2004-fig2	.JPG	Figure 2
52-94-annreport2004-fig3	.JPG	Figure 3
52-94-annreport2004-fig4	.JPG	Figure 4

Appendix II

Letter from CSIRO re Hyperspectral Survey



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16/02/04

Neil Valk
General Manager
Copper Mines of Tasmania
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Tasmania. 7467.

Dear Mr Valk

Mt Lyell Hyperspectral Survey and Results

Please find attached our invoice for the collection, pre- and post-processing and mineral alteration mapping of the Mt Lyell leases using airborne HyMap hyperspectral data.

This work was contracted by Geoff Phillips in Feb 2003 and confirmed by email from him on 23/02/03. We have variously dealt with Geoff, Greg Doherty and finally Will Godsall during the conduct of this work. The work program and deliverables were laid out in a document sent to Greg on 12/08/03.

By way of background, the Mt Lyell lease data collection was a part of much larger multi-client survey covering some x km north south of the along the Mt Read Volcanics, carried out jointly by HyVista Corporation and CSIRO. The raw data is copyright HyVista and CSIRO. When the survey was being planned Geoff was invited to participate but indicated that he could only contribute \$10k, of what was a complete survey cost of some \$30k, excluding the subsequent processing, interpretation and field verification, on which we have spent at least a further \$20k: i.e. the invoice above must be seen as covering only part of the full task of alteration mapping on the Mt Lyell leases and over the whole belt. CMT's contribution remains at \$10k for the currently agreed work program.

The mineral alteration maps resulting from our interpretation are now complete and will be sent to Will Godsall shortly, on payment of this invoice.

Our Dr Kai Yang visited Queenstown in January and, with assistance from MRT staff, Kim Denwer and Will Godsall, confirmed all the airborne mapping. This also allowed Will to view preliminary versions of our interpretative mineral alteration maps, many showing new features of the mineralising system. We are very grateful for the CMT assistance provided that allowed this field checking.

Because the Mt Lyell leases are also covered by the larger survey we are working up with Mineral Resources Tasmania, and since the work done has been heavily subsidised by the CSIRO and HyVista Corp, we seek your agreement to be able to publish agreed aspects of this work at an agreed time, though not too far in the future. Given the assistance given by CMT and the work

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being carried out by Kim Denwer we fully expect that such publication should be joint, if CMT so wish, and we will be happy to discuss the details of this with your staff.

Yours sincerely

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