

**Corona Minerals**

**Annual Report**

**EL21/2010**

**For Period 21 December 2014**

**to 20 December 2015**

**Tasmania**

**Date 09/12/2015**

**Author:**

Charles E.D Hughes Bsc (Hons). FGS MAUSIMM MSEG  
Exploration Manager  
Perth, WA

**Copies to:**

MRT  
Corona Minerals Ltd

## Table of Contents

1. INTRODUCTION
2. TENURE
3. ACCESS
4. GEOLOGY
5. MINERALISATION
6. STRUCTURE
7. EXPLORATION PHILOSOPHY
8. EXPLORATION HISTORY
9. PREVIOUS WORK COMPLETED BY CORONA
10. WORK COMPLETED BY CORONA IN CURRENT PERIOD
  - 10.1. PQ3 DIAMOND DRILLING
  - 10.2. MINERAGRAPHY
11. DISCUSSION/CONCLUSION
12. ENVIRONMENT
13. EXPENDITURE
14. REFERENCES

## Figures

- FIGURE 1: TENURE ..... **Error! Bookmark not defined.**
- FIGURE 2: GEOLOGY ..... **Error! Bookmark not defined.**
- FIGURE 3: ANOMOLY COMPILATION WITHIN LINDA VALLEY ..... **Error! Bookmark not defined.**
- FIGURE 4: CORONA AND HISTORIC DRILLING WITHIN THE CHAMONIX ZINC PROSPECT ..... **Error! Bookmark not defined.**
- FIGURE 5: SECTION SHOWING CORONA DRILLING, HISTORICAL DRILLING ..... **Error! Bookmark not defined.**

## Tables

- Table 1: Drilling results ..... **Error! Bookmark not defined.**
- Table 2: Expenditure for the period ..... 9

## Appendices

### List of Digital Files Accompanying this Report

EL212010\_2015129\_1\_Text

## 1. Introduction

EL21/2010 is located east of Queenstown on the West Coast of Tasmania, directly adjacent and partially surrounding the Copper Mines of Tasmania Mt Lyell Mining Lease.

Corona Minerals Ltd applied for and was granted exemption from conditions for the period. Corona assessed the results of drilling in the Linda Valley and the potential for economically significant mineralisation to be present.

## 2. Tenure

Corona Minerals Ltd owns 100% of EL21/2010, which encompasses 21 km<sup>2</sup> of tenure and covers crown land, the gazetted townships of Linda and Gormanston, and minor amounts of HEC land near Lake Burbery.

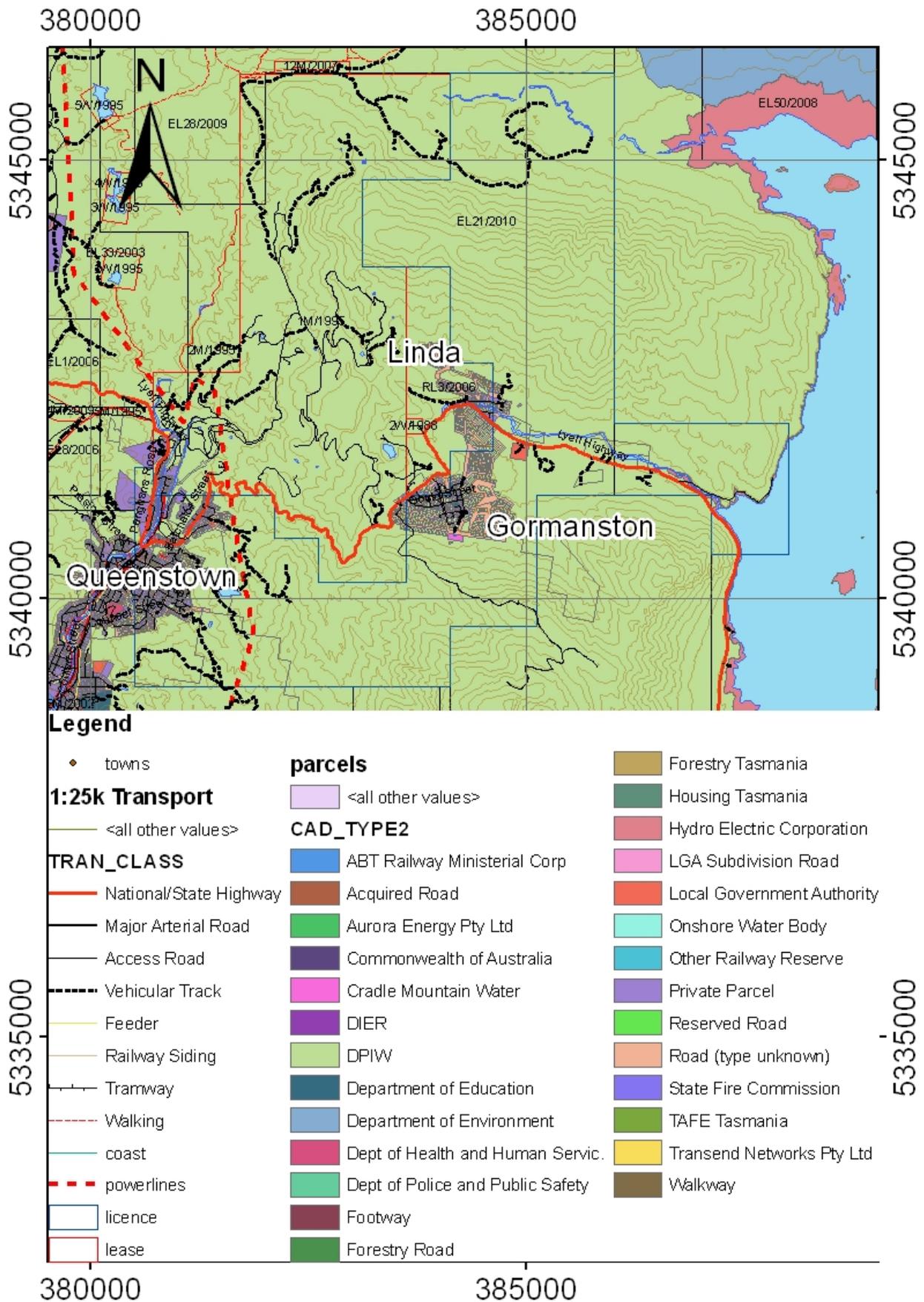


FIGURE 1: EL21/2010 TENURE

### 3. Access

Access within the tenement is excellent with the Lyell Highway running through the Linda valley and serviceable 4WD roads access in the Little Owen area.

### 4. Geology

The mid-late Cambrian Mount Read Volcanics (MRV) dominate the southern half of the tenement where the rocks are the direct strike extent from the Mt Lyell Mining Lease and are intensely altered in places. The volcanic succession is composed of Central Volcanic Complex (CVC) rhyolites, and Western Volcano Sedimentary (WVS) volcanoclastic. The WVS sequence, and probably CVC sequence, is host to several andesite-basalt units which appear to be contemporaneous with mineralisation throughout the MRV. Ordovician aged Owen group siliciclastic conglomerates and sandstones are found in the east of the tenement forming prominent bluffs and mountains. Ordovician Marine sequences of the Gordon group are seen in the Linda and Comstock valleys, inferred to be sitting either in half graben or synclinal positions in the valley floors. The Gordon group is mainly composed of Limestone sequences, but a unit in the Cemetery creek area of Linda Valley has the appearance of a Black Shale and is host to zinc dominated stratabound or stratabound base metal mineralisation. Silurian aged Eldon Group sandstone and siltstones overly the Gordon Group in the Linda Valley. The Linda and Comstock Valleys are mostly covered with tertiary glacial moraine, with variable thicknesses of cover.

### 5. Mineralisation

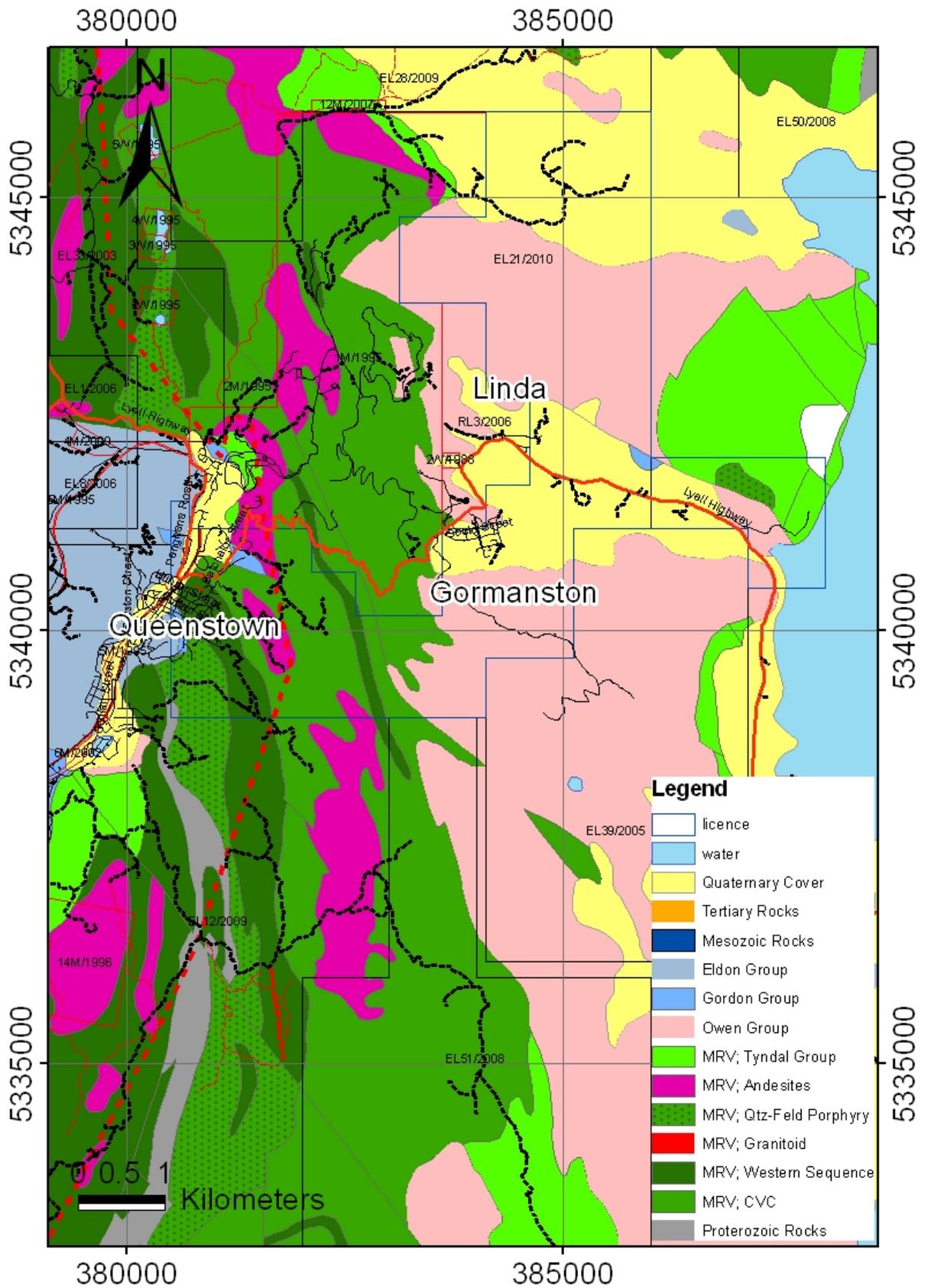
Stratabound and possibly stratabound massive, semi-massive and disseminated pyrite-sphalerite-galena mineralisation is hosted within the "Chamonix shale" interpreted to be upper Gordon Group. Bedding parallel quartz veining is common within this unit, and is not seen in the underlying limestone—a distinction used to argue the Chamonix Shale is a separate unit and not just "decomposed Limestone". Mineralisation is inferred to be primary Ordovician in age of MVT, Irish style or even possibly CD (SEDEX) style, with a Devonian aged overprint. Mineralisation is inferred to be similar to that seen at Grieves Siding near Zeehan.

### 6. Structure

A major structure is inferred to run through the Linda Valley in an east-west direction. The north Lyell fault runs North west along the northern edge of the Linda Valley. A north bearing normal fault is observable running roughly along the line of cemetery creek with east side down displacement visible in the northern slopes of Mt Owen. Several phases of folding starting in the late Cambrian, throughout the Ordovician and during the Devonian Tabberaberan orogeny have created complex structural relationships.

### 7. Exploration Philosophy

EL21/2010 was initially targeted for mineralisation associated with the Mount Read Volcanics. Further research indicated Zn mineralisation has been outlined in Ordovician rocks in the Linda valley.



## FIGURE2: EL21/2010 GEOLOGY

### 8. Exploration History

Exploration in this area has been ongoing since the late 1800's when Mt Lyell was first discovered. A total of 11 copper prospects, 4 gold prospects and one base metals prospect occur within the area of interest and 33 recorded holes had been drilled prior to Corona's involvement. A more detailed compilation can be found in Hughes 2012.

### 9. Previous Work Completed by Corona

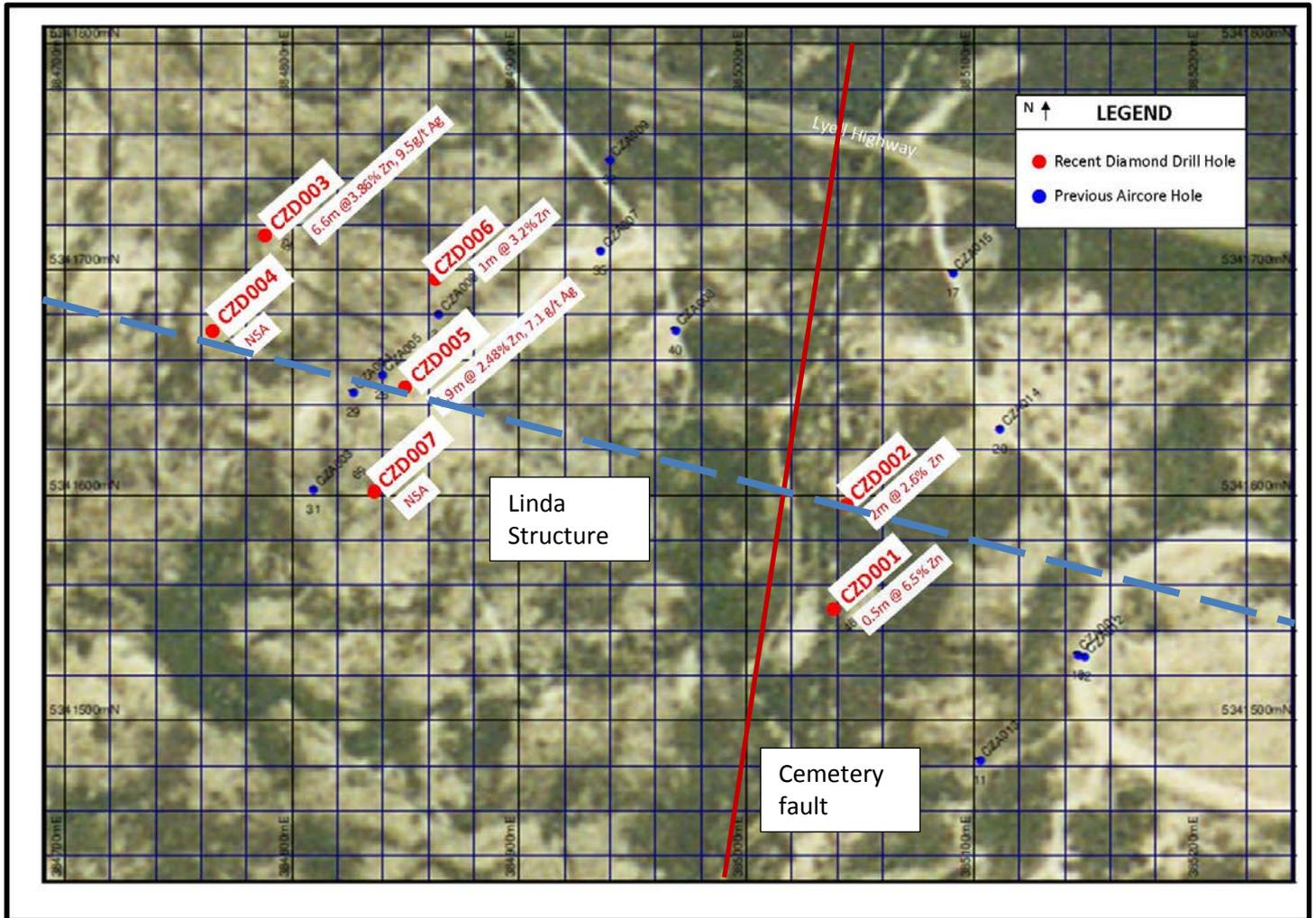
A helicopter supported VTEM and aeromagnetic survey was conducted in 2011, which outlined large conductive bodies within the Linda and Comstock Valleys. Geochemical sampling and mapping in 2012 confirmed widespread zinc anomalism within the Linda Valley, and a reassessment of the geology and a new model for mineralization was outlined. Based upon this work and the new model developed, in 2013 Corona drilled 15 Air core holes at the Chamonix Zinc prospect intersecting significant Zn-Pb-Ag mineralisation in the Chamonix Shale. In 2014 Corona drilled a total of 338.3 m were drilled in 7 vertical holes utilising PQ3 and HQ3 diamond drilling techniques in order to maximise recovery. Wholecore was contracted to undertake the drilling program utilising a Coretach CSD1200 track mounted diamond drill rig. Drilling pads, sumps and access roads were constructed using a 20t excavator provided by Williams Earth moving. Drilling was very difficult but in terms of recovery quite successful. The very soft and clayey nature of the host package was problematic but manageable, the main problems with recovery arose when large quartz veins were intersected cutting this package.

### 10. Work Completed by Corona in Current Period

Corona applied for and received exemption from conditions for this reporting period.

Corona assessed the results of drilling in the Linda Valley and the potential for economically significant mineralisation to be present.

The diamond drilling results reported in 2014 by Corona indicate that previous aircore drilling was prone to smear effect, no doubt caused by heavy clay component within the Chamonix Shale. Petrology indicated that the zn-pb sulphide mineralisation was hosted in a late stage breccia, although this breccia is inferred to still be Ordovician as dating by Morrison et al.(1998) on similar material within the Linda Valley proved it to be. This presents the possibility that observed mineralisation to date has intersected late stage remobilisation of mineralisation that exists at a lower level within the Gordon sequence. Glover (1996) places most of the Zn-Pb mineralisation at Grieves Siding near Zeehan in the lower parts of the Gordon Group, whereas in Linda Valley the mineralised Chamonix Shale is almost certainly upper Gordon group, as it is overlain by Silurian Crotty Quartzite and is underlain by at least 200m of limestones as evidenced by drilling by previous exploration companies (e.g. Hill, 2006).



**Figure 3: Plan of 2014 drilling**

### 11. Discussion Conclusion

Drilling at the Chamonix Zinc Prospect has revealed significant Zn-Pb-Ag potential. Near surface mineralisation is present over 300m along strike but appear to be confined to a 50m wide zone- possibly the keel of a syncline or anticline. It is possible that this mineralisation observed within the Chamonix shale is a secondary remobilisation of mineralisation that exists towards the bottom of the Gordon sequence. Evidence for this is discussed previously.

### 12. Environment

No environmental disturbance was recorded in this reporting period

### 13. Expenditure

ITEM	Cost		
Salaries and wages	2,276		
Accommodation	950		
Consumables			
Vehicle Hire			
Drilling			
Assays			
Tenement Costs			
Earthmoving			
Other	731		
Mineragraphy			
Sub Total	3957		
Administration @ 10%	395		
		Total \$4352	

**Table 2: Expenditure for the period**

### 14. References

Beadows, J. W. 1985. Report on work completed, July 1984 to January 1985, On Authority to Prospect, Queenstown. Unpublished internal report for Gold Fields Exploration Pty Ltd. MRT Report No. **85-2475**.

Blainey, G. (2000). The Peaks of Lyell (6th ed. ed.). Hobart: St. David's Park Publishing. ISBN 0-7246-2265-9.

Corbett, K. D. 2001. New Mapping & Interpretations, Mt Lyell Mining District, Tasmania. ECONOMIC GEOLOGY, v. 96, p. 1089-1122.

Eadie, E. T. 2008. Annual Report for EI 38/2006 for the year ending 16th April 2008. Unpublished internal report for Copper Strike Ltd. MRT Report No. **08-5615**

Eadie, E. T. 2009. Annual Report for EI 38/2006 for the year ending 16th April 2009. Unpublished internal report for Copper Strike Ltd. MRT Report No. **09-5828**

Fitzgerald, F.G. 1987. Authority to prospect, Queenstown. Progress report 1986/87. Unpublished internal report for Gold Fields Exploration Pty Ltd. MRT record No. **87-2676**.

Halof, P. G. 1960. Report on Induced Polarization and resistivity survey in 1959-1950 at Moore's Valley and Queenstown. Unpublished internal report for Lyell E.Z Explorations. MRT record No. **60-0310**

Hermann, W. 1986. Notes on mapping in the Queenstown area, Tasmania. February, 1986. Unpublished internal report for Goldfields Exploration Pty. Ltd. MRT report No. **86-2579**.

Hill, R. K. 2006. Exploration License 52/1994-Linda. Annual Report for the period ending 01 May 2006. Unpublished internal report for Copper Mines of Tasmania Pty Ltd. MRT Report No. **06-5306**.

- Horvath, J. 1967. Report on geophysical survey at Linda Valley for Placer Exploration Ltd.  
Unpublished internal report for Placer Exploration Ltd. MRT report No. **67-0491**.
- Hughes, C. E. D., 2012. Linda Valley Project, EL21/2010. Annual report for period 20 December 2011 to 21 December 2012. Annual technical report for corona Minerals Ltd.
- Glover, D. C. 1996. The timing and style of Pb-Zn mineralisation at Grieves Siding, Western Tasmania.  
Unpublished Honours thesis, University of Tasmania.
- Godsall, W. J. D. 2004. Exploration Licence 52/1994 – Linda. Annual Report for the period ending 13<sup>th</sup> January 2004. Unpublished internal report for Copper Mines of Tasmania. MRT report No. **04-5042**.
- Morrison, K. C. 1996. EL 52/94 Linda Annual Report Year 2 (13/1/1996 to 13/1/1997). Unpublished internal report for Copper Mines of Tasmania Ptv Ltd. MRT report No. **96-3948**
- Morrison, K. C. 1998. EL 52/94 Linda Annual Report Year 4 (13/1/1998 to 13/1/1999). Unpublished internal report for Copper Mines of Tasmania Ptv Ltd. MRT report No. **98-4258**
- Smith, H.D. 1967. Exploration Report. Geological investigations in the Queenstown area.  
Unpublished internal report for Picklands Mather Ltd. MRT record No. **67-0482**.

## Appendix 1

## Appendix 2

## Appendix 3

## Appendix 4

## Appendix 5