

LYELL RESOURCES LTD.

ANNUAL REPORT

EL 39 / 2005

Mt Owen Project

June 2012

Report Period: 14th June 2011 to 13th June 2012

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EXECUTIVE SUMMARY

EL39/2005 comprises a 19 km² tenement three kilometres south-west of the Mt Lyell group of Cu – Au deposits near Queenstown in Western Tasmania. The tenement area features a muscovite-pyrophyllite (MP) alteration anomaly, which is similar to that associated with the Mt Lyell group of mines. In contrast to the Mt Lyell system, which is hosted in the Upper to Middle Cambrian Mt Read volcanics, the Mt Owen MP anomaly is hosted within the Upper Cambrian Owen Conglomerate. Mt Owen Resources is conducting an exploration program to determine if the Mt Owen MP anomaly represents hydrothermal alteration produced by a concealed Cu/Au system.

This annual report describes the work carried out in EL 39/2005 up to the 14th June 2012. EL 39/2005, named 'Mt Owen' is located in the Dundas Trough approximately 3 km to the SE of Queenstown on the west coast of Tasmania. The tenement is held by Mt Owen Resources Pty Ltd, which is a wholly owned subsidiary of Lyell Resources Limited (Lyell). Mt Owen Resources was acquired from Pangean Resources Pty Ltd (Pangean) in March 2011, by payment of cash and shares.

EL 39/2005 has the potential to host a concealed Mt Lyell type Cu – Au orebody at depth and interpretation of HYMAP and ASTER hyperspectral survey data by Pangean defined several anomalous alteration zones which have similarities to those found around the Mt Lyell mineralisation to the west. An IP and CSAMT survey completed by Mt Owen Resources in 2011 defined a number of chargeability anomalies, which require drill testing. Unfortunately, the planned drilling was postponed due to budgetary constraints.

Work during the reporting period comprised historical data compilation and interpretation and detailed evaluation of the geological mapping, IP and CSAMT data collected in 2011.

1 INTRODUCTION

Lyell Resources Limited, through its wholly owned Australian subsidiary Mt Owen Resources Pty Ltd, is the holder of EL 39/2005. Lyell acquired the Mt Owen Project to test for buried Mt Lyell type Cu – Au mineralisation in a highly prospective area, which has had no previous drilling and only limited surface exploration. This annual report covers all the exploration work carried out within EL 39/2005 by Mt Owen Resources Pty Ltd up to 14th of June 2012. Exploration activities during the reporting period included; historical data compilation and interpretation, review of the work carried out in the previous reporting period. Refer to **Figure 1** for the location map.

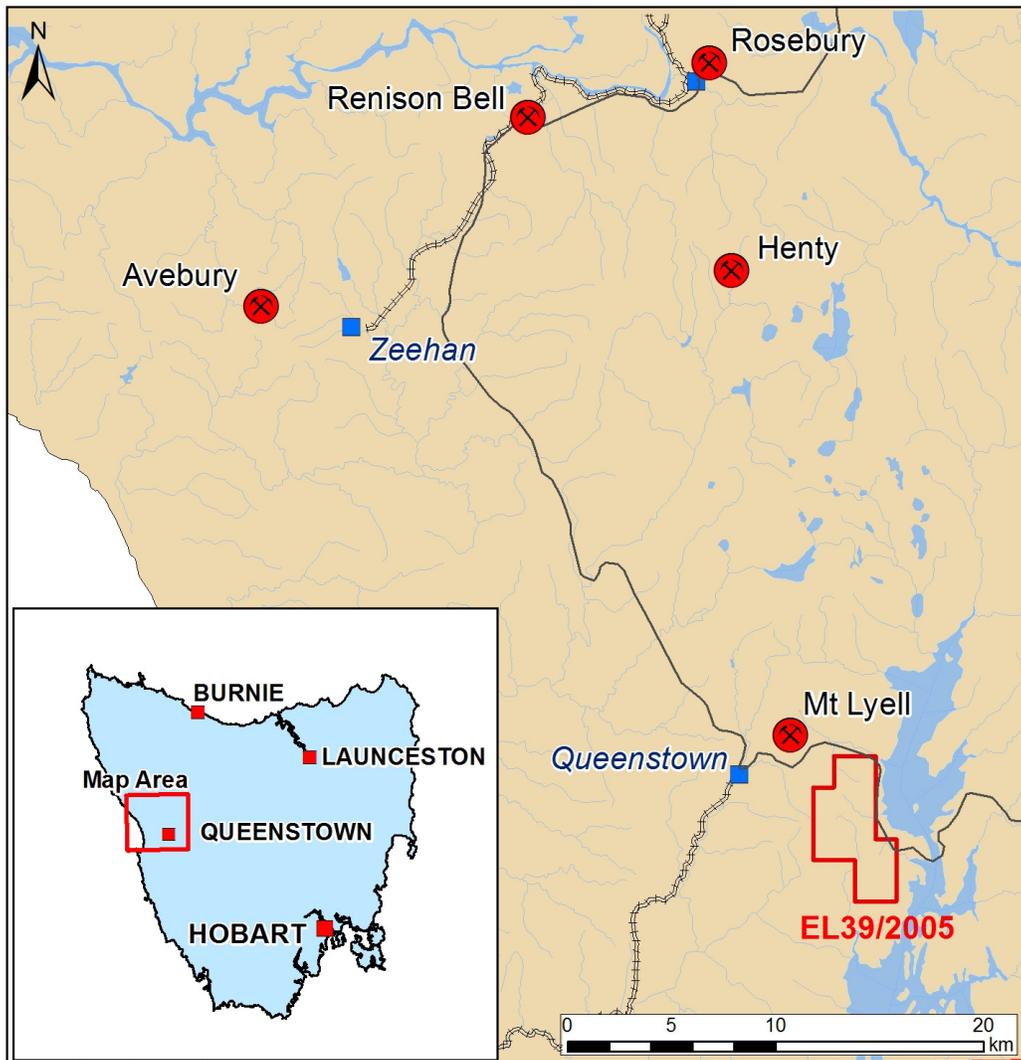


Figure 1 - Location Map showing EL 39 / 2005, 'Mt Owen'

2 LOCATION & ACCESS

EL 39/2005 is located approximately 3 km south-east of Queenstown on the west coast of Tasmania and access is via the sealed Lyell Highway which is approximately 260km to the north-west from Hobart, see **Figure 1**. Access on the lease is via a Telstra and Broadcast Australia service road which leads to the summit of Mt Owen, or a forestry track which leads to the south-west edge of the tenement south of Mt Owen. There is a locked gate near the entrance, which is managed by Telstra and a second locked gate nearer the top, which is managed by Broadcast Australia. Access within the lease is generally very poor with very steep and heavily vegetated slopes on the eastern side, and rugged hills in the centre of the lease. Although clear of vegetation due to logging and historic pollution from the old Mt Lyell smelter, the lease has a number of steep NW – SE and WNW – SSE trending ridges, cliffs and narrow valleys with boulder fields and scree slopes. In all areas away from the Telstra access road access is by foot, and in many areas is slow and difficult. The licence is located on the *Lyell* 1:50,000 map sheet.

3 TENURE

Mt Owen Resources Pty Ltd, originally applied for EL 39/2005 and the tenement was acquired by the purchase of Mt Owen Resources by Bondi Mining Ltd from Pangean Resources Pty Ltd in March 2011, Bondi Mining Ltd was subsequently taken over by World Titanium Resources (WTR) in December 2011 and the tenement was acquired by Lyell Resources Ltd at that time as part of the takeover arrangements with WTR. The tenement details are shown below in **Table 1**. The tenement will be renewed on 14th June 2012.

Table 1: Tenement details

Exploration Licence No.	No. Blocks	Area (km ²)	Grant Date	Expiry Date	Expenditure Commitment
EL 39/2005	19	19	15/6/2006	14/6/2012*	\$ 20,000

*The tenement is due for renewal on 14th June 2012.

4 REGIONAL GEOLOGY

The Mt Lyell Cu - Au deposits are hosted in the Middle to Upper Cambrian Mt Read Volcanics in a structurally complex zone around the Great Lyell, North Lyell and Glen Lyell faults. The Mt Read Volcanics, locally referred to as the Central Volcanic Complex, are interpreted to be overlain by the Tyndall Group sediments, the Owen Group and the Gordon Group. In the EL39/2005 tenement area, Lower Owen Conglomerate, Tyndall Group and Mount Read Volcanics are exposed, with Middle and Upper Owen Group exposed in the north of the tenement. Refer to **Figure 2** for the district geology and **Figure 3** for the stratigraphy.

The Mt Read Volcanics have generally been considered to pre-date the Owen Conglomerate, with deposition of the volcanics as a complex sequence of rhyolite and dacite lavas, tuffs and intrusives in a submarine setting. The volcanics are interpreted as a discrete extensional event with deposition in a narrow rift system of half grabens (Crawford and Berry, 1992).

The Owen Conglomerate is a regionally extensive unit that was sourced from a Proterozoic basement high exposed to the east of Mt Lyell. The Conglomerate units are deposited in half graben basins deposited to the east of the Great Lyell growth fault. As a result of this the units thin to the east and thicken to the west. The Owen Conglomerate is believed to young to the west in the Mt Lyell area and generally overlies the Tyndall group. Mapping in the Mt Owen area shows the conglomerate directly overlying the Mt Read volcanics, suggesting that in this area either the Tyndall group was eroded prior to deposition of the conglomerate or that the conglomerate is locally and temporally equivalent to the Tyndall group (*adapted from Nunn & Nano, 2008*).

Structure

Recent evaluation of the Owen Conglomerate by Noll and Paul (2005) suggests that the distribution in the Mt Lyell area is controlled by a series of Mid to Late Cambrian growth faults represented by the North, Great and Glen Lyell fault systems. These faults were reactivated as reverse faults during Devonian orogenesis and in the case of the Great Lyell Fault have juxtaposed the Mt Lyell mineralisation against the Owen Conglomerate.

At the project scale a large splay of the Glen Lyell fault system, the "Owen Splay" is a reverse fault, or thrust that passes through EL 39/2005. The Owen splay localises Cu-Au mineralisation at the Copper Estates on the western edge of the lease (**Figure 2**).

Preliminary modelling shows that the Owen Splay has post-mineralisation, south block-up, reverse movement within the order of 300-400m; juxtaposing the Lower Owen conglomerate and locally the Tyndall Group against the Gordon Group and the Upper Owen Conglomerate to the north. This suggests the reverse movement on the Owen Splay has brought the Mt Read Volcanics closer to surface in the tenement. This interpretation is supported by Noll and Paul's sections which pass through the tenement and by localized outcrops of Mt Read Volcanics mapped along parallel reverse faults within the Mt Owen EL (*adapted from Nunn & Nano, 2008*). Refer to **Figures 4 & 5** for a geological map and interpretive cross-section.

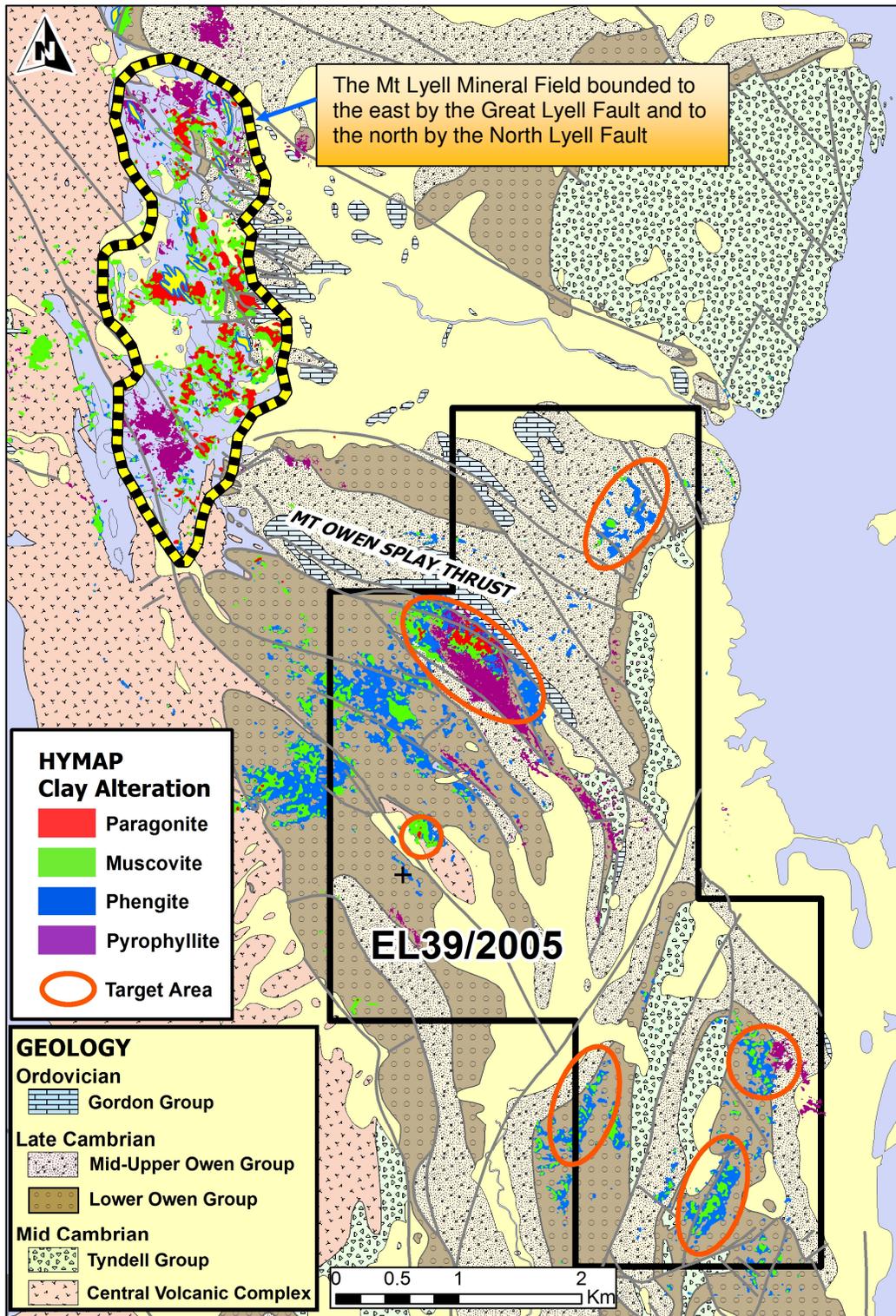


Figure 2 - Mt Lyell District Regional Geology

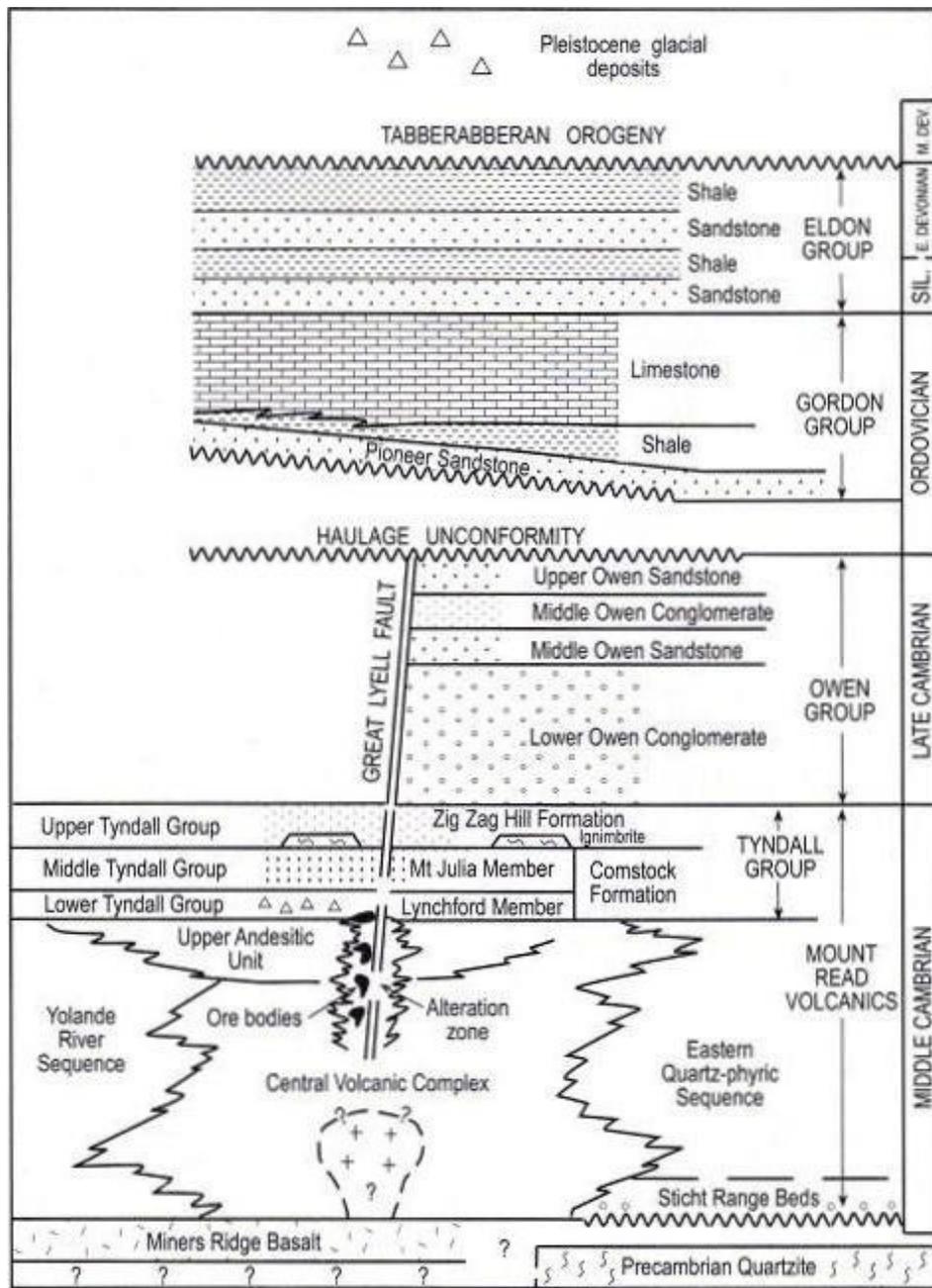


Figure 3 - Mt Lyell District Stratigraphy (from Corbett, 2001)

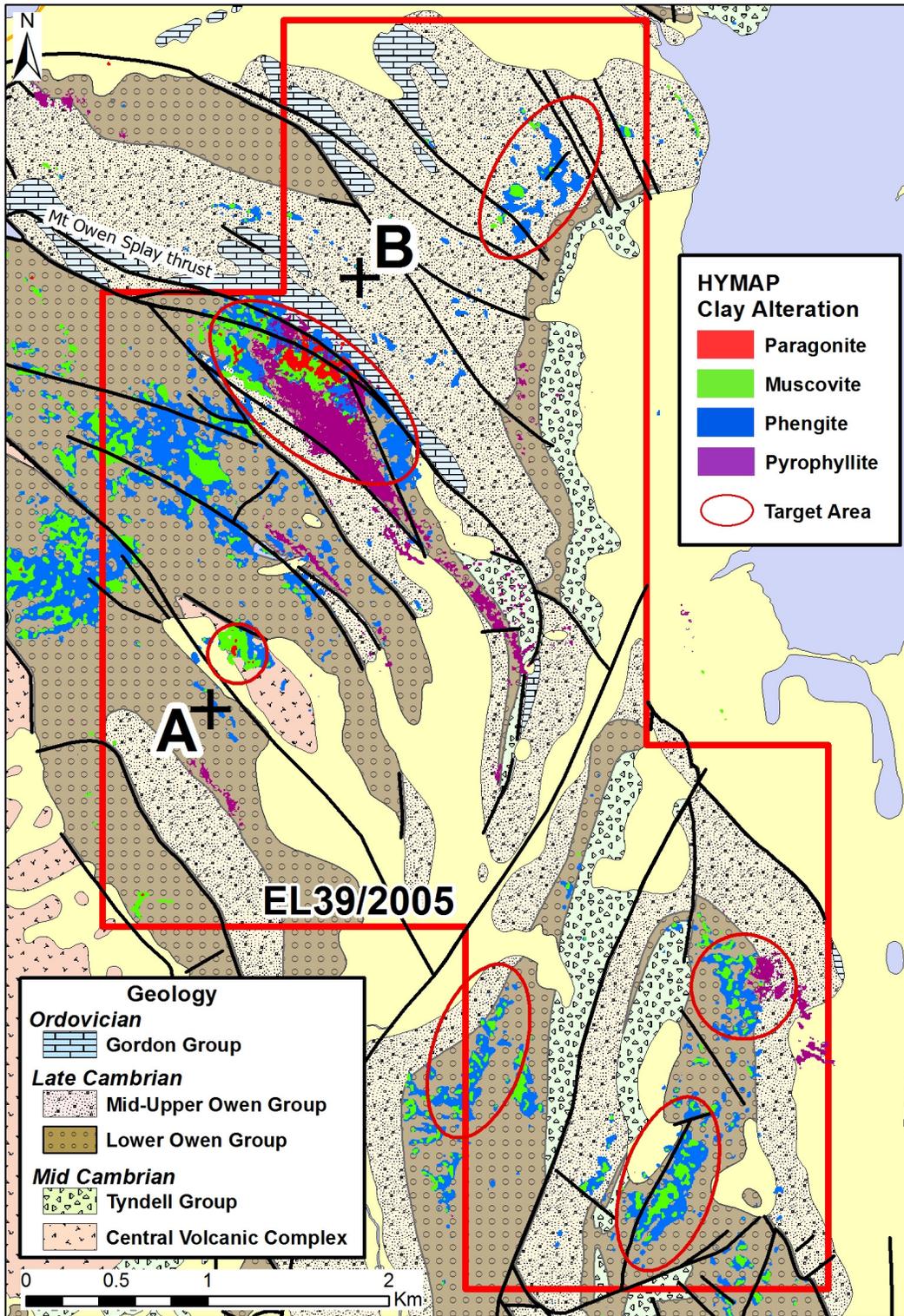


Figure 4 - Regional Geology of the Mt Owen lease, with HYMAP clay alteration

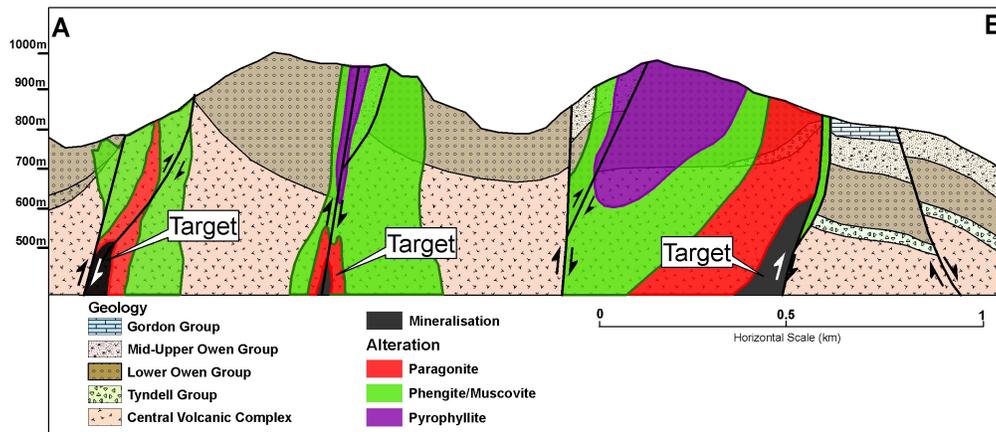


Figure 5 - Interpretive Geological cross-section with alteration zonation and targets

Mineralisation

The origin of the Mt Lyell mineralisation remains contentious with both syngenetic and epigenetic models proposed. The stratigraphic and absolute age of mineralisation is not well constrained and is considered inconclusive.

Recent investigations in Western Tasmania (Large et al., 2001) suggest the Mt Lyell district formed as massive and disseminated Cu-Au deposits in a subsea-floor setting associated with shallow porphyritic intrusives. The presence of high sulphidation minerals (pyrophyllite, topaz, zunyite and locally enargite) in parts of the Mt Lyell field suggests magmatic input, with similarities to a submarine porphyry copper system (Large et al., 2001). Corbett (2001) presents a model for alteration and mineralisation in the hanging wall of the Great Lyell Fault (**Figure 6**), showing the change from deeper chalcopyrite dominated system to upper level Pb-Zn sulphides.

The contact between the Owen Conglomerate and Mt Read Volcanics in the North Lyell region exhibits a zone of intense hematite-barite alteration (Noll and Hall, 2005). The hematite alteration zone lies adjacent to altered Mt Read Volcanics and extends into and partially replaces the Owen Conglomerate (Huston and Kamprad, 2001). Hart (1992, 1993) demonstrated that sericite, pyrophyllite, barite, hematite and pyrite extended through the Owen Conglomerate into the Pioneer Beds, with traces of bornite in the Owen Conglomerate. Huston and Kamprad prefer an Ordovician age for mineralisation (post Owen Conglomerate), based on lead isotope constraints.

Large et al., (2001) interpret a 60 km long, north-south trending, belt of granitic sill-like intrusives 2-4 km wide occurring along the eastern margin, and near the base of, the Mt Read Volcanics underlying the Mt Owen EL. It is suggested that these granitoids, which are highly fractionated, high K, magnetite series granites in places, are coeval with the Cambrian Mt Read volcanics. Large (1996) has suggested the Mt Lyell alteration system is connected to hydrothermal alteration related to these granites (**Figure 2**).

Low grade porphyry Cu mineralisation is recognised in places associated with these granites (Large et al., 1996). Large (2001) suggests the Mt Lyell mineralisation is a hybrid VHMS-high sulphidation deposit, connected to a low grade porphyry system at depth. Whole rock geochemistry, metal associations and ratios, oxygen isotopes and salinities all suggest magmatic input to mineralisation.

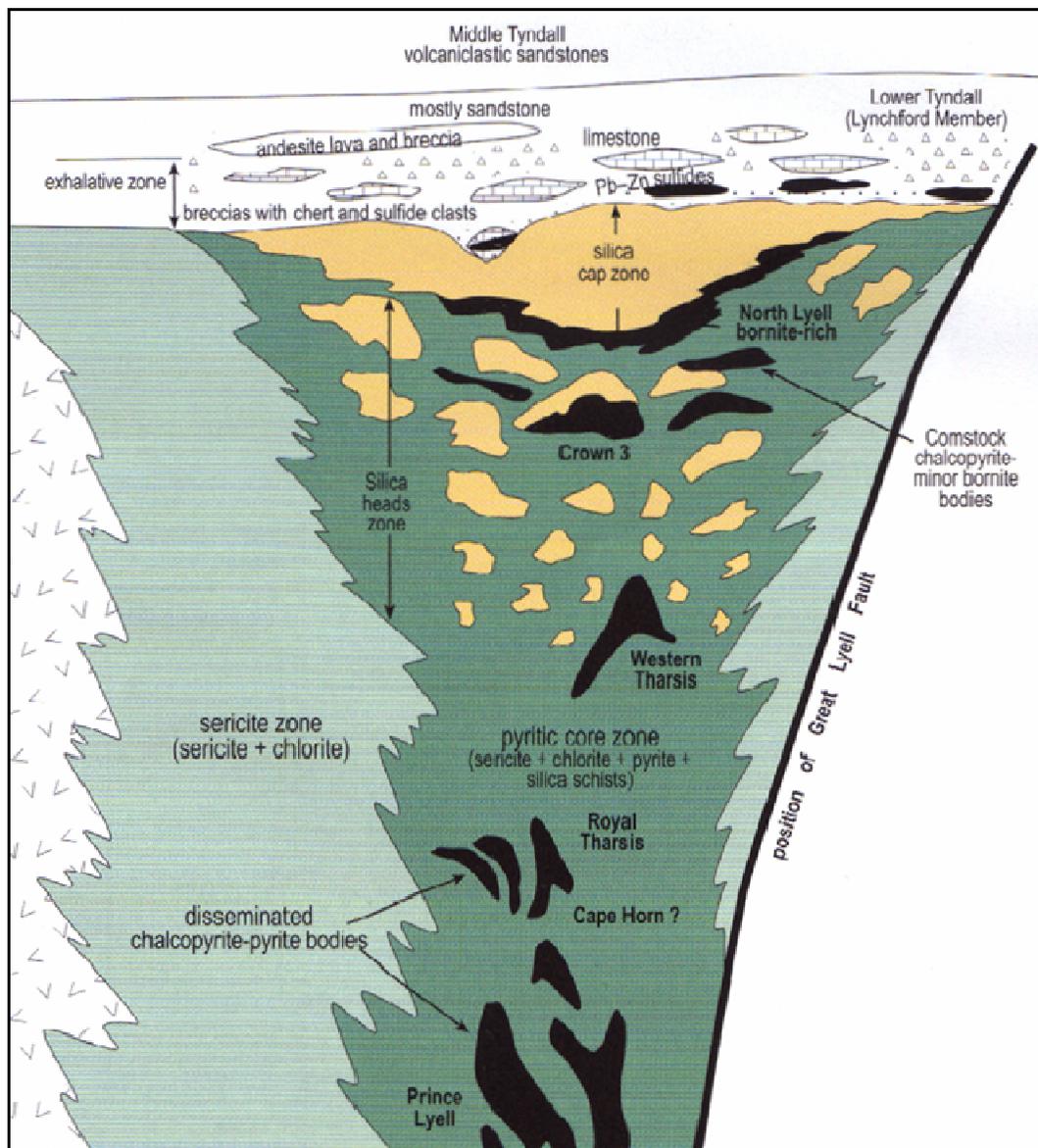


Figure 6 - Mt Lyell alteration and mineralisation (from Corbett et al. 2001)

5 EXPLORATION RATIONALE

In recent years new genetic models have been presented for the origin of mineralisation in the Mt Lyell district. This coupled with new open file information (HYMAP and magnetics) prompted Pangean Resources to evaluate ASTER alteration imagery to the south-east of Mt Lyell to determine whether it might be related to concealed Cu - Au mineralisation.

On a regional scale the Mt Lyell Cu-Au (Pb-Zn) district is localised at the intersection of the regional scale, north-south oriented, Great Lyell Fault Zone with a well-defined WNW trending, 'orogen oblique', structural corridor that includes the North Lyell and Glen Lyell fault zones. These structures are interpreted to be Cambrian age extensional structures reactivated as reverse faults during Middle Devonian shortening (Noll & Hall 2005).

HYMAP hyperspectral mineral mapping (by CSIRO and Pangean) of the Mt Lyell Cu-Au district (MLD) has defined a large zoned hydrothermal alteration system primarily hosted within the Middle to Upper Cambrian (Noll & Hall 2005) Mt Read Volcanics. The mineral mapping is characterised by a strong coherent, district scale, muscovite zone that encompasses the majority of mineralisation in the MLD. More localised centers of strong pyrophyllite within the muscovite zone show a spatial association with mineralisation at North Mt Lyell, Western Tharsis, Tharsis Consol, Glen Lyell and Glen Lyell South, on the edge of the pit to the main Mt Lyell deposit. This association suggests a genetic link between Cu-Au mineralisation and pyrophyllite alteration in the MLD.

Deposit scale alteration modeling at Western Tharsis (Hudson & Kamprad 2001) shows an outer shell of quartz-sericite-pyrophyllite-topaz capping the upper part of the Cu (Au) ore body. This suggests that the pyrophyllite bearing alteration may indicate proximity to mineralisation and could be used as a vector to guide mineral exploration in the MLD.

The mixed phyllic and high temperature advanced argillic assemblages outlined at Western Tharsis are characteristically seen in environments such as deep high sulphidation epithermal gold systems or in the transition to magmatic hydrothermal deposits. The alteration assemblage is hence considered indicative of a strong magmatic influence in the Mt Lyell hydrothermal system (Large et al, 1996). These data, coupled with improved stratigraphic and structural models for the MLD have led to new models for deposit formation, including:

1. Cambrian aged, hybrid epigenetic – syngenetic model (Corbett 2001); and
2. A Cambrian syngenetic origin for the Pb - Zn mineralisation, with an Ordovician age magmatic-related epigenetic origin for the Cu – Au mineralisation (Huston & Kamprad 2001).
3. The Mt Owen EL covers a coherent HYMAP muscovite - pyrophyllite anomaly located 3 km south-east of the Mt Lyell Mine. This anomaly lies within splays of the Great Lyell Fault Zone, and is hosted by the Upper Cambrian Owen Conglomerate sequence. This anomaly is not associated with any known Cu-Au mineralisation.

The Mt Owen Resources exploration program is designed to test:

- whether the Mt Owen muscovite – pyrophyllite anomaly represents in-situ hydrothermal alteration
- whether the anomaly represents a zone of hydrothermal up flow, channeled along splays of the Great Lyell Fault Zone into the Upper Cambrian stratigraphy
- for evidence of geochemical leakage that may indicate significant Cu-Au mineralisation concealed at depth beneath the alteration zone (*adapted from Nunn & Nano, 2008*)

6 SUMMARY OF PREVIOUS WORK

6.1 Historical Exploration

Although a data compilation was completed by Pangean Resources (Nunn & Nano, 2007) Bondi Mining / Lyell Resources conducted their own review of historical exploration, which is required as *due diligence* for any future IPO.

There are in excess of twelve different companies, including EZ, Mt Lyell Mining & Railway Company, BHP, RGC, Pasminco and Newcrest who held leases over EL39/2005 from 1959 to the early 2000's. Very few exploration companies actually conducted exploration on EL39/2005 due to the favourable Mt Read Volcanics being covered by the younger Mt Owen Conglomerate. Refer to **Appendix 2** for a list of all companies whose lease covered Mt Owen and who conducted significant exploration programs in close proximity to Mt Owen.

In the 1950's and early 1960's companies like EZ and Pickands Mather had very large leases covering almost all of the west coast of Tasmania and they conducted large airborne magnetics and EM surveys and reconnaissance mapping, rockchip and stream sampling, looking for VMS style Cu, Pb, Zn, Ag mineralisation.

In the late 1960's and 1970's Mt Lyell Mining & Railway Company (MLMRC) conducted grid mapping, rockchip sampling and geophysical surveying to the West of Mt Owen, in the Mt Read Volcanics, between Queenstown and the King River. Their work concentrated on the Great Lyell, Duke Lyell and Mt Ellen mines defining NNW trending EM anomalies and disseminated / massive sulphide near the Great Lyell Fault (Newnham, (1970); Wells (1971)). No exploration was conducted within EL39/2005.

In the 1980's and 1990's BHP and RGC (in joint venture with BHP) conducted detailed exploration for VMS style basemetal mineralisation at Garfield and the Clark valley and West Sedgewick (to the west and north of EL39/2005), which included: detailed grid mapping, grid soil sampling (multi-element), rock chip sampling, litho geochemistry, IP, EM and ground magnetic surveys and diamond drilling. Prospects explored included; Mt Ellen Mine, Garfield, Beatrice, Comstock valley and Moxon Saddle. No exploration was conducted on EL39/2005, although anomalous BCL streams were noted on the west and south of Mt Owen (collected outside of EL39/2005).

Gold Mines of Australia conducted a helimag survey in 1995 (UTS Geophysics (1995)) which covered most of EL39/2005 with 100m spaced east – west lines at a height of 20 – 30m. This survey was interpreted in 1997 by ERA-Maptec (Morrison, 1997), who defined north-west and east-northeast fault zones from the airborne magnetics and highlighted prospective targets where fault intersections coincided with gravity gradients (associated with alteration and mineralisation). This remains the only significant exploration on EL39/2005 until Pangean Resources Ltd conducted it's interpretation of the ASTER hyperspectral data and subsequent rock chip sampling and analysis (geochemical and PIMA). Refer to section 6.2 below.

6.2 Previous work by Pangean Resources

6.2.1 2007 Exploration

During 2006 to 2007 reporting period Pangean Resources:

- Re-processed and interpreted the open-file HYMAP hyperspectral data over EL39/2005 to confirm the original ASTER anomaly.
- Processed and interpreted open file heli-magnetics to define the structural setting of the Mt Owen MP (muscovite – pyrophyllite) anomaly.
- Completed ground traverses across the anomaly collecting PIMA and Rockchip geochemical samples.
- Completed steam sediment samples of creeks draining the northern portion of the Mt Owen MP (muscovite – pyrophyllite) anomaly

Results:

Field observations suggests that the Mt Owen MP anomaly represents in-situ hydrothermal alteration; however Pangean is awaiting results from PIMA and petrographic studies to confirm this interpretation. No indications of Cu/Au mineralisation have been recognized in the field.

Rock chip and stream sediment results have not returned anomalous Cu values. A single rockchip sample returned 0.64g/t Au from a sample of white textureless quartz veining in a finer grained unit of the Owen Conglomerate. This sample had no associated multi-element geochemistry and is not thought to be related to Mt Lyell style Cu/Au mineralisation.

6.2.2 2008 Exploration

During the 2007-08 reporting period, Pangean Resources commissioned Global Ore Discovery to conduct additional re-processing and interpretation of the open-file HYMAP Hyperspectral data over EL39/2005, to confirm the original ASTER anomaly and focus exploration; and correlate the results of PIMA field sampling with HYMAP Hyperspectral data, to confirm and refine mineral alteration vectors to mineralisation. The re-processing confirmed the ASTER pyrophyllite anomaly over Mt Owen, with the sericite anomaly far more restricted in the HYMAP data. PIMA field samples confirmed the presence of pyrophyllite in the Owen Conglomerate. HYMAP white mica mapping and PIMA analysis of surface alteration samples from the Mt Owen MP (muscovite – pyrophyllite) anomaly shows a strong vector from distal phengite to proximal paragonite towards the Owen Splay fault system.

The Mt Owen MP anomaly is similar to the detailed alteration patterns mapped around the Western Tharsis Cu / Au orebody in the Mt Lyell District. This orebody has a pyrophyllite cap and an alteration zoning from distal phengite to proximal paragonite around the mineralisation.

6.3 Previous work by Mt Owen Resources

For the details of this work refer to the 2011 Annual report (Esser, 2011)

6.3.1 Field Reconnaissance

A field reconnaissance visit to the Mt Owen project was completed in early March 2011. During the visit six east-west traverses for the planned IP survey were walked and 'pegged' with pin markers. Due to the very rugged terrain and thick vegetation on the east side the three northern lines were shortened by 1km and lines L4 and L5 were not completed across the desired target due to very rough or impassable terrain (**Figure 7**). The bottom two lines, which were planned as 3 km long, were cleared by line cutters for 1.5 km from the eastern boundary of the tenement and stopped when the crews intersected a cliff, which was impassable. Note; LQ was not gridded, but was surveyed with IP and CSAMT with the crew encountering steep and thickly vegetated slopes on the northern part.

6.3.2 Line Cutting

Permission was sought and granted by the MRT to cut a total of 3.4 line km of access track, approx 1m wide, to facilitate access by the IP crew in order to collect data on the two southern lines and also provide a remote Tx connection (external power) for line 'Q', which trends NE – SW. Originally it was thought that the four northern lines could be cut for IP access, but in discussion with MRT personnel this plan was abandoned due to the very steep and rough terrain. Lines 1, 2, 3 and Q were surveyed without having access cut (**Figure 7**).

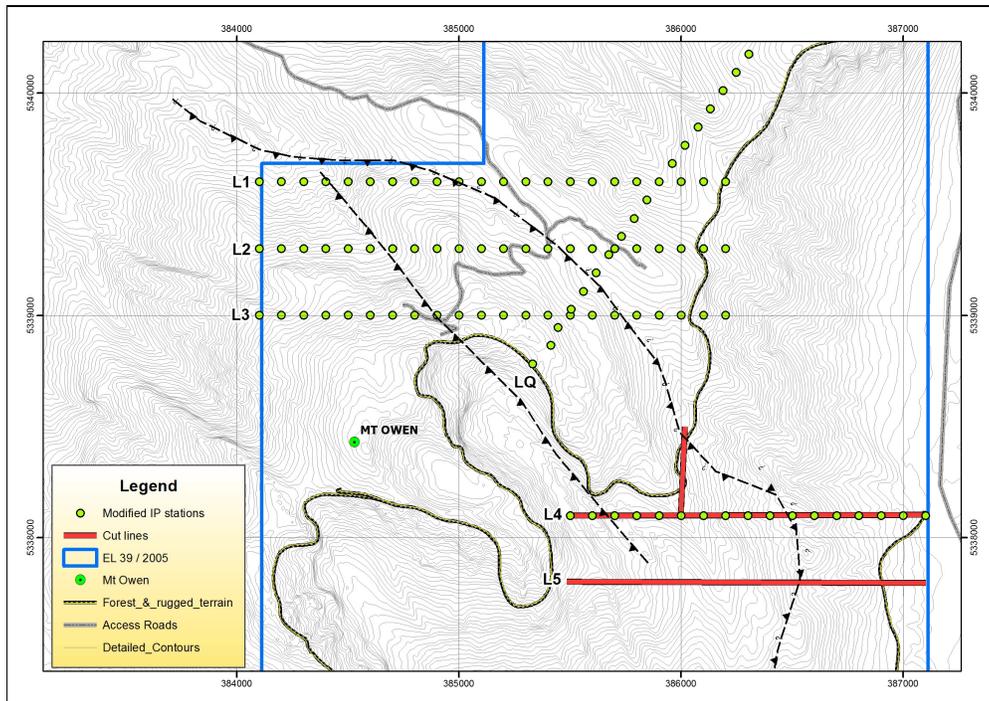


Figure 7 - Location of IP traverses modified due to terrain and vegetation

6.4 IP and CSAMT survey

During March and April 2011, Zonge Engineering and Research Organisation (Zonge) conducted a Pole – Dipole Induced Polarisation (PDIP) and Controlled Source Audio-Frequency Magneto Telluric (CSAMT) surveys over HYMAP alteration anomalies within the Mt Owen lease EL 39/2005.

The aim of the IP and CSAMT surveys was to test for sulphides associated with buried Cu/Au mineralisation as seen at the Mt Lyell orebodies. The Prince Lyell orebody (31Mt @ 1.35% Cu, 2.88g/t Ag and 0.42g/t Au) comprises a 'pipe-like' disseminated chalcopyrite – pyrite mineralisation, which dips steeply to the south-west to a depth of approximately 1200m. The orebody is within an quartz-sericite-pyrite alteration envelope with pyrite content at approximately 5% (Corbett, 2001). This style of disseminated mineralisation with higher grade zones of chalcopyrite should be detectable as a chargeability anomaly using IP or CSAMT to a maximum depth of 400 to 500m (Simon Mann, pers comm, 2011).

The IP survey commenced on 20th March and was completed on 22nd April 2011. IP data was recorded along four east-west lines and one NE – SW line using 100m and 200m receiver dipoles and 100m station spacing resulting in 678 data points read over 9.5 line kilometres.

A single line survey using CSAMT was carried out at the Mt Owen project in April 2011. The objective of the CSAMT survey was to test the effectiveness of the method for mapping resistivity variations that could assist with identification of structures favourable for Cu / Au / Ag mineralisation. The IP survey had utilised several east-west traverse lines and one northeast trending line. Due to the difficulties in finding a suitable transmitter site for CSAMT measurements on the east-west lines the north-east trending traverse was used for the CSAMT work. Plan 1 in Appendix 5, shows the location of the northeast trending traverse line 'Q' used for the CSAMT survey. A 1700 m transmitter bipole was laid out parallel to the traverse and about 7.5 km to the west-northwest. CSAMT data were collected along one NE - SW line at 100m station spacings, with 1.3 line kilometres of scalar data recorded. Refer to Appendix 2 for the Zonge logistics summary report. For more details of the CSAMT survey refer to Appendix 5 in Esser (2011).

6.4.1 IP Results

Dr John Coggon of Mines Geophysical Services completed reports on the IP survey at Mt Owen. The report describes the survey, discusses the data and outlines an interpretation of the data. A copy of the report is attached in Appendix 3 in Esser (2011) and figures, including resistivity pseudo-sections, conductivity and chargeability smooth model inversions for lines; 5339600mN, 5339300mN, 5339300mN, 5338100mN and line 'Q' are attached in Appendix 4 in Esser (2011). For more discussion of the results refer to Esser (2011).

6.4.2 CSAMT Results

Dr John Coggon completed a report on the CSAMT survey along line 'Q' at Mt Owen. The report describes the survey, discusses the data and outlines an interpretation of the data. A copy of the report with figures is attached in Appendix 5 in Esser (2011). For more discussion of the results refer to Esser (2011).

6.5 Rock chip Sampling

During the reconnaissance and mapping conducted in March to April 2011 a total of 33 rock chip samples of Mt Owen group sediments were collected from east – west IP traverses and also road cuttings. The purpose of the sampling was to determine whether any subtle geochemical anomalies occur in this part of EL 39/ 2005 and also to add to the hyperspectral data from rock chip samples already collected by Pangean Resources (Nunn & Nano, 2008). The rock chip samples did not return any anomalous Cu or Au values and no other elements appeared particularly anomalous. However, further multi-element statistics will be completed on the data in the next quarter, and the sample pulps will be submitted for hyperspectral analysis with *Global Ore Discovery*. Refer to Section 7.4 in Esser (2011) for details.

6.6 Structural Mapping

Structural and stratigraphic mapping was conducted along the east – west IP traverses, NE – SW traverses perpendicular to the strike of stratigraphy and road cuttings leading up to the summit of Mt Owen. The aim of the mapping was to produce relatively accurate geological cross-sections to aid in the interpretation of the IP / CSAMT data and help in future targeting of potential mineralisation at depth. Refer to Section 7.5 in Esser (2011) for details.

The structural and lithological mapping was used to create three interpretive geological cross-sections on IP lines 5339600N, 5339300N and 5339000N which were plotted onto the smooth model chargeability inversions. In summary the sections are oblique to strike (25 – 45°) and define a moderately south-west dipping sedimentary sequence with steeply overturned NNW to NW trending, shallowly plunging F2* folds and associated NNW to NW trending, steeply to moderately dipping reverse faults or thrusts.

One of the main reasons for exploring the Mt Owen area is the theory that the favourable host volcanics of the Central Volcanic Complex (Corbett, 2001) will be shallower in this area due to thrust displacement. We believe that the structural mapping conducted has confirmed this theory.

7 EXPLORATION IN CURRENT REPORTING PERIOD

No field work was conducted in the reporting period as mentioned in the Introduction (section 1) and Tenure (section 3). The reason for this is that Mt Owen Resources was acquired by Lyell Resources during the merger between Bondi Mining Ltd and World Titanium Resources, and this halted field work due to a lack of funds.

It is a requirement to conduct a due diligence on a project prior to an independent geologists report and therefore all historical exploration data from the MRT database was compiled and interpreted. The results of this work is summarised in Historical Exploration (section 6.1) and **Appendix 2**.

In addition to the review of historical exploration within, and around, EL 39/2005 the geological interpretation and IP anomalies were reviewed and re-interpreted with the aim of planning diamond holes to test for Mt Lyell type mineralisation. Four tentative drill holes (MOD01 to 04) have been planned and target the ASTER / HYMAP clay anomaly on the Owen Splay thrust and also IP chargeability anomalies. Refer to **Figure 8** and **9** for a plan showing the geology, clay alteration, drill collars, hole traces and IP anomalies and **Figure 10** for geological cross-sections with the drill hole traces and approximate IP anomalies. Also refer to **Figure 11** (from *MICROMINE*) which shows the regional geology draped over the DTM, the position of the proposed drill holes and one of the Mt Lyell open cuts in the background. Holes will be reviewed, ranked and modelled using *MICROMINE* to ensure the most favourable drill hole trajectory relative to IP anomalies and favourable geology.

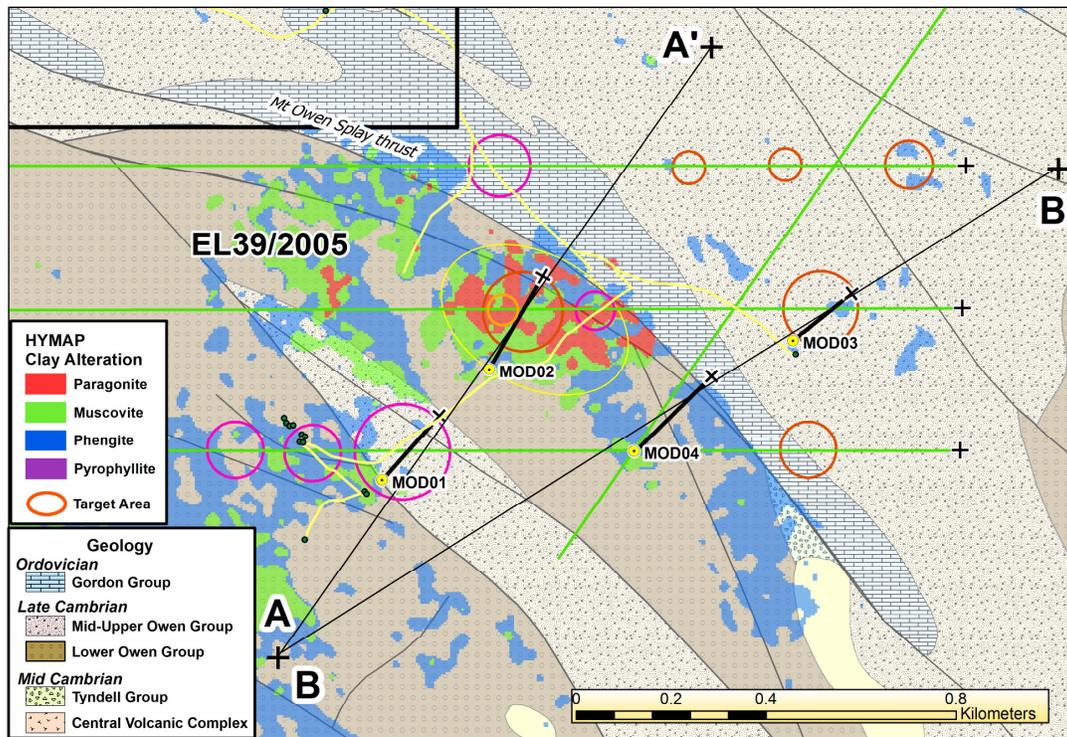


Figure 8 – Tentative planned drill collars testing for Lyell type mineralisation at depth.

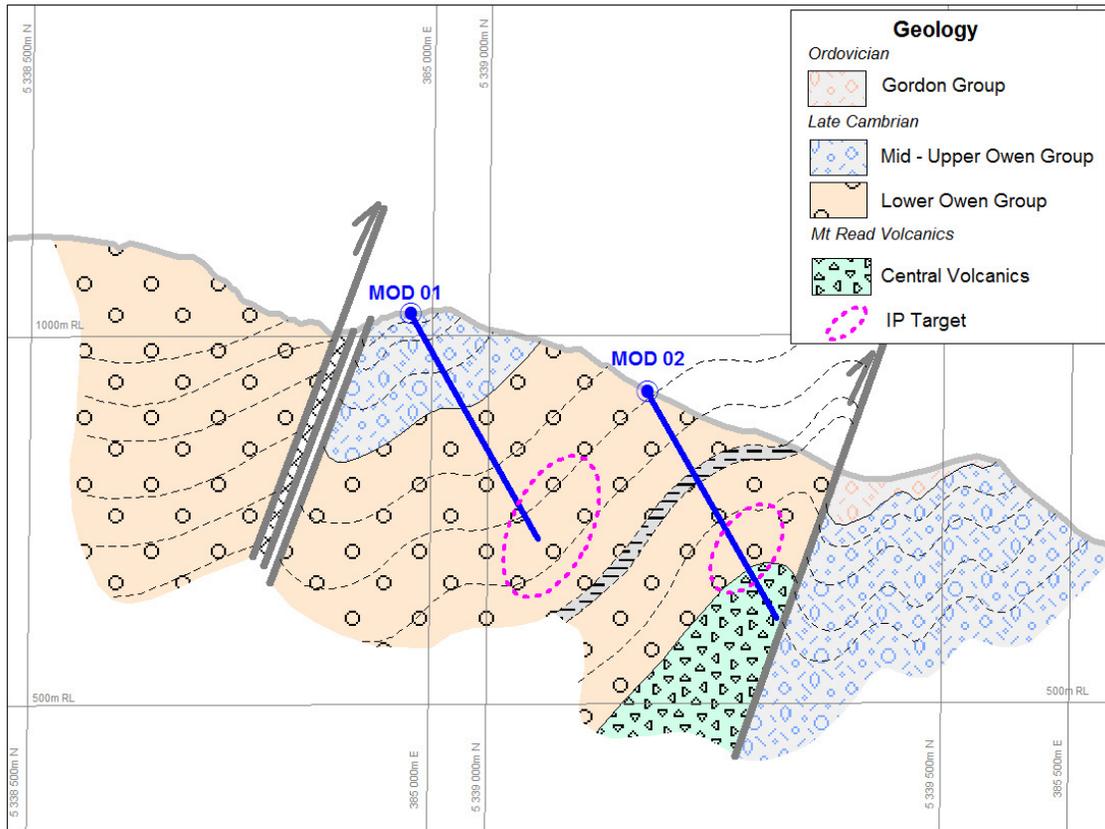


Figure 9 – Section for MOD 01 & MOD 02 showing IP target and interpretive geology

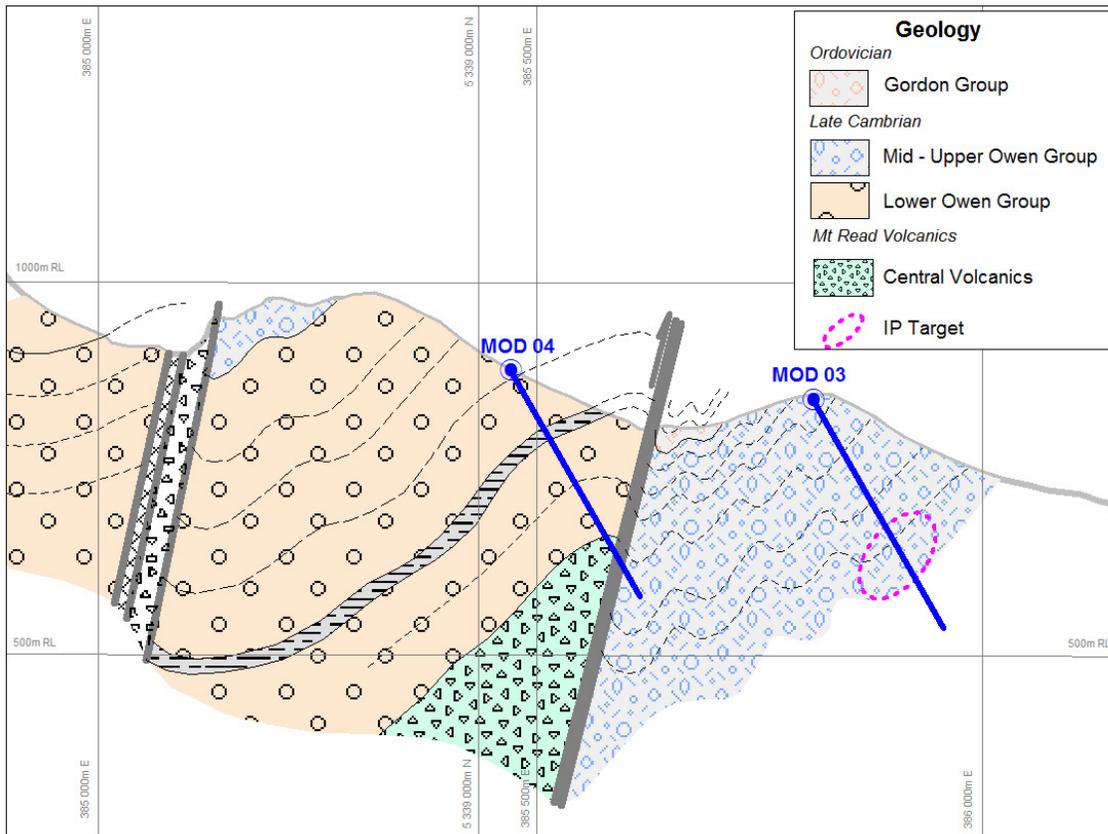


Figure 10 - Section for MOD 03 & MOD 04 showing IP target and interpretive geology

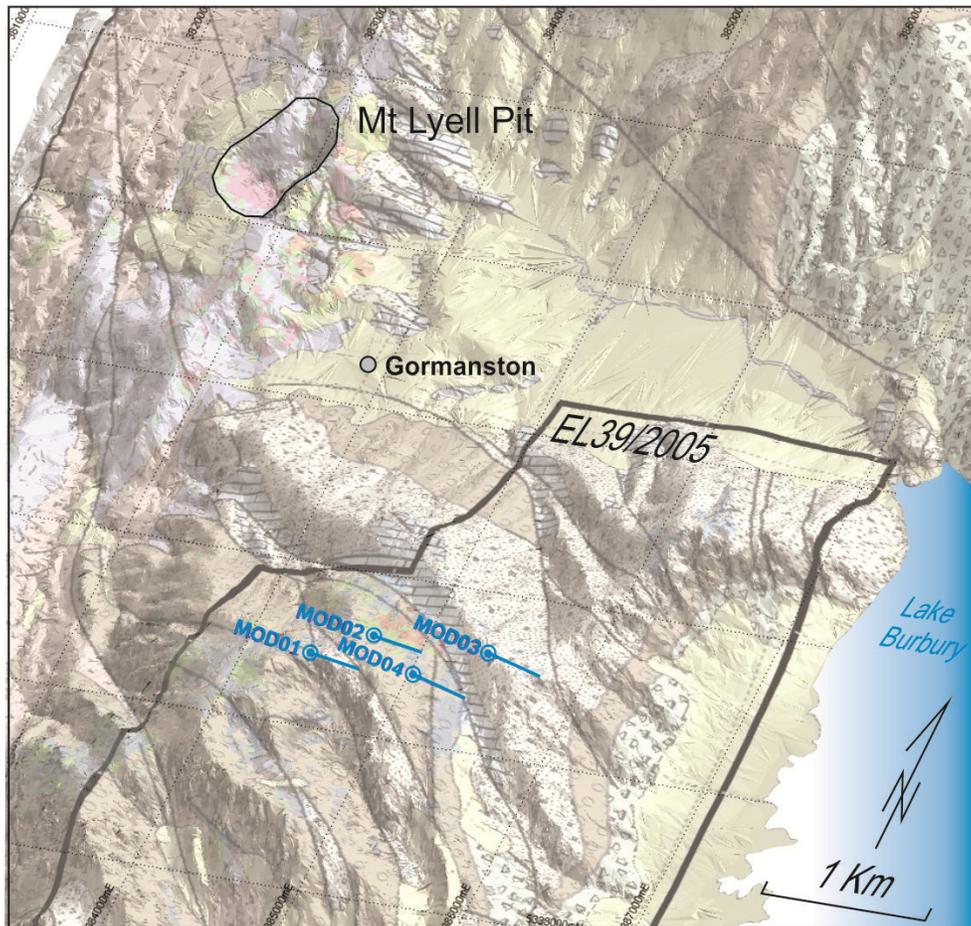


Figure 11 - Mt Owen *MICROMINE* model of proposed drilling & geological plan

8 FUTURE WORK

- Further detailed mapping at Mt Owen to extend the understanding of the 3D structural geometry of the Central Volcanic Complex and overlying Mt Owen Conglomerate (October – November)
- Further three dimensional geological modelling using *MICROMINE* software
- Plan and conduct a staged diamond drilling program to test deep chargeability anomalies defined by the IP and CSAMT surveys and the three dimensional geological modelling using *MICROMINE* software. It is proposed that 3 holes for approximately 1500m be drilled, subject to receiving a quote from a drilling contractor. Timing dependant on weather and rig availability.
- Down-hole geophysical survey (EM?) to help vector towards off-hole mineralisation
- Follow-up any mineralisation intersected during drilling or an off-hole conductor defined by the EM.

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APPENDICES

Appendix 1: Expenditure statement (Word doc) – Separate attachment

Appendix 2: List of exploration companies and historic exploration at Mt Owen

HISTORIC EXPLORATION AT MT OWEN – EL39 / 2005

EL	COMPANY	YEARS	NAME	km2	AREA	TARGET	EXPLORATION COMPLETED	RESULTS	EL COVERED	NOTES
3_1959	Electrolytic Zinc	6			SW Tas	Cu, Pb, Zn, Ag	Airborne EM & mag.	28 priority EM targets	39_2005	
12_1965	Pickands Mather	6			Dundas Trough	Sn, basemetals	Airborne mag., reconnaissance mapping & sampling over a large lease area		33_2011/ 39_2005	
10_1969	MLMR Co	9		117	W of Mt Owen / Mt Sedgewick, Dora -Huxley Area	Cu, Pb, Zn, Ag	1974: IP survey, mapping at Whip spur- Lyell Hwy; East Mt. Lyell - mapping; SW slope Mt Sedgewick - mapping	Little Owen grid - dissem & mass sulph within felsic volcanics (IP)	39_2005	NNW trending EM anomalies near the Gt Lyell fault on the west side of Mt. Owen
30_1983	Amoco Minerals	2			Governor R				39_2005	SE cnr of EL 39_2005
52_1983	Amoco Minerals	1			Mt Owen				39_2005	
102_1987	BHP	11	Garfield	99	Henty Flt, Flannigans, Mt Ellen, Mt Maid, Sailor Jack, Snake spur	Basemetals, Au	1990: 190 line km of EM in Clark valley, detailed grid mapping, 164 rockchips. Mt Ellen mine BCL & rockchips	Weak EM anomaly east of 'Thomas Currie Rivulet', 962 ppb Au near Mt Ellen mine. Rock chip: 5m @ 2.18ppm Au	33_2011/ 39_2005	
102_1987	BHP				Henty Fault, Mt Ellen, Comstock W, Moxon saddle, Beatrice	Basemetals, Au	1989: TEM on Moxon saddle, Beatrice, Comstock West. BCL streams over 'area 1'	W conductors located in Comstock valley (along strike from Tasman & Crown). Significant BCL Au west & south of Mt Owen	39_2005	
102_1987	BHP / RGC		W Sedgwick / Garfield		West Sedgewick, Garfield - Clark valley	VHMS basemetals	1992: Grid mapping, 1,416 multi-element soils, 401 rockchips, lithogeochem. Diamond drilling (WS005, -5A, -6)			
102_1987	BHP / RGC		W Sedgwick / Garfield		West Sedgewick, Garfield - Clark valley	VHMS basemetals	1993: Drilled WS007 to 499m @ W Sedgewick. Drilled GAR001 to 388m (pyritic zone). Ground mag / EM at Garfield	WS007 intersected strongly pyritic alteration with no basemetals. GAR001 intersected pyritic altn with Cu similar to Prince Lyell Cu		
102_1987	BHP / RGC		W Sedgwick / Garfield		West Sedgewick, Garfield - Clark valley	Basemetals, Au	1996: 1990 IP survey interp, 2 drill holes into IP target Moxon saddle (L Tyndall Gp).	Moxon saddle IP anomaly due to black siltstone in L. Tyndall Gp at 400 - 500m deep		
AP1_1985	MLMR Co/RGC	13	Queenstown		Queenstown/ Gormaston	Basemetals, Au	1988: Diamond drilling, detailed mapping, Rockchips ground mag @ Little Owen (Au), Gt Lyell & Comstock Ck	Little Owen: 'structure' broadly controls alteration; strong chl veining and brecciation; Au assemblage chl-py-he-mt-cpy	39_2005	Converting ATP to ML 30M/80
52_1994	Copper Mines of Tasmania				Linda Valley, King Lyell, Copper clays	Basemetals, Au	1997: Aeromagnetics and gravity study by ERA-Maptec (July),	Gravity highs associated with pyritic halo to minz: King R, North Lyell, Owen Spur and Comstock Valley faults prospective. Inferred resource of 1.2Mt @ 1.37% Cu for King Lyell Cu clays.		
52_1994	Copper Mines of Tasmania				Linda Valley, King Lyell, Copper clays	Basemetals, Au	1997: Aeromagnetics and gravity study by ERA-Maptec (July),	Continued: Conclusion: 6x the current inferred resource is required. Burbury Volcanics: Au and Zn anomalies discovered (0.6g/t Au)		
12_1992	Renison Ltd / RGC				Mt Owen/ Mt Jukes	Basemetals, Au	1994: 5 diamond holes @ Garfield Cu-Au prospect. 1 diamond hole @ W Sedgewick. Mapping @ Beatrice / Moxon saddle. Detailed helimag S of Henty		39_2005	Small lease surrounding EL102/1985
6_1998	Pasminco / Aurion Gold	5			Beatrice	Basemetals, Au	1999: Detailed mapping, 580 MMI soils, pole - dipole IP, orientation CSAMT and 4 diamond holes for 2393m, DH EM survey at Beatrice. Re logging @ W Sedgewick.	Beatrice - Wide intervals of anomalous Zn : 0.8m @ 8.77% Zn, 2.15% Pb, 105ppm Ag from 459.3m & 68.4m @ 0.49% Zn, 0.21% Pb, 7.8ppm Ag from 515m	33_2011/ 39_2005	Off lease to W
20_2003	Newcrest	5	Queenstown - Mt Darwin		West of Mt Owen, Garfield, Mt Jukes, Mt Darwin	Cu - Au	2006: Focused on drilling untested targets in volcanics. 9.5km of CSAMT on 8 lines west of Mt Owen; re-assay old RGC core; 701.2m diam hole at Garfield; 34 pan cons; 47 soils in the Intercolonial spur - Mt Darwin area; 3.9 line km of magnetics at Mt Ellen		39_2005	W of EL 39_2005