

PARAGON RESOURCES:

ANNUAL REPORT, EL18/2010, ELLIOTT BAY



Year 2 (Nov 2011 - Nov 2012)

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Sunday, 18 November 2012

Panned gold from the vicinity of the Discovery Creek Shear Zone is of a form that is consistent with it being sited <300m of its source.

Distance to the source	0-50 m	50-300 m	> 300 m
General shape			
Outline			
Surface			
Primary crystal imprints		Diffuse Evidence	Absent
Associated minerals	Quartz and Fe Oxides	Fe Oxides	Limonite
Flatness index	1-3.6	2.1-6	3.0-7.5

from Townley 2003

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Alluvial gold from the previously undocumented Discovery Creek Shear Zone, Elliott Bay.

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SUMMARY

This second Annual Report for EL 18/2010 (Elliott Bay) presents results of field checking sites identified during Year 1. Year 2 work has shown that earlier regional mapping and geological interpretations of gold mineralisation in the Elliott Bay area were inadequate or incorrect. Rather, gold in streams (up to 688 g/t) and associated (previously undocumented) free gold in rocks coincides with a newly identified zone of regional-scale ductile faulting in the eastern parts of the Elliott Bay area.

Year 2 work resulted from review of past exploration (Reed, 2011) showing work in the Elliott Bay licence area had focussed almost solely on identifying sources of VHMS-style lead-zinc-silver -dominated mineralisation. By contrast, little thought had been given to explaining extensive gold anomalism evident in earlier regional stream sediment surveys.

Previous work in the Elliott Bay region is of a high quality, but has received only limited interpretation and generally only in context with a VHMS massive sulphide model for mineralisation. This 'blinkered' approach has not only limited interpretation of data, but also planning and execution of prospect-level surveys. Exploration has predominantly focussed on looking for mineralisation within and across stratigraphic units with little, if any, regard to nearby structures.

Field-work this year has found high gold values in historic stream sediment surveys to be associated with an extensive zone of high strain and chlorite-sericite alteration in eastern Elliott Bay region. This continuous (ductile) zone of high strain crops out over a strike length of greater than 5km, but has not been previously documented on any regional geological map. Free gold has been found in sheared and altered volcanic rocks upstream of stream sediment results yielding up to 688 g/t gold. These highly anomalous panned concentrate results were disregarded by previous explorers (without checking) as 'spurious'.

Work by Paragon Resources has corroborated an association noted elsewhere in Australia between VHMS style mineralisation and shear-related gold. Much of the Elliott Bay licence area is anomalous in gold. However, a review of historic lead isotope studies shows vein-style gold in the western parts of the licence to be of probable Devonian age, not Cambrian age mineralisation being sought by Paragon. Devonian age mineralisation at Elliott Bay is unlikely to yield a deposit of economic size and so this ground is to be relinquished.

Results of exploration to date are extremely positive, highlighting flaws in earlier exploration models and interpretations of exploration data, but reinforcing the value of existing data in context of a better understanding of the geology and setting of gold-related mineralisation.

Expenditure for Year 2 work was \$140,579 against a minimum required expenditure of \$36,681.

1. INTRODUCTION

EL18/2010 comprises 168 km² located in the Southern Mount Read Volcanic belt (SMRV) of southwestern Tasmania (Figures 1.1 and 1.2). The licence area is prospective for metallic minerals with potential for non-metallic by-product.

The licence was granted on 24th November 2010 without objection.

The licence covers the southern section of exposed Cambrian volcanic and related intrusive rocks. Exploration at Elliott Bay in the past has focussed on VHMS-style massive sulphide (lead and zinc) mineralisation with little regard to explaining the considerable gold anomalism in the area. Paragon Resources is focussed on looking at alternative models for mineralisation which shows VHMS-style mineralisation elsewhere in Australia to be associated with shear zone related gold.

The licence currently comprises 168 sq km (pre- partial relinquishment). After relinquishment, EL18/2010 will be 107 sq km. A separate report detailing work completed on those relinquished areas is attached.

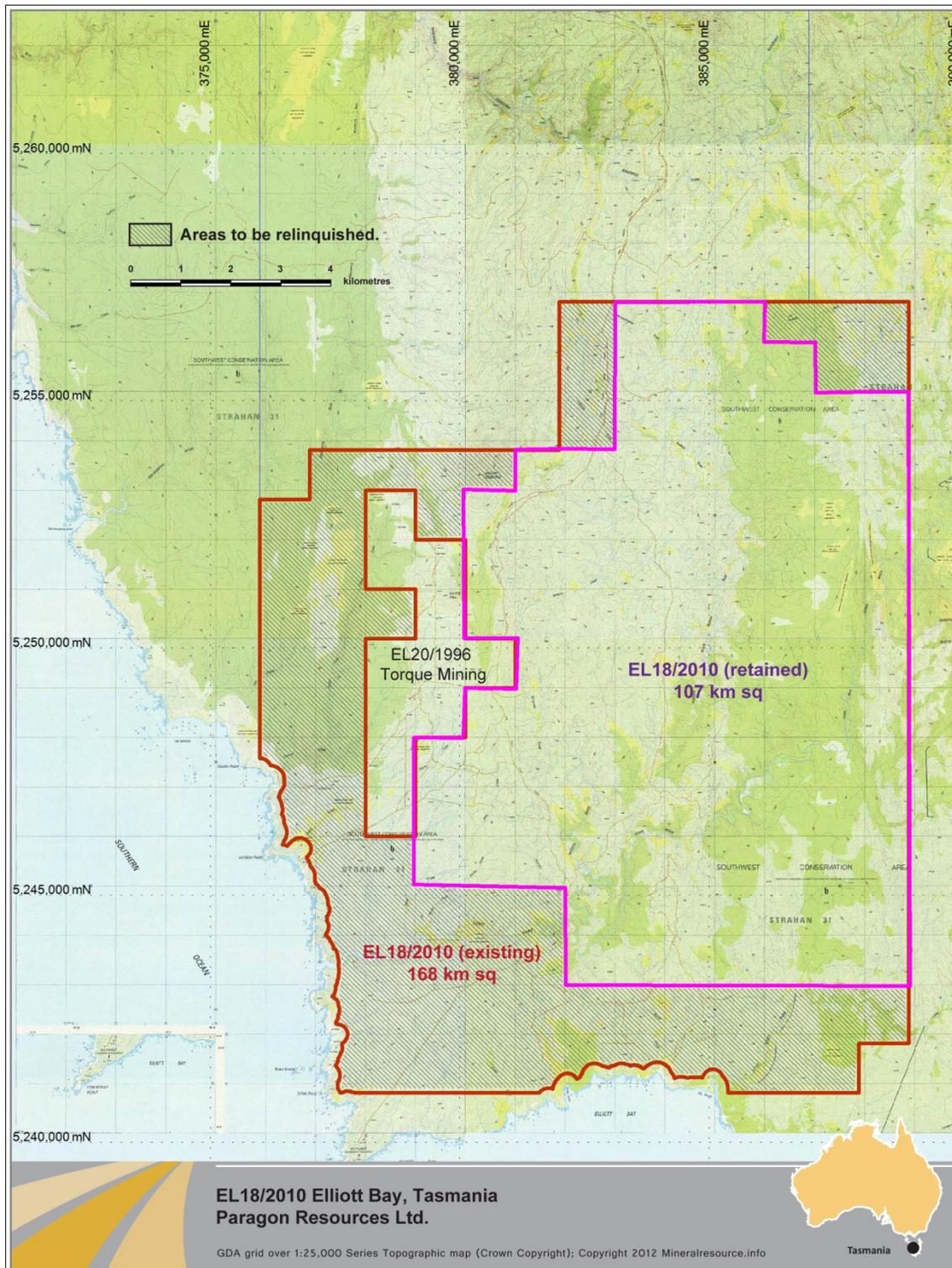


Figure 1.1. Map showing Elliott Bay licence area, and areas to be relinquished. The area to be retained is considered prospective for yielding a Cambrian age mineral deposit of economic size (>2Moz gold eq)

Paragon Resources was first alerted to the potential in Elliott Bay after processing of government Western tasmanian Regional Minerals program (WTRMP) data revealed a greater complexity in the geology and structure in areas of gold anomalism than had previously been recorded.

Most exploration at Elliott Bay (Figure 1.3) has shown a progression from regional to prospect-scale, with a focus on identifying and testing for massive sulphide VHMS-style lead and zinc mineralisation. This emphasis on a stratabound VHMS model largely pre-dated discovery of the fault-related Henty gold deposit. It also pre-dated regional geological or high-quality geophysical datasets.

Importantly, the design of exploration programs, regional mapping and interpretation of exploration results in the past has nearly always been in context with an exploration model prioritising lithology-parallel (stratabound), Pb- and Zn-dominated mineralisation. Mineralisation at Elliott Bay that did not fit this VHMS model was largely disregarded, inadequately explained or never followed up.

Despite considerable structural complexity in the Elliott Bay area, no structural geologists were involved in constructing the regional geological maps of the region (Vicary, pers comm).

Recent studies elsewhere in Australia are also now showing a continuum of deposit styles in VHMS-bearing terranes. In particular, work in western Australia (Groves et al, GODS, 2002) shows an association between VHMS mineralisation and shear zone related mineralisation. Although the regional mapping in the eastern Elliott bay area lacks structural input, considerable complexity is evident in Western Tasmanian Regional Minerals Program (WTRMP) radiometric and aeromagnetic data (Reed 2011). These data clearly show anomalies across multiple radiometric and aeromagnetic datasets in areas also anomalous in gold.

The combination of a flawed approach to previous work, new data, and an improved understanding of the styles of mineralisation that might be present in the southern Mount Read Volcanics formed the basis for Paragon acquiring the ground in 2010.

This report presents results that show a strong structural component to gold mineralisation at Elliott Bay. The characteristics of this style of mineralisation lead Paragon to believe that the region has the capability to yield a gold deposit in excess of the 2Moz target being sought.

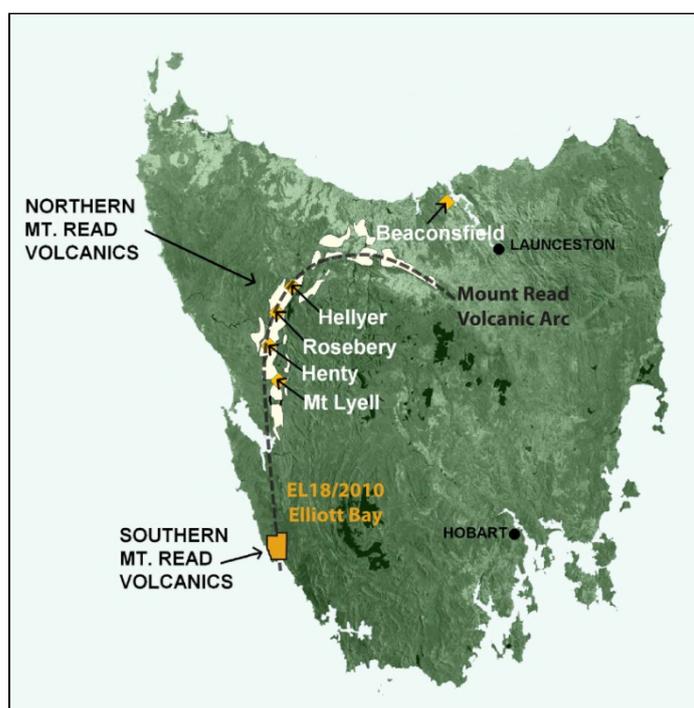
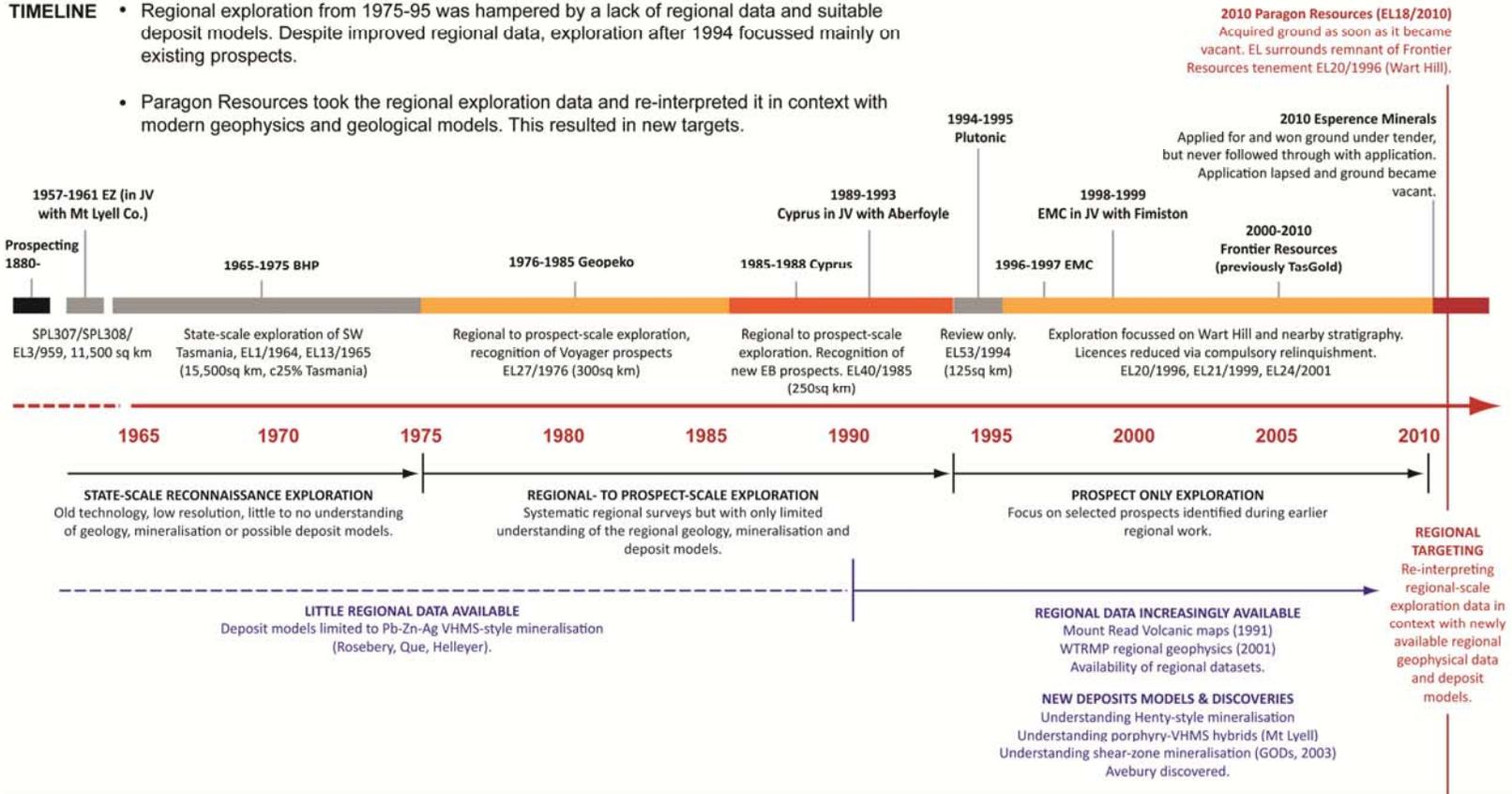


Figure 1.2. Map of Tasmania showing the location of EL18/2010 in southwestern Tasmania. The Elliott Bay licence encompasses 168 sq km of the highly mineralised Mount Read Volcanic belt.

- TIMELINE**
- Regional exploration from 1975-95 was hampered by a lack of regional data and suitable deposit models. Despite improved regional data, exploration after 1994 focussed mainly on existing prospects.
 - Paragon Resources took the regional exploration data and re-interpreted it in context with modern geophysics and geological models. This resulted in new targets.



FIVE PHASES OF EXPLORATION AT ELLIOTT BAY

<p>1</p> <p>COLD</p> <p>Reconnaissance work to see what was available. Used older technology over large tracts of ground, but with little understanding of the geology or potential styles of mineralisation.</p>	<p>2</p> <p>WARM</p> <p>Potential for the southern Mount Read Volcanics to host a VHMS-style Pb-Zn deposit reinforced by the discovery of massive Pb-Zn-Ag mineralisation at Wart Hill. Gold-only anomalism did not fit with a VHMS model and so ranked lower than more classic VHMS-style targets.</p>	<p>3</p> <p>HOT</p> <p>First attempts to grasp meaning of regional gold anomalism in context with Henty Fault style, gold-only mineralisation.</p>	<p>4</p> <p>COLD</p> <p>Early acknowledgement of the importance of the regional gold potential, but with subsequent work directed at a select few pre-existing (largely VHMS-style) prospects (e.g. Wart Hill).</p>	<p>5</p> <p>V HOT</p> <p>Recognised association of gold-only anomalism with previously unmapped shear zones.</p>
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Figure 1.3. Timeline showing exploration at Elliott Bay since the 1950's. Early regional exploration was without benefit of regional geological maps and focussed solely on a VHMS-style of exploration model. It was only in the early 1990's that regional geological maps became available, although these too were created with a mind to assisting discovery of VHMS deposits. The 1990's and 2000's saw exploration at Elliott Bay dominated by the McNeil family but with most work focussed on VHMS prospects discovered previously. Extensive gold anomalism in the eastern Elliott Bay was largely ignored in favour of VHMS targets.

2. EXPLORATION PHILOSOPHY

The exploration philosophy adopted by the company is a matter of constant review.

Initial targeting of the eastern Elliott Bay area resulted from realisation that anomalous and unexplained gold results in historic panned concentrates (up to 688 g/t gold) coincided with structures mapped from WTRMP geophysical data (Reed, 2011).

Complexity in WTRMP data and field checks by MRT geologists (Green, 2002) were inconsistent with simple geological contacts shown on regional geological maps. Further investigation revealed that regional geological mapping in the 1990's had lacked structural input (Vicary pers comm). Rather, a lithological focus was seen as being more important to providing a regional context for the VHMS models driving exploration at the time.

Evidence existed for features in WTRMP data being more than artefacts. Features matched known geological trends. One feature of particular interest coincided with a zone of previously documented sericite and chlorite alteration (eg Cyprus 88/2853), as well as progressive changes in regional foliation and the presence of stretching lineations on regional geological maps. Field checking revealed this feature to be a major shear zone.

Geophysical complexity in WTRMP data often also coincided with areas of unexplained geochemical anomalism. However, anomalous stream sediment gold results from the eastern Elliott Bay area had been largely disregarded by earlier workers because their setting did not fit with the stratabound lead- and zinc- VHMS-style mineralisation being sought (eg as at Rosebery in the northern MRV).

Even prior to field checking, it was clear that structural geology played a more important role in the geology of the Elliott Bay area than had been previously documented. Developing a better understanding of this was crucial, especially given the structural influence highlighted for more recently discovered gold deposits in the northern Mount Read Volcanic belt, such as Henty.

Recent work in Western Australia has also shown an association between VHMS terranes and shear zone hosted mineralisation (Groves, 2003). Indeed, it is a characteristic of Archaean belts that the two deposit styles can occur together.

Demonstrably VHMS-style mineralisation at Elliott Bay (eg Wart Hill) occurs in the upper parts of the Elliott Bay volcanic sequence. By contrast, gold mineralisation in the eastern Elliott Bay area sits lower (or deeper) in the stratigraphy. This environment is conducive to a hotter, copper-gold-rich, shear-related mineralising environment.

In summary, the hypothesis being tested by Paragon is that copper- and gold-mineralisation located by earlier explorers in eastern Elliott Bay area did not fit the VHMS model of earlier workers because it is not a VHMS style of mineralisation. Rather, it is a manifestation of the same mineralising event, but formed deeper in the Earth's crust in areas of structural complexity not previously documented.

Results of field-checking presented in this report verify that gold mineralisation in eastern Elliott Bay is indeed associated with zones of high strain. These structures have not previously been mapped or documented.

A conceptual gold target for Elliott Bay is a deposit similar to or larger than the Henty – Mt Julia system (eg >2Moz) in the northern section of the MRV. A deposit smaller than 2Moz gold (eq) is unlikely to be economic given the remote location.

3. TENURE AND SOVEREIGN RISK

EL18/2010 is wholly Crown land. There is no private land, nor are there farming or grazing leases covering the licence area.

EL18/2010 is contained within one of a number of Conservation Areas located in prospective areas of Tasmania. It is not part of the World Heritage Area. Work at Elliott bay is subject to review by the Mineral Exploration Working Group, an advisory group to Mineral Resources Tasmania.

Elliott Bay is falls within the Cape Sorell Strategic Prospectivity Zone (SPZ; Figure 3.1). SPZ's are recognised regions of high prospectivity for mineral discovery. They were established under 1993 legislation enacted to provide resource security for the minerals industry. Under this legislation, the status of significant parcels of Crown land within SPZs cannot be changed to a tenure excluding mineral exploration and mining without the approval of both Houses of State Parliament. The approval of the Director of Mines is needed for small parcels of land (less than 500 hectares). **If the status of land is changed so that a mineral tenement is voided or diminished in size, the holder may be compensated** (Mineral Resources Tasmania, Annual Review 2000-01, text copied from ABS website, <http://www.abs.gov.au/ausstats/abs@.nsf/0/42124675B8A0F173CA256C32002416BE?opendocument>). SPZ legislation is unique to Tasmania and aims to reduce sovereign risk to the explorer by providing compensation should there be a change of land status. The SPZ legislation offers greater certainty to the explorer than might ordinarily be expected elsewhere in Australia.

There is no native title claim over Elliott Bay. Nor is Native Title the same issue in Tasmania as it is elsewhere in Australia. Rather, the Native Title (Tasmania) Act 1994 (Tas) confirms State ownership of all natural resources.

Sovereign risk in Tasmania is possibly lower than other States in Australia, in large part due to lower native Title risk and greater certainty of tenure through SPZ legislation. There is a high 'perceived risk' by the investment community, compounded more recently by the failure of the intergovernmental process (Intergovernmental Agreement; IGA) between forestry and environmental groups. Ironically, the reality is that a result of the troubles facing forestry is that the State relies even more on earnings from minerals, currently comprising more than 50% of the States export income.



Figure 3.1. Location map showing Strategic Prospectivity Zones (SPZ's) in Tasmania. Elliott Bay (EL18/2010) is contained within the Cape Sorell SPZ.

4. LAND ACCESS AND INFRASTRUCTURE

Elliott Bay is located on the high rainfall west coast of Tasmania, with the potential for adverse weather conditions at any time of the year. Eastern parts of the Elliott bay licence tend to be more undulating (Figure 4.1) and therefore more sheltered than exposed button-grass plains to the west. However, fieldwork is best restricted to summer months, between November and April.

Access to and within the Elliott Bay area is difficult. Vehicular access is restricted to quad-bike tracks. Lighter equipment and personnel can be flown by helicopter from Strahan or Strathgordon. Helicopter services (B2 Squirrel) are based from Strahan during the summer months with additional operators (B2 Squirrel and Longranger helicopters) located on the north coast. Helicopter service providers are experienced in both slinging mineral exploration equipment and the Elliott bay area.

There is an old but still serviceable airstrip located a few kilometres north of the EL18/2010 at Moores Valley (Figure 4.1). Air Tasmania have advised that they are prepared to fly their Islander aircraft to Moores valley from Hobart. Islanders are proven aircraft with a carrying capacity of about 900kg. They are a cost and time effective alternative to helicopters for transport of personnel and light equipment from Hobart for larger programs.

Heavier equipment has previously been barged down the west coast from Strahan (eg Frontier Resources). An alternative for accessing the eastern parts of Elliott bay is to sling gear to site from a barge using a helicopter.

There are few facilities with the exception of a very basic government-maintained campsite at Wart Hill. Personnel can camp at site of be located from Wart Hill using a smaller Robinson helicopter.



Figure 4.1. The landscape at Elliott bay comprises a dissected tertiary plane, ranging from open flat button grass country in the west to forested and button grass-covered planes dissected by steep-sided valleys in the east. A 4WD/quad bike track runs from Macquarie harbour through EL18/2010 to Low Rocky Cape, also passing the Moores valley airstrip.

5. REGIONAL SETTING OF MINERALISATION

About 50% of Tasmania can be broadly classified into metallogenic domains hosting a number of mineral deposit types; including:

- Late Proterozoic Arthur lineament in the northwest of the State, yielding iron ore and magnesite .
- Early Cambrian mafic and ultra-mafic rocks containing platinum group minerals (PGMs), nickel, copper, cobalt, gold and other minerals.
- **Middle Cambrian Mount Read Volcanics (MRV), hosting polymetallic volcanic hosted massive sulphides (VHMS) and disseminated copper-gold deposits.**
- Middle Devonian mesothermal gold deposits in north-eastern Tasmania.
- Late Devonian to Early Carboniferous granite associated deposits.

Elliott Bay is contained within the Middle Cambrian Mount Read Volcanic (MRV) belt. The MRV belt is highly mineralised, hosting three of Tasmania's six 'world-class' deposits. The MRV boasts an impressive pre-mining resource of more than an estimated 11Moz gold (Table 5.1).

EL18/2010 (Elliott Bay) is contained within the Southern Mt Read Volcanics (SMRV). These rocks are similarly well mineralised. Mineralisation is of the same age and style as further north but due to its remote location, has received less exploration attention and, as a result, is less well understood.

Table 5.1. Size, grade, contained gold (and approximate value) of mineral deposits from within the MRV. This table shows those only those deposits from within the MRV and excludes nearby deposits in adjacent rock packages. In-ground value is an estimated pre-mining value calculated using historic production and current published resources, and using metal values and exchange rates current at April 2012. Data from various company sources and MRT (G Green, in press).

		Mt	Cu %	Au ppm	Ag ppm	Pb%	Zn%	Oz gold	\$Am
Mount Lyell field	CMT	311	0.97	0.31				3,213,667	\$30,342
Rosebery	MMG	46.7	0.5	1.93	133	3.9	12.16	3,004,367	\$28,074
Hercules	MMG	3.33	0.4	2.8	171	5.5	17.3	310,800	\$2,703
South Hercules	MMG	0.56	0.11	3	157	1.9	3.7	56,000	\$251
Hellyer	Bass	16.5	0.38	2.55	169	0.38	13.9	1,402,500	\$10,346
Hellyer tailings	Bass	9.5	0.2	2.6	104	3	2.5	823,333	\$3,578
Que River (historic)	Bass	3.3	0.7	3.3	195	7.4	13.3	363,000	\$2,805
Que River A	Bass	0.36	2	0.3	63	1.3	3.4	3,600	\$123
Que River B	Bass	0.3	0.2	1.2	100	4	6.9	12,000	\$120
Mt Charter	Bass	6.1		1.2	36			244,000	\$632
Fossey mine	Bass	0.55	0.5	2.6	134	7.1	12.9	47,667	\$394
Fossey East	Bass	0.25	0.4	1.8	73	4.4	9.1	15,000	\$118
Henty (historic)	Unity	2.83		12.5				1,179,167	\$1,919
Henty	Unity	2.08		4.9				339,733	\$553
Wart Hill	Frontier	0.55		0.5	94	3.4	7.2	9,167	\$184
Garfield	Jaguar/Corona JV	13	0.3						\$325
Lakeside	Unity	0.75	0.2	2.1	20			52,500	\$114
Fire Tower	Unity / Greatland	3.6		0.8				96,000	\$156
								11,172,500	

6. GEOLOGY

This section gives a brief overview of the regional Palaeozoic geological setting of the Mount Read Volcanics (MRV) and the geology of Southern Mount Read Volcanics (SMRV) in the vicinity of EL18/2010 (Elliott Bay).

Regional geology of the Mount Read Volcanics

The geology of the MRV is best understood in the north but is more controversial in the southern MRV where Elliott Bay is located.

In the north, the MRV resulted from a major period of volcanism along the eastern edge of a water filled rift in the Cambrian (circa 500Ma). Volcanism was initially rhyolitic to dacitic in composition in the centre of the trough (Central Volcanic Complex; CVC), with predominantly quartz- feldspar-phyric rocks erupted to the east (Eastern Quartz-phyric sequence).

The CVC in the northern MRV hosts the Rosebery and Hercules deposits.

Andesitic to basaltic volcanism followed with further rifting focussed to some extent on the Henty fault system. These Tyndall Group rocks host the Que River and Hellyer VHMS deposits.

Further rifting was centred on the Henty fault system and was followed by the mainly felsic final phase of volcanism. Coeval with the deposition of these dominantly volcanic sequences was the deposition of the Western Volcano-Sedimentary Sequences containing sediments of mixed volcanic or metamorphic provenance and minor felsic and andesitic volcanics.

Both Henty and Mt Lyell are mineralised deposits hosted or controlled by faults. Gold-rich deposits such as Henty and Mt Lyell have characteristics of both VHMS- and porphyry copper-gold -style mineralisation.

Geology of the Southern Mount Read Belt (SMRV)

The SMRV are separated from the main belt of MRV north of the Gordon River. Geological understanding of the relationship between the northern and southern MRV is hindered by intervening Tertiary cover and relative lack of drilling south of Macquarie Harbour.

The geology at Elliott Bay comprises Cambrian calc-alkaline felsic to mafic volcanics (Figure 6.1). Volcanic rocks are prospective for gold, silver and base metals (copper, lead, zinc). Copper gold anomalism is more prevalent in the east of the licence area at what are probably deeper stratigraphic levels, whereas lead and zinc of VHMS affinity (with or without remobilised Devonian age gold) are more prevalent in the west (Figure 6.2).

Basement likely comprises a sequence of deformed Precambrian metasediments (similar to those outcropping to the east of EL18/2010) and/or mafic lavas and associated sedimentary rocks. Basement rocks are overlain by volcanoclastic and siliciclastic sediments correlated with the Sticht Range beds of the northern MRV sequence. This unit unconformably overlies and is in part fault contact with Precambrian metasediments east of EL18/2010.

The remaining geology and its correlation with rocks further north is more controversial. In general, the Cambrian sequence is thought to young and face west. Rocks are generally tilted to the west, with the oldest rocks in the east of the licence area.

The sequence is well foliated but demonstrates little clear folding. However, there has been little structural work and recent discovery of large ductile shear zones in the eastern parts of the Elliott Bay licence area indicate a more complex geology that is shown on geological maps. Regional geophysical data and ground truthing support greater complexity than previously mapped.

In the east, the base of the Cambrian sequence outcrops includes what has been mapped as a 2 to 3 kilometre thick quartz-feldspar-biotite porphyry (Elliott Point Porphyry). Field checking (this study and Green 2002) indicates greater complexity with porphyry structurally and/or lithologically interleaved with volcanic rocks.

The Lewis River Volcanics lie west and stratigraphically above the Elliott Point Porphyry. These are subdivided into the Hudson River and Wart Hill Pyroclastics, and consist of variably quartz-, biotite- and feldspar-phyric volcanic sediments and lavas and/or intrusives.

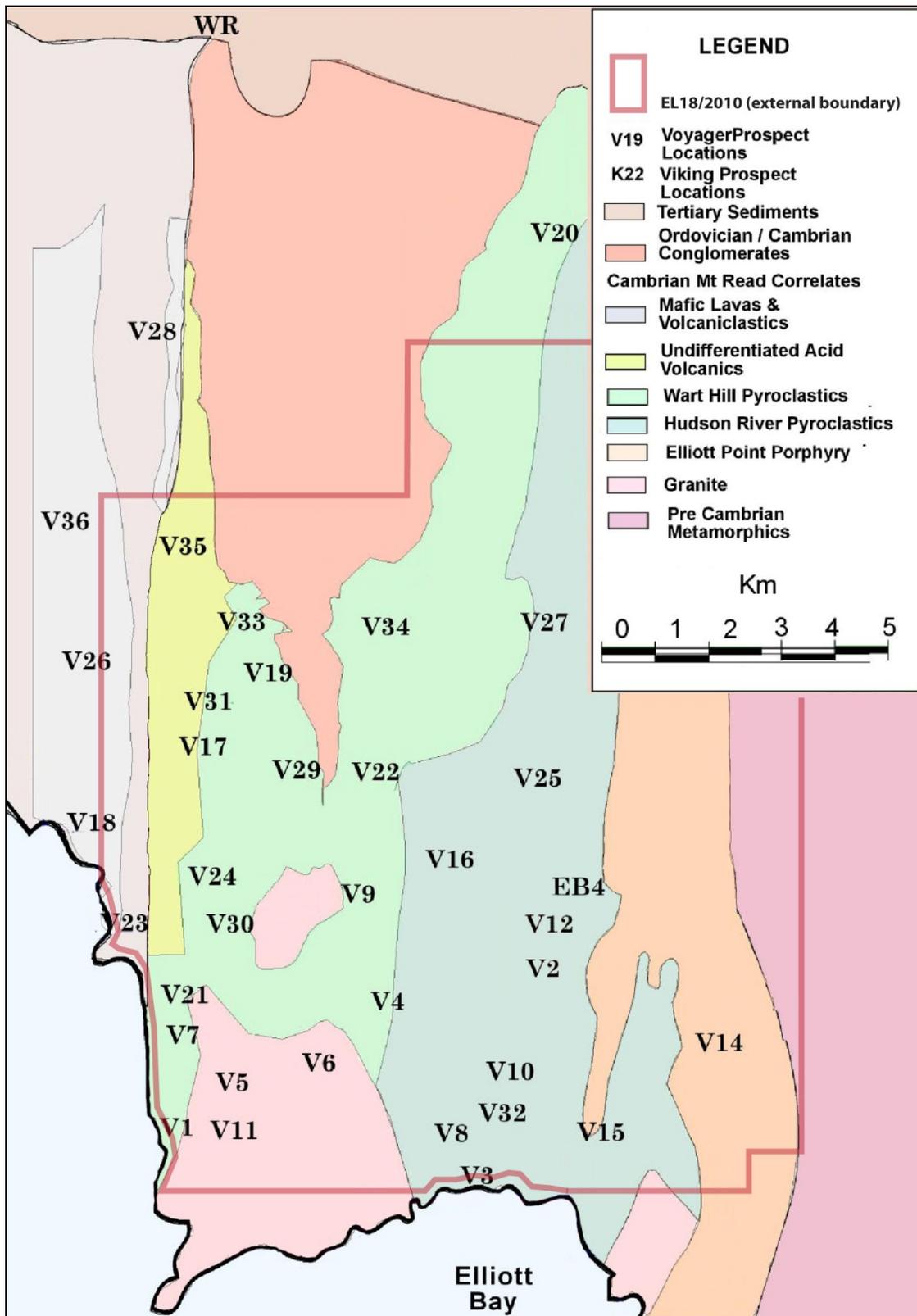


Figure 6.1. Simplified geological map of the Elliott Bay area. The gross geology has been grossly mapped as a westward-facing sequence. However, the on-ground geology is complex and a stratigraphy remains controversial. Geological maps of the area vary greatly in their interpretation, and readers are best advised to limit their reliance to factual measurements and site descriptions and to use these in context with geophysical data.

Much is made in the literature about the quartz-rich rhyolitic nature of these rocks and their correlation with rocks in the Eastern Quartz-phyric sequence in the northern MRV. To an extent, this correlation has justified exploration being focussed in the west of the current licence area to the detriment of the east. The geology is not yet clear enough to make these conclusions. Both quartz- and feldspar-phyric rocks are abundant throughout the sequence. Some rocks of apparently rhyolitic appearance in the east were also originally of more intermediate composition but altered after deposition (Wallace, Aberfoyle, 91/3320, p334).

As well as quartz, sericite and/or chlorite alteration is also common and can be pervasive.

The Waterloo Creek Group unconformably overlies the volcanics and comprises a unit of felsic derived volcanoclastics, overlain by a unit of black pyritic shale with minor horizons of micaceous siltstone. The Waterloo Creek Group has been correlated with the Tyndall group further north.

Ordovician Owen Conglomerate and sandstone conformably overlies the Waterloo Creek Group.

The Copper Creek fault is a major north-south fault in the west of the licence area. West of this fault are the Western Epiclastics (including mafic volcanics). These rocks are possible correlates of the Mainwaring River Group further to the west.

Three granitoid bodies intrude the MRV at Elliott Bay; the Low Rocky Point granite, the Little Rocky River granite and the Stoney Creek porphyritic granite. The Low Rocky Point granite is a composite intrusion consisting of pink granite, cream adamellite and coarse porphyritic granite. The Stoney Creek body comprises granite porphyry with feldspar, quartz and biotite phenocrysts in an intensely sericitised and cleaved matrix. The Little Rocky River granite is also a composite intrusion consisting of massive granite porphyry and a strongly foliated medium – grained quartz feldspar porphyry.

The relative timing of the intrusions and deformation events is not known. There is, however, fairly good consensus that the granitoids are more or less synvolcanic i.e. Cambrian and predate Devonian deformation.

Mineralisation types present in the southern MRV

The search for metals in the Elliott Bay area has focussed on VHMS-style massive sulphide. However, a number of different types and styles of mineralisation exist.

Gold mineralisation occurs as:

- High grade in silicified structures – possibly ‘Henty-style’;
- Low grade in VHMS deposits, eg at Wart Hill (V19);
- Associated with chlorite-pyrite alteration, overprinting quartz-pyrite-tourmaline alteration zones at North Lewis (V12);
- Quartz- gossans associated with magnetite-chlorite alteration at granite margins, eg the Low Rocky Point granite;
- Vein style mineralisation in coarse pyroclastics, eg Sassy Creek (V24);
- In Tertiary gravels.

Base metal sulphide mineralisation as:

- VHMS massive sulphide style, eg Wart Hill (V19);
- Vein style galena, sphalerite and arsenopyrite mineralisation along the Copper Creek fault eg. V31;
- Disseminated Pb – Zn – Ag mineralisation in volcanoclastics eg. Lewis River
- Postulated Besshi style, eg Mainwaring Group prospects

Lead isotope work has recognised mineralisation as early Cambrian but with some Devonian age remobilisation (eg Sassy Creek, V24).

7. EXPLORATION HISTORY

The exploration history for Elliott Bay is complex and is summarised in Figure 2.

The region has been significantly under-explored in comparison with the much better known northern section of the volcanic belt. There is extensive metal anomalism in regional stream sediment surveys with more than 25 additional discrete mineral prospects identified to date (eg Figures 6.1 and 6.2).

There has been a low density of drilling throughout the licence area and little modern drilling. Frontier Resources completed drilling at V19 (Wart Hill) and areas to the south and along strike to the east and north (Alderbarren; vicinity of V22-V34). These sites sit in the west of the Elliott bay licence and are not of direct interest to Paragon Resources.

Most historic drilling at prospects in the eastern licence area is shallow sub-soil test work only. Core drilling at prospects such as V12 and V2 aimed to test stratigraphic targets (VHMS models) but in both cases failed to adequately explain surface anomalism. These prospects are discussed in more detail in following sections.

The SMRV Project area has not recorded any metal production to date. There is a small resource at Wart Hill (Table 5.1), encompassed by, but not included within EL18/2010. Wart Hill comprises 'rafts' of massive sulphide mineralisation from a probable nearby source but one that has yet to be discovered. This mineralisation may be at depth or have been eroded, but, regardless, clearly demonstrates the Elliott Bay area as a centre of mineralisation.

There is a significant amount of data available for the Elliott Bay area, including some detailed regional geological maps published by the Tasmanian government in the early 1990's. These data and maps have been produced and interpreted almost solely in context with a stratabound VHMS massive sulphide style of mineralisation in mind. There has been little if any work toward understanding the complex structural geology in the Elliott Bay area. A stratigraphy for the area also remains controversial and is a matter of debate throughout the company literature.

There is a long history of exploration at Elliott bay, with the area held under licence continuously since the early 1960's (Figure 1.3).

The Elliott Bay area saw minor prospecting in the period between 1890 and 1910 with old workings visible at Voyager 1 (V1) also known as Penders Prospect, Lewis River (V2), and V3 (Figures 6.1 and 6.2).

Exploration since has almost universally targeted stratabound deposits of similar style to those VHMS deposits known in the northern MRV.

In 1957 the L. E. E. joint venture held the first modern EL in Tasmania the "Gordon Concession" which covered a large area of southwest Tasmania. They undertook an airborne EM, magnetics and scintillometer survey and undertook inspection and some mapping and sampling of the old workings.

BHP explored the southwest of Tasmania from 1965 to 1975. They undertook airborne surveys as well as stream sediment geochemical sampling of the MRV and some soil geochemical sampling.

Geopeko (a division of Peko – Wallsend Operations) undertook an extensive exploration program in the area between 1976 and 1985 recognising the potential of this southern extension of the MRV. The work started collecting stream sediment geochemical samples, geological mapping and followup of regional EM and aeromagnetic anomalies. This work identified 35 prospects called Voyager (after the Voyager spacecraft), numbered V1 to V12 and V14 to V36. The prospects were identified by various methods as historical prospects and outcrops (V1, V2, V3, V12, V18 and V23), aeromagnetic anomalies (V5, V6, V7, V14, V15 and V17), airborne EM anomalies (V11, V21, V26 and V46), stream sediment geochemical anomalies (V8, V10, V24, V25, V27, V30, V31, and V35), soil geochemical anomalies (V28 and V29), favourable geology (V32, V33 and V35) and multidisciplinary anomalies (V4, V9, V14, V19, V20 and V29).

Further work included variously covering prospects with systematic gridding, soil geochemical sampling including C – horizon sampling (Figure 6), ground magnetics, VLF – EM and drilling. A total of 32 holes (3,573m) were drilled on 9 prospects. Between 1978 and 1981, drilling focussed on the prospectivity of the V2 (Lewis River), V3, V9, V12 (North Lewis) and V24 (Sassy Creek) /V30 (Pleiades) prospects. In 1981, regional geochemical sampling and follow up mapping resulted in the discovery of the V19 (Wart Hill) prospect where small zones of massive sulphide were discovered with highly anomalous rock chip geochemical sampling results. Trenching and drilling of this prospect was followed by more regional work (IP and C - horizon soil geochemical sampling) in the Mt Osmund syncline. This work led to the

identification of the V22, V29 (East Camp), V33 (Copper Creek and North Wart) and V34 (Aldebaran) anomalies. Subsequently V33 was drill tested.

Geopeko withdrew from the area in 1984 for a number of reasons, they had concluded that potential to locate 'an economic high-grade VHMS deposit' within 100m of surface was low, exploration projects were being rationalised Australia wide and they were unable to attract a joint venture partner on favourable terms.

Cyprus Gold Australia Corporation (Cyprus) acquired the exploration rights in 1985 and undertook exploration between 1985 and 1990 targeting VHMS style massive sulphide deposits and gold. After a complete review of the Geopeko work, Cyprus undertook a helicopter borne Dighem – EM and magnetic geophysical survey as well as additional C – horizon soil and rock chip geochemical sampling and geological mapping. Anomalous areas were followed up with priority on V12 (North Lewis), V24 (Sassy Creek), V29 (East Camp) and V19 (Wart Hill).

At North Lewis (V12) Cyprus drilled 5 diamond core holes (349.6 m). Follow up geochemical soil sampling at Sassy Creek (V24) led to a recommendation to drill, but this was not undertaken. Cyprus drilled 3 diamond core holes (409 m) at East Camp (V29). Cyprus also drilled 12 diamond core holes (1,962.3 m) at Wart Hill (V19). Down the hole EM was completed on the majority of the drill holes.

In 1989 – 1990 Cyprus joint ventured the area with Aberfoyle Resources Limited (Aberfoyle). They undertook an airborne QUESTEM geophysical survey covering a large part of the area. This survey identified 9 anomalies (EB1 – EB9) that warranted ground follow up. Ground EM and soil geochemical sampling was undertaken over some of the anomalies. Drilling was attempted at anomaly EB1, located adjacent to V3 prospect but its effectiveness was limited owing to difficult ground conditions. Further work was recommended at EB4 that had gossanous outcrops associated with it, only 600m along strike from North Lewis (V12) but was not undertaken. Aberfoyle also supported lead and sulphur isotopes work at the CSIRO and CODES (University of Tasmania).

Plutonic Operations Ltd (Plutonic) successfully tendered for the area in 1994 and carried out work from 1994 – 1995. Plutonic reviewed data and geologically mapped core and outcrop at V3, Wart Hill (V19) and East Camp (V29), reviewed various geophysical surveys and undertook a moving loop SIROTEM and ground magnetic survey at Wart Hill (V19). They undertook a detailed geological re-evaluation of Wart Hill attempting to define vectors to mineralisation but decided not to undertake any further drilling at Wart Hill for massive sulphides although drilling targets on geophysical anomalies were recommended. Plutonic geologists recommended work in the Eastern Elliott Bay area at V12/Lewis River (Hermann, Plutonic, 96/3841), but given disappointing results for Wart Hill Plutonic decided to relinquish the tenement in 1996.

Macmin applied for an exploration license surrounding the Cyprus / Aberfoyle license in 1994. This was targeted on 3 geochemically anomalous areas; the margins of the Low Rocky Point granite, the Three Creeks and Upper Hudson River areas. Macmin undertook field reconnaissance and soil (auger samples) and pan concentrate geochemical sampling.

Exploration & Management Consultants Pty Ltd (EMC) successfully tendered for the exploration rights to the SMRV area after Plutonic relinquished it and undertook a review of all the past work. In 1998 they joint ventured the area with Fimiston Mining NL (Fimiston).

Fimiston conducted a review and reprocessing of geophysical data then drilled two diamond core drillholes (752 m). One hole was drilled at Wart Hill (V19) and the other was drilled 500m to the south towards the East Camp prospect targeted on anomalous geochemical analyses and geophysics. Fimiston withdrew from the area in 1999. EMC has since focussed on digitising the large body of technical data.

TasGold, subsequently Frontier Resources, held ground in the Elliott Bay region under several licences, including; EL20/2006 Lewis River, EL21/1999 Wanderer River and EL20/1996 Elliott Bay. EL 20/1996 still exists as an exclave within Paragons EL18/2010 and includes the Wart Hill and Sassy Creek prospects.

Frontier acquired the ground with the aim of following up on multiple prospects, including adopting a Henty-style model for exploring for gold, but ultimately focussed on looking for extensions to base metal mineralisation at Wart Hill. Exploration was focussed within the Wart Hill area and along strike to the east and north and included drilling and geophysical (IP) surveys.

In 2012, Frontier spun out its Tasmanian assets into Torque Mining. This included Wart Hill.

Exploration at Wart Hill has almost universally focussed attention away from the many other geochemical anomalies in the Elliott bay area. Gold anomalism is widespread yet the sources of the gold in the eastern parts of the Elliott Bay licence area have not been satisfactorily explained. This gold is the target of work by the current tenement holder, Paragon Resources.

This report presents findings that show that gold in eastern Elliott bay is not of a VHMS style as sought by previous workers but is instead associated with previously unmapped ductile faults and/or shear zones.

The style of mineralisation, age, tectonic setting, and association with VHMS mineralisation in eastern Elliott Bay are all consistent with a shear-zone model for gold mineralisation. Although of vastly different age, shear zone mineralisation is perhaps exemplified by goldfields style mineralisation in Western Australia, the largest deposit being the Super Pit at Kalgoorlie (>83Moz; for description of deposit styles and associations with other deposit types, see Groves 2003).

8. PARAGON RESOURCES: A SUMMARY OF PREVIOUS WORK (YEAR 1)

A literature review commenced in Year 1 and has continued through Year 2.

Processing of Western Tasmanian Regional Minerals Program (WTRMP) aeromagnetic data, radiometric data, satellite imagery, mapped geology and geochemistry to identify seventeen targets in and around what is now EL18/2010 (the Earthsearch Project).

The Earthsearch Project was completed 2003 but kept confidential until 2010 (included in Year 1 Annual Report , Reed, 2011).

Twelve of the Earthsearch targets lie within the eastern Elliott Bay licence area. They included structures and alteration not explained by the mapped geology. These structures were postulated to be a source of the anomalous gold in regional stream sediment surveys and formed the basis for prioritising areas for field checking during Year 2.

Priority areas for field checking identified at the end of Year 1 are shown in Table 8.1, along with an extra column detailing work completed during the Year 2 field season. All the priority targets identified at the end of year one were field-checked with results are presented in the following section.

Table 8.1 Table showing targets identified for field checking at end of Year 1 (Year 1 Annual Report) and work completed on checking those targets during Year 2. All the priority targets identified at the end of year one were field-checked.

From Year 1 (see Year 1 Annual Report)				Year 2
Gold Zone (of EMC, Tasgold, Frontier, Fig 3)	Nearest previous prospect ID (Figure 2)	Earthsearch target (and priority). Appendix 1	Paragon Resources priority(subject to review)	Field-checking completed
Hudson River	Vicinity of V15 (extending to vicinity V15, V32)	1 (2)	2?	Not checked
Hudson River	Vicinity of V15 (extending to vicinity V15, V32)	2 (1)	1?	Not checked
Hudson River	Vicinity of V15 (extending to vicinity V15, V32)	3 (2)	2	Not checked
Lewis River and/or Hudson River	Vicinity of V8, V10, V32, extending to V15	4 (1)	1	Checked, results presented below.
Lewis River and/or Hudson River	Vicinity of V8, V10, V32, extending to V15	5 (2)	2? Review Frontier's Hudson River soil survey in context of Earthsearch targeting.	Not checked.
Hudson River	Vicinity of V2, V12, EB4	6 (2)	2	Checked, results presented below.
Hudson River	Vicinity of V25, V27	7 (1)	1	Checked, results presented below.
Hudson River	Vicinity of V25, V27	8 (1)	1	Extension of Target 7, above.
Mt Osmond	Vicinity of V34	9 (1)	Check work by Frontier Resources	Not checked.
Mt Osmond	Vicinity V19, V29, V33	10 (1)	Outside of EL18/2010	N/A
Mt Osmond	Vicinity of V22	11 (1)	Check work by Frontier Resources, on licence edge.	Not checked
Mt Osmond	Vicinity V19, V29, V33	12 (1)	Outside of EL18/2010	N/A
Lewis River and/or Mt Osmond	Vicinity of V16 (extending to V4)	13 (1)	1	Checked, results presented below.
Lewis River	Vicinity of V2, V12	14 (1)	1	Checked, results presented below.
Hudson River	Vicinity of V16	15 (1)	1?	Checked, results presented below.
Hudson River	Vicinity of V2, V12, EB4	16 (1)	1	Checked, results presented below.
Hudson River and/or Mt Osmond	Vicinity of V25 (extending to EB4)	17 (2)	2	Checked, results presented below.
Sassy Creek	Vicinity of V24, V30	18 (1)	Outside of EL18/2010	N/A

9. PARAGON RESOURCES: RESULTS OF WORK (YEAR 2)

Literature review (ongoing)

Work by Paragon Resources in Year 1 of EL18/2010 included commencing a review of the extensive amount of information (>11Gb) spanning almost 50 years of exploration in the Elliott Bay area. This was an ongoing process throughout Year 2 and will continue throughout Year 3.

Past exploration reports provide a large volume of varying but often high-quality data. These data have received varying levels of interpretation, but often only in context with VHMS styles of mineralisation being sought or understood at the time the data was collected.

Review of these data is an ongoing process. New information comes to light which in turn necessitates revisiting reports previously reviewed.

The following sections present the results of this ongoing review, presenting and discussing the validity of both existing assay and lead isotope data.

Assay data (ongoing verification)

Of particular importance to Paragon over the last year was identification that check assay data for historic regional stream sediment surveys in the target areas had not been captured by earlier explorers or by Mineral Resources Tasmania (in their stream sediment GIS coverage and shown on Earthsearch targeting maps).

Check assay data confirm high levels of anomalism in areas of eastern Elliott Bay (vicinity of the Hudson River) targeted during Year 1 (Year 1 report; Reed, 2011). However, maximum gold grades (Aberfoyle, 91/3320) in selected data compared to date are generally higher in check assay data than for the primary assay data.

One area of gold anomalism associated with a geophysical anomaly east of the Hudson River (Earthsearch Target Site 7) increased from a maximum of 456 g/t gold to 688 g/t in the check data. Only the primary data were referred to by Aberfoyle geologists who collected the samples. Only the primary data have ever been cited by subsequent explorers.

Check assay data for more recent surveys (Aberfoyle) are commonly buried in report appendices and only identified by manual cross-referencing of check and primary sample numbers. This is a laborious process. Unlike primary data, check assay data are typically identified only by sample number, not by coordinate, prospect or location.

The reason for higher gold values in check data is uncertain, but is possibly related to variation in sample preparation or analytical technique for samples expected to yield higher grades than for the original batch of mixed higher and lower grade samples.

Furthermore, a review of the literature suggests less than rigorous treatment of both primary and check assay data. There appears to have been a philosophy of disregarding data that does not fit a VHMS model regardless of the magnitude of the result. This contrasts with the systematic, laborious and thorough processes adopted in collecting the samples in the first place (eg Wallace, Aberfoyle, 91/3320, p25).

Check data are not typically cited, with reference only the primary data (Wallace, Aberfoyle, AR91/3320). Wallace disregards a 456 g/t result as 'spurious' (p36) but fails to mention the even higher 688 g/t check data presented in an appendix in **the same report** (p212). Wallace noted the association of the 'spurious' result with sericite alteration and veining ('as important as that at Wart Hill'), yet ultimately disregarded the gold without adequate explanation.

Subsequent explorers similarly failed to correlate check samples with original assay data, or to adequately explain the high gold values beyond that of Aberfoyle.

In hindsight, this treatment of valuable data seems unbelievable. Yet it reflects a perception at the time that the eastern Elliott Bay area was of the wrong geology to produce a VHMS massive sulphide deposit. Work on checking elevated gold in eastern Elliott Bay appears to have been sacrificed in favour of ongoing work on more typical VHMS style mineralisation at Wart Hill.

Check data have not been recognised and primary assay data have generally been disregarded in the literature as being related to the Elliott Bay porphyry contact or sourced from Tertiary gravels (see below).

These explanations are convenient but appear unlikely. Assay data from west-draining catchments contain anomalous gold but lack Tertiary gravel. By contrast, east-draining catchments contain extensive areas Tertiary gravel but samples here are of generally lower grade.

Gold grains are also angular (results, this report, see below), indicating a proximal-to-source grain morphology and inconsistent with secondary transport in Tertiary gravel.

The distribution of anomalous gold results also does not fit well with the locations of the porphyry contacts. Smaller streams yielding >50ppm gold drain catchments with no porphyry. Elsewhere, catchments crossing the porphyry contact are devoid of anomalous gold.

Finally, petrological work at V12 (Wallace, Aberfoyle, AR91/3320) suggests a Cambrian timing for both the porphyry and the gold but that the porphyry pre-dated chlorite- and pyrite mineralisation and associated gold mineralisation.

Importantly, ongoing review of the literature is revealing the importance of capturing all data (not just primary assay data), but also in separating out poor interpretation of data from what is otherwise high-quality information.

Check assay data and petrological data have not been systematically captured to date. It is recommended that future work include capture and georeference all these data for the Elliott bay area.

Lead isotope work: implications

There have been a number of lead isotope studies that have included samples from Elliott Bay. These studies compare mineralisation at Elliott Bay to VHMS-style mineralisation in the northern MRV. They are important to Paragon in differentiating Cambrian mineralisation from younger Devonian mineralisation. Amongst other characteristics, Cambrian deposits tend to be larger and more economically viable than Devonian deposits.

Devonian age mineralisation at Elliott bay is unlikely to be economic and is not of interest to Paragon Resources. These data have proven critical to Paragon prioritising exploration in the east of the current licence area.

A number of populations of lead isotope data have been identified at Elliott bay that are thought to represent both Cambrian and Devonian age mineralisation.

Gulson et al (1987) concluded that Cambrian massive sulphide mineralisation at Elliott Bay constituted the least radiogenic population of data, whereas vein-style mineralisation thought to be of later Devonian age constituted the most radiogenic. A third group of intermediate composition was related to veins and mineralisation near the margins of the Elliott Bay porphyry.

Cyprus collected further samples for lead isotope analysis. These were combined with those of Gulson (part of an initially confidential Centre for Ore Deposit Exploration Studies (CODES), CSIRO, and Aberfoyle project; Gemmell, in TasGold, 03/4983).

Gemmell identified four distinct clusters of data (in order of radiogenicity):

- Group A (least radiogenic): Galena - sphalerite clasts from Wart Hill (western Elliott Bay)
- Group B: Voyager 2 mineralisation (eastern Elliott Bay)
- Group C: disseminated and vein mineralisation from V9 (Central-western Elliott Bay)
- Group D (most radiogenic): disseminated and vein mineralisation of younger age

Importantly, Groups A-C (including mineralisation in eastern Elliott bay area) are considered to be of Cambrian age. These data corroborate Paragon targeting Cambrian gold mineralisation in eastern Elliott Bay.

Group D is consistent with gold mineralisation in the western Elliott Bay area, eg at V24 (Sassy Creek), as being of Devonian age. These areas are of limited interest to Paragon Resources and are to be relinquished.

Stream sediment data do not discriminate between Cambrian and Devonian age mineralisation. However, combined with the lead isotope work, it appears that gold mineralisation higher in the volcanic stratigraphy in western Elliott Bay is of Devonian age, possibly remobilised from older Cambrian age gold deeper in the sequence in eastern Elliott bay.

Field checking

Field checking of selected targets at Elliott bay was done in February of 2012. The aim of this field-checking was to visit identified in Year 1 as being geophysically and/or geochemically anomalous.

Access to the eastern Elliott Bay licence area was initially by helicopter to a fly-camp (Figure 9.1) located on the banks of the Hudson River (map, Figure 9.2).

Access within EL18/2010 was by foot.

Targets identified in Year 1 are grouped here into four related prospects (Figure 9.2, Table 9.1). These include the newly identified Discovery Creek Shear Zone (DCSZ), as well as the V12, V2 and the Bulls-eye anomaly prospects.



Figure 9.1. Field-checking was conducted on foot based from a rudimentary fly-camp on the southern banks of the Hudson River. Personnel and supplies were mobilised from Strahan by helicopter, with access in EL18/2010 by foot thereafter.

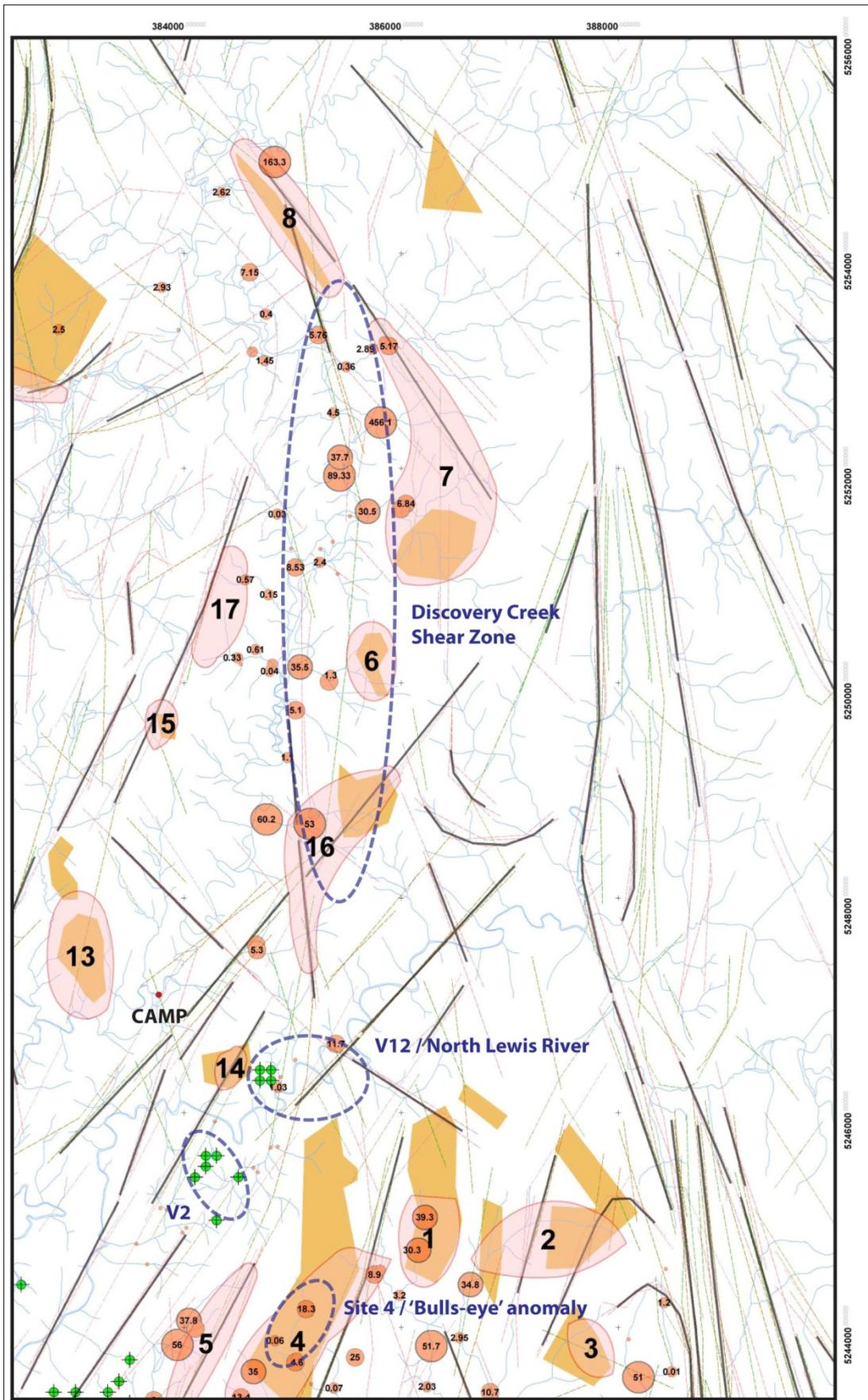


Figure 9.2. Targeting map (part, full map in Reed 2011) showing eastern Elliott Bay licence area with prospects visited during 2012 and discussed in this report. Linear features and brown shaded areas are anomalies inferred from WTRMP data. Orange circles and numbers are panned concentrate gold results in ppm (Aberfoyle, 91/3320).

Table 9.1. Earthsearch targets and prospects field-checked during Year 2 and discussed in this report.

Earthsearch target	Name	Reason for field-checking
4	Bulls-eye anomaly	Bulls-eye aeromagnetic anomaly and weak to moderate panned concentrate gold.
6,7,8,16	Discovery Creek Shear Zone (DCSZ) and associated cross structures.	Sericite-pyrite alteration (Geopeko maps), extensive high level gold anomalism in panned concentrates (Aberfoyle). Linear aeromagnetic feature (WTRMP data). Proximal change in orientation of regional foliation to match (MRV maps).
14	V12	Southern extension of DCSZ (see above). Zone of cross structures (WTRMP data). Historic prospect (Geopeko, Cyprus, Aberfoyle).
Not originally targeted	V2	Visited on way to Earthsearch Site 4.

Discovery Creek Shear Zone

The Discovery Creek Shear Zone (DCSZ) was targeted on the basis of significant gold anomalism in panned concentrates (up to 688 g/t Au), a weak aeromagnetic linear in WTRMP data and sericite-pyrite alteration shown on Geopeko maps. South- southeast-plunging stretching lineations are also shown in the vicinity of the target on Mount read Volcanic regional geological maps.

The DCSZ is a newly identified structure or structural corridor. It has not previously been documented and does not appear on regional geological maps.

The DCSZ was observed at a number of locations over a north-south strike length of about 6km from about 385500mE 5247000mN (GDA).

The DCSZ is not a brittle fault. There is no discrete planar structure in outcrop that can be labelled as the DCSZ. Rather, the DCSZ east of the Hudson River was observed as a steeply west -dipping zone of at least 300m wide comprising progressively strong to intense but variably sericite-chlorite-(pyrite) alteration, fine laminated mylonite with tails to remnant quartz (probably phenocrysts), and a prominent and consistently steeply southwest-plunging stretching lineation. These features are beautifully exposed in the Hudson River in the vicinity of 385000mE, 5250500mN (Figure 9.3)

White, coarse buck-quartz veins and blows are common along the length of the DCSZ (and elsewhere throughout the Elliott Bay region in areas of structural complexity). Quartz outcrops are typically discontinuous, variable in width up to several meters, with an exposed strike length of less than 50m. Past workers mistakenly took the orientation of these veins and blows as representing the orientation of faults. The opposite is almost true. Outcrops in the vicinity of V12 show these veins to represent local re-precipitation quartz in zones of dilation oriented at an angle to the main foliation/shear. The veins and blows may themselves be deformed. Their formation represents local fluid movement and (on their own) they are typically barren.

Field-checking of sites along the Discovery Creek structure was accompanied by panning for gold in streams draining zones of high strain. The aim of this panning was not to collect samples and to repeat what had already been done in the past, but rather to;

- a) confirm the presence of gold in panned concentrates collected by Aberfoyle geologists in the early 1990's, and
- b) collect enough grains to observe gold grain morphology and infer a distance from source.

Streams along the length of the DCSZ that were checked were typically small with little more than a trickle of water (summer flow rate, <5 liters/min).

All checked streams produced very fine gold (<0.5mm diameter grains; Figure 9.4), along with varying quantities of dark heavy minerals (ilmenite, rutile, cassiterite with subordinate sphalerite and galena), fine-grained zircon and a fine-grained elongate rose coloured mineral (possibly corundum?).

Viewing the gold in the pan was easy. Collecting the fine gold from the pan proved problematic. In hindsight, a detergent would have been useful for breaking surface tension.

Of the approximately 10 sites panned, grain counts (in pan) varied between about 2 and 15 grains per 400 grams of sediment panned.

Gold varied from sub-angular and flaky to angular (wiry), with a maximum size of about 0.5mm (Figure 9.5). Studies of alluvial gold from around the world (Townley, 2003) indicate that a distance from a source can be estimated from the extent to which a gold grain has been rounded and 'beaten' during transport. Only a small sample size has been collected from the vicinity of the Discover Creek Shear Zone at Elliott Bay (~10). However, the sub-angular grain morphology consistently indicates a distance to source of less than about 300m. This distance is consistent with the panned concentrate results of the early 1990's (Aberfoyle) being distributed in a fairly tight linear corridor approximately coinciding with the presence of high strain rocks and associated aeromagnetic feature(s) in WTRMP data.

The margins of the DCSZ are not clear. The western margin of the DCSZ is characterised by a progressive increase in strain state and intensity of sericite and chlorite alteration in volcanoclastics. An traverse from the Hudson River east up Discovery Creek (366000mE, 5252500mN) attempted to map the eastern margin of the DCSZ but was cut-short after about 600m by the thick vegetation.

The intersection of Discovery Creek with the Hudson River coincides with the 'mapped' western margin of the Elliott Bay porphyry on regional geological maps. These maps are incorrect and do little justice to the complexity of the area and/or contact. Rather, the geology east of the Hudson River is characterised by alternating assemblages of variably altered, mineralised (including free gold; see below) and deformed intercalations of quartz-porphyry, volcanoclastic rocks and graphitic schist. The eastern-most rocks encountered were not porphyry but volcanoclastic. Similarly feldspar-rich porphyry-like rock extends well west of the mapped contact (Figures 9.6 and 9.7).

Free gold was observed *in situ* in deformed quartz-sericite-altered rocks from near the intersection of Discovery Creek with the Hudson River. The presence of free gold at this location is consistent with historic panned concentrates samples (Aberfoyle) yielding 456 and 688 g/t gold. Microscopic examination using a specially purchased Leica S8 stereozoom microscope revealed the gold to be in fine veinlets and/or clots accompanied by chlorite, pyrite and possible chalcocopyrite (Figure 9.8). Examination and description of samples from Discovery Creek is ongoing.

High strain zones associated with the DCSZ have been mapped at a number of localities over a strike length of about 6km north of the V12 prospect. The DCSZ is inferred from WTRMP aeromagnetic data to extend south beyond V12, paralleling a 1st order shear zone (located 3km to the east, M Hall pers comm) separating Palaeozoic from Proterozoic rocks. Parallelism and similarly ductile strain states indicate the two structures are related, probably connected at depth (the DCSZ likely being a second order hanging-wall splay).

The DCSZ is cut by northwest-trending faults to the north of Discovery Creek and again north of the V12 prospect. Northwest-trending faults were observed at V2 and are evident in the WTRMP geophysics. Northwest-trending faults do not cut the first order structure separating Proterozoic and Palaeozoic rocks east of the DCSZ. As such, they are most likely co-synchronous and/or transcurrent (transfer) structures to north-south oriented shear zones.

Intersection of northwest-trending faults with the DCSZ would result in zones of structural complexity that would be ideal for mineralisation. Unsurprisingly, intersection of northwest trending structures with the DCSZ coincide with peak gold anomalism at Discovery Creek (366000mE, 5252500mN, 456 & 688 g/t gold) and at Lewis River (V12, maximum of 265 g/t gold in rock chips; Wallace, Aberfoyle, 91/3320, p358).

Northwest-oriented structures have also been noted as important to mineralisation by Frontier Resources geologists elsewhere in the region (McDougal, pers comm).

The DCSZ approximately parallels but does not everywhere coincide with the western margin to the north-south trending Elliott Bay Porphyry. Rather, the DCSZ is oriented at an acute angle to the porphyry margin, intersecting the porphyry in the north but apparently separated by volcanoclastics from the porphyry south of Discovery Creek toward the V2 prospect.

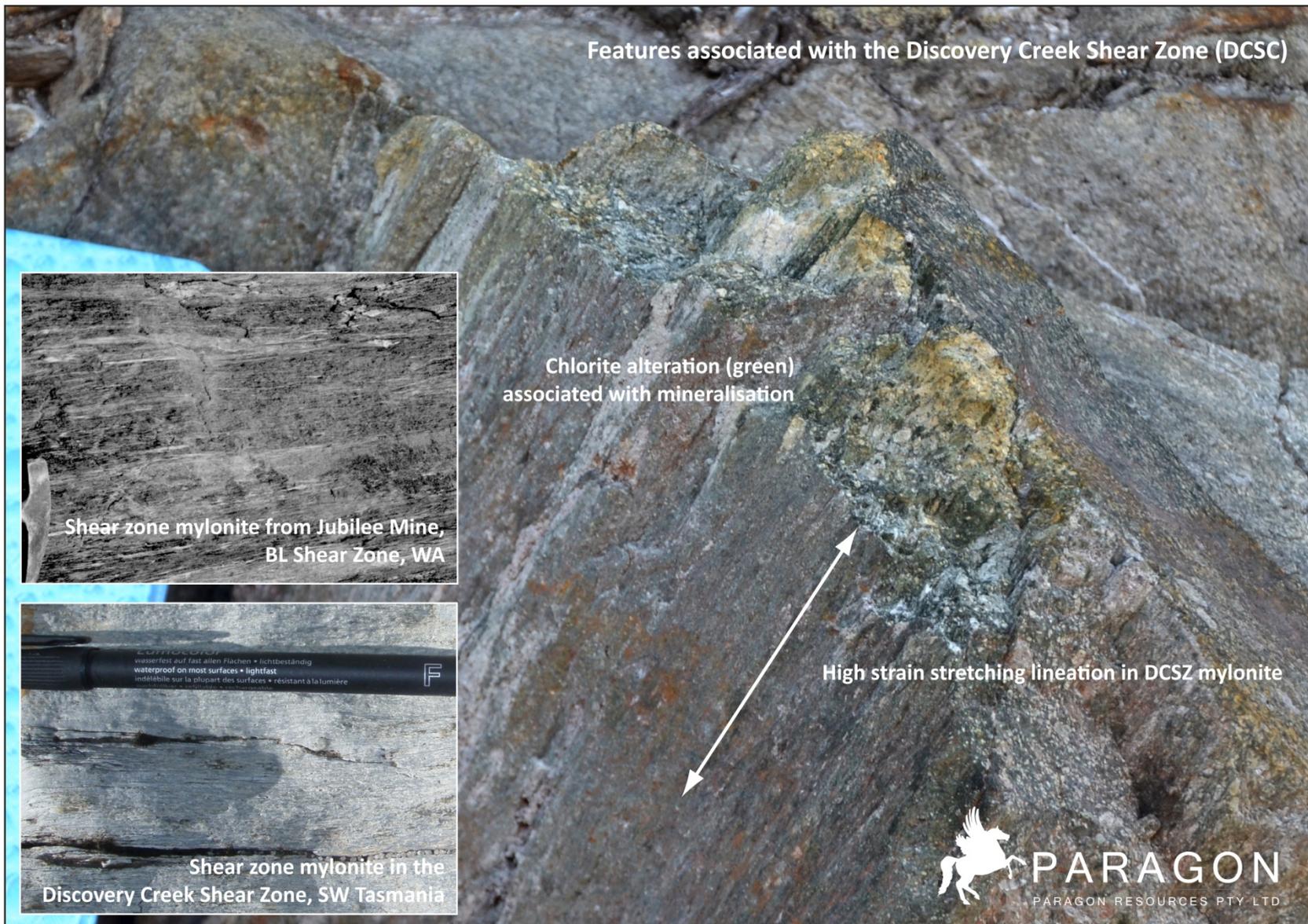


Figure 9.3. A photograph of sericite- and chlorite-altered volcanoclastic rocks from the Hudson River in eastern Elliott Bay. The rocks display a prominent stretching lineation plunging steeply SW in the steeply west-dipping foliation. Fine-grained mylonite is evident in work stream rock, appearing almost identical to similar mylonites in gold mineralised shear zones in Western Australian goldfields.

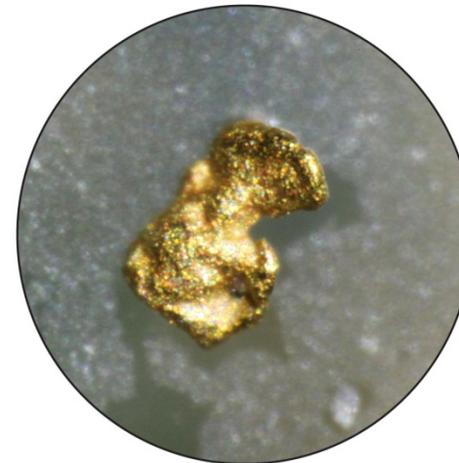
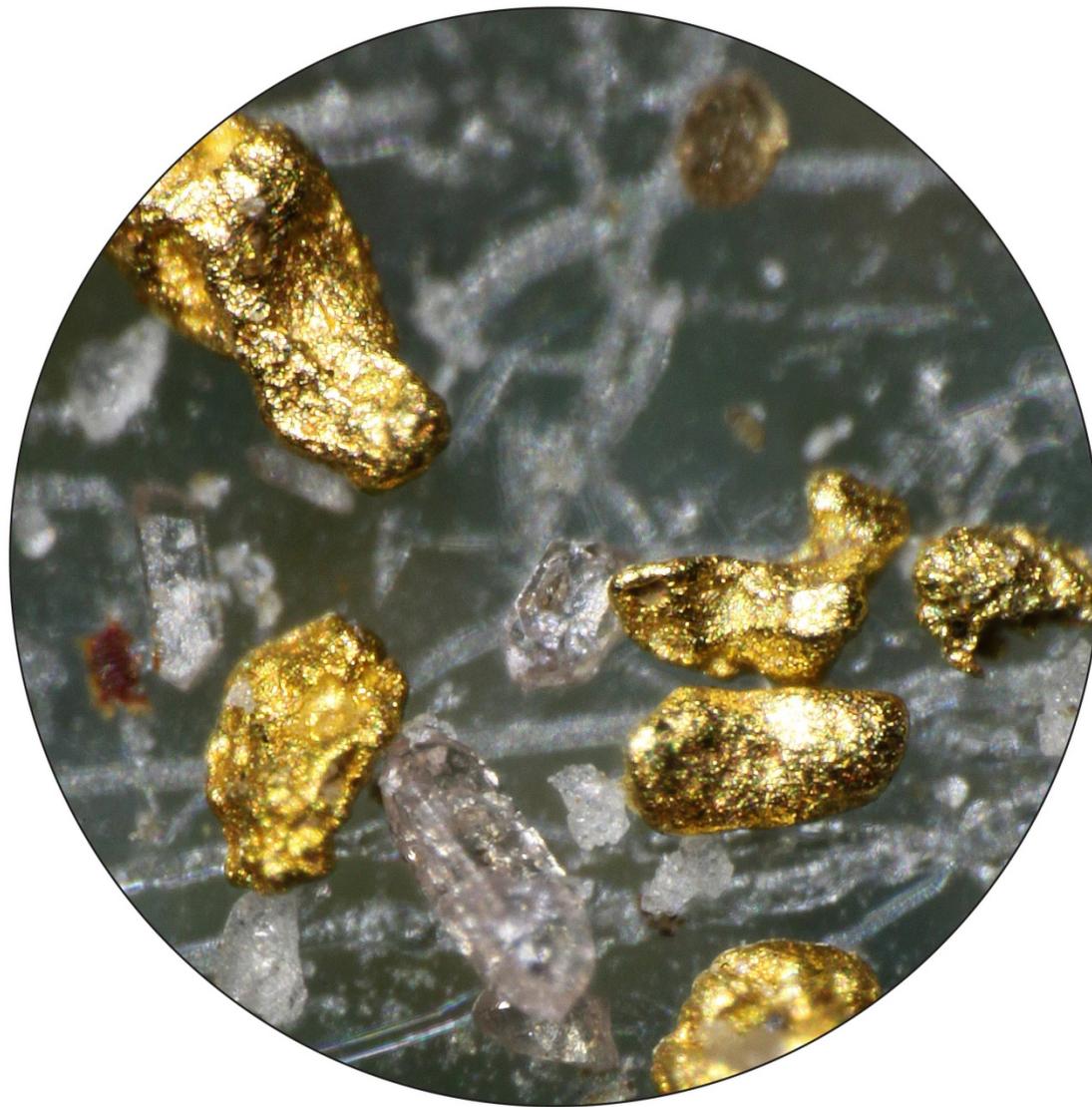


Figure 9.4. Gold grains from the vicinity of the Discovery Creek Shear Zone. The gold is typically fine (<0.5mm) and sub-angular with re-entrants / embayments indicating a proximal source. The shape of the gold is inconsistent with secondary transport and deposition in Tertiary gravels as has been proposed in the past



Panned gold from the vicinity of the Discovery Creek Shear Zone is of a form that is consistent with it being sited <300m of its source.

Distance to the source	0-50 m	50-300 m	> 300 m
General shape			
Outline			
Surface			
Primary crystal imprints		Diffuse Evidence	Absent
Associated minerals	Quartz and Fe Oxides	Fe Oxides	Limonites
Flatness index	1-3.6	2.1-6	3.0-7.5

from Townley 2003

Figure 9.5. Studies of alluvial gold from around the world (Townley, 2003) indicate that a distance from a source can be estimated from the extent to which a gold grain has been rounded and 'beaten' during transport. Only a small sample size has been collected from the vicinity of the Discover Creek Shear Zone at Elliott Bay (~10). However, the sub-angular grain morphology consistently indicates a distance to source of less than about 300m. This distance is consistent with the panned concentrate results of the early 1990's (Aberfoyle) being distributed in a fairly tight linear corridor approximately coinciding with the presence of high strain rocks and the aeromagnetic linear in WTRMP data.

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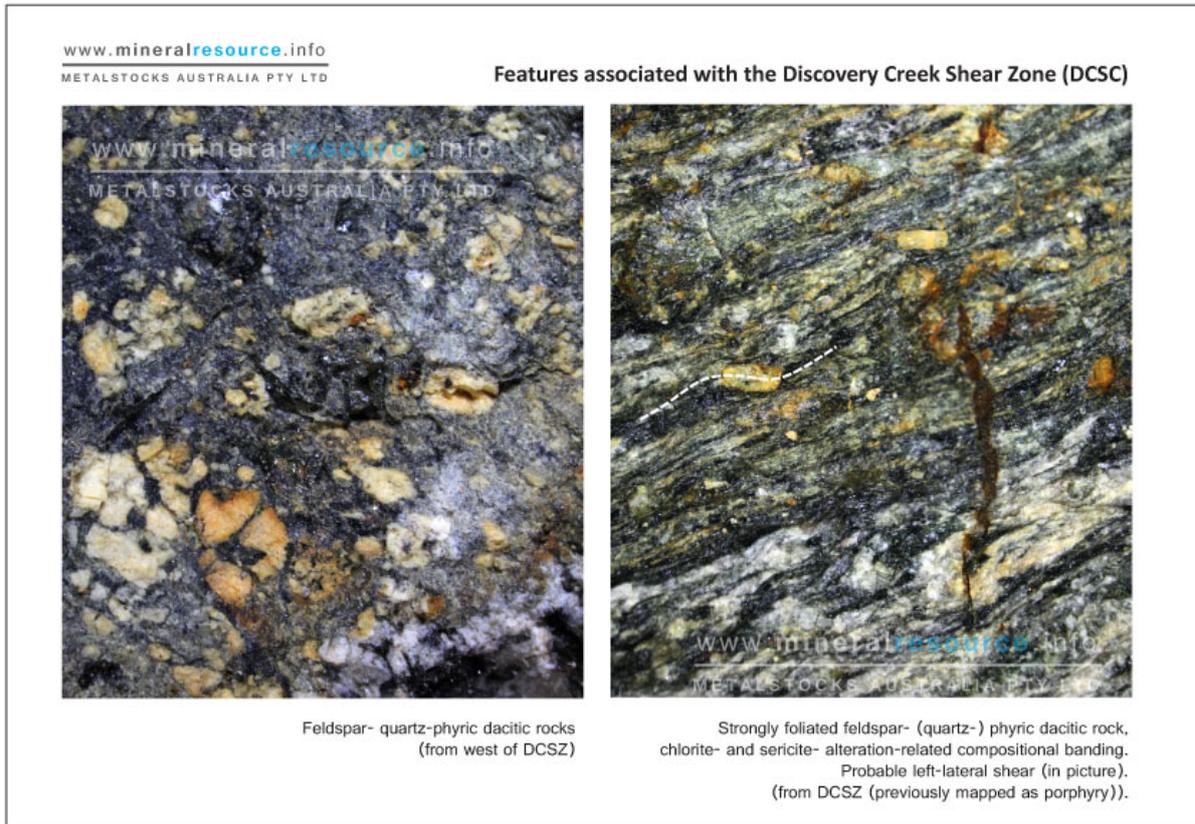


Figure 9.6. Feldspar-phyric rocks from near Discovery Creek in eastern Elliott Bay. The geology here has been inferred as quartz porphyry. In reality it comprises mixed felsic and dacitic intrusive and volcanoclastic rocks that are variably deformed, mineralised and altered.



Figure 9.7. Variably deformed quartz-quartz porphyry. Coherent / competent intervals of undeformed crystalline porphyry appear enclosed within highly strained porphyry and/or quartz- and feldspar-phyric volcanoclastic sediments.

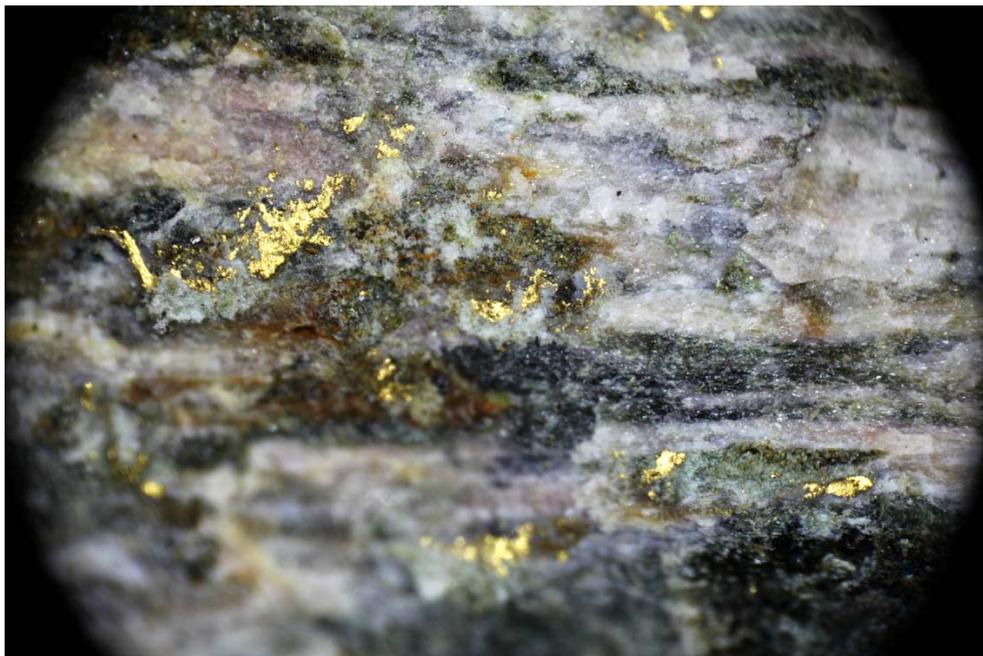


Figure 9.8 High-magnification photograph of gold on the surface of an exposed fracture in chlorite-sericite-altered rock from Discovery Creek (photograph taken at 80x magnification using Leica S8 Sterozoom microscope and Canon EOS 5D 22Mp camera). The gold was not distributed through the rock but was rather concentrated within an irregular fracture in highly sheared chlorite-sericite-pyrite altered volcanoclastic rock.

Importantly, proximity to the DCSZ is characterised by a change in the orientation of regional foliation (when travelling west to east) from northwest-striking (Southwest-dipping) to north-south-striking (west-dipping). This change was noticed over many hundreds of meters away from the DCSZ, and is testament to the regional significance of the structure in partitioning stress in the eastern Elliott Bay region.

Gold mineralisation along the DCSZ is consistent with mineralising fluids moving from zones of low strain (high stress) to zones of high strain.

There is no evidence to suggest that the Elliott Bay Porphyry is the source of gold within the DCSZ. It may, however, be indirectly responsible for the location and orientation of the DCSZ and, as a consequence, foci for mineralising fluids. Competency contrasts between the 'rigid' Elliott Bay Porphyry and 'plastic' volcanoclastic rocks to the west may have influenced the location of the DCSZ.

Geological maps show the porphyry as a single coherent mass with a discrete western margin. This is far from representative. Little of the porphyry as mapped has ever been visited, with the porphyry extents largely inferred in the past from the presence or absence of vegetation (Vicary, pers comm). WTRMP data also indicate internal complexity to the porphyry. The source of this complexity is currently unknown. However, Green (2003; Site 61) identified altered volcanic (dacitic) rock within the confines of the porphyry south and east of the DCSZ. Hall (pers comm) has also identified volcanic rocks along the eastern margin of what has been mapped as porphyry.

In conclusion, field checking an aeromagnetic linear in WTRMP data in a zone with previously mapped alteration has revealed considerably more structural and lithological complexity than previously documented. The presence of anomalous gold measured in historic panned concentrates has been confirmed with gold grain morphology indicating a local source, with at least one location of very high panned concentrate also producing rocks carrying fine free gold.

The DCSZ is confirmed as a valid exploration target for shear zone-hosted gold of Cambrian origin. Future work should aim to extend regional stream sediment surveys to the east to cover the remainder of the Cambrian sequence and parallel first-order structures. This should be accompanied by more detailed mapping of the DCSZ including the structural geology.

It is further recommended that lines are cut to provide access at locations along the length of the DCSZ, but including at or near Discover Creek, and that soils are mapped and sampled at suitable intervals (say, 20m) along each line.

To make full use of the cut lines, it is further recommended that a geophysical survey be carried out to test for a depth extent to mineralisation as well as obtain a better understanding of the 3D characteristics of the DCSZ. Suitable techniques given a disseminated chlorite-sericite-associated mineralisation (plus or minus magnetite) might include sub-audio magnetics (SAM) or Induced Polarisation (IP).

V12 / Lewis River North

The V12 or Lewis River Prospect (Figure 9.2) was discovered by Geopeko between 1976 and 1984 on the back of anomalous stream sediment data in tributaries flowing into the Lewis River (Figure xx). It was further explored by Cyprus/Aberfoyle between about 1985 and 1990.

Gold in soils and rock chips at surface is up to 265 g/t gold, 0.36% Cu, 440 g/t Ag, 0.7% Zn and 0.68 % Pb (Wallace, Aberfoyle, 91/3320, p358; Torrey & Polltock, Cyprus, 88/2853, p35).

Mineralisation at V12 is documented as occupying a northeast-trending (100m wide x 500m long) zone within (stratabound) quartz-phyric volcanoclastics (Cyprus, 87/2696). Breccias, veins and sericite alteration at the EB4 prospect (Aberfoyle), located about 1000m to the northeast of V12, may be a further extension of mineralisation at V12 (Richardson, Aberfoyle, 92/3401, 95/3525).

Rocks at V12 are rhyolitic. However, petrology (Wallace, Aberfoyle, 91/3320, p334) indicates variable addition of silica to rocks that were originally more intermediate (dacitic).

Importantly, the prospect has seen several phases of alteration and mineralisation. Quartz-tourmaline mineralisation predates copper-gold sulphide mineralisation and chlorite-sericite alteration (Torrey & Polltock, Cyprus, 88/2853).

Exploration to date has focussed on V12 being a VHMS target. Surface exploration (grid orientation) and all drill holes have been targeted across stratigraphy with little or no thought given to the possibility of discordant structures being a source of anomalism.

Mineralisation occurs as pods or zones evident as a brown (oxide) staining of surface rocks. Quartz-tourmaline veins and breccias are common but do not always coincide with high gold or copper grades. This is consistent with earlier observations at the time of quartz and tourmaline alteration preceding chlorite- and pyrite alteration and mineralisation.

Cyprus initially considered the prospect untested following (sub-standard) work by Geopeko. This was because Geopeko drilling was shallow, of small diameter, poorly sited, and with very poor recovery (Torrey & Polltock, Cyprus, 88/2853). Cyprus drilled a further 5 holes, again angled predominantly across the stratigraphy. They drilled to a maximum depth of 80m for a total of only 350m. Drilling intersected what was inferred as a 20m wide fault zone in tuffaceous sediments displaying cataclastic texture.

In noting that quartz-tourmaline veins were cut by later gold-bearing chlorite-sulphide veins, Cyprus concluded that sulphide mineralisation was of later Devonian age (and thus of lower priority). This conclusion is based on mineralisation not being of a typical VHMS style, but is otherwise unlikely. Pyrite-chlorite alteration is typically Cambrian. Lead isotope data are also clearly Cambrian (see above and Gemmell, in TasGold, 03/4983).

V12 has received little if any attention since the early 1990's.

V12 was included as a target for field-checking by Paragon Resources for a number of reasons, some of which would not have been evident to earlier explorers:

1. The V12 prospect sits on the southern extension of a N-S-trending aeromagnetic linear (Earthsearch WTRMP processing; Figure 9.9) and zone of sericite-chlorite alteration (Geopeko). This zone is now attributed to the Discovery Creek Shear Zone (DCSZ; above).
2. Processing of WTRMP data shows one or more prominent northwest-striking aeromagnetic linears coincident with the northeastern end of the previously mapped stratabound zone of surface mineralisation at V12 (Figure 9.9). The geophysical linear coincides with a sharp change in the direction of the Lewis River which follows or parallels the linear over a very straight section of about 500m.

3. A similar linear feature to the north at Discovery Creek coincides with gold in panned concentrates of up to 688 g/t and free gold in rock. Similar northwest-striking structures have been noted as being important for mineralisation elsewhere in the region (McDougall pers comm).
4. Northwest-striking aeromagnetic linears coincide with marked changes in the thickness and orientation of mapped Cambrian units. The presence of these linears also coincide with a change in the orientation of the major structure separating the Proterozoic and palaeozoic rocks to the east, as well as what is inferred to be a similar change in the orientation of the DCSZ.
5. Base metal and, in particular, copper and gold grades in soil, stream and rock chip surveys for the V12 prospect (Torrey & Polltock, Cyprus, 87/2696 from p520) are generally higher approaching the northwest-striking linear in WTRMP data, consistent with that structure being a source.

Access to the V12 prospect is good with an existing track over the button grass plains from the main Rocky Cape road.

The V12 prospect area comprises open button grass country. The topography flat to undulating up to the Lewis River where it becomes steeply incised. Outcrop is exposed in ridges and on rocky surfaces but is nearly always well-weathered.

As well as V12, an attempt was also made to field-check rocks immediately southeast of V12 and the Lewis River. This area was of interest because exposure of rocks there might explain the origin of the northwest-striking aeromagnetic linears in WTRMP data. This area is more heavily forested, passage is difficult and (frustratingly) no outcrop was observed in the forest floor.

At V12, a first phase of quartz-tourmaline alteration is overprinted by a fine anastomosing fracturing/foliation in-filled with chlorite. The regional geological map shows this foliation striking northeast, dipping as shallowly as 16 degrees northwest. Stratigraphy also strikes northeast, facing and dipping moderately west. As such, this downward-facing foliation indicates either overturning and/or multiple phases of Cambrian deformation (including synsedimentary deformation).

Furthermore, the regional geological map in the vicinity of V12 shows prominent changes in strike, unit thickness and continuity in the vicinity of V12. There seems little coincidence that this complexity occurs near the intersection of the DCSZ with northwest-trending faults, and that these faults and structural complexity coincide with the V12 prospect and peak gold mineralisation.

Rocks at V12 are less well exposed at the northeastern end of the prospect, near to where any northwest-trending cross structure are inferred to pass. No northwest trending fault was directly observed at V12 (cf V2, below). However, the regional foliation was noted to swing markedly from a northeast- to north-strike at 385080mE, 5246580mN). This site is adjacent to a northwest-trending valley that forms an extension of the topographic northwest-trending linear occupied by the Lewis River, and which coincides with a similarly oriented linear in WTRMP aeromagnetic data.

The V12 prospect is certainly worthy of follow up.

Past exploration has focused solely on a stratbound model for massive sulphide mineralisation and has not considered the coincidence of Cambrian faulting at the northeastern end of the prospect with peak metal values.

Evidence from field checking indicates that northwest-trending faults inferred from WTRMP aeromagnetic data are real.

Quartz-tourmaline alteration of the volcanic unit containing the V12 prospect appears related to intrusion of quartz-feldspar porphyry (Figure 9.10) southeast of the V12 prospect. This alteration has laid the foundation for subsequent brittle deformation and later Cambrian chlorite-sulphide-gold mineralisation.

Northeast-trending faults inferred at the north-eastern end of the V12 prospect coincide with changes in unit thickness and orientation. The intersection of these features with silicified volcanoclastics at V12 coincides with highest base-metal and gold values within the silicified V12 sequence (Figure 9.11). These structure are a valid target for future exploration.

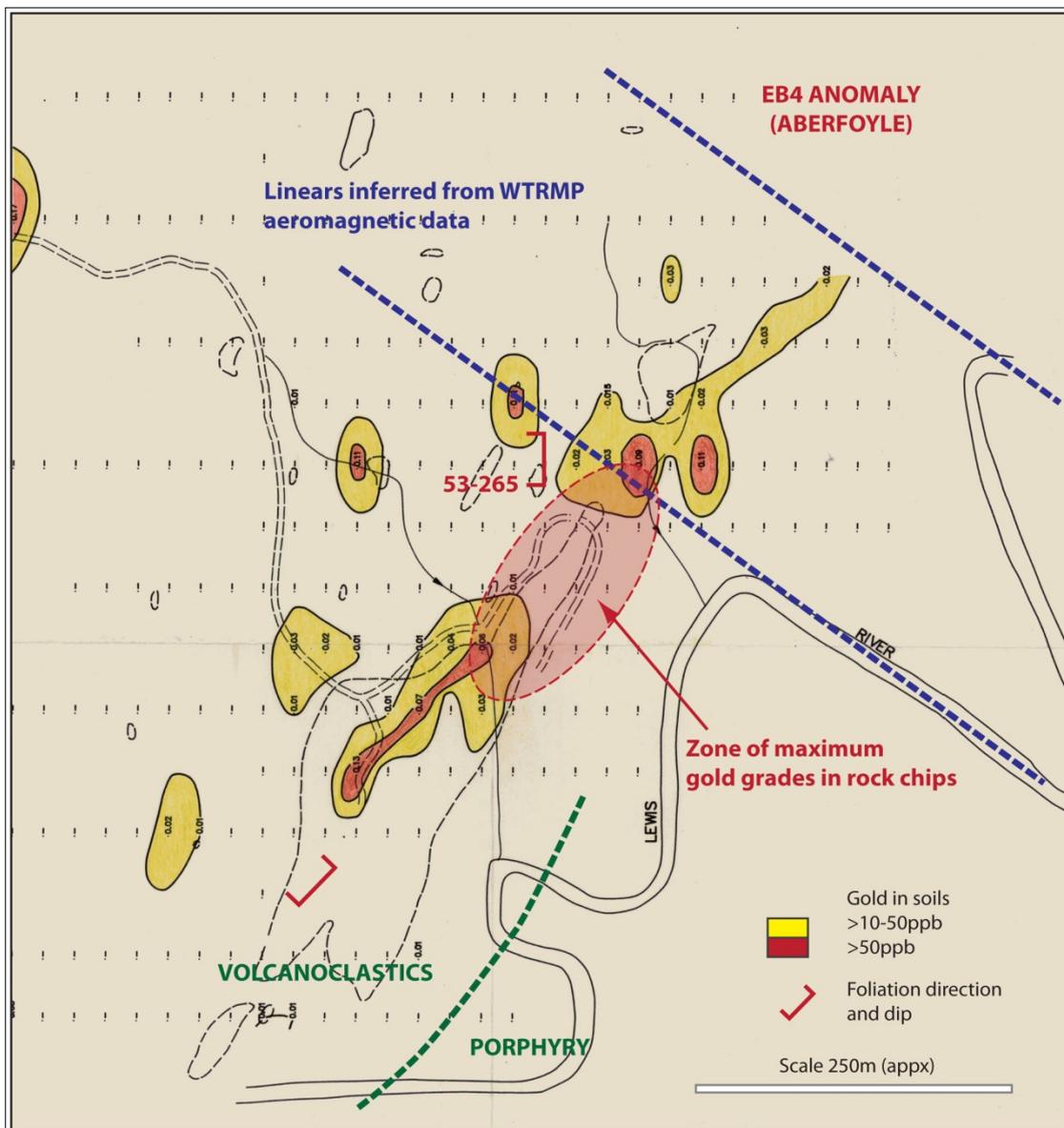


Figure 9.9. Excerpt from an Earthsearch aeromagnetic map (Year 1 Annual Report; Reed 2011) showing eastern Elliott Bay area and the location of the V12 prospect (and possible EB4 extension) relative to major structures. Mineralisation at V12 lies near the intersection of the stratigraphy with a northwest-striking linear, as well as the projected southern extent of the Discovery Creek Shear Zone. Gold mineralisation in panned concentrates (circled, ppm) shows elevated gold in streams shedding off the DCSZ and possible extensions south of V12. The DCSZ parallels the Proterozoic-Palaeozoic boundary shear zone and the two are possibly connected at depth.



Figure 9.10. Porphyry rock exposed in the Lewis River to the southeast and stratigraphically below the V12 prospect is the likely source of early quartz-tourmaline-alteration at V12 but not chlorite-sulphide-gold mineralisation.

Figure 9.11. Contoured gold in soils at V12 (Torrey et al, Cyprus 87/2696, p527). Surveys were designed with a stratobound model in mind. However, results show that gold (as well as arsenic and base metals, not shown here) are highest near northwest-trending structures. These structures were not observed on the ground, but coincide with topographic features as well as changes in lithology and foliation.



Past exploration has targeted using a VHMS model. In light of new information, it is proposed that future exploration orient exploration oblique to the stratigraphy, targeting the linear zone defined by the intersection of the silicified sequence with discordant northwest fault structure(s). This should commence with a re-interpretation (including re-contouring) of existing surface geochemical data.

The position of the high south-trending Discovery Creek Shear Zone north of V12 and/or how it interacts with possible feeder structures at or near V12 remains uncertain. Determining the location of the DCSZ at V12 seems important given the proximity to each other and apparent association of both the DCSZ and V12 with gold mineralisation.

V2 / Lewis River South

The V2 prospect is located on the south side of the Lewis River, about 1km southwest and along the projected strike from V12. Like V12, the V2 prospect was initially explored by Geopeko between 1975 and 1984 for statabound VHMS-style mineralisation.

Sulphide gossans (Figure 9.12) and anomalous copper mineralisation in rock chips and soil surveys at surface at V2 were followed up by shallow core drilling. Like V12, drilling at V2 was designed to test across the stratigraphy (consistent with a stratbound model) rather than discordant structures. Drilling was generally shallow (<50m), with the exception of one hole (V2/6) which went to 200m. Core recovery varies but was often poor, and despite the presence of visible copper mineralisation (indicative of potentially higher fluid temperatures), assays of core originally failed to include gold.

The one deeper hole at V2 (V2/6) was designed to test under copper mineralisation at surface. V2/6 intersected a fault at about 60m with anomalous lead and zinc mineralisation thereafter to end of hole (peaking at about 1.61%Pb, 0.24% Zn and 21.2 g/t Ag between 135 and 144m). The source of the copper mineralisation at surface was never explained.

Gold was never originally included in assay requests when V2 was drilled. This is surprising given the extent of copper mineralisation nearby at surface. Frontier Resources subsequently re-assayed selected V2 core for gold but with poor results (Hall, 21/1999).

It was never originally intended that Paragon Resources field-check the V2 prospect. However, the prospect sits en route between V12 (above) and the 'Bulls-eye' anomaly (Earthsearch Target 4; below). Both V12 and the Bulls-eye anomaly show evidence for mineralisation being associated with faults. Thus, V2 was visited to test a field hypothesis that there might be structural controls there that might link mineralisation to that at the other 2 adjoining sites. This hypothesis proved correct.

Unlike V12, volcanoclastic sediments at V2 do not overlie a porphyry body. This change in geology along strike between the two prospects is puzzling but may be related to structural complexity noted at V12 (above). The V2 sequence is not as silicified as at V12, consistent with the V2 rocks not having undergone the same early stage of silica-tourmaline alteration above a porphyry body.

Rocks at V2 are well exposed on rolling button-grass plains. Rocks are variably weathered and covered in Tertiary gravel. Soil development is variable but commonly poor. Old workings include a number of shallow trenches and pits, all of which offer excellent access to viewing gossanous mineralisation at surface.

A regional foliation strikes northwest and dips southeast. This contrasts with the V12 prospect where the foliation strikes northeast.

Mineralisation is evident throughout the V2 area as irregular and discontinuous silica-oxide (after sulphide) veins. Veins are typically less than 5cm wide, laterally discontinuous, concordant and may show a brecciated appearance (possibly a surficial effect). Mineralisation is localised with only proximal oxide staining of nearby rocks (Figure 9.13).



Figure 9.12. Alistair Reed examining mineralised mullock adjacent to a small water-filled shaft of unknown depth at V2.



Figure 9.13. Iron staining in rocks near concordant but laterally discontinuous oxide veins at V2. Rocks are well exposed and soil development is poor.

Gossanous mineralisation at V2 is more interesting and is the subject of early prospecting (Figures 9.12, 9.14, 9.15, 9.16). Mineralisation occupies a steeply dipping linear zone. This zone strikes 140 degrees, and is about 100m long by a true width of about 6-10m. The strike of this mineralised zone is clearly discordant to the stratigraphy and is of the same orientation as northwest-striking faults inferred to intersect the V12 prospect.

Gossan mineralisation is evident as dark brown to black, erosion-resistant outcrops accompanied by quartz (in places arranged in large-scale en echelon arrays). Although mainly oxide (iron and copper oxides), freshly broken rocks may show abundant but variably weathered and oxidised massive pyrite, chalcopyrite and lesser sphalerite (Figure 9.14). No galena was observed.

Importantly, the mineralised zone is not of a consistent thickness. Rather, it appears to pinch and swell, with individual lenses consistently plunging southeast, about 25 degrees to 120 degrees (Figures 9.15 and 9.16).

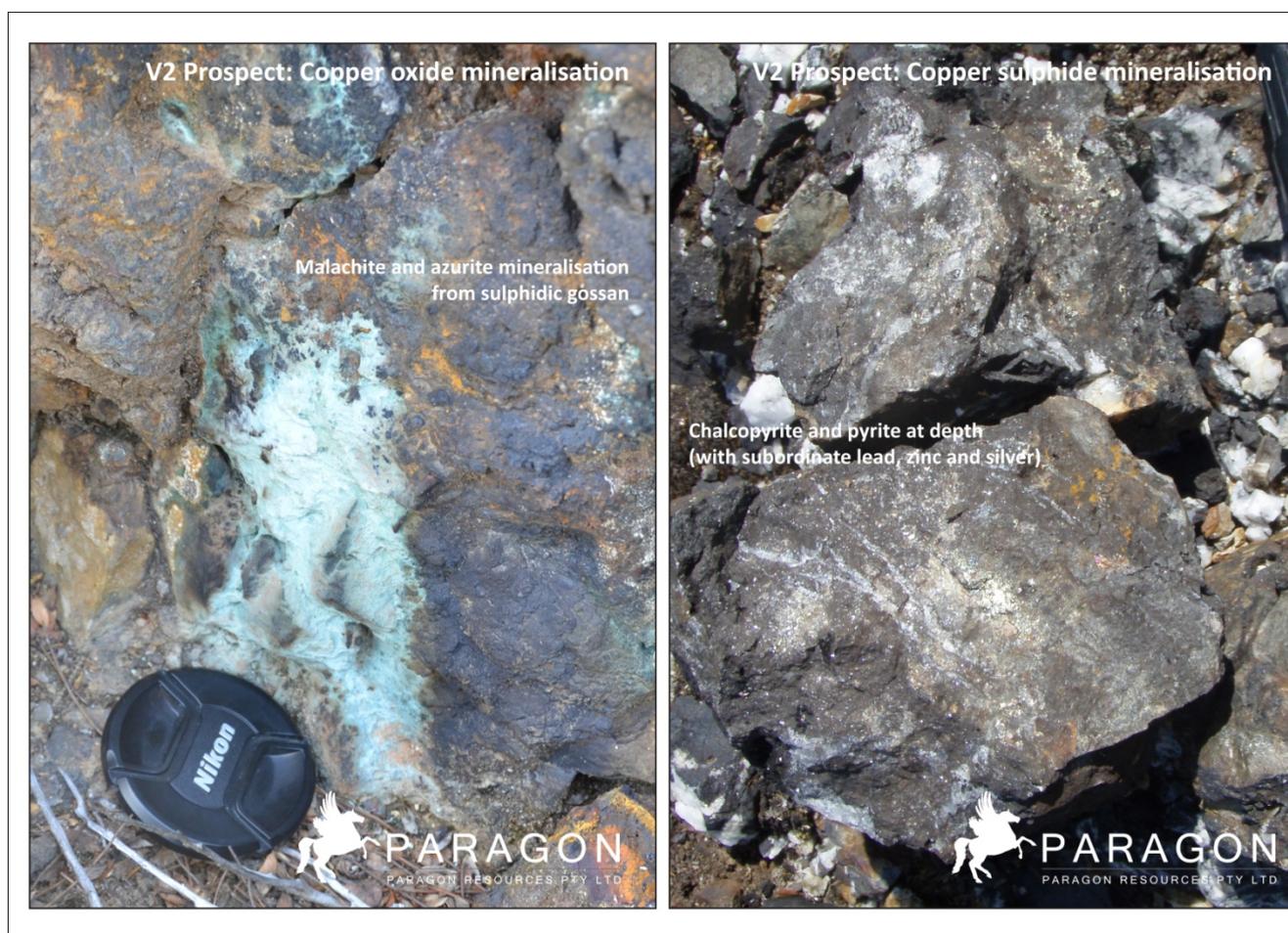


Figure 9.14. Copper carbonate (malachite/azurite) and copper sulphide (chalcopyrite) mineralisation at V2.

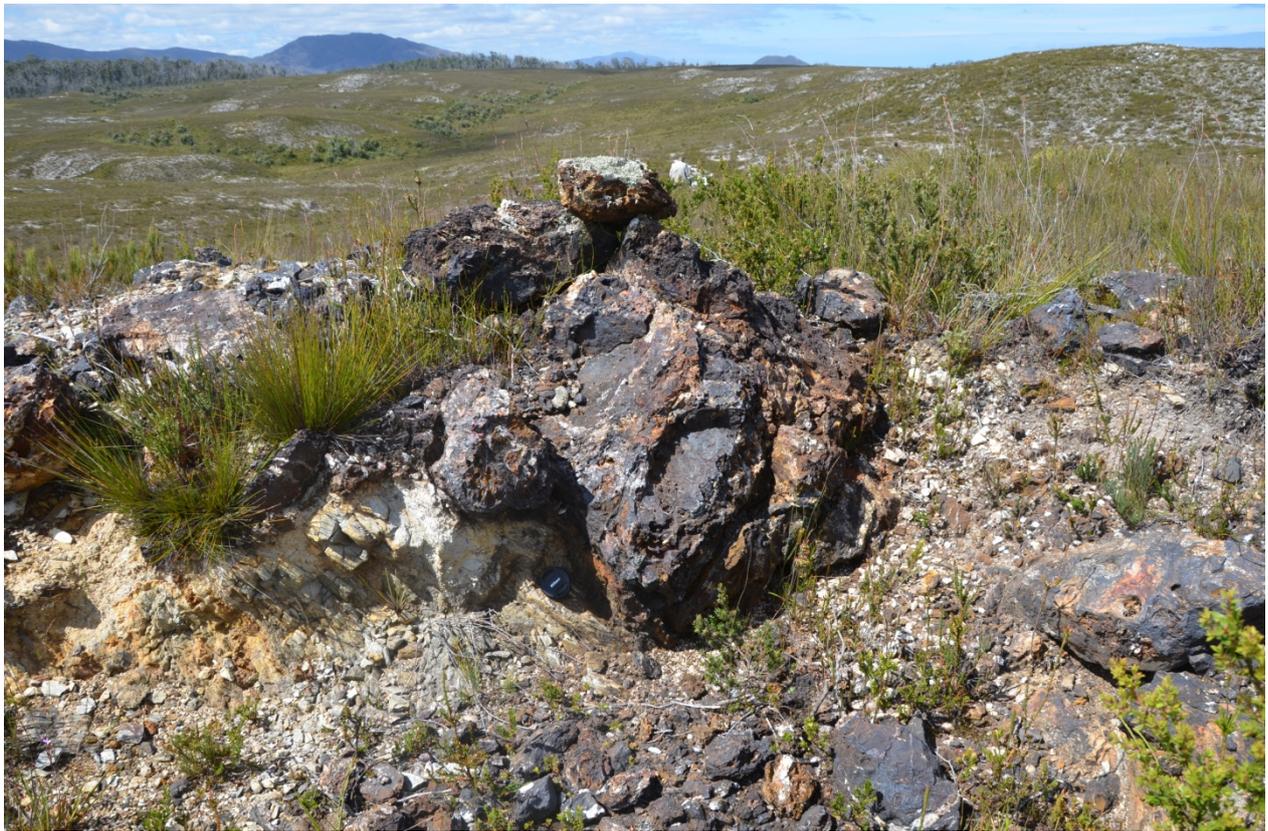


Figure 9.15. Open countryside of the V2 prospect at Elliott Bay showing gossanous shoot-like outcrop in a small break-away.



Figure 9.16. A closer view of surface mineralisation at V2 showing shallow southeast plunge to mineralised lenses. Volcanic rocks enclosing the lenses are strongly foliated and probably sheared.

Drilling (V2/6) originally designed to test beneath copper mineralisation at surface instead intersected a fault and zone of lead and zinc mineralisation (above). The drill collar is located west and northwest of the copper-mineralised gossans. Thus, rather than intersect and test copper mineralisation at surface, V2/6 appears to have gone through the same fault but under the southeast-plunging shoots containing the copper at surface. As such, lead-zinc mineralisation intersected in V2/6 core represents a lateral extension of the copper-mineralised shoot exposed at surface.

Re-assay of lead-zinc anomalous core by Frontier Resources (Hall, 21/1999) did not reveal any gold. However, a lack of gold in the distal parts of a system is not surprising. Several copper-bearing surface samples were collected this last summer and once fully described will be submitted for assay. These samples do not represent a systematic survey but, rather, will test the association of the copper mineralised parts of the prospect with possible gold.

Mineralisation at V2 does demonstrate a structural component to copper and possibly lead- and zinc mineralisation, consistent with that inferred for V12 (only 1 km to the northeast).

The position and interpretation of drilling at V2 shows little thought given to a structural control on mineralisation.

While the location of the V2 prospect appears to coincide with the along strike extent of V12, no evidence was seen for a direct along-strike link of the two prospects. Rather, the two prospects appear to share a relationship between mineralisation and northwest-striking structures.

The northwest-striking structure observed at V2 is small compared to that inferred to be affecting the geology and topography at V12. However, the two may be part of the one zone or corridor of structures.

As well as bearing a relationship to mineralisation, these northwest-striking structures may also be the origin of discontinuity of concordant bodies such as the footwall porphyry to the V12 prospect.

While more work is required in re-logging V2 core, the V2 prospect is not currently a prime exploration target for Paragon resources. However, the prospect is important in demonstrating a relationship between copper (and potentially gold) mineralisation and linear zones within northwest-striking structures. Structural controls and linearity to mineralisation have not previously been considered in designing exploration programs or interpreting exploration data. Importantly, the southeast projection of the mineralised structure at V2 are of interest as they intersect the inferred southerly extension of the DCSZ at Earthsearch Target 4. This intersection is characterised by a bull-eye anomaly and is described in more detail below.

It would be worthwhile re-logging V2 core and reinterpreting surface geochemical data to assess any potential for follow-up work on the prospect, or at least perhaps better explain mineralisation as currently defined.

The 'bullseye' anomaly.

This target was first identified from WTRMP aeromagnetic data (Figure 9.17) and subsequently correlated with earlier (but as yet unexplained) observations from surface of chlorite alteration and metal anomalism (Geopeko).

Panned concentrate gold is anomalous in streams surrounding this anomaly and possible southern extensions of the Discovery Creek Shear Zone (in WTRMP data) mapped north of V12.

The bulls-eye target sits close to the intersection of the inferred southern extension of the DCSZ and mineralised northwest-trending structures mapped nearby at V2 (described above). Mineralisation at V2 is contained within shoots, and this linearity is consistent with the bulls-eye shape at Earthsearch 4. The nearby V12 prospect also appears to coincide with the intersection of structures, in particular between northwest-trending structures (faults) and suitable host sequences, and/or the DCSZ.

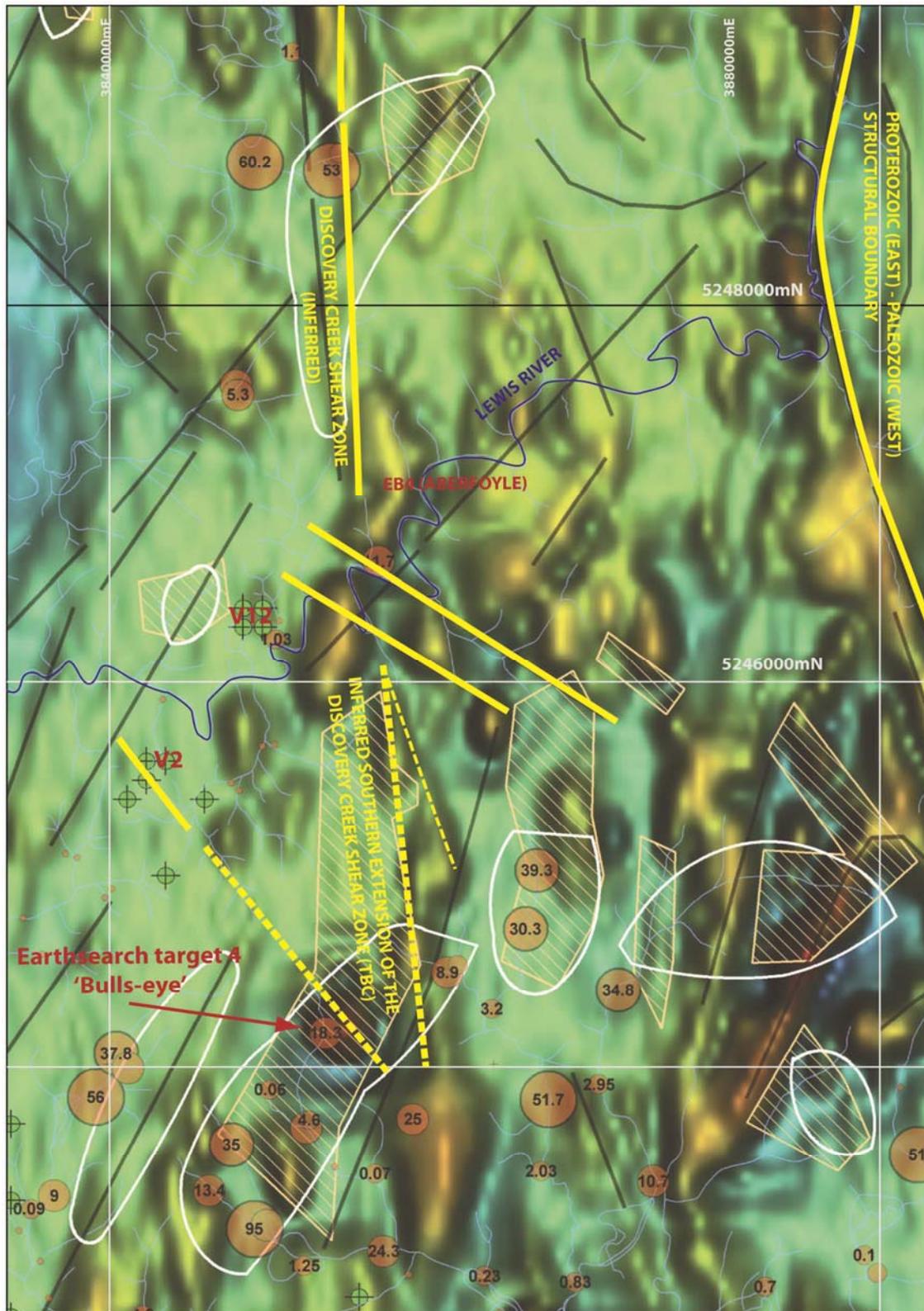


Figure 9.17. Excerpt of Earthsearch WTRMP geophysical image (Reed 2011) showing the location of the Earthsearch target 4 (Bulls-eye anomaly), close to the inferred southern extension of the Discovery Creek Shear Zone and projected extension of northwest-striking mineralised structures at the V2 prospect. Mineralisation at V2 forms linear shoots within this northwest-striking structure. Similarly, mineralisation at V12 also appears associated with intersection of a favourable stratigraphy and/or faults and inferred northwest-striking fault structures. The Bulls-eye anomaly at Earthsearch target 4 forms a pronounced point feature, consistent with a linear target. The feature on the ground is associated with strong chlorite sulphide mineralisation and peripheral quartz-veining and is worthy of follow-up.

A visit to the site of the bulls-eye anomaly aimed to check for any signs of alteration and/or mineralisation in outcrop.

The anomaly site is easily accessible from the west across the button grass plains using tracks originally put in to access the V2 prospect.

The bulls eye anomaly sits on the edge of the button grass plains. The anomaly coincides with a depression in the landscape and change in vegetation from open button grass to what is now a croft of dead trees with an understory of thick tea-tree scrub and cutting grass. The cause of the dead trees is unknown, but coincidence with the anomaly is interesting.

The geology surrounding the western side of the anomaly is characterised by a hummocky topography comprising erosion-resistant ridges and knolls of white buck quartz (Figure 9.18). This quartz is unmineralised. However, where observed elsewhere in the region (eg V12 and the DCSZ), white buck-quartz represents localised remobilisation of silica at or near zones of structural complexity.

The eastern side of the anomaly was not observed. A traverse across the anomaly intersected a creek defined only by thick mud with no rock over that short section observed. A more thorough exploration of this creek in search of in situ rock is warranted, especially given historical panned concentrate results showing the area to be anomalous in gold.

The size of the anomaly and the size of the area defined by variation in the topography and vegetation is about 400m in diameter, perhaps up to 600m when taking into account surrounding areas of quartz.

Despite some effort, little rock was found exposed within the confines of the bulls-eye aeromagnetic anomaly. This contrasts with surrounding areas but is compounded by the thick undergrowth (Figure 9.19).



Figure 9.18. Geologist Alistair Reed atop one of a number of small knolls of white buck-quartz surrounding the western side of the bulls-eye aeromagnetic anomaly at Earthsearch target 4. The anomaly (to the back and right of the picture) coincides with a shallow depression and a change in vegetation to thick scrub under dead trees.



Figure 9.19. No outcrop was observed over the bulls-eye aeromagnetic anomaly, which is characterised by a thick understory of bracken, cutting grass and tea-tree growing through a network of fallen branches and dead trees.



Figure 9.20. Bleached surface float rock found in the vicinity of the bulls-eye aeromagnetic anomaly. Rock found was limited to weathered, foliated, moderately to strongly chlorite-sericite volcanic-related rock float from the base of an upturned tree. Chlorite-sericite alteration is considerably more intense than that of surrounding countryside, consistent with the anomaly coinciding with a topographic depression caused by preferential weathering of an altered volcanic sequence.

The one piece of float found at the base of an upturned tree comprised weathered, foliated, moderately to strongly chlorite-sericite volcanic-related rock (Figure 9.20). It is not known if this one sample is representative of the area. However, the chlorite-sericite alteration in this one sample was greater than that of surrounding countryside to the west. Elevated levels of alteration is consistent with preferential weathering of the volcanic sequence, thus resulting in the topographic depression.

Chlorite-sericite alteration at the Bulls-eye anomaly is similar to that observed associated with gold mineralisation in the vicinity of the DCSZ north of V12, and previously noted as being associated with gold mineralisation at V12 (see above).

The source of the aeromagnetic anomaly is unknown. A similar (albeit weaker) magnetic response is associated with chlorite- and sericite-alteration along the DCSZ to the north of V12. Magnetite and/or pyrrhotite associated with chlorite and sericite are likely and possibly ultimately related to fluids derived from Cambrian granites exposed at surface to the south.

The Bulls-eye aeromagnetic anomaly is worthy of follow-up. However, the limited extent of the anomaly and poor outcrop means that further mapping is unlikely to yield a satisfactory result, except perhaps in mapping streams draining this area to the south and east. It is recommended that lines are cut to provide access and that soils are mapped and sampled at suitable intervals (say, 20m) along each line. Cut lines may offer additional opportunity to observe any outcrop that does exist in the area.

To make full use of the cut lines, it is further recommended that a geophysical survey be carried out over the anomaly to test for a depth extent to mineralisation. Suitable techniques given a disseminated chlorite- sericite-associated mineralisation (plus or minus magnetite) might be sub-audio magnetics (SAM) or Induced Polarisation (IP).

It may be worthwhile extending cut lines to the east and over what may be the inferred southern extension of the DCSZ.

Hylogger

An orientation survey conducted in the early part of the year aimed to assess the usefulness of Hylogger technology in extracting information from drill core that might aid understanding of the Elliott bay geology and or help locate a mineral deposit.

The Hylogger accessed by Paragon Resources is situated in Mornington, Hobart, and was made available by the Tasmanian Government through Mineral Resources Tasmania. Dr David Green of Mineral Resources Tasmania is acknowledged for his time and effort in his handling of Hylogger data and in discussing the method and results.

A description of Hylogger technology is contained in detail in Hancock & Huntington (2010). In summary:

"HyLogging™ is a new, highly automated system designed by CSIRO to determine drillcore mineralogy using rapid reflectance spectroscopy. The resulting data, coupled with simultaneous acquisition of high-resolution digital photographs of scanned core, can provide new insights into host-rock and alteration mineralogy, vectors to mineralization, objective determination of lithostratigraphic units and their boundaries, and refined inputs to resource block modelling and geometallurgical characteristics. All mineralogical and image data are stored on a central database, which can be accessed using the internet." (Hancock & Huntington, 2010)

The opportunity to use the Hylogger was limited in both the amount of drill core that could be examined and the timing of the analysis. Ideally, drill core would have been selected following field-checking of the prospects from which the core originated. However, this was not possible and core had to be selected on the basis of historical reports alone. The core was not re-examined in detail but was briefly assessed for its suitability for Hylogger examination.

Three drill holes were selected:

DRILL_ID	NAME_LOC	Hylogger Intervals	Tenement	COMPANY
6282	VOYAGER-V2/6 Elliott Bay	0-200.35	EL27/1976	Geopeko Ltd
6535	V12/6 Elliot Bay, North Lewis	0-80.2	EL40/1985	Cyprus Gold Australia Corporation
6277	V9/2 Elliott Bay	0-120	EL27/1976	Geopeko Ltd

Intervals were chosen around zones of mineralisation. The aim was to analyse intervals of sufficient length as to be able to recognise any trends in the data that might related to these mineralised zones.

Raw Hylogger data may show useful trends but requires interpretation in order to impart meaning to those trends. Interpretation is in part a statistical, and in part a subjective process, requiring careful consideration (and at times manipulation) of the data to enhance a meaningful signal from what can be a very noisy signal background.

The aim of the Hylogger orientation survey using core from Elliott Bay was two-fold;

- a) to determine if there were trends over and above those previously observed from visual logging of the drill core, and
- b) to attempt to explain those trends in context of the minerals detected.

Only the first aim has been met in part. Hylogger did detect broad trends in the drill core that were not necessarily evident from reading logs provided in historical reports.

Hylogger results are not included as part of this report but are already held by Mineral Resources Tasmania. It was a condition of the survey that the data could be made available to the public after six months. This time has now lapsed.

Only preliminary results are discussed below. The intent is to examine the Hylogger data in more detail in future, but in context with the better understanding of the geology of the Hylogged prospects being obtained from the field-checking currently in process.

The V2 and V12 prospects have been described in earlier sections. Both V12 and V2 are close to each other and both appear to be associated with the presence of northwest-striking faults. This association contrasts with earlier workers who located the prospects on the back of regional stream surveys but who focussed instead on looking for strata-parallel VHMS-style massive sulphide mineralisation.

The V2 and V12 cores selected for Hylogging were originally chosen to see if there were similarities given their close proximity to one another. Prior to field-checking it was thought that the two prospects might be connected given the strike of the geology in one prospect extended into that of the other. This is not now thought to be the case.

The V12 prospect is the larger and more interesting of the two prospects based on field relationships. Mineralisation extends over a larger area and northwest-striking faults inferred to intersect the prospect are of apparent (in geophysical data, at least) larger size than that observed at V2.

Drilling at V2 intersected a mineralised fault. By contrast, drilling at V12 was distal to inferred faults, instead testing a stratabound model for mineralisation.

The mineralogy in V2 core is locally more muscovite rich (Figures 9.21), possibly reflecting a higher formation temperature than that for V12 which is dominated more by phengite (Figure 9.22). These results are consistent with drilling at V2 intersecting a discrete fault or vein system. No such vein system of similar age has been intersected at V12. Rather, drilling at V12 is in rocks that are thought to be distal to possible feeder structures, possibly explaining the overall lower alteration intensity.

Hylogger data obtained from the V9 prospect have yet to be examined in detail. Attempts were made to field-check the V9 prospect this year but were unsuccessful due to adverse weather on the day. Given the usefulness of combining field-checking with Hylogger at V2 and V12, it is recommended that further Hylogger work at V9 be completed only after the prospect has been site-visited.

In summary, Hylogger is yielding results that are consistent with developing concepts about mineralisation at both V2 and V12 being associated with northwest-trending faults. On its own, Hylogger scanning of existing core is likely to yield ambiguous results. It is, however, a useful tool when used here in conjunction with other analyses and/or the results of field-checking.

Given promising results at V12, it is recommended to submit remaining V12 core held by Mineral Resources Tasmania for Hylogging in an attempt to identify trends consistent with the source of mineralisation at V12 being toward the north of the prospect (coincident with elevated metal contents in soils and rocks and proximal to northwest-trending structures).

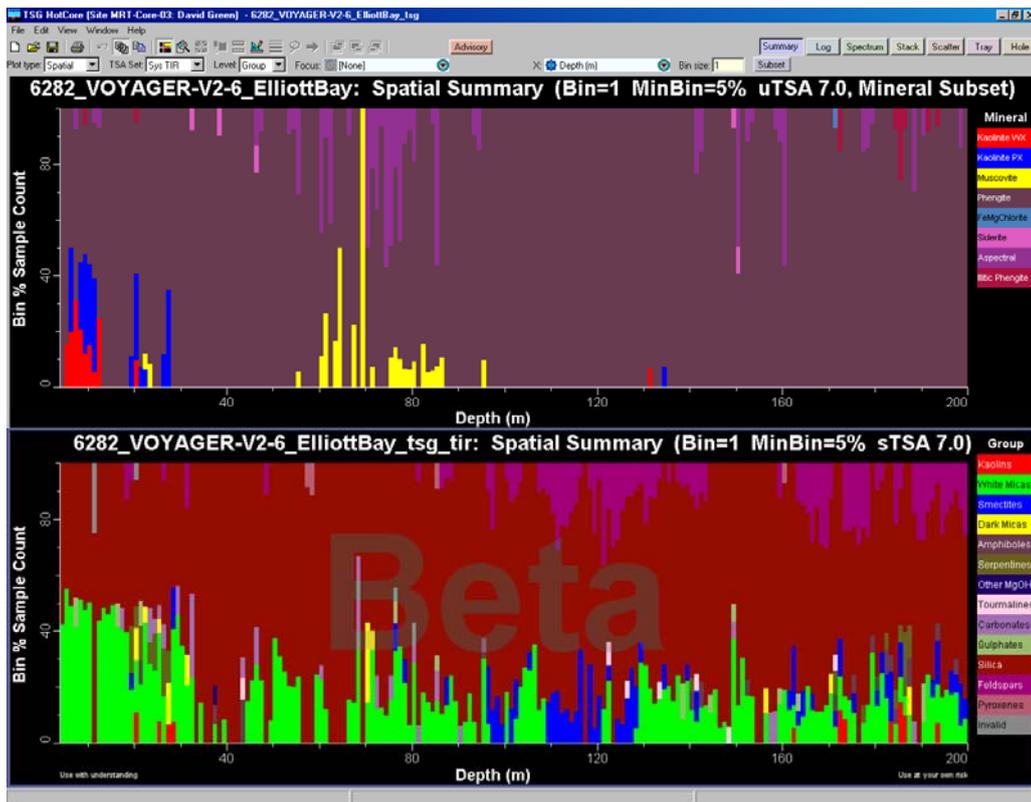


Figure 9.21. Graphs showing interpreted mineralogy down-hole in V2-6 core calculated from Hylogger scans of drill core held by Mineral Resources Tasmania (top of hole to left). Yellow bars in the top profile show the presence of higher temperature muscovite coincident with a logged fault in drill core. This fault coincides with copper mineralisation in shoots at surface. By contrast, rocks footwall to the fault are anomalous in lead in zinc.

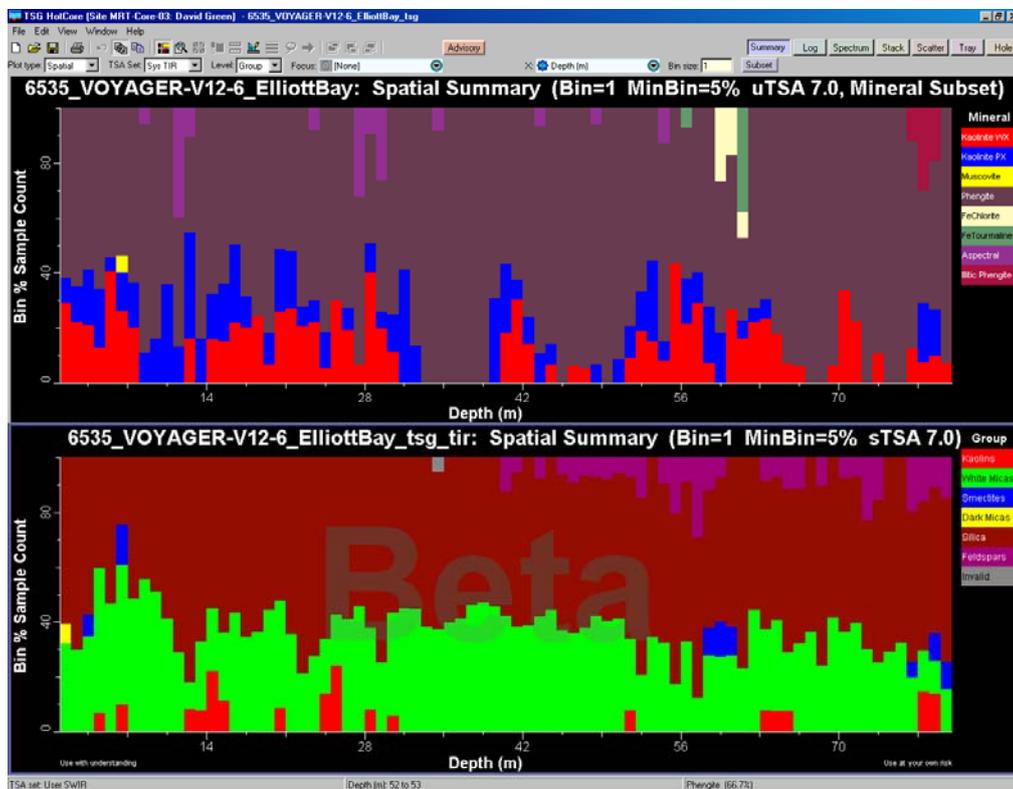


Figure 9.22. In contrast to Figure 9.21, a graph of the interpreted mineralogy down-hole for V12-6 shows no muscovite. The data from V12-6 are consistent with drilling being further away from a source of mineralisation than that at V2-6.

10. FUTURE WORK

Much effort has been put in over the last year visiting and presenting the Elliott Bay project to brokers, capital management funds and high net worth individuals in various capital cities around Australia. The project has been almost universally well-received.

The aim of external funding was to rapidly advance the project by extending regional stream sediment sampling programs, soil and geophysical surveys.

Importantly, potential sources of funding for exploration at Elliott Bay were withdrawn following failed talks between environmental and forestry groups in negotiating the Intergovernmental Agreement (IGA) process in Tasmania.

While it is within the means of Paragon Resources to continue work at Elliott Bay, work programs for Y3 of the licence tenure are now expected to be reduced in line with that of Year 2. Work is expected to include follow-up of additional geophysical and geochemical targets in the eastern Elliott Bay area with the aim of increasing the regional prospectivity and attractiveness for more detailed programs in the future. These will be the subject to submission and approval of a separate work program.

Paragon Resources will continue to seek additional funding for Elliott bay during Year 3. It will also review the strategic merit of continuing work at Elliott Bay in light of a heightened perception of sovereign risk in Tasmania.

11. EXPENDITURE TO DATE

This section details expenditure by Paragon Resources on EL18/2010. Minimum expenditure for the year as set by MRT (letter G Green, Nov 24, 2011) was \$36,681. Actual expenditure for the year was \$140,579.

Quarter ended December 2011 (quarterly report submitted)

Remote sensing	Ongoing reprocessing of WTRMP geophysics and remote sensed data in context with historical data in an attempt to better define areas targeted for field-checking*.	\$3,000
Geology costs	Visit to MRT core store and review of historical data to select core for Hylogger examination. Ongoing review of historical works.	\$15,000
Other costs	Purchase satellite phone and tracker for field work at Elliott bay	\$2,000
General administration		\$2,000
Q1 total		\$22,000
Cumulative expenditure		\$75,019

*Labour is charged at a daily rate equivalent to that charged by participants to industry. Principal geologist (\$1500pd), geologist (\$650pd).

Quarter ended March 2012 (quarterly report submitted)

Geology costs	Field-checking selected sites in Elliott Bay, field trip preparation and execution, ongoing review of historical data.	\$61,721
Geochemistry	Hylogging drill core from the V2, V12, and V9 prospects	\$1,760
Other costs	Purchase of Leica stereomicroscope and Canon EOS 5D camera for examination and documentation of Elliott Bay samples.	\$11,218
General administration		\$7,000
Q3 total		\$81,699
Cumulative expenditure		\$156,718

Quarter ended June 2012 (quarterly report submitted)

Geology costs	Ongoing review of geological data, petrological examination of field samples, micro-photography of field samples.	\$15,000
General administration		\$1,500
Q3 total		\$16,500
Cumulative expenditure		\$173,218

Quarter ended October 2011 (this report)

Geology costs	Annual report preparation, ongoing review of samples, preparation of samples for assay (yet to be submitted), ongoing review of historical data.	\$15,000
General administration		\$1,500
Other costs	Rental fees for Year 2 (not previously included)	3,880
Q3 total		\$20,380
Cumulative expenditure		\$193,598

Total year 1 expenditure: \$53,019

Total year 2 expenditure (minimum required by MRT shown): \$140,579 (\$36,681)

TOTAL EXPENDITURE TO DATE (Y1 + Y2): \$193,598

12. CONCLUSION

Highly anomalous gold in the eastern parts of EL18/2010 discovered during regional stream surveys has been field-checked and found to be associated with chlorite- and sericite-alteration along a previously undocumented Cambrian zone of high strain herein labelled the Discovery Creek Shear Zone. Free gold in altered volcanic rocks has been found associated with stream sediment results disregarded by previous companies (without field-checking) as spurious.

Gold and base metal mineralisation in the vicinity of the V2 and V12 prospects show a similar association with Cambrian structures to that along the DCSZ.

Work during Year 2 corroborates an association at Elliott Bay between VHMS style mineralisation and shear-related gold. This association has been documented for mineralised regional in WA. Previous work in the Elliott Bay region has been of a high quality, but interpreted in light of very limited massive sulphide model for mineralisation. A VHMS model for mineralisation followed by earlier explorers has not only blinkered interpretation of previous result, but has limited prospect-level surveys (eg V2 and V12) to looking within and across stratigraphic units with little, if any regard to nearby structures.

Government-sponsored regional mapping in the Elliott Bay area has been similarly focussed on defining a stratigraphy in areas thought at the time prospective for VHMS mineralisation. Little if any structural mapping has taken place although structural data presented on existing maps hints at a complexity not otherwise shown in the regional interpretation.

Success at Elliott Bay is likely to come as a result of accepting the likelihood of there being a continuum of mineralisation styles, and not being limited in thinking to a VHMS model.

13. SOURCES OF INFORMATION

Unpublished and company reports

Aberfoyle Resources Limited; Cyprus Gold Australia Corporation. December 1991. Partial Relinquishment Report on exploration to December 1991. EL40/85, Elliott Bay, Tasmania.

Allen, N., McDougall, J., Reid, R., Ruzicka, P., 2007, 07_5431 - Annual Report to 26 Dec 2006, EL 21/1999, Wanderer

Anglo Australian Resources NL. July 1993. Annual Report 1/10/92 to 25/9/93. EL3/92 Thirkell Hill, Tasmania.

Anglo Australian Resources NL. December 1994. Annual Report on exploration activity October 1993 to September 1994. EL3/92 Thirkell Hill.

Anglo Australian Resources NL. August 1995. Annual Report on exploration activity October 1994 to September 1995. EL3/92 Thirkell Hill.

Anglo Australian Resources NL. December 1996. Annual Report 1996. EL3/92 "Thirkell Hill".

Anglo Australian Resources NL. August 1997. Annual Report 1997. Thirkell Hill EL3/92.

Billiton Exploration Australia Limited. May 2000. Sirotem, Magnetic and Gravity Data review. Elliott Bay, Tasmania.

Callaghan, T., 2004, 04_5023 - Annual Report to 31 March 2004 - EL20/1996 - Elliott Bay

Craven, B.L., 2003, 03_4842A - Report on Elliott Bay - SMRV Project - Aeromagnetics-Radiometrics Interpretation - EL 21/1999 and EL 20/1996

Cyprus Gold Australia Corporation. June 1986. Progress Report, 12 months to June 1986. EL40/85, Elliott Bay, Tasmania.

Cyprus Gold Australia Corporation. June 1989. Progress Report, 12 months to June 1989. EL40/85, Elliott Bay, Tasmania.

Dighem Ltd. 7 January 1981. Dighem survey of Birch Inlet area Tasmania for Geopeko Ltd.

Exploration and Management Consultants Pty Ltd. March, 1998. EL 20/96 Elliott Bay Southwestern Tasmania. Annual report 12/4/97 – 11/3/98.

Exploration & Management Consultants Pty Ltd. April 2001. EL 20/96 Elliott Bay Southwestern Tasmania. Annual report 12/4/00 – 11/4/01.

Fimiston Mining NL. Annual Report for EL 20/96. Data Summary and Compilation Report. Period of Report 12/4/98 – 11/3/99.

Fimiston Mining NL. March 1998. Southern Geoscience Consultants Imaging Services. Elliott Bay, Tasmania.

Fimiston Mining NL. March 1998. Silver Hill Prospect 1995 Moving Loop Sirotem Profiles. Elliott Bay, Tasmania.

Fimiston Mining NL. March 1998. 1991 QUESTEM Survey Selected Profiles. Elliott Bay, Tasmania.

Geopeko Ltd. Report on Exploration License 27/76, Elliott Bay, Tasmania. 11/81 – 3/82. TCR82 – 1882.

Geopeko Ltd. Annual Report on Exploration License 27/76, Elliott Bay, Tasmania. November 1983. TCR83 – 2076.

Geopeko Ltd. Report on Exploration License 27/76, Elliott Bay, Tasmania. 12/83 – 3/84. TCR85 – 2318.

Geopeko Ltd. Final Report on Exploration License 27/76, Elliott Bay, Tasmania. October 1985.

Geopeko Ltd / Union Oil Development Corporation. June 1978. EL9/74 Progress Report Birch Inlet Area.

Geopeko Ltd / Union Oil Development Corporation. June 1981. EL9/74 Progress Report Birch Inlet Area.

Geopeko Ltd / Union Oil Development Corporation. September 1977. Geophysical Progress Report on Birch Inlet. EL9/74 Tasmania.

Hall, D., 2003, 03_4842 - Combined Annual Report - Y.E 27 January 2003 - EL21/1999 - Wanderer River and EL 20/1996 - Elliott Bay

Hall, D., 2003, 04_4993 - Annual Report Y.E. 27/1/2004 - SMRV Project EL21/1999 - Wanderer River

Hancock & Huntington 2010. The GSWA Hylogger: Rapid spectral analysis and its application in detecting mineralisation. GSWA 2010 extended abstracts.

Large, R. R. 1985. University of Tasmania. Notes on the Voyager 24 Gold Mineralisation.

MacDonald, G. August 1994. Elliott Bay, Tasmania. An appraisal of previous exploration and exiting potential in the southern most part of the Mt Read Volcanics.

MacDonald, G. January 1997. EL 20/96 – Elliott Bay Western Tasmania. A review. Appendices A to O. Figures 1 to 250.

Macmin N.L. Thirkell Hill Project. Compilation of Prospectus, Quarterly and Other reports.

McNeil Associates. November 1992. Summary Report EL3/92 Thirkell Hill Tasmania.

McNeil P. A. 2000 EL20/1996 Elliott Bay. Exploration and Management Consultants Pty Ltd. (00/4442)

Mitre Geophysics Pty Ltd. Jan 1988. A compilation of geophysical surveys carried out at Elliott Bay (EL27/76) for Cyprus Minerals Australia Company.

Plutonic Operations Limited. February 1996. Annual Report Exploration License 53/94. Elliott Bay, Tasmania. February 1995 to January 1996.

Reed. A. R. 2011 Annual Report (Year 1), Exploration Licence EL18/2010.

Reid, R., 2005, 05_5169 - EL 21/99 - Elliot Bay, Annual Report to January 27, 2005

Reid, R., 2008, 08_5727 - Annual Report to 11/9/2008, Lewis River

Reid, R., 2008, 09_5777 - EL21/1999 Wanderer River Relinquishment Report to 26th December 2008

Stagg R.N. 2003 Independent Geologists report on Mineral properties for TasGold, EL 20/96, EL 21/99 & ELA 24/2001 (07/5416)

Union Oil Development Corporation. August 1975. EL9/74 Birch Inlet Annual Report.

Published papers and Reports

Berry, M. V. et al 1998. *Rosebery lead – zinc – gold – silver – copper deposit*. AusIMM Monograph 22. 481 – 486.

Callaghan, T. et al.. 1998. *Henty gold deposit*. AusIMM Monograph 22. 473 – 479.

Corbett, K. D. 1992. *Stratigraphic – Volcanic Setting of Massive Sulphide Deposits in the Cambrian Mount Read Volcanics, Tasmania* Econ. Geol. Vol 87 : 564 – 586.

Corbett, K.D., 2001. *New mapping and interpretations of the Mount Lyell mining district, Tasmania: a large hybrid Cu-Au system with an exhalative top*: Economic Geology, v. 96, p. 1089-1122.

Eadie, E. T. et al. 1984. *The application of Geophysics to the discovery of the Hellyer Ore Deposit, Tasmania*. Explor. Geophys., Vol 16, No 213.

Fox, J. S. April 1984. Besshi – type volcanogenic massive sulphides. CIM Bull.

Groves, D. I, Weinberg, R. F., Hodkiewicz, P., and van der Borg, P. 2002 Yilgarn Atlas: Hydrothermal Systems, Giant Ore Deposits [GODS] and a New Paradigm for Predicative Mineral Exploration, AMIRA International Ltd, Project Report P511, V3.

Gulson, B.L., Large, R.R. and Porritt, P.M. 1987. *Base metal exploration of the Mount Read Volcanics, western Tasmania: Part III. Application of lead isotopes at Elliott Bay.* Economic Geology, Vol 82, p. 308-327.

Hancock, E. A., and Huntington, J. F., 2010 The GSWA HyLogger: Rapid spectral analysis and its application in detecting mineralisation. GSWA 2010 extended abstracts: Promoting the prospectivity of Western Australia

Halley, S.W. and Roberts, R.H., 1997, *Henty: a gold-rich volcanogenic massive sulfide deposit in western Tasmania*, Economic Geology, Vol 92, p. 438-447.

Hills, P. B. 1990. *Mount Lyell Copper – Gold – Silver Deposits.* AusIMM Monograph 14. Vol 2.

Huston, D.L. & Kamprad, J., 2001. *Zonation of alteration facies at Western Tharsis: Implications for the genesis of Cu-Au deposits, Mount Lyell field, western Tasmania:* Economic Geology, v. 96, p. 1123-1132.

Large, R. R. 1987. *The Mineral Wealth of Western Tasmania and the potential of the South Western Conservation Area.* Tasmania Chamber of Mines.

Large, R. R. et al. 1987. *Base Metal Exploration in the Mt Read Volcanics, Western Tasmania. Part 1 : Geology and Exploration, Elliott Bay.* Econ. Geol. Vol 82, No2.

Large, R. R. 1992. *Australian Volcanic – Hosted Massive Sulfide Deposits: Features, Styles and Genetic Models.* Econ. Geol. Vol 87 : 471 – 510.

Large, R.R. et al., 2001. *The spectrum of ore deposit types, volcanic environments, alteration halos, and related exploration vectors in submarine volcanic successions: Some examples from Australia:* Economic Geology, v. 96, p. 913-938.

Lees, T. et al. 1990. *Rosebery and Hercules Copper – Lead – Zinc Deposits.* AusIMM Monograph 14. Vol 2: 1241 – 47.

Little River Goldfields, 1993. *Quarterly Report.*

McArthur, G. J. and Dronseika, E. V. 1990. *Que River and Hellyer Zinc – Lead – Silver Deposits.* AusIMM Monograph 14. Vol 2: 1229 – 39.

Mill, J. H. A. 1990. *The Scuddles base metal deposit: an exploration case history.* AusIMM Monograph 17.

Pemberton. J., and Corbett, K. D. 1992. *Stratigraphic – facies associations and their relationship to mineralisation in the Mount Read Volcanics.* Bull. Geol. Surv. Tasm. 70 : 167 – 176.

Staff, Aberfoyle Resources Ltd. *Geology and Discovery of the Que River and Hellyer polymetallic sulphide ores.* AusIMM Monograph 17 : 187 – 196.

Tasmania Department of Mines. *Geological Survey Explanatory Report.* Zone 7 Sheet 31 (8315N) Pipers River.

Townley et al 2003 Gold grain morphology and composition as an exploration tool: application to gold exploration in covered areas. *Geochemistry: Exploration, Environment, Analysis*, V3, pp29-38

Website References

Marshall, B. 2011 *Sample size and meaningful gold analysis* <http://www.smedg.org.au/MeaningfulAu.htm>

14. METADATA

Tenement holder: Paragon Resources Pty Ltd

Activities: Geological fieldwork, Hylogging

Contractor to Paragon Resources: Metalstocks Australia Pty Ltd (Dr Alistair Reed)

Keywords: Elliott Bay, Mount Read Volcanics, VHMS, massive sulphide, gold, Henty, structural geology, shear zone, faulting, mylonite, V2 prospect, V12 prospect, geophysics. aeromagnetic.

15. STATEMENT OF EXPERIENCE

This report has been prepared by Dr Alistair Reed, BSc (1st), PhD, Consulting Geologist who has had over 20 years experience in exploring for base metals and gold systems. Dr Reed is a Member of the Australian Institute of Geoscientists (AIG) and is qualified to report under the Joint Ore Reserve Committee (JORC) and VALMIN Codes.

16. DISCALIMER

The information used to prepare the report is drawn from reports prepared by previous tenement holders, consultants and MRT. I do not doubt the authenticity or substance of previous investigation reports, but have not carried out a total audit of the available information. The statements and opinions contained in this report are given in good faith.

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