Pillinger (EL31/2014) Annual Report on Exploration 2017

(to May 16th 2017)

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15/5/2017

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Summary

Pillinger EL31/2014 is prospective for Cambrian Volcanic Hosted Massive Sulphide (VHMS, Zn-Pb-Cu-Ag-Au) deposits and hybrids including Henty Gold style. Two large targeted VHMS end members being Rosebery (51.5Mt @ 12.1% Zn, 3.9% Pb, 0.50% Cu, 130g/t Ag, 1.9g/t Au) and Mount Lyell (311Mt @ 0.97% Cu and 0.5g/t Au). Potential also exists for magnetite-Cu-Au mineralisation similar to that located on nearby Mt Darwin and at the Garfield Prospect. VHMS potential marked by anomalous base metals and alteration vectors in soils, silica – pyrite alteration with rock chips to 15g/t Au and favourable magnetic basalt / andesite association has been demonstrated on the Clark Grid, with the potential host horizon striking into the north east corner of EL31/2014.

Extensive interpretation has been undertaken utilising a variety of mostly regional GIS datasets. This has greatly aided identification of many salient features which require ground follow up to evolve the geological model and improve targeting of mineralisation.

Unexplained magnetic anomalies of possibly similar affinity to the Clark inferred VHMS host horizon basalt are identified from a 2005 Mt Darwin aeromagnetic survey subset, which enhanced the more subtle basalt response by removing the strong effects of magnetite alteration located to the north on Mount Darwin. Three principal targets are identified as the south western magnetic anomalies, NE block and a buried VHMS conceptual target located in the centre of the tenement. Regional interpretation suggests that the host horizon from the Clark River Grid, striking into the north east of Pillinger, maybe fault offset to the south into the centre of EL31/2014, where it's marked by elevated magnetics, possibly reflecting a source beneath the Owen Group.

Anomalous Cu, Pb and Zn in -80# stream sediment samples is evident within Pillinger when compared regionally to those draining known mineralisation and alteration further north on the western flank of Mt Darwin. The strongest stream sediment anomaly, defined by elevated Cu, Zn and to a lesser extent Pb, drains from magnetic anomalies (inferred VHMS host horizon basalts) in the south west of Pillinger.

Field visits were undertaken to the NE Block and south west magnetic anomaly areas, whilst the buried VHMS conceptual target assessment awaits further geological understanding as input for GIS modelling. Sampling in Pillinger's NE Block comprised 28 rock chips, 2 -80# stream sediment samples and 7 panned concentrates. Peak results were 1210ppm Zn and 0.05g/t Au in rock chip, as well as 0.475g/t Au in -80#.

A key outcome was the location and sampling of an extensive silicification zone (resistive?) in the vicinity of the NE Block EM conductor/anomaly. Rock chip analysis for gold by fire assay returned low level Au to 0.02ppm. Interpretation of known regional mapping and geophysical datasets indicates this silicification zone and the EM anomaly may lie at or near a structural intersection. Gold of irregular proximal to source form was found in the silica zones drainage, with up to 11 colours returned per panned concentrate sample. Potential for Henty style Au, including remobilised Devonian gold exists in this area.

Rock chips bearing low level gold (to 0.014g/t Au) were derived from a zone of lithic volcaniclastics, representing the strike extent of the Clark VHMS horizon. Highly anomalous gold (0.475g/t Au) was in returned from a -80# stream sediment sample draining this area.

Introduction

This first annual report on Pillinger EL31/2014 reviews past exploration and details GIS compilation and regional geological interpretation, as well as 9 days of field reconnaissance visits (5 days actually on ground). The Pillinger Exploration Licence (EL31/2014) is held by R Reid (50%) and B Koster(50%).

The key impetus behind acquiring EL31/2014 was to investigate potential extensions of the likely VHMS host horizon and basalt package identified (and ASX released) by Shree Minerals on their Clark Valley Grid. A 15.5 g/t Au in rock chip sample from this horizon has not been followed up to-date. Initial GIS interpretation identified several magnetic anomalies in the tenement's south west having potential correlation with the Clark Grid host horizon basalts and a large EM anomaly in the north east corner warranted follow up.

The Pillinger tenement is little explored with scant geological mapping (including by Electrolytic Company of Australasia Limited and Mineral Resources Tasmania more regionally) having been undertaken. Stream sediment sampling is relatively extensive within Pillinger, but associated rock chip sampling and geology reporting is sparse, including only that of Mathison (1985). Favourably a 1995 aeromagnetics survey and regional aeromagnetics and radiometrics surveys cover the tenement. Intensive gridding surveys (geological mapping, soil sampling, Induced Polarisation and ground magnetics) and WTRMP (Western Tasmanian Regional Minerals Program) airborne electromagnetics extend north of the tenement boundary.

Access

Pillinger EL31/2014 lies approximately 30km south of Queenstown, west coast Tasmania. The principal access to the tenements north is via the 4WD track along South Mount Darwin Plateau, which can utilise the walking access track to the Clark River grid. Southern walking access is also possible from Farm Cove and Kelly Basin in Macquarie Harbour and the Bird River Track from the east. EZ Limited (Mathison, 1985) cut walking tracks to access the Clark River from the button grass to the west and north of the Kelly basin area. A likely now overgrown helipad was cleared near the intersection of the two main tracks. An historic logging track is known to loop north from Kelly Basin, but it's also likely overgrown and poorly located (Figure 1). This track has not been regularly used since approximately 1925, when the last train left Pillinger prior to railway closure. The rail had initially serviced the North Mount Lyell Company and was later used for timber hauling. This route extending north of the rail line between East and West Pillinger is yet to be investigated, but relatively clear forest understory exists in the inferred track start vicinity.

Access up the Clark River is best undertaken without recent rain, more remote exploration having to await drier weather during summer and autumn. Traversing the now overgrown track extending though and northwest of the historical Pillinger township is laborious compared to a better route staying close to the river, in relatively open forest with ferny understory. Walking time along the Clark River to the tenement edge, avoiding the lower approximately 400m of swampy ground closest to the river mouth, is approximately 2 1/4 hours.

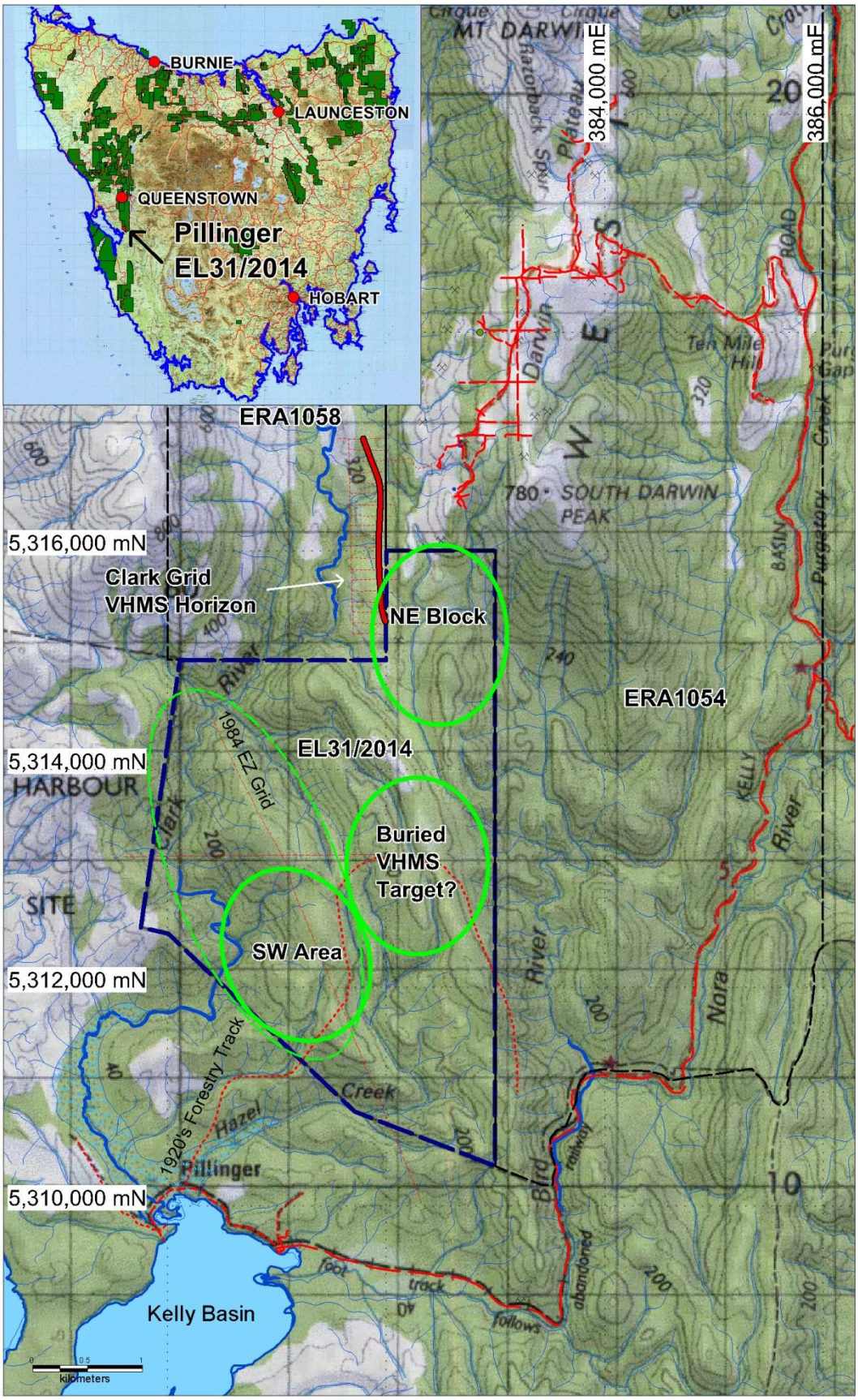

Figure 1: The location of EL31/2014, showing key field areas and access.

Geology

The area is little mapped with what's known coming from MRT 250,000 scale mapping, possibly in part derived from EZ company work. The structurally complex geology of EL31/2014 comprises three principal rock types; the Middle Cambrian-aged Mount Read Volcanics (MRV), the Late Cambrian-aged Owen Group siliciclastics and uppermost Cambro-Ordovician Gordon Group (including limestone; Figure 2 & 3). The Mount Read Volcanics are largely mapped as Yolande River Sequence (YRS; Western Volcano-Sedimentary Sequence), which in a local regional context inter fingers with the Central Volcanic Complex (CVC) at or near it's top, beneath Tyndall Group (TG) quartz-feldspar phyric volcaniclastics (mapped on the eastern flank of Mt Sorell). A narrow band of CVC is aligned NW through the eastern portion of the tenement. The CVC/YRS - TG boundary represents a Volcanic Hosted Massive Sulphide (VHMS; Zn-Pb-Cu-Ag-Au) prospective stratigraphic position. The apparently greater accumulation of more siliceous and pelitic volcano-sedimentary rocks of the YRS within Pillinger relative to that in the Clark Valley to the north may indicate thicker accumulation in a Cambrian graben to the south west or folded repetition.

Cambrian granite outcrops on the South Darwin Plateau, proximal to the north east of Pillinger (EL31/2014) is associated with magnetite – Cu +/- Au mineralisation. A granite outlier is mapped by Loftus Hills (GSB16) in the tenement's NE Block / EM anomaly drainage on the spur down from South Mt Darwin. This occurrence is not mapped by MRT (Further discussion below). The granites location is very close to the EM anomaly (Figure ?NE Geol), but is not likely related as granite on South Mt Darwin is largely low conductivity. Field investigation suggests that this occurrence could otherwise be a coarse grained crystal rich quartz-feldspar volcaniclastic (similar to the Comstock Tuff?).

TCR85_2460 provides some geological insight into the centre and western parts of the tenement. They describe outcrops of kaolinised rhyolitic tuff, sheared, chloritised and sericitised volcanic rock, bedded volcaniclastic sediments and andesitic(?) volcanic with minor pyrrhotite. All positive observations despite concluding low prospectivity at the time. Porphyritic gabbro located in the south west of the area maybe a sub volcanic intrusion, related to host horizon basalts. TCR85_2460 also details rock chip sampling yet to be digitised.

The Gordon Group limestone strikes NE through the centre of the tenement and is a potential (but lower priority) Pb-Zn target for Irish or Mississippi Valley styles of mineralisation. A Pb-Zn prospect is known along strike southeast of the tenement and a fold closure in limestone to the west is base-metal anomalous.

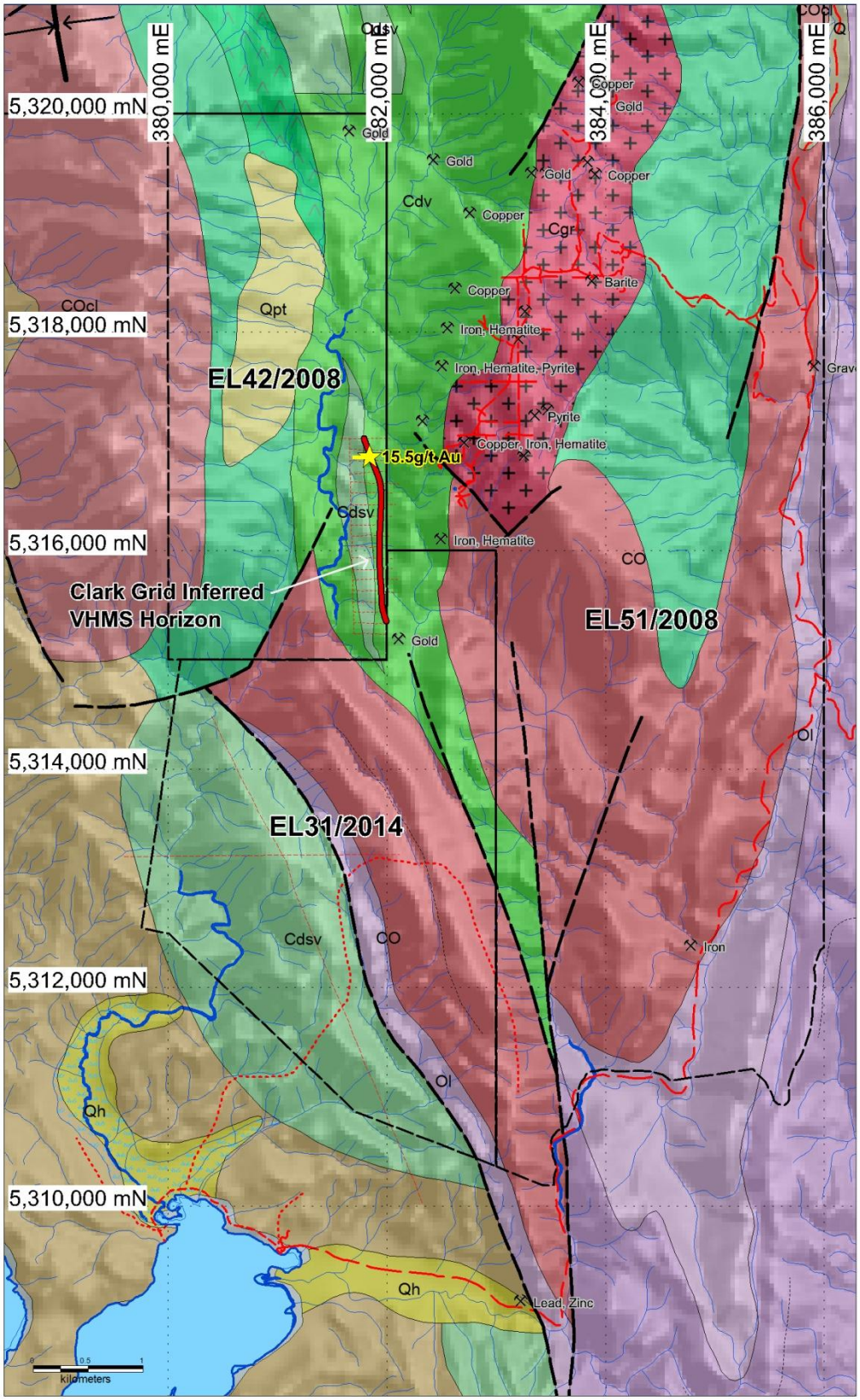

Figure 2: Regional geology of the Clark Valley and Pillinger areas, showing Mineral Resources Tasmania (MRT) 250k digital geology (see legend in Figure 3), known prospects and Shree Mineral's 15.5g/t Au in rock chip site.

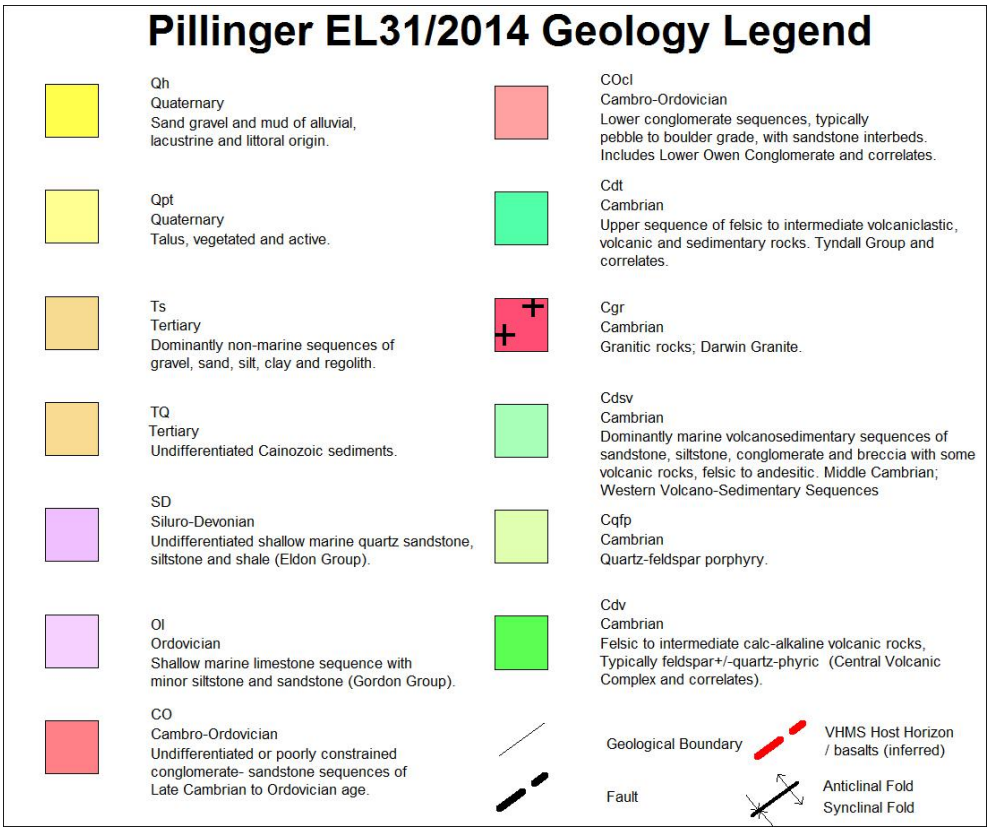

Figure 3: MRT 250k digital geology legend for the Clark Valley and Pillinger areas.

Previous Work and Exploration History

Early History

The Jukes Darwin Mining Field, to the north of Pillinger is reported in GSB16 (Hills, 1914). This report mostly describes Cu, Au and magnetite mineralisation.

Old mining leases 3334 93M, 3335 93M, 4831 93M, 4778 93M and 5221 93M are noted in MRT records; being located to the north east and north of the Pillinger tenement.

The Mt Lyell Mining & Railway Company (1970's)

Howland-Rose (1978; TCR 84_2239) provides a summary of gradient array IP and ground magnetic surveys over the Clark Valley area. Phase 1 data reported ends at 00N, whereas Howland-Rose (1979; TCR 84_2242) reports data extending a further 600m south to line 6S, ending immediately within the north eastern 1km^2 block of Pillinger. A less powerful 3kw generator was used for the follow up survey, but was considered adequate. However, anomaly discrimination in the furthest south zone may not be quite as precise as the original survey (Howland-Rose, 1979).

Chargeability ranged from 10 to 70millivolts/volt. Resistivities range from 1500 to 20000 ohm-metres. Grid line spacing was wide at 200 to 400m.

Line 6S on the northern margin of the NE 1km2 block of Pillinger returned a significant response of 14millivolts/volt with a broad (or multiple) source within +/- 20m of that centre (Howland-Rose, 1979). High 2000 ohm-metres resistivity indicates the source is disseminated chargeable material,

with estimated depth <50m. This zone "Y" was reported to be associated with a significantly lower magnetic response, concluding it was not magnetite related. Pyrite within black shale mapped in this area may partly explain the anomaly response.

EZ. (1984-7)

The Electrolytic Zinc Company of Australasia undertook stream sediment surveys and reconnaissance geological mapping in the tenement area and surrounds. Their stream sediment programs mostly targeted Zn-Pb mineralisation in the Gordon Limestone, west of Pillinger, as well as Au in the Clark Valley to the north (eg. Mathison, 1985). EZ also assessed the VHMS mineralisation potential of the volcanics in the core and western portion of Pillinger.

Notably apple green sericite was found in panned concentrates (85-2460; SN65819, 59738), as well as bright green silicate from Hazel Creek (84-2181; SN59910), draining the south west magnetic anomalies. These occurrences possibly represents Fuchsite; a VHMS hangingwall indicator mineral.

BHP (1990-1)

A comprehensive previous exploration data review is provided in Cameron and Read (1991; TCR91-3252). Among this is the location of two 1957 Turan helicopter EM anomalies, coincident with the Owen / MRV contact on South Darwin. BHP undertook a ground electromagnetic UTEM survey in 1990 over the upper Clark Valley, but didn't extend south into the Clark Grid, finishing well outside Pillinger EL31/2014 on 17600N, approximately 1km north of the Shree Mineral's gold in rock chip anomaly.

RGC Exploration Pty. Ltd. (1992-3)

Undertook extensive geological mapping, rock chip and soil sampling identifying anomalous base metals in soils (to 880ppm Zn) on what is now in filled by the Clark Grid.

Aberfoyle (1995)

Aberfoyle conducted a helicopter aeromagnagnetic survey of the Clarke Valley and Mt Darwin in 1995. The survey defined a magnetic zone within the Central Volcanic Complex, which subsequently has been shown to correspond with basalts and anomalous base metal in soils on the Clark Grid. The helimag data was not processed beyond an initial assessment and is not reported upon by McNeill (1996) in his relinquishment report.

WTRMP (2002)

The 2002 WTRMP airborne electromagnetic and magnetic survey unfortunately covers only the northern boundary and top NE 1km2 block of the Pillinger tenement. The WTRMP also undertook a separate widespread aeromagnetics and radiometrics over the west coast, including the Pillinger area.

Zinico Resources – Zelos Resources - Gujurat NRE Resources (2004 –7)

Zelos cut but did not sample the Clark Grid (21 lines of 500m length and 100m spacing), which planned to assess RGC's anomalous base metals in soils, extending north of Pillinger EL31/2014.

Three discrete EM responses were identified by Hungerford (in Vanzino 2007) from WTRMP electromagnetics, within both the YRS and the CVC. 'Ground truthing' by way of reconnaissance stream sediment sampling and minor rock sampling was undertaken in drainages in the vicinity of

each of these anomalies and returned poor results. Best gold reported was 20ppb, with copper to 60ppm, Pb 105ppm and Zn 145ppm from samples outside Pillinger EL31/2014.

Three data points following up ”Anomaly B” within Pillinger EL31/2014 return low detectable gold to 3ppb from -80# samples. Vanzino (2007) commented that “The trunk stream in the centre of the anomaly is a low lying, braided and undefined drainage – basically a swamp with the density of vegetation one expects in a swamp! No outcrop was observed and quartz rich sands dominated with very little mud fraction available for sampling. Three poor quality stream sediments were collected. The observed topography concurs with Hungerford's suggestion that the EM anomalism is probably due to surficial responses”. However, the anomaly also extends beyond surficial sediments, upslope toward the Owen / CVC contact, as further discussed below.

For ground follow up, Hungerford considered that TEM (Time Domain Electromagnetic) and IP (Induced Polarisation) surveys would both locate conductive black shales, with the IP being of greater benefit overall. Although, TEM might be easier to undertake and would provide more accurate estimates of conductors properties. Hungerford’s images clearly show that BHP’s UTEM survey stopped well north of Pillinger EL31/2014 and the Clark Grid.

Shree Minerals Ltd. 2011-15

In 2012, the Clark Grid immediately north of Pillinger EL31/2014 was soil sampled and mapped confirming a coherent zone of anomalous base metals in soils and identifying positive vectors to VHMS mineralisation. A 0.6g/t Au in composite rock chip sample was re-sampled in 2015, returning 15.5g/t Au. This sample is coincident an ~150m plus zone of silica-sericite-pyrite alteration and remains to be further followed up. Potential to find a Rosebery or Que-Hellyer like VHMS within the grid area was considered high (Reid, 2015). The inferred VHMS exhalative horizon trends into the north of Pillinger (EL31/2014).

Work Conducted

Work conducted during the year to 16/05/2017 included data collation and GIS interpretation, as well as field reconnaissance and sampling visits. Following is discussion and interpretation of various aspects of Pillinger EL31/2014 presented with field observations and geochemistry.

Numerous data sets were investigated to construct a tenement and regional wide GIS for interpretation and target assessment. Data sources included government LIST (eg. digitial topography, drainages and transport segments), Mineral Resources Tasmania (MRT; eg. 250k and 25k digital geology, Deposits, Sample Geochemistry & WTRMP airborne EM, Magnetics and radiometrics) and Aberfoyle 1995 aeromagnetics.

Data from the 1995 Aberfoyle aeromagnetics survey was imported utilising an Access database. Notably this data had been previously reported but not interpreted (McNeill, 1996). Numerous null data zones located at grid margins were clipped resulting in an improved grid. A grid displaying the entire survey is shown in Figure 8, whilst Figure 4 shows a survey area clipped to enhance the magnetics of the Pillinger EL. Notably the swamping effect of the magnetite bearing mineralisation around Mt Darwin is largely removed, leaving enhanced definition of magnetic likely basalt (/VHMS) horizons. Potential for the later is clearly evident in the south west of Pillinger (Figure 4).

Geological Interpretation and Discussion

A likely exhalative sulphide/VHMS horizon has been shown by Reid (2014) to strike NNW through the Clark Grid, passing into the north of Pillinger. Key to interpretation and identifying trends is that magnetic basalt lies in close proximity to the potential VHMS host horizon. In the Pillinger tenements north east, there is nearer surface VHMS potential with the prospective horizon likely dipping and plunging to the west and southwest beneath Owen Group siliciclastics. New interpretation suggests that VHMS potential exists at depth beneath the Owen Group cover in the centre of the tenement and more shallowly in the south west area, where anomalous base metal in stream sediments drains magnetic anomalies inferred to be a folded basalt horizon. The volcanics are apparently disrupted by folding as well as reverse and sinistral faulting within Pillinger. An evolving geological interpretation is presented in Figure 4 and further detailed below.

The area encompassing the tenements NE Block appears to be a major regional structural intersection, where the focus of sinistral fault movement is interpreted to transfer from principally NW orientated at early stages, to NE aligned faults later. The Darwin Granite possibly forms a rheologically solid block extending to depth, about which the structural stress regime likely changes.

Interpretation suggests a key NNW aligned wrench fault sinistrally offsets the Clark Grid VHMS hot spot by up to approximately 3km extending into Pillinger. This is partly evidenced by an obvious apparent 3km sinistral fault offset in Owen and Gordon Group beds east and southeast of Pillinger (Figure 4). The northern extent of this fault bifurcates, with several faults potentially taking up portions of the apparent fault displacement. This displacement approximately coincides with an enigmatic broad zone of elevated total magnetic intensity beneath Owen Group in the central east of Pillinger (Figure 4). A potential interpretation is that the elevated magnetics reflect a buried source, which may be basalt within a fault offset folded repeat of the Clark Grid VHMS host horizon in the Cambrian Volcanics beneath. Magnetite mineralisation related to the Darwin Granite is a further possibility, but basalt is perhaps more likely given the similarity to apparent regional fault offset (Figure 4).

A weak linear total magnetic intensity zone within the Owen Group parallel the Gordon Group contact within it's central and southern mapped extent (Figure 4) provides an alternative and / or complimentary explanation. This elongate distribution could reflect formation of a bed / strata by sedimentary processes; possibly resulting from chromite, which is known to be weakly magnetic. 1VD magnetics provides further discrimination of possible chromite bearing bedding, as does the WTRPM radiometrics survey which identifies elevated potassium in the VHMS hangingwall and locally reflects lithological distribution, including possible folding in the south west of Pillinger (Figure 6). Mapping to improve stratigraphic understanding will aid further interpretation.

Notably, a significant NE aligned fault (The Clark Fault?) possibly offsets the VHMS horizon at the northern end of the Clark Grid and passes through the northwest of Pillinger EL31/2014. Apparent displacement of high aeromagnetics through Mt Darwin suggests dextral movement (Figure 8), however later sinistral reactivation possibly associated with the NNW aligned wrench faulting is also likely, as is shown in many figures.

The fault central to the tenement, separating a narrow band of Gordon Group limestone's from Cambrian volcano-sediments has undergone significant movement given the disparity in rock ages;

it's likely a southwest dipping reverse fault juxtaposing the top of Owen Group against upper Cambrian volcanic sequences (Figure 4), in agreement with Mathison (1985). Gordon Group siliciclastic rocks maybe present but are not mapped and consequently the local relationship between Owen and Gordon Group, be it disconformable or an angular unconformity such as at Mount Lyell, is unknown.

Dextral offset of Silurian aged Eldon Group sediments on ENE aligned faults east of Pillinger, suggests this faulting is relatively recent and likely dates at least some movement on similarly aligned faults within the tenement.

MRT 250k scale digital geology shows several NNW aligned axial surface traces of major folds in the Owen Group to the north and east of Pillinger. These folds trend into Pillinger and were modelled from observation and inference to add to conceptual regional structural interpretation. Modelling assumes the Owen Group structure is a key to the past, with deformation similarly affecting the Cambrian Volcanics beneath. Section line A – B in Figure 5 shows a potential (evolving) interpretation.

The Mount Darwin granite outcrop and alteration on the upper Clark Valley flanks reflects a zone of relatively deep erosion to below the accepted regional VHMS horizon. Volcanics closer to and within Pillinger are correspondingly higher in the stratigraphy and less eroded, with affinities to VHMS (Zn, Pb, Cu, Ag & Au) prospective YRS stratigraphy at the top of the CVC noted above.

Jukes Breccia, formed at the erosional surface above the Cambrian Volcanics and at the base of the Owen Conglomerate, exists in the area. A possible erosional vector from thin conglomerate on South Mt Darwin / Humpty Dumpty to thick brecciated conglomerate (/ Jukes Breccia?) on the western side of the Clark Valley possibly reflects sediment shedding west from the flanks of Mt Darwin, into a Cambrian graben. Notably, Seymour (et. al., 2014) place the NNW trending eastern edge of the Strahan / Zeehan Conglomerate depo-centre immediately north east of Pillinger.

The EM conductor in the NE Block (382300mE, 5315400mN; Figure 9) is interpreted to reflect NE aligned faulting at / near the intersection with NNW aligned faulting. Hungferford (2007) thought that Anomaly "B" was surficial relatively deep recent alluvium. He considered that the low frequency, deeper penetrating frequencies of the survey were unreliable and that the higher frequency channels penetrated to 50m at best. Re-interpretation shows the 880Hz is apparently most affected. However, the conductive zone does continue up slope NE away from the valley floor, suggesting a bedrock origin is likely. Supporting is Figure 9 which illustrates how proximity to structure and intersections correlates with conductive zones. Considering the alluvial gold of proximal to source form and proximity to the Clark Grid VHMS horizon, there is potential for remobilised gold on this structure; such as at the Henty Gold Mine.

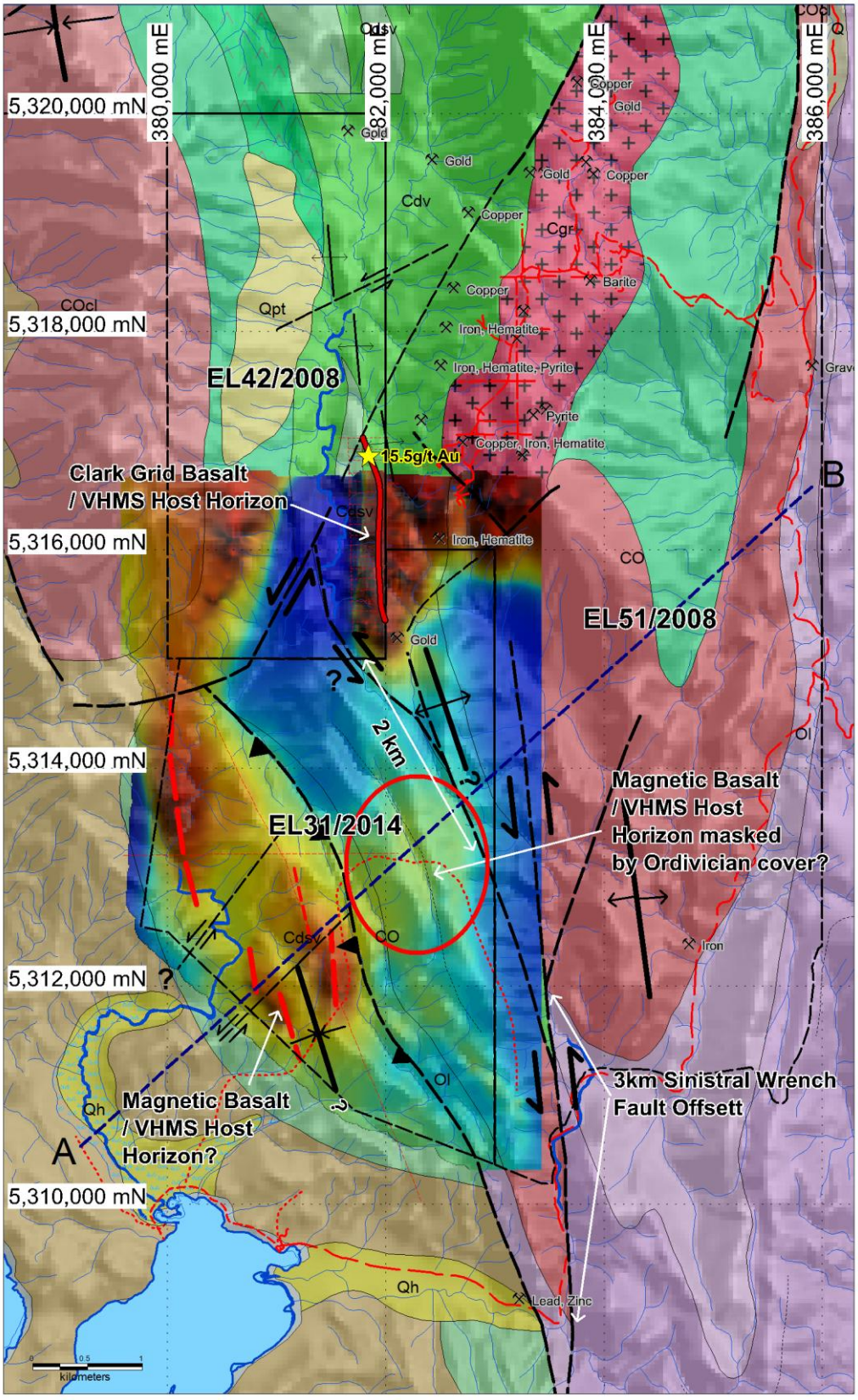

Figure 4: Regional geology of the Clark Valley and Pillinger areas, showing interpreted Geology/Structure, inferred basalt / VHMS host horizon (Red dash lines) and known prospects over clipped 1995 aeromagnetics grid, as well as MRT 250k digital geology (See Figure 3 for legend).

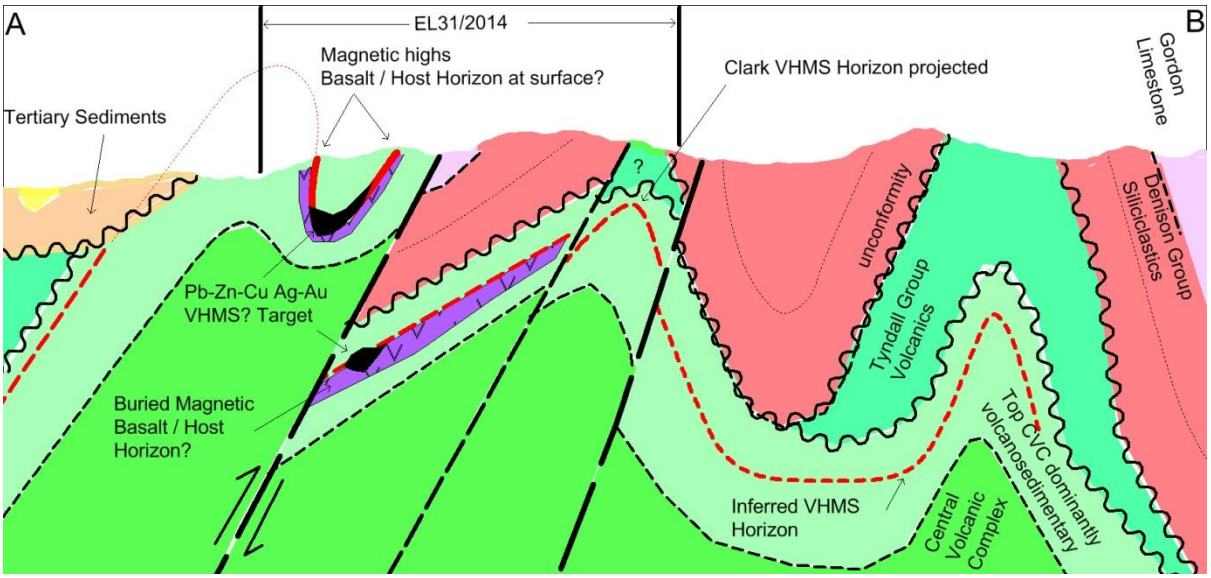

Figure 5: Cross section aligned NE (Line A to B in Figure 4) showing evolving geological interpretation and conceptual VHMS (Cu-Pb-Zn-Ag-Au) targets.

Stream Sediment Geochemistry

Basemetals in stream sediment -80# samples downloaded from MRT yield encouraging results for the Pillinger tenement. Anomalous Cu, Pb and Zn in -80# stream sediment samples are evident within Pillinger when compared regionally to those draining known mineralisation and alteration, further north on the western flank of Mt Darwin. The strongest stream sediment anomaly, defined by elevated Cu, Zn and to a lesser extent Pb, drains from magnetic anomalies (inferred basalts) in the SW of Pillinger.

Peak results for base-metals are presented in Table 1. Silver is mostly below detection and rarely reaches >2ppm. Regardless detectable Ag is coincident with Cu. Fe and Mn data is also available for Pillinger.

	Cu_ppm	Cu_ppm Regional	*Pb_ppm*	Pb_ppm Regional	*Zn_ppm*	Zn_ppm Regional
Mean	14.20	12.86	15.48	23.54	58.20	25.41
Minimum	0	0	0	0	5	0
Maximum	50	80	80	210	155	430

Table 1: Basic statistics for base-metals in Pillinger (No.=56) and Regional (No.=640) -80# stream sediments

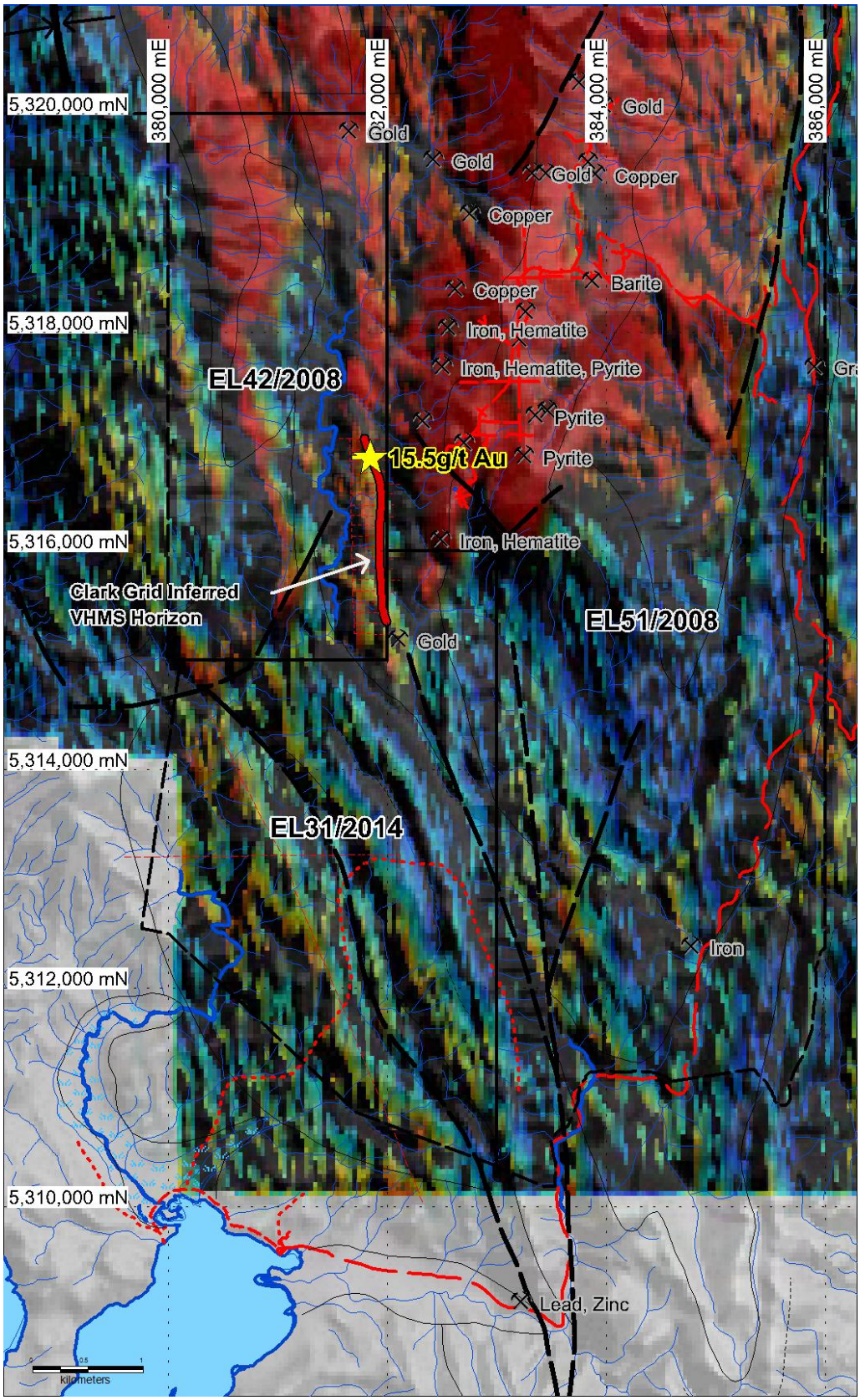

Figure 6: Potassium Radiometrics over the Clark Valley and Pillinger areas, showing MRT 250k digital geology boundaries, interpreted VHMS host horizon geology (thick red) and known prospects.

Stream geochemistry data were extracted from MRT downloadable data, to encompass a broad area extending well outside the tenement, allowing comparison regionally. Samples from the northern end of the Clark Valley, extending down to Macquarie Harbour's shore are included. A survey reported in TCR75_1122 sampled -20#, -40# and -80# sieved sediments, enabling comparison of the effectiveness of the various fractions for sampling the area. -80# has commonly been utilised as the excepted standard in Western Tasmania. Examination of the data shows some apparently poorly located samples when compared to the state 25k hydrography. Potential exists to revisit and update locations as time permits, however any discrepancies are minor in a regional context.

A number of surveys cover portions of the area (Figure 7). Most sampling concentrates in the northern portion of the Clark Valley on the western flank of Mt Darwin, where a number of (mostly magmatic related?) Fe, Cu and Au prospects are identified. Highly relevant is TCR85_2460 (Mathison, 1985) detailing a -80# survey covering the central and western portions of Pillinger EL31/2014.

TCR 85_2460 is the only -80# stream sediment survey sampling and reporting gold within Pillinger. This data was validated. Some elevated values from the Clark River were considered to be of up-stream derivation. A trail of weakly anomalous Au in -80# sampling was returned from the length of the Clark River. Base-metal anomalous drainage off the south western magnetic features is apparently not Au anomalous, but unfortunately, Cu anomalous stream sediments from the adjoining TCR 84_2181 survey were not analysed for Au in the Geopeko work. Correspondingly, -80# sampling by Vanzino (2007) enigmatically returned 0.002ppm Au from a creek in the NE 1km2 Block, which had returned 11 gold grains in panned concentrate (see Field Work Report below). This questions the accuracy of -80# Au sampling, however simple presence or absence is indicated. Re-sampling is required here. Perhaps larger volume BLEG sampling would provide better anomaly discrimination.

TCR85_2460 also reports "roughly" panned concentrates from which no Au is described from mineralogical examination. Mathison (1985) reports one grain of gold in panned concentrate from a stream draining the southern slopes of Mt Sorell. Notably a panned concentrate from recent work in the NE corner of Pillinger EL31/2014 returned ~11 gold grains, which the author estimates would return a >10ppm analysis, if undertaken. This compares very favourably with the max 10ppm panned concentrate sample from surveys in the northern end of the Clark Valley.

Stream sediment Zn and Pb anomalies SE of Pillinger at 384500mE, 5311000mN (GDA) are Irish-style related and / or in part leakage veins of Devonian age focused in a fold hinge within the Ordovician Owen Group limestone. In the latter case, a Cambrian volcanogenic source at depth is possible. Strong Zn adjacent to a faulted limestone contact, south of Pillinger is possibly of similar nature, as is weakly elevated Zn within the limestone central to Pillinger. This target style is of lower exploration priority than exhalative Cambrian volcanogenic mineralisation.

Scope exists to undertake further stream sediment sampling in the Pillinger area to fill small gaps in the overall coverage. Among these is the vicinity of the Au prospect in the NE and magnetic anomaly drainages in the southwest. TCR84_2181 reports stream sediment data from the southern portion of Pillinger only, but identifies anomalous Cu in stream sediments forming a tapering trail downstream

from two of the southernmost magnetic anomaly drainages. These creeks were not sampled in the relatively extensive program reported in TCR85_2460 and have been sampled in recent follow up.

Select main tributary and previously elevated sample sites could be re-sampled to calibrate and compare to new data. A number of potential sites worth sampling to better understand the stream sediment metal distribution are shown in Figure 7. Panned concentrates and -80# sampling can be readily undertaken at each site. Despite their effectiveness for Au sampling, BLEG samples are less favourably collected given the weight to be carried. Sampling to cover the likely extension of the Clark Grid exhalative horizon in the north east is warranted.

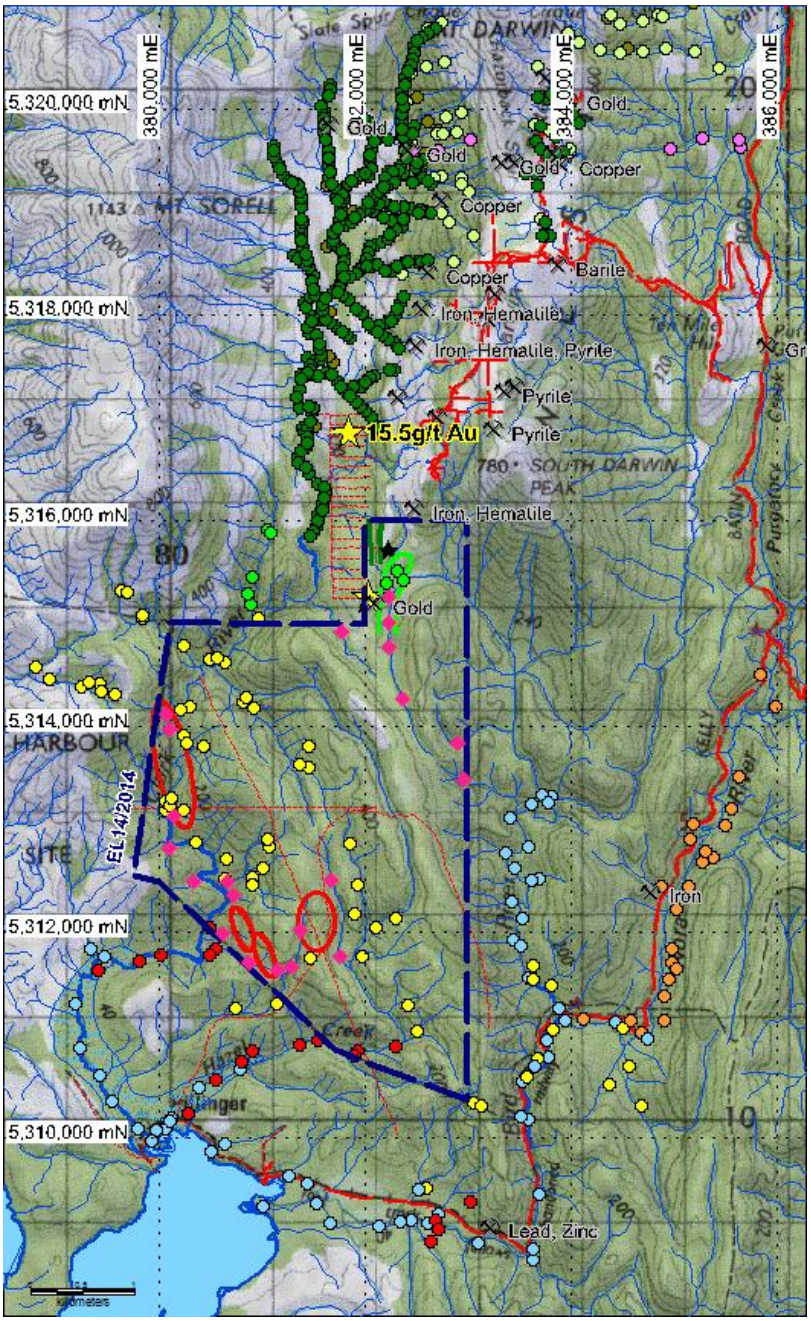

Figure 7: Stream Sediment sampling showing individual survey extent and potential stream sediment sites (red diamond) over Lands Department 100k topography

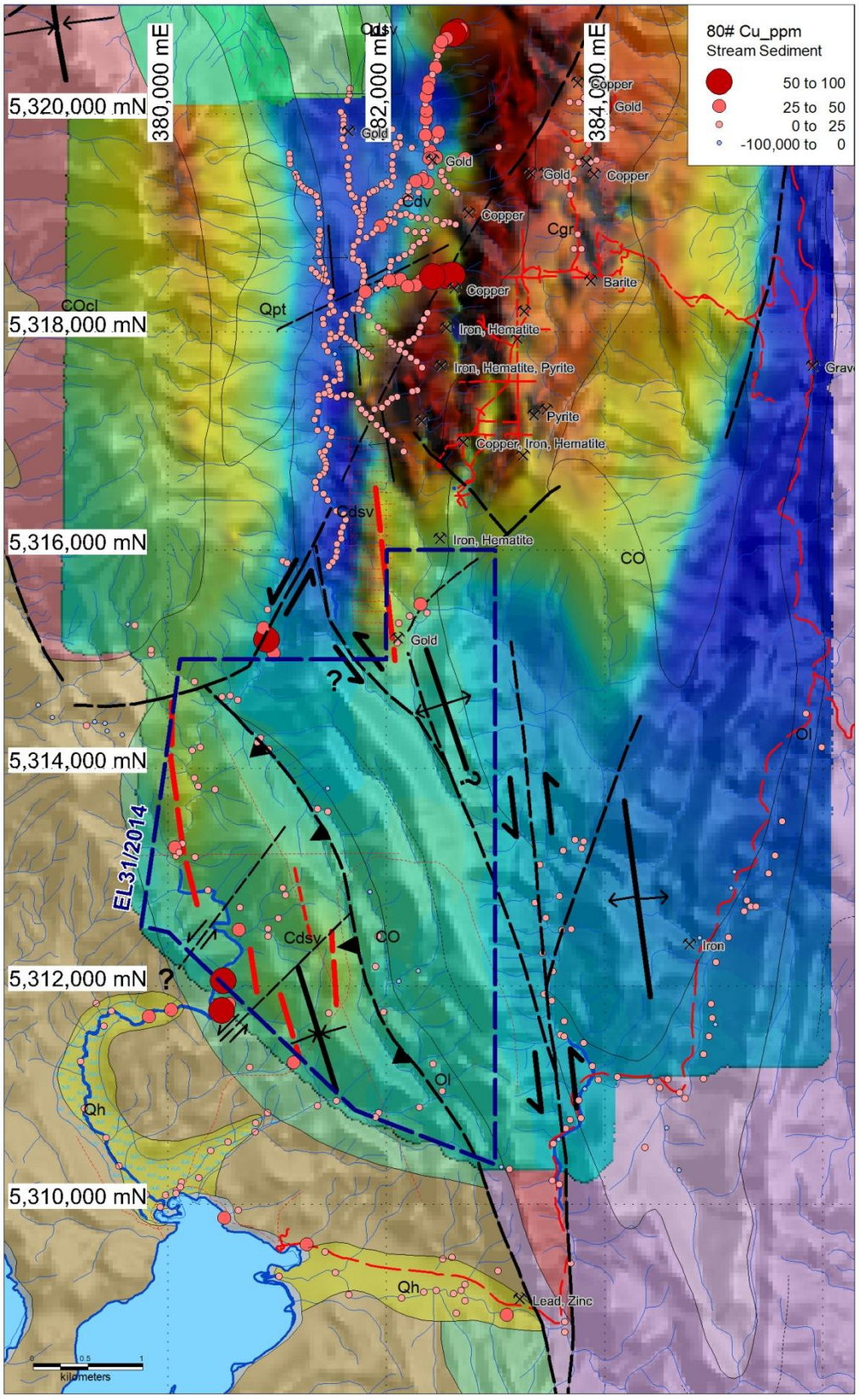

Figure 8: Cu in -80# stream sediments of the Clark Valley and Pillinger areas, with Interpreted Geology/Structure and known prospects, as well as complete 1995 Aeromagnetics grid over MRT 250k digital geology.

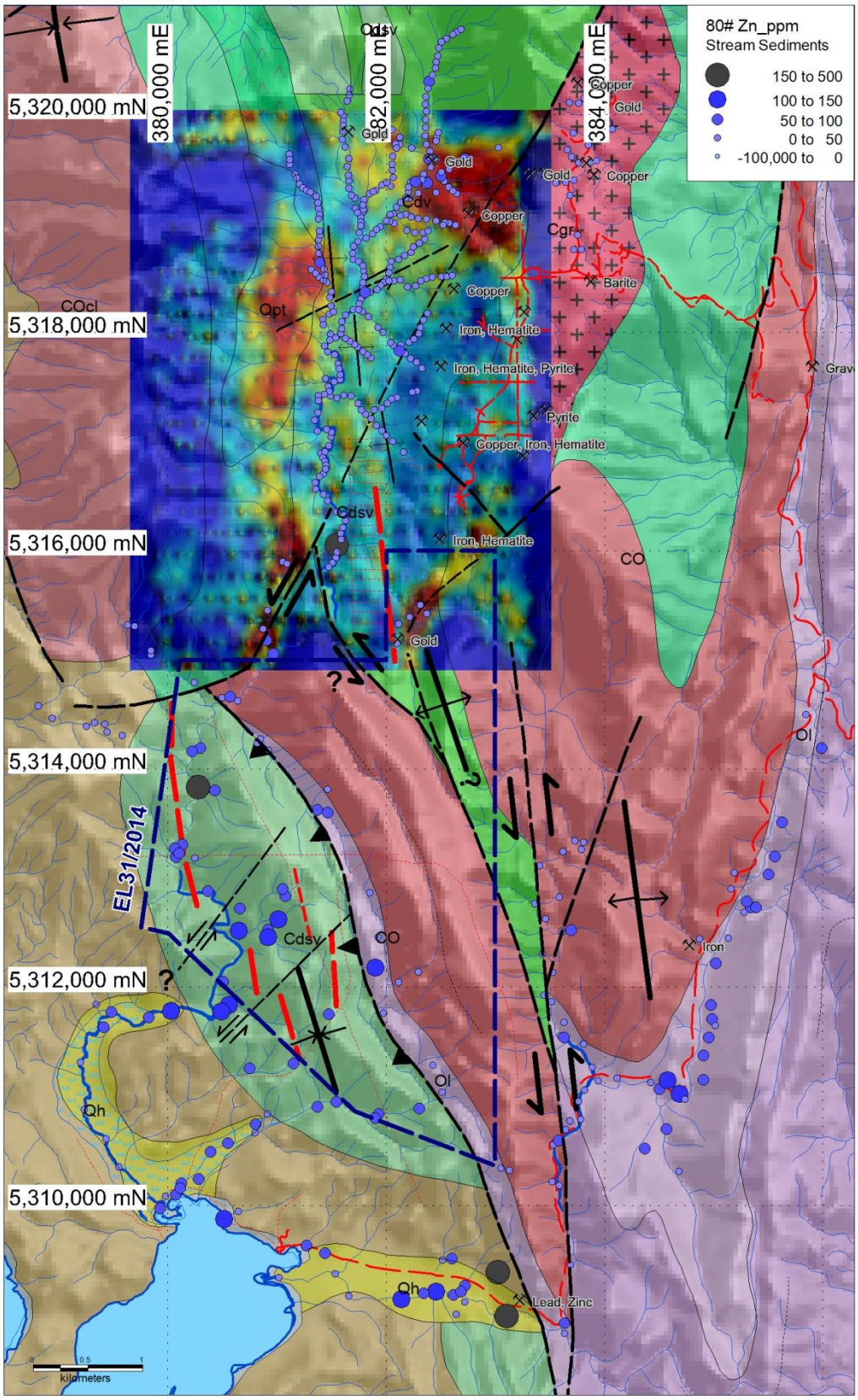

Figure 9: Zn in -80# stream sediments of the Clark Valley and Pillinger areas, with Interpreted Geology/Structure and known prospects as well as cx7k WTRMP electromagnetics grid over MRT 250k digital geology.

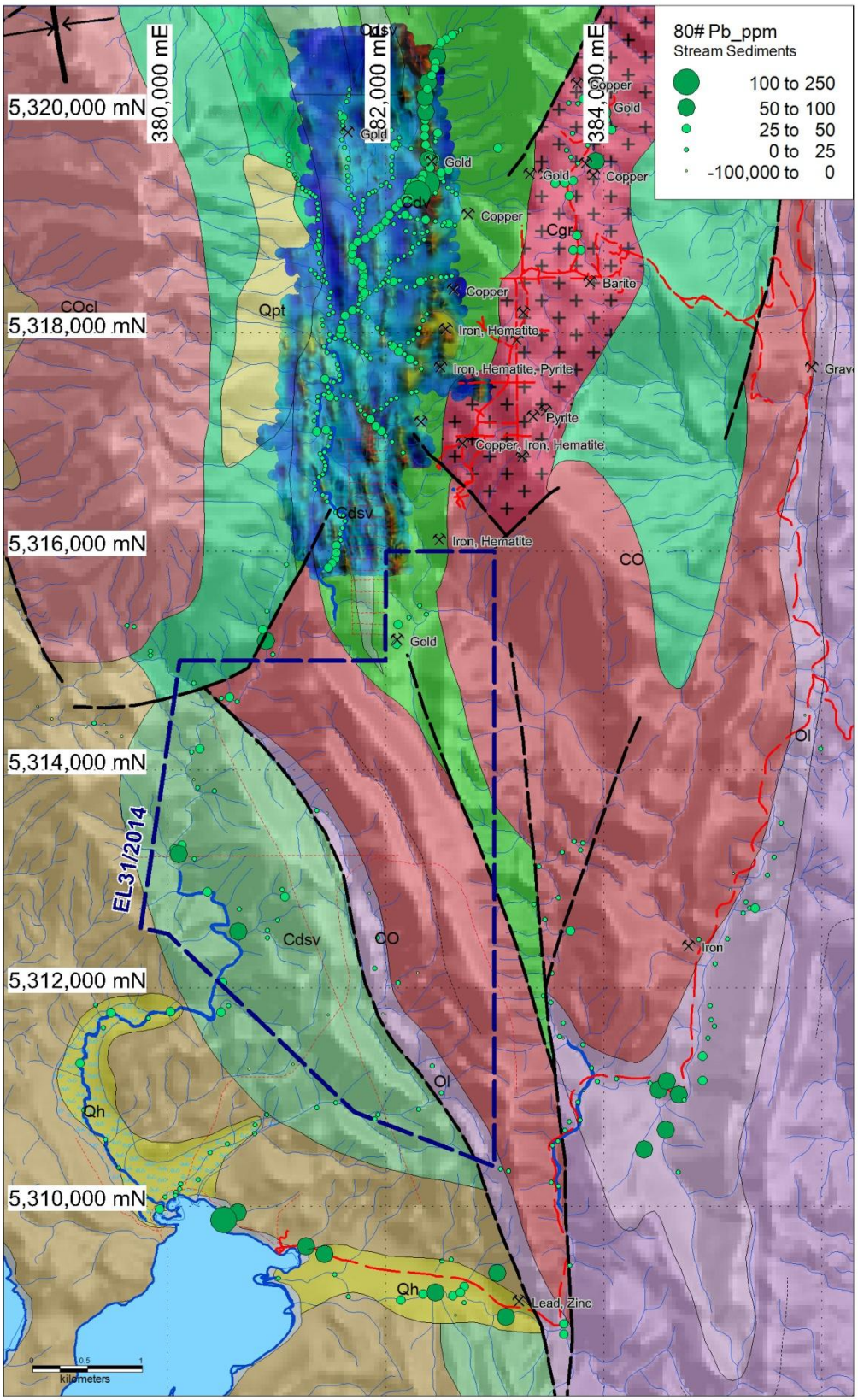

Figure 10: Pb in -80# stream sediments of the Clark Valley and Pillinger areas, with Interpreted Geology/Structure and known prospects as well as Induced Polarisation Chargeability grid, over MRT 250k digital geology.

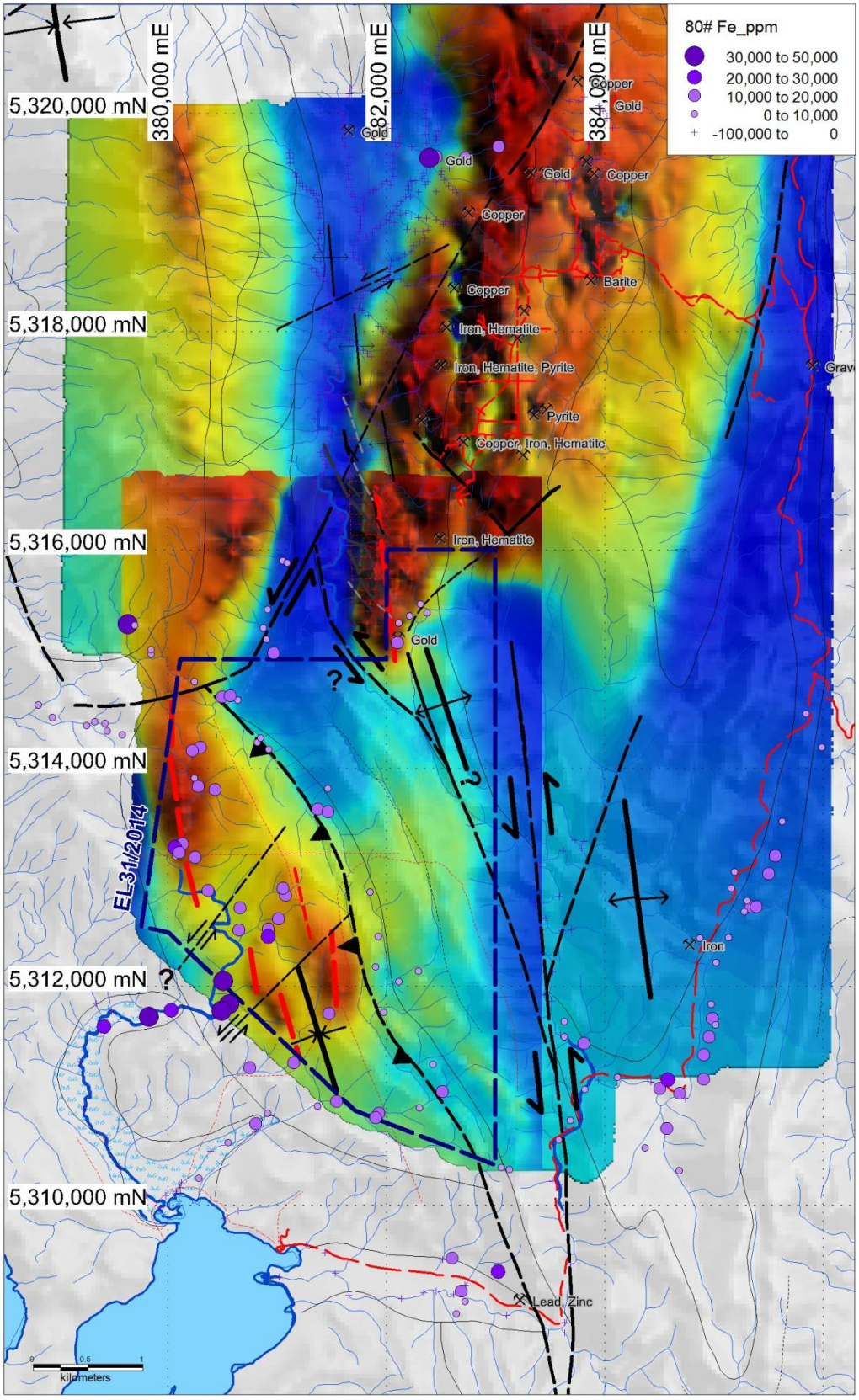

Figure 11: Fe in -80# stream sediments (NB: small crosses = No Fe analysis) of the Clark Valley and Pillinger areas, with Interpreted Geology/Structure, known prospects as well as reprocessed clipped Pillinger aeromagnetics over 1995 aeromagnetics grids.

Field Work

Field work has involved walking day trips focused mostly on the north east block / corner with access down slope from Humpty Dumpty near South Darwin Peak and from the Clark Grid. Less effective reconnaissance visits were undertaken to the south west of the tenement, accessing from Macquarie Harbour.

Field work in the NE aimed to assess a potential extension of the Clark Valley Grid VHMS host horizon / mineralisation potential through reconnaissance geological mapping, rock chip sampling and stream sediment sampling. Key features investigated were the Au prospect (MRT Deposits database) coincident with the projection of the Clark Grids inferred host horizon (Au & Ag in soils), an airborne EM response at an inferred structural intersection and the potential extension of IP chargeability into the NW of NE Block. Salient features are illustrated in Figure 12.

Sampling in Pillinger's NE Block comprised 28 rock chips, 2 -80# stream sediment samples and 7 panned concentrates. A further two -80# samples from the south west magnetic area have not been processed or analysed to-date. Field and sample data is appended as EL312014_201704_03_Surface Geochem.csv with locations also shown in Figure 12. Peak results were 1200ppm Zn and 0.05g/t Au in rock chip, as well as 0.475g/t Au in -80#, with up to 11 gold grains per panned concentrate.

Geology and Rock Chip Geochemistry

Pebble to cobble conglomerate (Owen Conglomerate; approximate orientation strike 40TN/-50E dip) was located on top of the Humpy Dumpty hill and extends south down slope into the valley. These Owen Group sediments consistently dip east on 25 to 75^{o}TN strike, likely forming the western limb of a syncline.

Hematite – magnetite veining is apparently concentrated locally at the unconformable contact with Cambrian volcanics beneath. This contact represents a palaeo-surface that maybe locally faulted and could potentially host mineralisation similar to that at North Lyell. Folding evident within the Owen Group suggests that the VHMS prospective Cambrian stratigraphy extends east to depth beneath Humpty Dumpty, with potential for an anticline fold hinge being west toward the adjacent Clark Grid.

A 1914 map by Loftus Hills (GSB16) shows granite mapped in the area down slope from Humpty Dumpty, South Darwin. Outcrop in a small saddle from the approximate mapped vicinity superficially appears to be granite (Figure 12). Rock chip analysis returned a weakly elevated 0.05ppm Au from (Sample 97701). This outcrop could represent an apophyses of the main Darwin Granite body, mostly located to the north and east. Magnetite alteration potential related to such an intrusion exists in the vicinity. However, further examination in conjunction with outcropping lithic bearing quartz-feldspar crystal volcaniclastics of similar visual appearance to the north, suggests an alternative origin as Tyndall Group Volcanic stratigraphy. Regionally, these volcanics are of high density turbidite origin, comprising abundant coarse grained quartz and feldspar crystals. The feldspar is commonly pink, being albitised (a common feature of the Comstock Tuff near Queenstown). A thinsection and XRF whole rock geochemical comparison would be worthwhile to confirm the origin of this enigmatic rock. The geochemistry of this rock was superficially similar to that of another felsic volcanic sampled (incl. Ti/Zr =7).

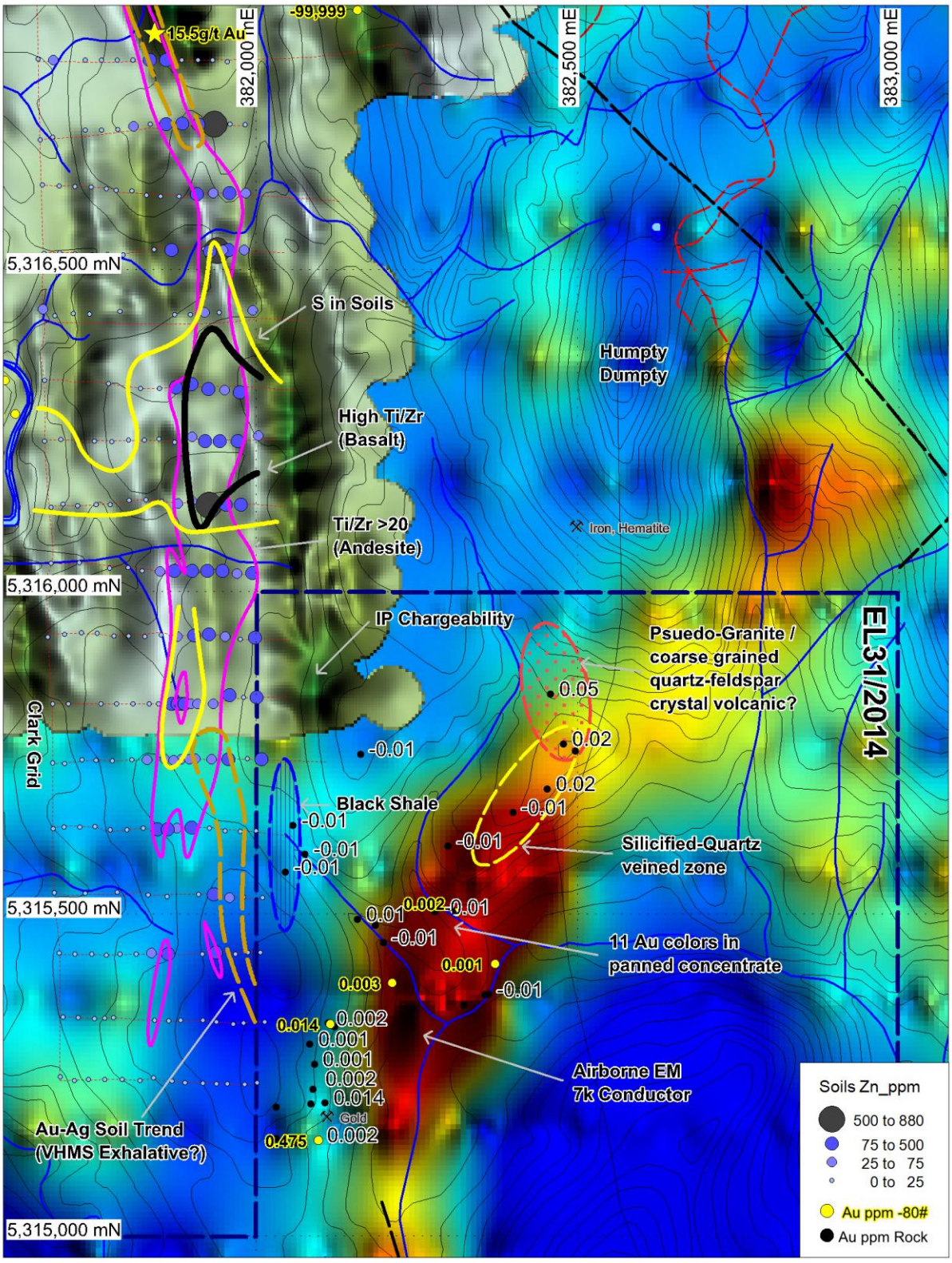

Figure 12: Salient prospective features of the Pillinger NE Block and surrounds. Showing key VHMS features, Clark Grid Zn in Soils, gold in -80# stream sediment and rock chip samples over IP chargeability (green grid) and airborne electromagnetic 7k conductivity (pseudocolour grid).

Looking from Humpty Dumpty (Photo 1), a zone of "Quartz blow" is clearly visible down slope on a weak spur to the southwest. Closer investigation reveals strong pervasive silicification locally overprinted by planar 1 to 5cm spaced quartz veining along the spur. Granule - pebble conglomerate is locally evident, indicating an Ordovician protolith. Two composite rock samples (97702 & 4) returned low level Au of 0.02ppm. This likely represents a strongly resistive zone with gold mineralisation potential; particularly considering the angular form of gold grains panned from the adjacent creek (See Stream Sediment discussion below). The identified silicified and quartz veined zone apparently trends ~230^{o} TN and likely represents close proximity to a significant fault. Quartz vein orientations are ~280^{o}/-78^{o}W and possible dextral offset was noted in one instance.

Photo 1: View south to south west from Humpty Dumpty. Note the Owen Group contact extends down the spur to the silicified zone outcropping in the valley.

A small zone of orange oxidised seepage (like AMD; Acid Mine Drainage) was located near the confluence of the creeks, near the EM anomaly (Figure 12). Sample 97708 returning very weak Cu and Zn. Close by was a side drain to the south of the creek which may represent an artisan working. Float rock here included black MnO coated, weak to strongly silicified likely relict quartz sandstone. Sample 97709 was not un-expectantly elevated in Mn (2640ppm) and Fe (2.3%), but other elements were not anomalous, excepting weak Co and Zn suggesting hydrothermal alteration overprint. This rock may have an Owen Group protolith, given a Ti/Zr ratio of 14 and near zero Mg, K and Na, when compared to volcanic samples.

Also near the WTRMP EM anomaly, immediately upstream from the IP Anomaly creek confluence, sparse oxidised fragments were sampled from alluvium. These returned anomalous Zn to 1210ppm, 45% Fe and weakly elevated Pb and Cu (97710). The oxidised fragments were not located further

upstream and whilst their origin is unknown, elevated base metals are consistent with hydrothermal origin.

Weak but elevated Ag, Pb and Zn analysis were returned from shale and volcanic samples (97711-16) taken in the creek draining the IP chargeability anomaly (Figure 12), suggesting potential for VHMS mineralised stratigraphy in this area. Supporting is elevated Ba (to 1400ppm) and Tl (0.42 to 1.23ppm). Tl in particular is a positive vector to VHMS, with a 1ppm plus envelope being reported by Large (2003) as commonly surrounding VHMS mineralisation.

Sparse black shale outcrop was located along strike from and within ~100m of the IP chargeability anomaly (Figure 12). Contained pyrite likely in at least part explains the chargeability anomaly. Creek alluvium includes sparse silicified black shale overprinted by fine quartz veinlets (97714); a clear indication of hydrothermal alteration within the catchment.

Polymict lithic volcaniclastic sandstone with minor siltstone interbeds was located at the strike extension of the Au-Ag in soils zone from the Clark Grid. This unit is very similar to that on the host horizon in the central northern Clark Grid. A potential mineralised target is where the host horizon lithic volcanics intersect faulting, coincident with the EM anomaly.

The polymict lithic volcaniclastics are weak to moderately lithic, with many clasts comprising cream felsic volcanic, as well as dark grey/green homogeneous (cherty?) volcanic and trace hematitic dark brown/mauve fragments, reflecting an oxidised source. The polymict lithic volcanics are weakly silicified / indurated locally and are commonly crosscut by weak to locally weak/moderate intensity dark brown iron oxide veinlets (likely after sulphide). Semi-pervasive oxidation is locally of weak to moderate intensity. Pervasive weak chlorite alteration was favourably noted in samples 97723 & 8. The lithic volcaniclastics are intermediate / andesitic in composition (Ti/Zr > 20) with elevated 200 to 300ppm Zn and 1800 to 2600ppm P. Most rock chip samples in the vicinity contained detectable Au, with the best value of 0.014ppm returned from a felsic volcanic, located very close to an intermediate lithic volcanic contact.

A more mafic lithology was reported for sample 97715 (Ti/Zr = 51.6), located close to the black shale. This pale green and green flecked gritty medium grained volcaniclastic sandstone is evidently of basaltic derivation.

Stream Sediment Sampling

Stream sediment -80# sampling returned a strong 0.475ppm Au anomaly from a creek draining lithic volcanics of the inferred Clark VHMS host horizon in the NE Block (Figure 12). No indications of artisan workings were observed. The origin of the Au is not clear as milky quartz vein alluvium to 2cm is also common in this creek. No visible gold was evident in an accompanying panned concentrate sample.

Panned concentrates were collected from a variety of mostly moderate to good trap sites on creek bedrock. Samples were derived from 2 approximately 5kg pan volumes. Samples were later re-panned and investigated under microscope to determine heavy mineral concentrate character and the form of alluvial gold. Sample description and photographs are shown in Figure 13.

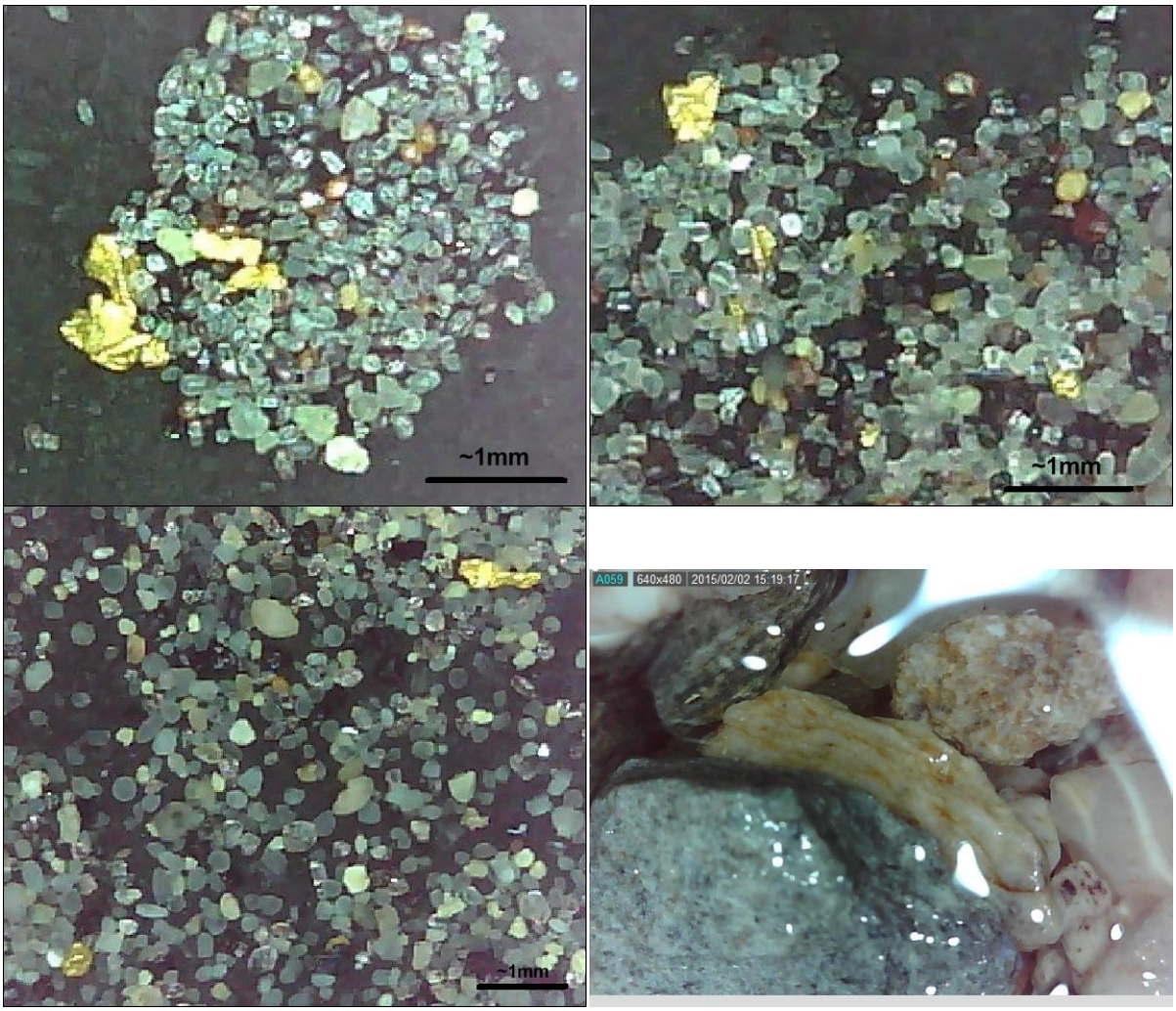

Figure 13: Photomicrograph of relatively irregular gold grains with little travel damage. 12202 (top left) & 12202 (top right) & 12204 (bottom left), with 12205 (bottom right) showing foliated felsic volcanic, shale and vein quartz.

Panned concentrates 12201 to 12203 effectively sample both poor and good trap sites within a 10m zone of creek draining from and through the silicified zone, coincident with the 7k EM conductor (Figure 12). Up to 11 gold grains per sample were returned from visual examination in the field. Grain shape was commonly wiry with irregular surface texture. Some were platy and a lineated grain form was evident in PC12201 (Figure 13). These grain forms reflect a relatively close proximity to source, as compared to more rounded gold grain forms expected from more water worn distal derivation.

The lower portion of the creek draining the IP chargeability anomaly yielded two very small gold grains in panned concentrate (at 97712), whereas no gold was evident upstream over shale bedrock (at 97716) in the inferred VHMS host horizon vicinity.

Two streams draining into the Clark River from the SW magnetic anomalies were sampled via panned concentrates and -80# (~380600mE, 5311900mN GDA). No gold was evident in panned concentrates from poor traps and -80# samples are not processed to–date. Alluvium in both

drainages was mostly grey and cream moderately foliated ashy? fine grained felsic volcanic and grey very fine grained siliceous volcaniclastic sandstone. A single example of light tan and cream weakly weathered and oxidised volcanic with sparse dark flecks may have been of intermediate composition and possibly derived from a “Clark-like” VHMS host horizon. Quartz veining was common in both drainages.

Proposed Exploration

Continued geological mapping, accompanied by rock chip and stream sediment sampling as well as informally GPS located soil sampling is planned to better understand the geology and consequently VHMS targeting. A good linking track net work is required to facilitate further work.

Key target areas for gridding to facilitate soil and later geophysical surveys (including. ground magnetics and 3D-IP) are the south west magnetic anomalies and southward extension of the Clark Grid. A rough outline of expenditure required for various exploration strategies and phases up to and including drilling is currently being compiled to help attract JV partner input.

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Appendix

List of Appended Digital Files

EL312014_201704_01_ListOfAppendedDigitalData.txt

EL312014_201704_02_Annual_Report.pdf

EL312014_201704_03_SurfaceGeochem.csv

EL312014_201704_04_BU15020702.pdf

EL312014_201704_05_BU16093707.pdf

EL312014_201704_06_Lookups.txt