Thomas Creek - EDGI Co-funded Drilling

TCDD004 Final Report

EL06/2013, Sorell Peninsula, Tasmania

October 2019

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Date: 18th October 2019

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Contents

Tables and Figures

Introduction and Summary

Accelerate Resources Ltd ("Accelerate" or "the Company") was granted approval, under the Exploration Drilling Grant Initiative ("EDGI"), for co-funded drilling at the Thomas Creek copper-cobalt prospect, in its Mt Read Project, South-western Tasmania. The Thomas Creek prospect is located on the Sorell Peninsula, within EL06/2013, on the southern side of Macquarie Harbour (see Figure 1.).

The co-funded drilling grant for 50% of the direct drilling costs, up to $50,000, comprised one diamond drill hole (TCDD004, 657.0m EOH) targeting an unconstrained off hole EM conductor and a coincident surface ovoid magnetic feature and IP chargeability anomaly, associated with a number of surface features (see Figure 2.). These surface features were interpreted to indicate the presence of proximal potassic alteration and more distal propylitic alteration within a "classic" Porphyry alteration system.

TCDD004 intersected a sequence of altered andesitic lavas and volcanic breccias, cross-cut by a several Potassium feldspar altered monzodiorites. A number of zones of magnetite – chalcopyrite - pyrite – potassium feldspar veining, were intersected in the upper 300m of the hole, with visible copper sulphide (chalcopyrite) mineralisation observed, between 199.1m to 298.43m.

A series of thin volcaniclastic sedimentary horizons were intersected in the lower part of the hole, including a volcaniclastic sandstone at 510.93m to 511.28m containing ~1% disseminated chalcopyrite, a volcaniclastic sandstone at 519.25m to 519.46m containing 10% semi-massive to disseminated pyrite and a volcaniclastic sandstone and siltstone horizon at 627.50m to 629.0m containing 0.1% disseminated pyrite and chalcopyrite. These sulphidic volcaniclastic horizons indicate the potential for the presence of exhalative VHMS seafloor horizons to occur within the project area.

Drilling of TCDD004 follows on from three holes TCDD001 to TCDD003 totalling 831.7m, which targeted strong chargeability highs and resistivity lows within a large 3D inversion modelled IP chargeability anomaly. The drilling intersected a fertile mineralised system bearing abundant disseminated and veined sulphides and several felsic-intermediate (micromonzodiorite) intrusions, with associated anomalous copper-cobalt grades. Best results included: 3m @ 2323ppm Co and 0.09% Cu in TCDD001; 46m @ 0.11% Cu in TCDD002; 22m @ 193ppm Co and 0.01% Cu in TCDD003. All three holes intersected pervasive silica (+/– sericite) – pyrite alteration with overprinting magnetite-KFeldspar-actinolite-chlorite-pyrite-chalcopyrite veining. Zones of weak to moderate pervasive K-Feldspar-silicate alteration were also seen. Interpretation relating to collective results from Thomas Creek drilling is presented in Reid et.al. (2019).

This report and attached files on the drilling of TCDD004, is provided to fulfil the requirements of the Final EDGI report, as detailed in section 9.3 of the "*EDGI Program 2018 – Guidelines for Project Proposal Submission"* document ("the Guidelines"). The previously submitted interim report contained much relevant digital data, as well as direct drilling invoices, which is now resubmitted to be inclusive of any updates.

The direct drilling costs for TCDD004 total $140,188.48. Under the Guidelines Accelerate is requesting the final payment of $45,000, being the unclaimed $25,000 half of the total co-funded drilling amount ($50,000), plus $20,000 for helicopter costs.

Drilling

Drilling of TCDD004 was undertaken by Edrill Pty. Ltd. using a LF70 helicopter portable diamond drill rig. The program commenced in early October 2018 under the supervision of Accelerates' Tasmanian Project Manager, Robert Reid, concluding on the 16th December 2018. Logistics and field assistants were provided by Rogers Exploration Services. The drilling comprised a total of 657m, including 101.6m HQ and 555.4m NQ diamond core. Full details of the hole coordinates, azimuth, inclination and drilling dates are shown in Table 1 and appended digital data (see EL062013_201910_18_FileListing.xls), with interpretation relating to other drill holes completed prior to TCDD004 presented in the company's 2019 Annual Report on Exploration EL06/2013. All drilling, map and location data provided in the report use the GDA 94 (Zone 55) reference datum. All drill core for TCDD004 has been submitted to MRT's Mornington Core Store.

The direct drilling cost for TCDD004 totals **$140,188.48**, comprising HQ and NQ drilling/metre costs, work time (running rods, casing holes, orientation surveys, etc) and drilling consumables/fluids.

These costs are summarised in Table 2. and are detailed in the attached four invoices from Edrill;

- Edrill 576 dated: 15/10/2018
- Edrill 581 dated: 31/10/2018
- Edrill 583 dated: 21/11/2018
- Edrill 585 dated: 18/12/2018

The maximum $20,000 EDGI claim for helicopter costs is requested with costs attributed to TCDD004 totalling $107,741; invoices appended. Significant mobilisation/demobilisation costs were also incurred for boat and barge hire, delivering drilling gear to Birch's Inlet, within helicopter range of the Thomas Creek Prospect.

These costs are summarised below (not including GST) and are detailed in the attached four invoices from Tasmanian Helicopters;

- Tasmanian Helicopters 4922 dated: 30/09/2018 $42,390 (part of invoice)
- Tasmanian Helicopters 4976 dated: 31/10/2018 $42,390 (total invoice)
- Tasmanian Helicopters 4989 dated: 30/11/2018 $10,080 (total invoice)
- Tasmanian Helicopters 5003 dated: 14/12/2018 $13,600 (total invoice)

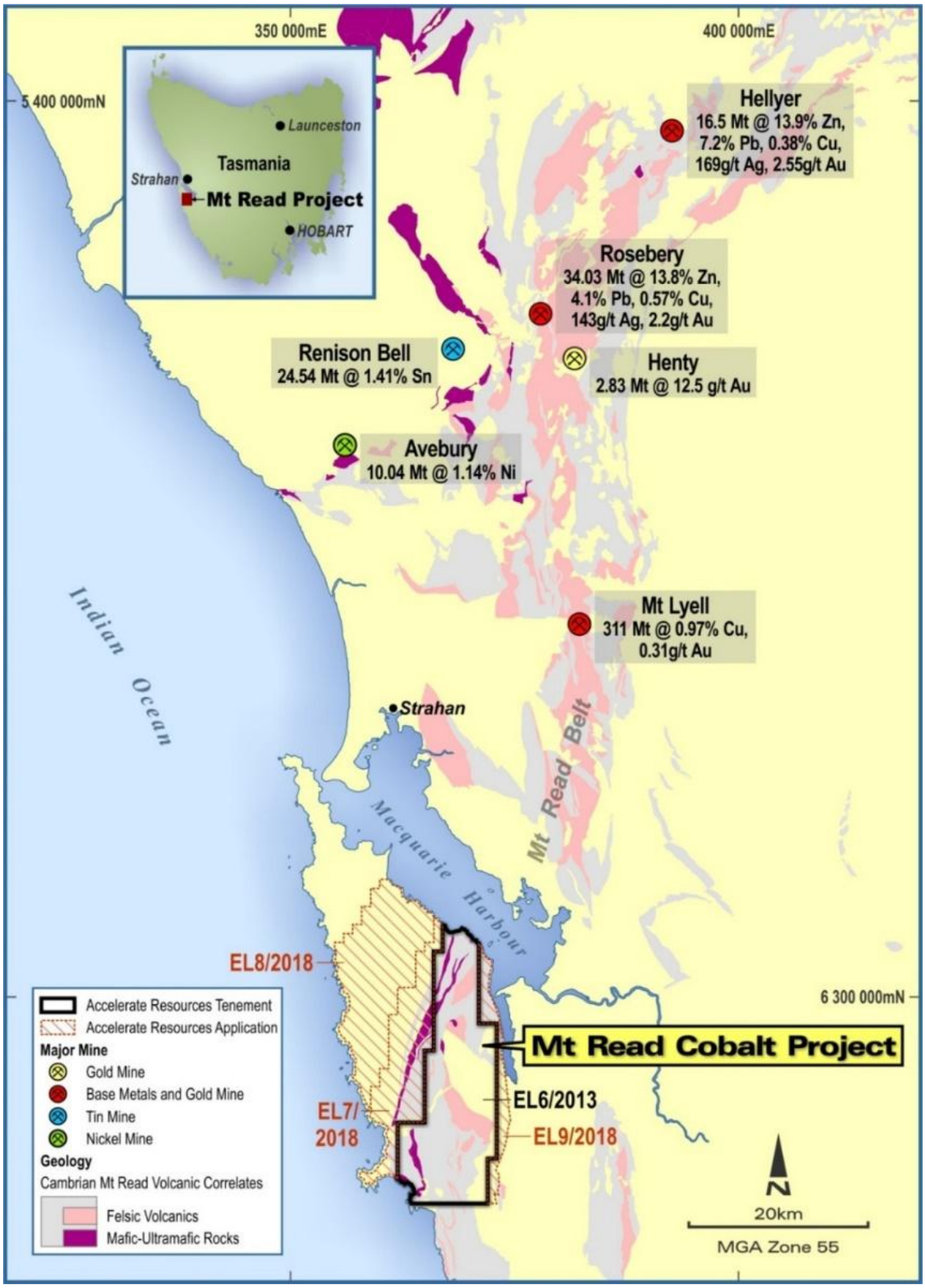

Figure 1. Mount Read Project Location

Table 1. TCDD004 - Collar Coordinates and Drilling Details

Hole ID	East MGA94 Zone 55	North MGA94 Zone 55	AHD m	Azimuth	Dip	Start Date	End Date	HQ m	NQ m	EOH m
TCDD004	370155	5285822	215	135	-65	2/10/2018	16/12/2018	101.6	555.4	657

Table 2. TCDD004 - Direct Drilling Costs and Invoice Details

Invoice Number	Date		Daily Drilling Record		Metres Drilled		Drilling Cost	Active Time Cost	Inactive Time Cost	Consumable Cost	Total Direct Drilling Cost
	Start	End	From	To	From	To					
Edrill 576	2/10/2018	14/10/2018	16941	17503	0.0	201.1	$26,537.00	$9,800.00		$811.92	$37,148.92
Edrill 581	22/10/2018	31/10/2018	17504	17063	201.1	403.4	$27,182.80	$5,600.00	$2,380.00	$1,082.56	$36,245.36
Edrill 583	12/11/2018	21/11/2018	17064	17073	403.4	560.3	$25,127.40	$5,950.00	$2,660.00	$1,217.88	$34,955.28
Edrill 585	9/12/2018	16/12/2018	17074	17081	560.3	657.0	$17,408.00	$10,675.00	$1,120.00	$2,635.92	$31,838.92
Totals							**$96,255.20**	**$32,025.00**	**$6,160.00**	**$5,748.28**	**$140,188.48**

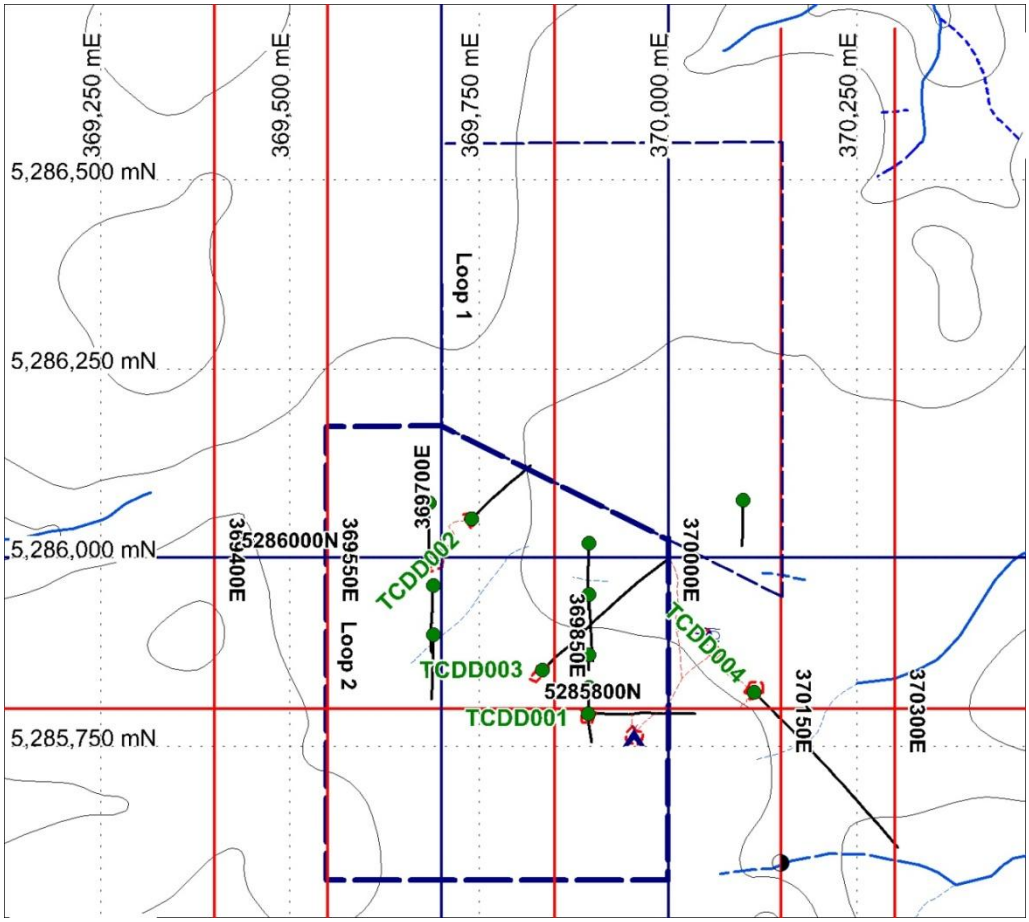

Figure 2: Thomas Creek Prospect drill collars, IP grids and DHEM Loops.

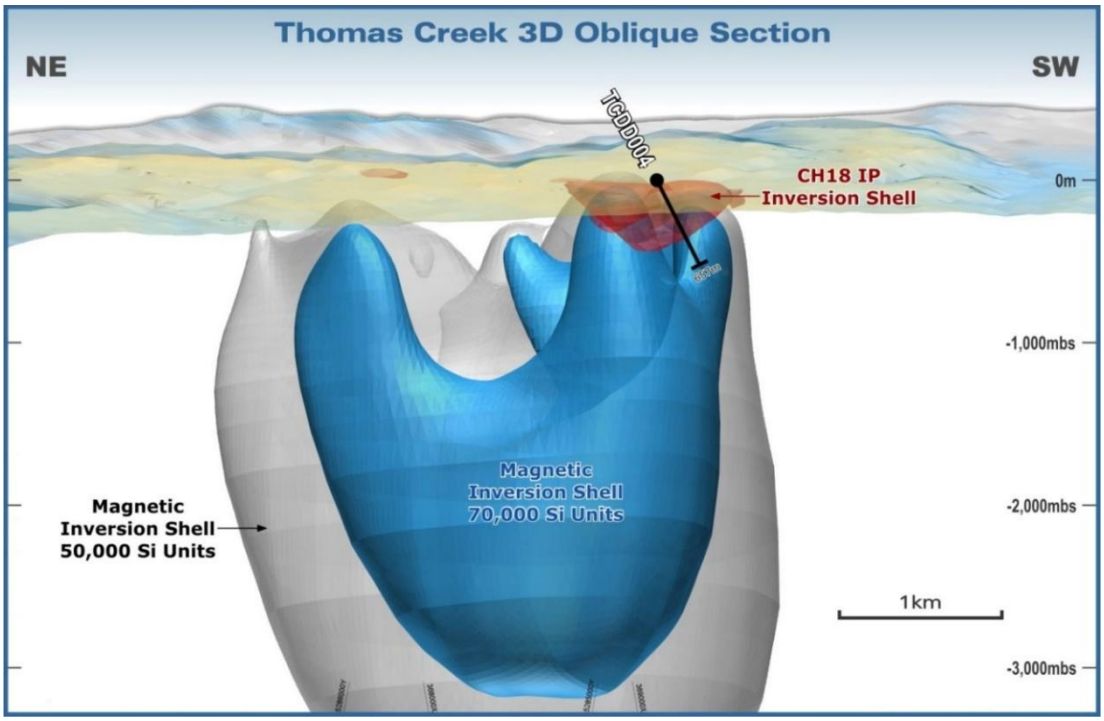

Figure 3. IP chargeability and magnetic inversion shells targeted by TCDD004.

Diamond Core Sampling

HQ and NQ diamond core from TCDD004 was generally recovered in 1.5m runs and placed into plastic core trays, with a total of 657 metres of core drilled. The drill core was geologically logged on site, with a number of geological features recorded, including; lithology, alteration, mineralisation, magnetic susceptibility and structure.

All core from TCDD004 was transported to the Mornington Core Library, where it was photographed prior to being cut (half core) for sampling and analysis, utilising the facility's Autosaw. A total of 423 samples were collected from the hole by Rogers Exploration Services.

The half core from TCDD004 was predominantly sampled at 1m intervals through the primary alteration and observed mineralised zones, 17m to 26m, 46m to 58m, 76m to 78m, 86m to 102m, 126 m to 130m, 150m to 156m, 198m to 302m, 372m to 382m and 546m to 548m, with four zones, 406m to 410m, 412m to 418m, 510m to 522m and 605.7m to 615m, in the lower part of the hole sampled at variable intervals between 0.4m to 1.7m to reflect lithological and mineralisation boundaries. The remainder of the hole was half core sampled as 2m composites.

The half core samples from TCDD004 were submitted to Independent certified laboratory ALS in Perth, for ore grade gold analysis by Fire Assay (30 gram charge) with AAS finish (Au-AA25 method) and multi-element (48 element) analysis by 4-acid digest, ICP-MS (ME-MS61 method). Each individual sample of the crushed core was also analysed by Shortwave Infrared (SWIR) to provide data on alteration and mineralogy (EL062013_201910_10A_BU18302927_ASD.zip and EL062013_201910_11A_BU19028743_ASD.zip).

Details of the logging, sampling and assay results are digitally appended.

Drilling Results

The hole intersected a sequence of altered andesitic lavas and volcanic breccias, cross-cut by a number of Potassium feldspar altered monzodiorites, with zones of magnetite – chalcopyrite - pyrite – potassium feldspar veining intersected in the upper 300m of the hole. The drilling returned a number of zones of anomalous copper and gold mineralisation (Table 3) associated with zones of visible copper sulphide (chalcopyrite) mineralisation and monzodiorite intrusions, including:-

- 292m to 296m, 4m at 0.19% copper, including 1m at 0.47% copper and 0.21 g/t gold from a zone of (290.60m to 298.43m) brecciated andesite containing between 5-10% disseminated to semi-massive pyrite and 0.3-0.5% chalcopyrite stringers, located immediately below a potassium feldspar altered micro-monzodiorite (288.50 to 290.60m) containing 0.5% disseminated chalcopyrite.
- 424m to 426m (2m sample), 2m at 1.65g/t gold associated with 30cm zone of pyrite (8%) and chalcopyrite (1%) veining and a 10cm semi-massive pyrite (20%) /magnetite vein, in a brecciated andesite located adjacent to a potassium feldspar altered micro-monzodiorite (429.78 to 440.0m) containing 0.5% disseminated pyrite and chalcopyrite.
- 458m to 460m, 2m at 0.41% copper associated with a zone of pyrite and chalcopyrite/epidote veining in a brecciated andesite, within a broader 6m zone (458m to 464m) averaging 0.18% copper.

A number of Potassium feldspar altered monzodiorites were also intersected in the lower half of TCDD004, within altered andesitic lavas and breccias. Some monzodiorites contained disseminated pyrite and chalcopyrite, including, 605.7m to 610m, which returned 4.3m at 0.11% copper and appears to represent a more mineralized intrusive phase when compared to other monzodiorites in the hole.

A series of thin volcaniclastic sedimentary horizons were intersected in the lower part of the hole. These include a fine to medium grained andesitic volcaniclastic sandstone, with a narrow upper hematitic contact, from 510.9m to 511.3m containing 0.5% disseminated chalcopyrite, which returned 0.4m at 0.15% copper. A 2cm thin volcaniclastic sandstone bearing rip up clasts is evident within the 519.25m to 519.46m interval containing 10% semi-massive to disseminated pyrite, locally reaching semi massive 25% pyrite with a very fine grained darker weakly banded pyrite form also present. This interval features VHMS-like characteristics with chemical precipitate like texture and locally massive to semi-massive pyrite replacement beneath pervasively silicified-sericitised banding up hole (Photo 1); see log for more detail. Lower most is a volcaniclastic sandstone and siltstone horizon containing 0.1% disseminated pyrite and chalcopyrite, as well as featuring minor soft sediment fault deformation at 627.50m to 629.0m.

Table 3: TCDD004 Significant Intersections

Hole ID	Interval (m)			Copper	Cobalt	Gold	Copper cut-off
	From	To	Width	%	ppm	g/t	
TCD004	**199**	**200**	**1m**	0.16	837		500ppm
TCD004	**210**	**215**	**5m**	0.09			500ppm
TCD004	**268**	**269**	**1m**	0.14			500ppm
TCD004	**292**	**296**	**4m**	0.20			500ppm
incl.	**294**	**295**	**1m**	0.47	638	0.21	1000ppm
TCD004	**424**	**426**	**2m**			1.65	
TCD004	**458**	**464**	**6m**	0.19			300ppm
incl.	**458**	**460**	**2m**	0.41			1000ppm
TCD004	**510.9**	**511.3**	**0.4m**	0.15			500ppm
TCD004	**605.7**	**610**	**4.3m**	0.11			500ppm

These sulphidic volcaniclastic horizons highlight the potential for exhalative VHMS seafloor horizons to occur within the project area. The up-dip potential for these horizons is indicated at surface by a zone of chargeability, in the south eastern part of the Thomas Creek grid, coincident with elevated potential VHMS Copper indicator elements (Bi, Te, Mo & Co).

Both inferred VHMS exhalative horizons are underlain by irregular pyrite – chalcopyrite veining / stringer weakly zoning strongest closest to the inferred horizon, within pervasively silicified andesite breccia. Sericite replacing feldspar is also evident closest beneath the horizons, whilst pervasive and semi pervasive K Feldspar overprint continues apparently more distal beneath pervasive silica. Late stage (porphyry related) magnetite-chalcopyrite veining is sparse and erratically distributed further down hole beneath these horizons in TCDD004.

These horizons lie at the top of andesite lava breccia flow facies, with external influence in the form of distal high density turbidite medium grained volcaniclastic sandstone. This likely represents distal input from the Western Volcano Sedimentary Sequence, interfingering with the Noddy Creek Volcanics. i.e a time of relative local volcanic quiescence. There's interpreted potential for a stacked sequence of VHMS exhalative horizons being progressively buried by fresh andesite lava flows.

The hole was planned to go on to the resistivity boundary from 700m, which possibly represents a silicified top of the Western Volcansedimentary Sequence stratigraphically beneath the Noddy Creek Volcanics, where a VHMS mound may have had a longer time to develop. However, the basal volcaniclastic horizon was considerably less altered.

A proximal VHMS could be related to the off hole DHEM conductor located east of TCDD003 and 1, effectively towards TCDD004. A MobileMT conductor is modelled beneath and between TCDD002 and TCD2, north of this potential vector.

Geochemistry XRF

A portable/hand held Niton XRF, utilising standards for calibration, was used to establish qualitative/indicative presence of key metals (Co, Cu) in both drill holes and regional surface samples. Various mineralisation and alteration styles were also qualitatively assessed to identify potential element signatures. Drill core readings were taken in AllGeo mode (duration 90seconds), providing the most accurate and complete element suite. Results are presented in and EL062013_201910_09_DG_PortableXRF.xls.

XRF analysis readings were collected using a NITON XRF at 1m increments over most of drill hole TCDD004. A gap exists mid – upper hole and readings extend as 2m increments from ~350m. Scattered spot analyses were also taken from various salient alteration and mineralisation features. This included a number of Copper spot highs returning up to 13% Cu from obvious chalcopyrite bearing zones.

Some clear associations identified were:- Micromonzodiorite intrusions are readily reflected by high K. Ca distribution is generally high when K is low, whereas Ba and K highs are coincident. Cu, Ni, Co, S and Fe are a common elevated association, whilst K despite pink K-feldspar like occurrence in veins is low with these samples. Note the extent of Albitic (Na) alteration at Thomas Creek is little assessed at present. XRD analysis by Bottrill and Unwin (2019) determined that Albite was a significant component of a pink and green Amphibole vein from 226.5m in TCDD004. Weakly anomalous Sn to 140ppm is another portable XRF detected accessory of these veins.

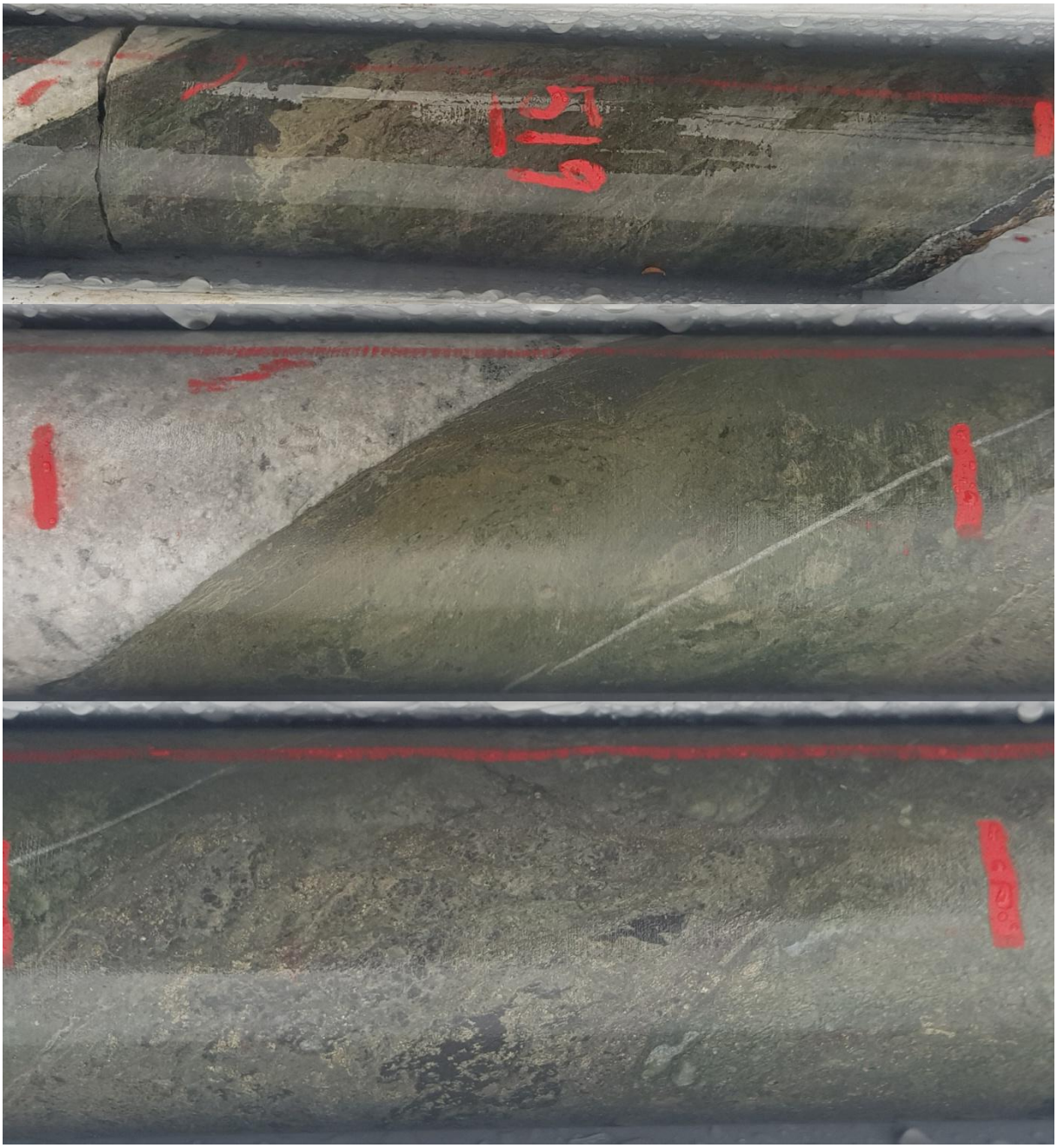

Photo 1: Top is TCDD004 upper part of inferred VHMS exhalative horizon 518.9m (left) to 519.1m (right), noting precipitate like growths in weakly banded pervasive silica-sericite. Middle is TCDD004 519.2m (left) to 519.3m (right) showing very fine grained darker sulphide band at quartz carbonate contact, marked by finely banded kaki green pervasive silica-sericite (which could include appreciable very fine grained pyrite?). Bottom is TCDD004 semi massive sulphide 519.3m (left) to 519.4m (right).

Magnetic Susceptibility

Magnetic Susceptibility readings in SI units were collected using a magROCK magnetic susceptibility meter at 10cm increments down drill hole TCDD004.

Distinct magnetic lows near 215m, 370m, 430 to 440m and 585 to 595m correspond to micromonzodiorite intrusions (Figure 4). Compositing magnetic susceptibility data down hole at

0.5m intervals results in a flatter profile that doesn't reflect local vein related variability as well. A histogram of magnetic susceptibility (Figure 5) shows an apparently normal population peaking around 0.1SI, likely corresponding to primary magnetite in the andesites. Clearly anomalous values, commonly relating to magnetite bearing veins extend from ~0.25SI to ~0.7SI (Figure 4 & 5).

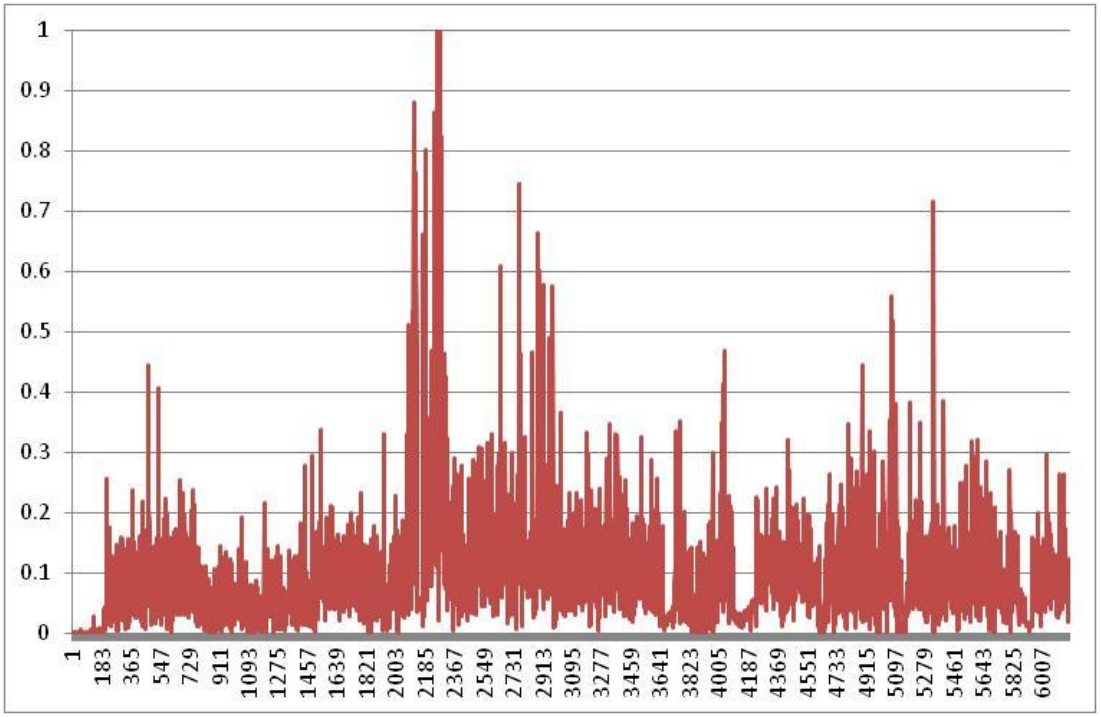

Figure 4: TCDD004 down hole magnetic susceptibility profile.

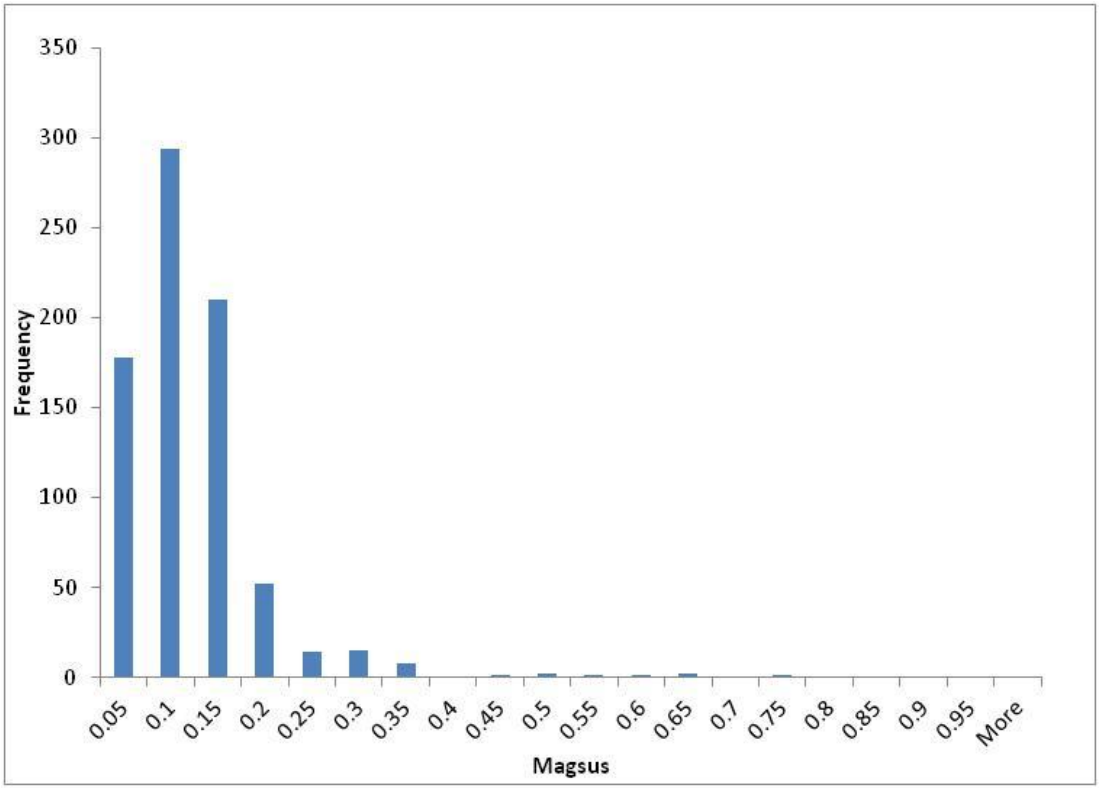

Figure 5: Magnetic Susceptibility histogram for TCDD004.

Structure

Orientated drill core structure measurements are reliant upon accurate down hole surveys, which in TCDD004/s case returned a number of spurious readings due to magnetite influence. Down hole surveys were extrapolated accordingly to reflect a relatively straight hole behaviour, as is reflected in most surveys from recent TCDD drill holes outside significant magnetic influences. Dip and Dip Direction is the common structural notation used for planes. All TCDD series drill hole structure data has been compiled to include fields reflecting common vein mineral types.

Bedding

Bedding in TCDD004 consistently dips ~30 to 315TN. Projecting the potential VHMS horizon up dip intersects a zone of key VHMS indicators Te, Sb and Ba/Sr in soils in an as yet little known area. Zinc soils is also anomalous, whilst at very low <100ppm level in the far grids south. (Further discussion is provided with drill hole structure synthesis in Reid (et. al., 2019).

Laminar to thin bedded volcaniclastic siltstone and very fine grained volcaniclastic sandstone are evident from 627.5 to 629m, immediately up hole from strong pervasive K Feldspar alteration (11% K XRF). Beds are at low ~20LCA and are strongly disrupted by soft sediment deformation microfaults of <5cm throw.

Faults

Table 4: Structural data from TCDD004 including faults and striated surfaces

dip	dip dirn	ID	depth	plunge	trend	lin pitch	displacement	Comment
44	194	15	218.25	39	160	-	-	striated chlorite on frac
47	186	18	220.93	28	126	-	-	planar smooth striated chlorite
29	162	26	236.22	29	164	-89	Reverse	planar frac wk sil mineral alignment wk ramps indicate top block to n
22	183	-	288.71	-	-	-	-	planar rough slickensided frac
45	275	-	314.85	-	-	-	-	very rough frac parallel to fault? zone
16	330	66	314.90	4	47	-13	Sinistral	slickensided with ramps top block to s. relativelly flat thrust? slicks in pgn and crm silicate.
50	20	44	288.76	50	34	-81	Reverse	undulating stepped frac weak steps top block to s

Veins

The main cluster of chalcopyrite bearing veins in TCDD004 on average dip ~-75 to 305TN. i.e the drilling azimuth is appropriate with the main strike being ~NE. Chalcopyrite veins commonly dip from 86 to 307TN to 60 to 295TN, as well as a small cluster at 67 to 337TN (Figure 6).

The common association of magnetite and chalcopyrite bearing veins is illustrated in Figure 7. Another clear association is K-Feldspar – Actinolite veining. Notably, at ~227m in TCDD004 apparent forceful actinolite vein intrusion follows fractures including Albite (identified by Bottrill and Unwin, 2019) fragments of mill rounded form, thus dating them to pre to early actinolite introduction. Many Epidote veins strike ENE.

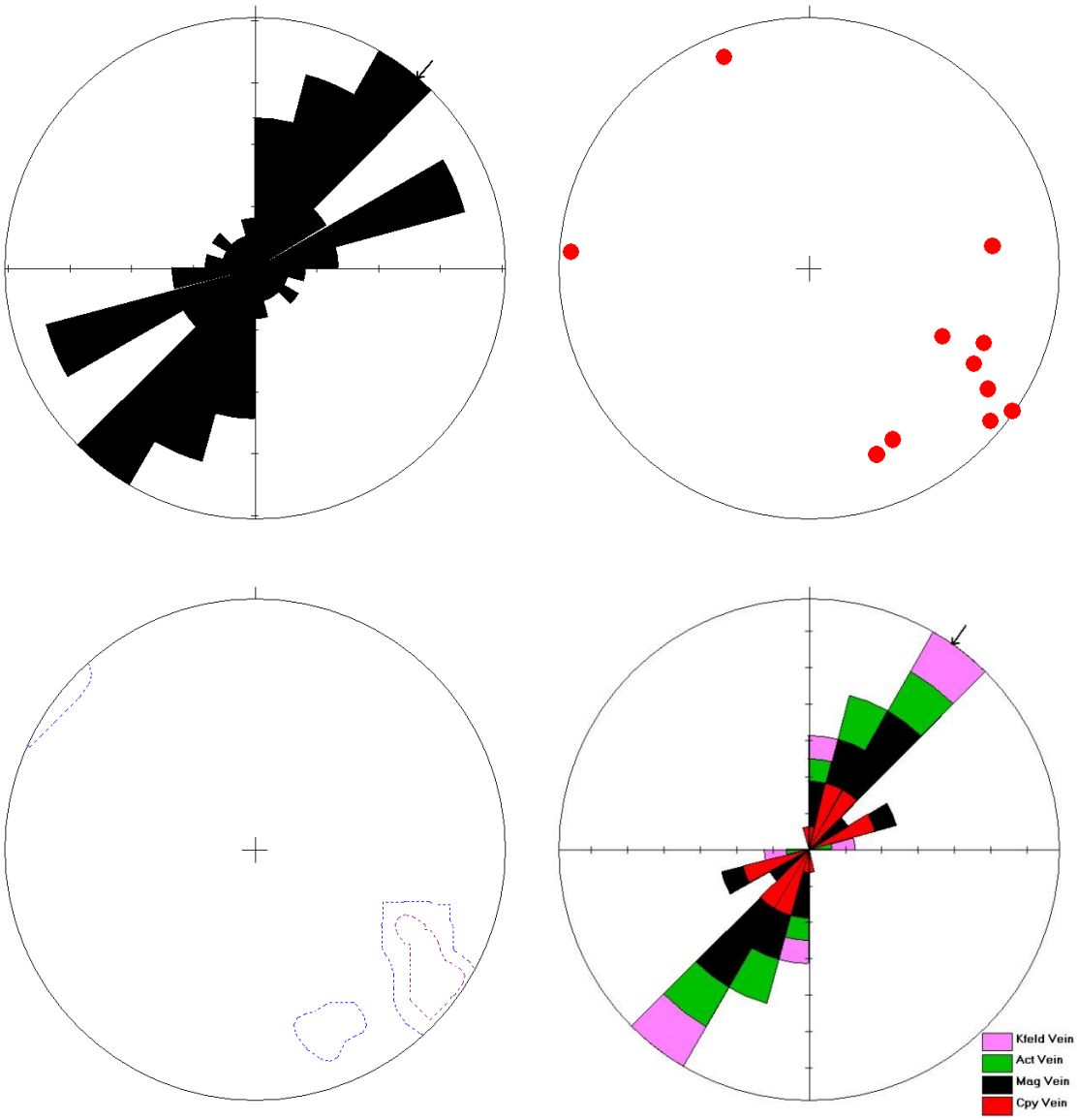

Figure 6: TCDD004 Rose Diagram All Veins (Top Left), Poles to Cpy Veins (Top Right), Cpy Vein contours (Bottom Left) and significant classified vein types ROSE (Bottom Right).

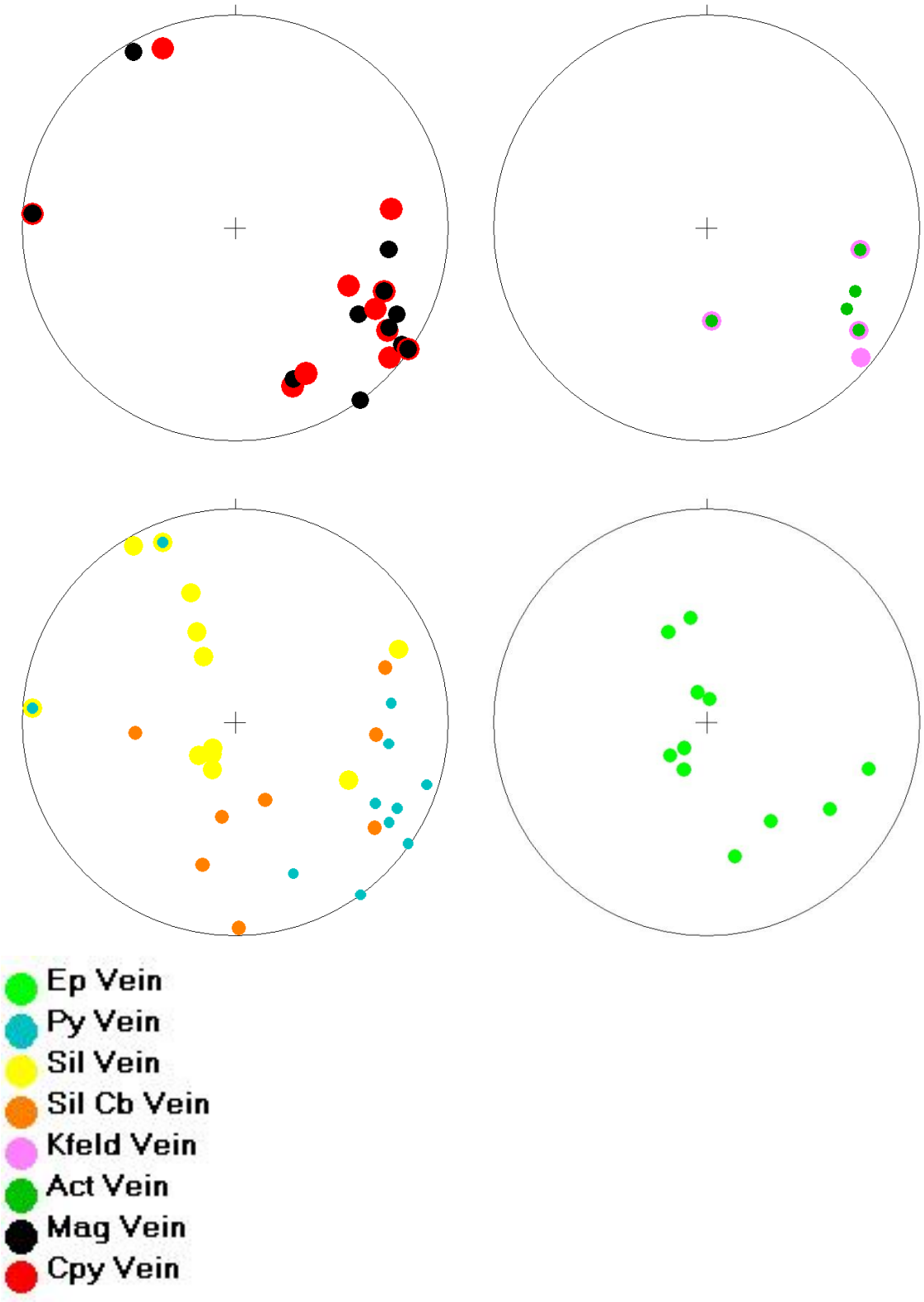

Figure 7: TCDD004 Stereographic Projection of poles to classified veins (No. 74).

Hylogger

MRT undertook Hylogger analysis of two intervals within TCDD004. These highlight zones of magnetite-actinolite-Kfeldspar chalcopyrite veining and disseminated chalcopyrite bearing micromonzodiorite intrusion with associated K-Feldspar alteration displayed in trays 56 to 62, versus a very interesting possible VHMS horizon and alteration study in trays 123 to 130. Data including photos are appended (EL062013_201910_14_TCDD004Hylogger.zip).

Discussion

The results from drill hole TCDD004 have been further considered in light of all drilling and GIS data related to the Thomas Creek Prospect in Accelerates most recent annual report (Reid et. al., 2019). Summary information from this report follows:-

The geology of the Thomas Creek Prospect is as yet relatively poorly defined. Recent work has weakly defined micromonzodiorite intrusion distribution with SW strike at the Thomas Creek Prospect. Drill hole interpretation and structure indicate moderate NW dip to multiple dykes.

Two principal SW and NW vein strikes are identified at Thomas Creek. Mineralised veins more commonly strike NE in TCDD001 and 4 in the south, with NW orientations more prevalent in TCDD002 to the north, but all holes reflect both orientations to a variable extent. i.e. N and S structural domains are defined with significant interplay in the more strongly brittle faulted zone between TCDD001 and 3.

Chalcopyrite and slightly more scattered pyrite vein orientations are broadly similar with dominant ENE to NE strike. Chalcopyrite veins also commonly strike NW; this being prevalent in TCDD002. A potential mineralisation ore shoot plunge to model and consider for drill orientation is the -43 to 254TN intersection lineation for the primary SW and NW striking chalcopyrite vein sets.

Bedding (No = 4) in volcaniclastic sandstones from TCDD004 consistently dip -30 to 315TN. These more distally derived volcaniclastics likely reflect the surrounding regions seafloor with inferred volcaniclastic source derived from predominantly east, to south east. The potential exhalative horizon's lower contact dipping -75 to 285TN in TCDD004 (Figure 8) possibly mimics local volcanic facies dip. Andesite and related breccia contacts variably dip -30 (TCDD004) to -80 (TCDD002), mostly to the south and southwest. Whilst andesite volcanic contacts could be expected to be highly variable, the differences could be weakly interpreted as steeper andesitic volcanic centre proximal flanks in the prospects north, grading to shallower distal volcanic slopes to the south, with distal turbiditic influence.

Study of the geochemical character of mineralisation and alteration at Thomas Creek was undertaken, with comparison to Mt Lyell and VHMS in general. Related literature review focused upon developing ore vectors / index's. Complicating interpretation at Thomas Creek is the interplay/overprinting of hybrid VHMS / high sulphidation equivalent mineralisation by more directly intrusion related element suites.

Analysis of correlation trends for Thomas Creek resulted in definition of two clear key element associations for intrusion / K Feldspar silicate/ potassic alteration (K, Ba, Rb & Tl) and vein related styles (Cu, Co, P, W, Ni & Re). Within the intrusive association (K, Ba, Rb & Tl), Tl correlated well with

Zr and Al suggesting its distribution is in part lithology related. The vein related association is compatible with literature for the Prince Lyell deposit (Cu, Co & P).

Potential VHMS compatible elements in TCDD004 from a volcaniclastic sandstone with hematitic contact and minor chalcopyrite from 510.9 to 511.33m are Ba (2020ppm), Cu (1490ppm), K (6%), Low Na (0.64%) and weak Ag (0.16ppm). High additive Zn VHMS Index totals of 80 to 100 also come from 402 to 408.65 in TCDD004, corresponding to the margins of an andesite, with pervasive silica and sericite alteration down hole. Further down hole from 516 to 519.45m the range is higher from 110 to 160. This is a positive qualitative indication of potential VHMS presence backing up textural interpretation with the highest Zn VHMS index value corresponding to the suspected exhalative VHMS interval at 520m. This interval also favourably bears low Ba/Sr and very low Na @ 0.05%, weakly elevated Cu, Co & Sb (22ppm), Ni, P (4040ppm), Ag (0.26ppm) and very weak Pb. Very high sericite index here suggests amorphous green silica alteration likely includes sericite. A DHEM survey of TCDD004 is clearly warranted.

Sectional Interpretation

Two drill sections were created with 300m envelopes to assess broad geological and geochemical variations (Figure 9, 10 and 11). The NW – SE aligned section through Thomas Creek was created with a wide 100m envelope. Gross patterns observed are a prevalence of silicification to the NW with better Cu grades in TCDD002 and TCD2. This area exhibits a higher Western Tharsis Cu index than elsewhere, zoning to adjacent elevated MnCaZnTl index, consistent with the Western Tharsis model. A possible vector to Western Tharsis style ore is NW along the inferred host structure, and to depth towards the modelled strong core MobileMT resistor.

A number of minor thrust offsets on fractures are identified in drill core. These dip shallowly NW, with steeper similarly dipping faults in the hangingwall. 3D and sectional interpretation (Figure 10) suggests that approximately aligned mill breccia in TCDD001 and 2, with a hydrothermal breccia and faulted zone in TCDD003 (~154 to 160...170m) represents a significant thrust fault surface. This inferred thrust fault in TCDD001 possibly extends from ~150 to 165m, incorporating various hydrothermal breccias and veined zones. Whilst in TCDD002, the thrust is represented by a 10m mill breccia zone with moderate biotite and weak pervasive silica alteration from 180 to 190m. Correspondingly, in TCDD004 is an 8m zone of highly fractured core with local cataclasite, bearing coarse to locally massive (45cm) magnetite-hematite-pyrite veining and fracture fill. These zones form a relatively flat lying to shallow NW dip possible thrust fault, in concert with the flattest measured striated fractures and faults identified from drilling structural interpretation (Figure 10, 11 & 25). Timing is evidently post mineralised clasts and syn to post micromonzodiorite intrusion, with likely later reactivation.

The inferred thrust clearly coincides with 3D IP modelled chargeability and resistivity features (Figure 11). The thrust model might also help explain the cut off nature of the donut like 10000nT modelled magnetic shell, on the southern rim of the regional scale aeromagnetic high.

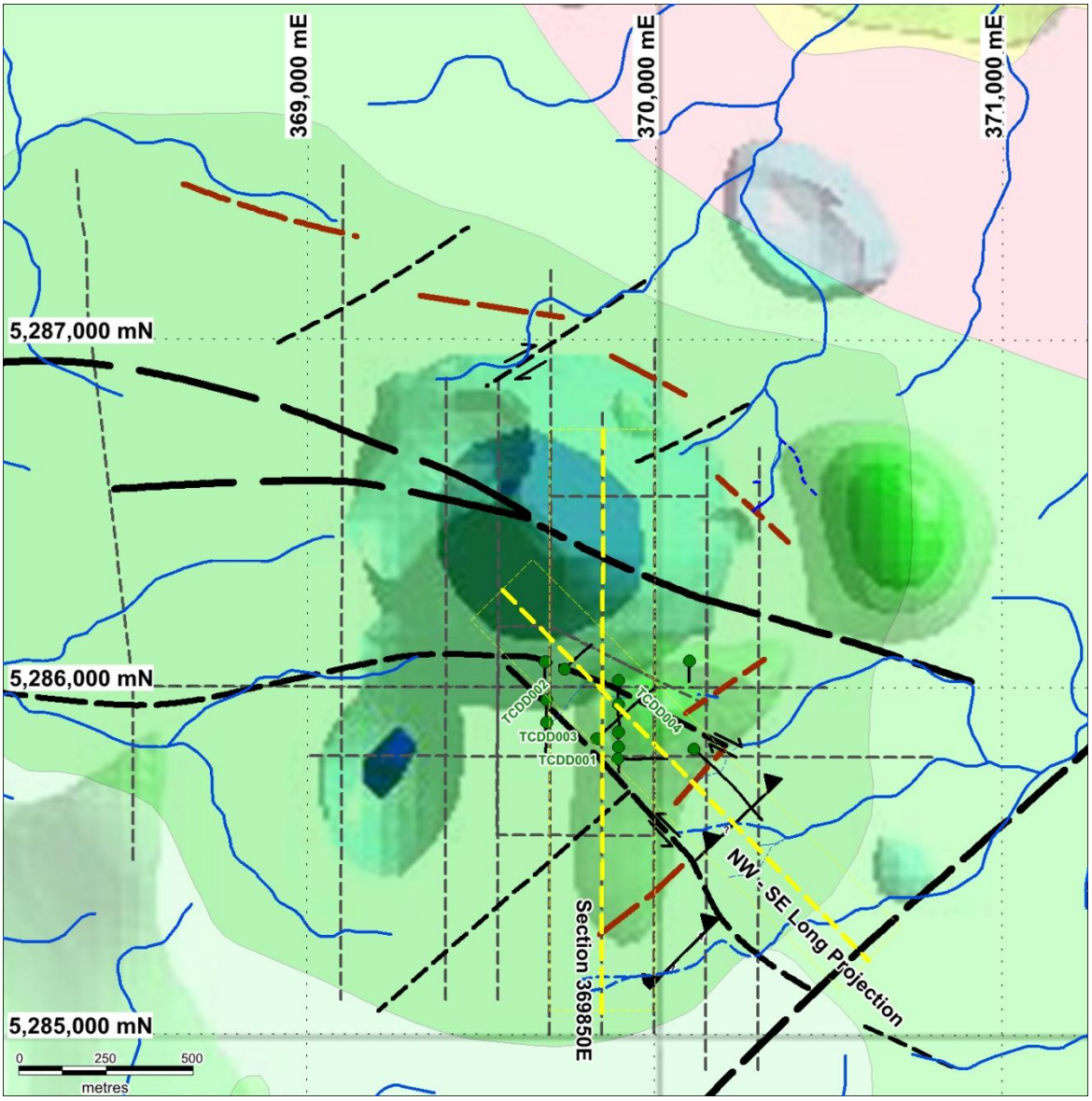

Figure 9: Location of drill sections and structure interpretation over 250k (MRT) geology and airborne MobileMT conductors (green) and resistors (blue) isosurfaces.

In TCDD004, the lower semi-massive sulphide (potential VHMS horizon) contact dips 75 to 283TN, roughly projecting up dip towards off section anomalous Cu and Fe in soils (Figure 10). This is in approximate agreement with bedding with a couple of measurements around 500m returning ~30dip to 315TN and 76 to 280TN; local folding variation or facies variation potential noted above.

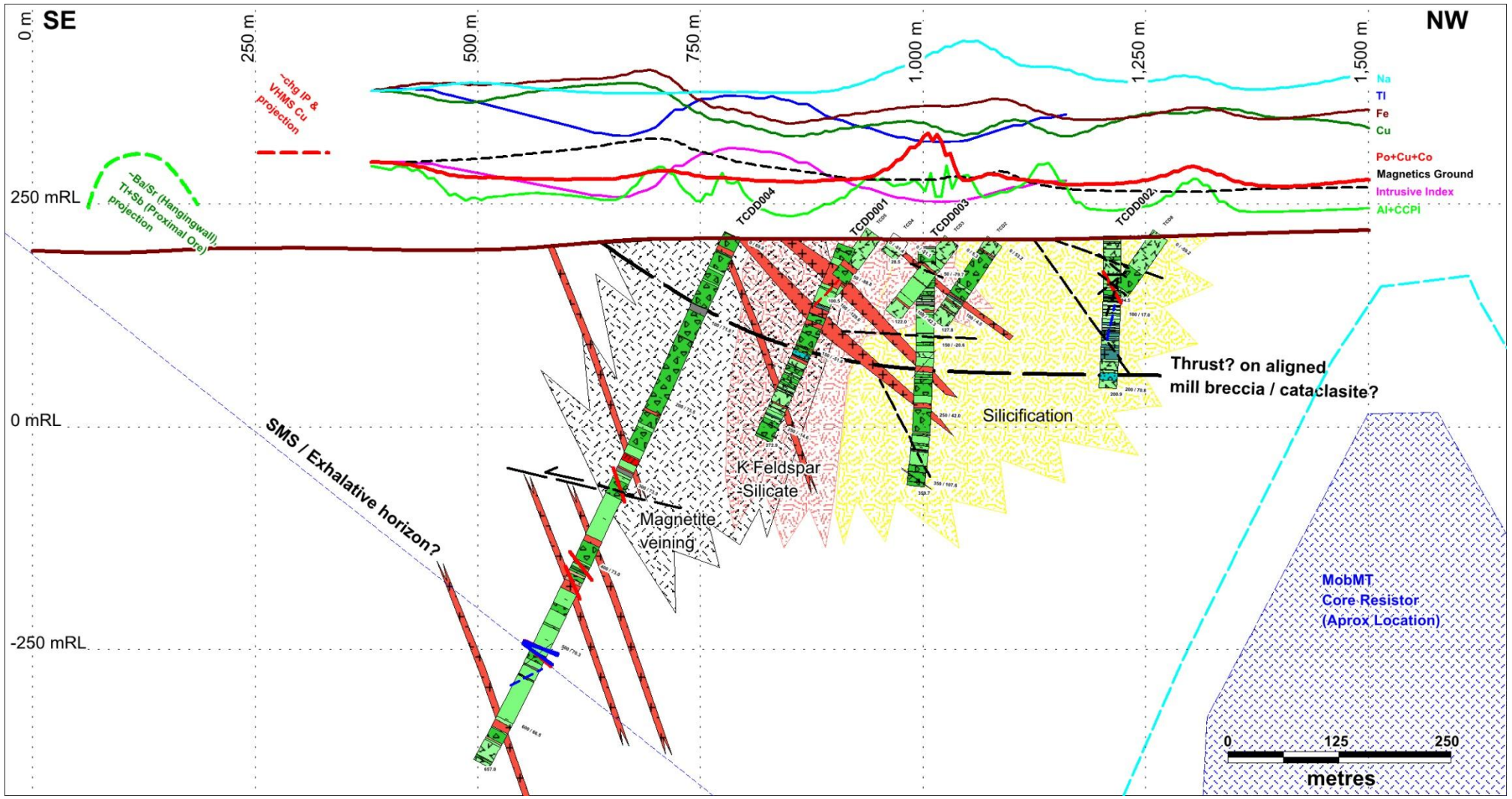

Figure 10: NW aligned section (100m search envelope) showing drill hole geology (micromonzodiorite intrusive highlighted) and broad alteration zonation. Relative soil geochemical trends displayed as surface traces.

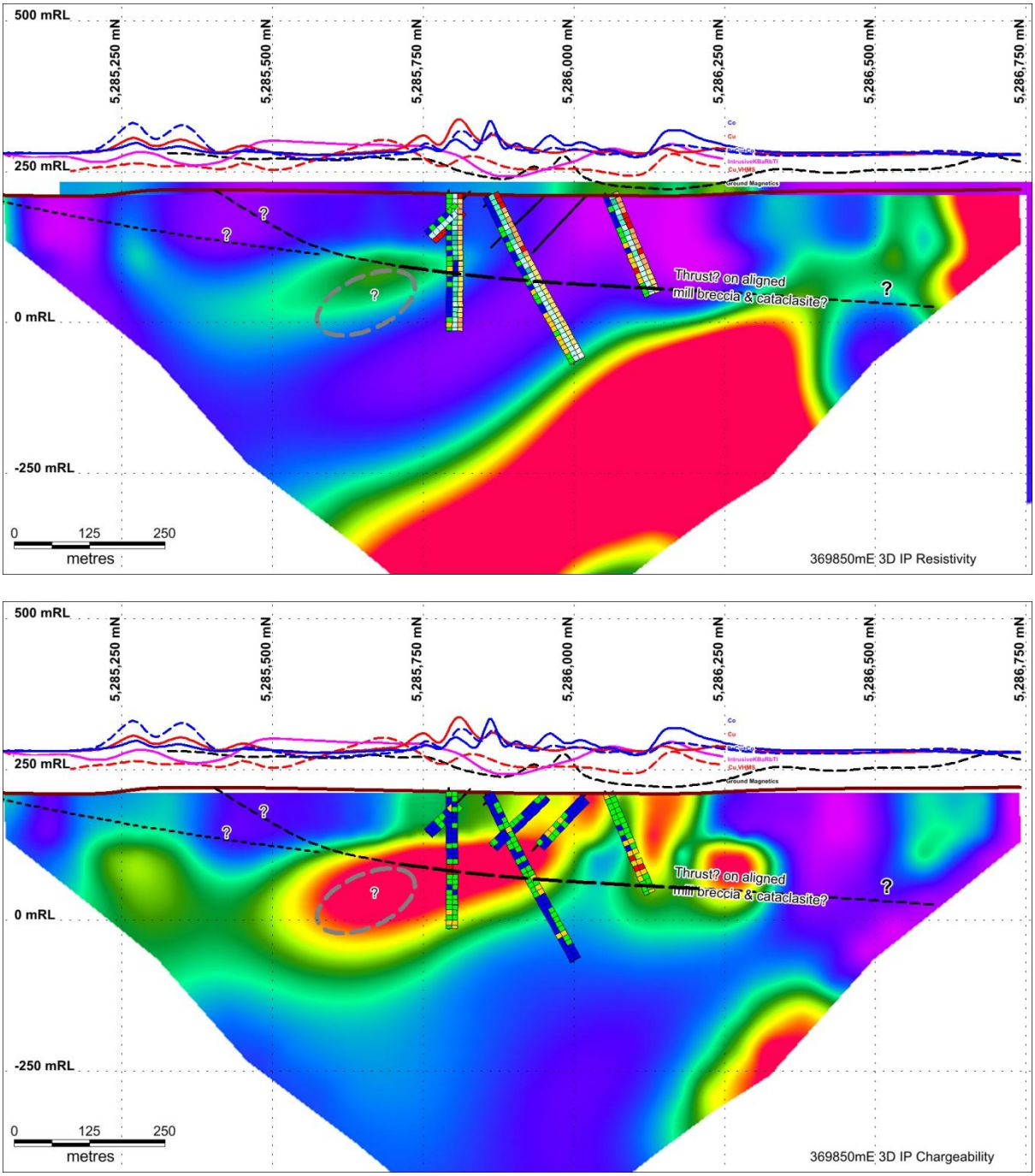

Figure 11: Section 369850mE showing drill hole traces (Left to right; WT, WT distal, KCs Indices), interpretation over 3D IP resistivity psuedosection (Top) and 3D IP chargeability psuedosection (bottom) with PCoCU & Vein indices as drill traces.

Broadly generalised alteration zonation is clearly evident from assessment of spatial distributions in drill holes. Pervasive silica alteration is more common in the NW of the drilled Thomas Creek area, with pervasive K Feldspar - silicate dominant in the core zone including TCDD001 and 3 (Also TCD3), whilst becoming more diffuse in TCDD002. Magnetite bearing veins are most common in TCDD004 and 1 with minor occurrences elsewhere. Whilst, broad primary(?) disseminated magnetite is

prevalent throughout andesites in TCDD004 (Figure 10). Disseminated magnetite is also locally a key constituent of diorites in the area, as is a local pervasive silica – magnetite alteration association. Biotite is noteworthy in TCDD002, but scarce elsewhere. Biotite associated with pervasive silica is noteworthy in TCDD002 and it's coincidence with Thomas Creeks most significant intersection of 56m @ ~0.1% Cu is possibly a proximal indicator to ore, complimented by a high WT index zone/trend. The vector is possibly down plunge north towards the large MobileMT and 3D IP modelled resistor.

Environment

Permission was granted for a work program to undertake up to four diamond drill holes at Thomas Creek within an area defined for gridding to facilitate IP and soil surveys. All works were undertaken within the guidelines of the Exploration Code of Practice.

Disturbance of flora and fauna was minimised during drill pad clearing. The TCDD004 drill site was cleared of vegetation to provide an approx 15 by 20m area. This allowed drill rig and associated gear to be helicopter sling loaded with enough space to stack loads and still pass freely and safely between. Large timber clearing was minimised where possible. Water required for drilling was sourced from a local creek and pumped >800m to the drill sites using 2 inch poly pipe. Drilling return waters were bunded to catch drill cuttings before allowing the waters to disperse away from the rig.

Upon hole completion, rods were advanced down the hole with no rotation, enabling 40mm PVC pipe to be extended to the bottom of hole for later down hole EM survey. A reversible sub allowed the drill rod string to then be undone for retrieval leaving the PVC in the hole. All casing was removed. The PVC pipe was capped awaiting a DHEM survey. Following this the collar will be excavated, with PVC cut and recapped below ground level. A steel can (or similar metal) will be placed at collar level to allow the covered hole to be relocated by metal detector at a later stage.

All equipment and associated items brought to the drill site were removed on hole completion. This involved "grid" searches for rubbish, which was removed from camp on a regular basis. Portable toilets were swapped out as required.

Helicopter flight paths avoided known threatened species locations, principally the Orange Bellied Parrot no fly zone on the Sorell Peninsular from 20th September to 15th November and 15th February to 10th May.

The Thomas Creek camp comprised a helicopter slung 5.5 by 2.5m hut with generator, portable toilet and shower units provided core services for the Thomas Creek field camp. A 1000l water tank and pressure pump ran the portable shower and plumbed kitchen sink. Gas was utilised for heating and hot water, as well as two fridge freezers. An L shaped tarpaulin covered wooden deck provided shelter around the hut. Personnel were accommodated in Edrill's 2 helicopter slung pods as well as in tents on removable 2.5m^2 wooden platforms. Wooden walk ways were installed in camp on high travel routes, elsewhere <15cm branch cording, from site and grid clearing were used where required. Consequently, mud bogs and erosion of the surface around camp was minimised.

Fuels were stored in appropriate containers within designated bund areas at the helipad and in camp. Fuel-spill kits were kept on-site. Firefighting equipment was kept on-site near fuel storage and in camp where mechanical, gas and electrical equipment was used.

Conclusion

Diamond drilling by Accelerate during 2018, comprised four holes TCDD001 to TCDD004 targeting strong chargeability highs and resistivity lows within a large 3D inversion modelled IP chargeability anomaly located along the eastern margin of an ovoid magnetic body, below surface copper-cobalt soil anomalism defining the core of the Thomas Creek prospect.

The initial three holes intersected a fertile mineralised system bearing abundant disseminated sulphides and containing felsic-intermediate intrusions and sulphide veining, with associated anomalous copper-cobalt grades. Best results included: 3m @ 2323ppm Co and 0.09% Copper in TCDD001; 46m @ 0.11% Copper in TCDD002; 22m @ 193ppm Co and 0.01% Copper in TCDD003.

TCDD004 targeted the south-eastern margin of the Thomas Creek system where an IP chargeability anomaly is coincident with the Thomas Creek, magnetic feature, in an area associated with surface features, interpreted to indicate the presence of proximal potassic alteration and more distal propylitic alteration within a “classic” Porphyry alteration system.

The drilling of TCDD004, intersected a number of zones of anomalous copper and gold mineralisation in the central part of the hole, 292m to 460m, associated with zones of visible, copper sulphide (chalcopyrite) mineralisation and monzodiorite intrusions.

TCDD004 also revealed a number of geologically significant observations including, the presence of a series of thin volcaniclastic sedimentary horizons in the lower part of the hole. These horizons comprised a volcaniclastic sandstone at 510.9m to 511.3m containing disseminated chalcopyrite, which returned 0.4m at 0.15% copper, a volcaniclastic sandstone at 519.25m to 519.46m containing 10% semi-massive to disseminated pyrite and a volcaniclastic sandstone and siltstone horizon at 627.50m to 629.0m containing 0.1% disseminated pyrite and chalcopyrite. These sulphidic volcaniclastic horizons are interpreted to highlight the potential for exhalative VHMS seafloor horizons within the project area and expand the geological and stratigraphic understanding of the Thomas Creek prospect and the Mount Read Volcanics of the Sorell Peninsula project area.

Ongoing analysis of Thomas Creek prospect drilling and regional data, including the recently completed airborne MobileMT survey, is defining a protracted late Cambian(?) hydrothermal event, overprinted by Cambrian and Devonian tectonic events in the area. Much of the Thomas Creek alteration is clearly intrusion related and porphyry-like, however recognition of a submarine environment with exhalative VHMS potential in TCDD004 indicates that mineralisation is likely significantly influenced by sea water, highlighting a significant difference to typical porphyry Cu deposits, which are influenced by meteoric waters in a sub aerial environment. Consequently, early alteration at Thomas Creek is more pervasive in nature as compared to vein fracture networks in typical porphyry Cu environments. Mineralisation at the Thomas Creek Prospect has recognized similarities to that at Mt Lyell (311Mt @ 0.97% Cu, 0.31% Au), with the exception of numerous high level intrusives overprinting the Thomas Creek system. Analysis of trends and vectors to mineralisation is ongoing with consideration to this evolving understanding.

References

Bottrill, R. S. and Unwin, L., 2019. Mineralogical Analyses, Thomas Creek Prospect. Mineralogical / Petrological Report LJN2018-143 by Mineral Resources Tasmania.

MRT 2108. Exploration Drilling Grant Initiative Program 2018 – Guidelines for submission of applications. Pdf publication by Mineral Resources Tasmania, Department of State Growth.

Reid, R., Rust, A., Vanzino, L., and Burton, J, 2019. Thomas Creek (EL06/2013) Annual Report on exploration 2019. Sorell Peninsula, Tasmania for the period 21st October 2018 to 1st October 2019. Unpublished Company Report, MRT Tasmania

Appendices

List of appended digital data

Exploration Work Type	Filename	File format
Report	EL062013_201910_01_TCDD004EDGI_Report.pdf	*pdf*
Drilling		
	EL062013_201910_02_SL_1.xls	*xls*
	EL062013_201910_03_DS_1.xls	*xls*
	EL062013_201910_04_DL_1.xls	*xls*
	EL062013_201910_05_Lithologycodes.xls	*xls*
	EL062013_201910_06_DG_1.xls	*xls*
	EL062013_201910_07_DStructure_1.xls	*xls*
	EL062013_201910_08_DGeoTech_1.xls	*xls*
	EL062013_201910_09_DG_PortableXRF.xls	*xls*
	EL062013_201910_10_AnalysisBU18302927	*pdf*
	EL062013_201910_10A_BU18302927_ASD.zip	*zip*
	EL062013_201910_11_AnalysisBU19028743	*pdf*
	EL062013_201910_11A_BU19028743_ASD.zip	*zip*
	EL062013_201910_12_AnalysisBU18302927_QC	*pdf*
	EL062013_201910_13_TCDD004CorePhotos	*zip*
	EL062013_201910_14_TCDD004Hylogger	*zip*
	EL062013_201910_15_LJN2018-143	*docx*
	EL062013_201910_16_DrillingInvoices	*pdf*
	EL062013_201910_17_HelicopterInvoices	*pdf*
File Verification Listing *(this file)*	EL062013_201910_18_FileListing.xls	*xls*