



Thomas Creek - EDGI Co-funded Drilling

TCDD004 Interim Report

Sorell Peninsula, Tasmania

October to December 2018



Compiled by: Andrew Rust
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Accelerate Resources Ltd.
Unit 1/ 16 Ord Street
PO Box 938, West Perth
Western Australia, 6005

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Introduction

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 the Mt Read Project, South-western Tasmania. The Thomas Creek Prospect is located on the Sorrell Peninsula, within EL 06/2013, 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.

Key features targeted by diamond drill hole TCDD004 included:

- A coincident surface ovoid magnetic feature and IP chargeability anomaly, which after 3D inversion resulted in an overlapping 70,000SI magnetic body and Channel 18 IP Chargeability anomaly shell.
- Surface features interpreted as illustrating “classic” Porphyry alteration zonation, with proximal potassic alteration indicated by a coincident ground magnetic high and ring like high K in soils, as well as more distal propylitic alteration shown by high Ca in soils.
- A broad and unconstrained off-hole DHEM conductor located east of drill hole TCDD001.

TCDD004 intersected a sequence of altered andesitic lavas and volcanic breccias, cross-cut by a number of 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 volcanoclastic sedimentary horizons were intersected in the lower part of the hole, including a volcanoclastic sandstone at 510.93m to 511.28m containing 1% disseminated chalcopyrite, a volcanoclastic sandstone at 519.25m to 519.46m containing 10% semi-massive to disseminated pyrite and a volcanoclastic sandstone and siltstone horizon at 627.50m to 629.0m containing 0.1% disseminated pyrite and chalcopyrite. These sulphidic, volcanoclastic horizons indicate the potential for the presence of exhalative VHMS seafloor horizons to occur within the project area.

This report and attached files on the drilling of TCDD004, is provided to fulfil the requirements of the Interim EDGI report, as detailed in section 9.3 of the “*EDGI Program 2018 – Guidelines for Project Proposal Submission*” document (“the Guidelines”).

The direct drilling costs for TCDD004 total \$140,188.48. Under the Guidelines Accelerate is requesting the interim payment of \$25,000, being half of the total co-funded drilling amount (\$50,000).

Drilling

Drilling of TCDD004 was undertaken by Edrill using a LF70 helicopter portable diamond drill rig. The program commenced in early October 2018 and was carried out in four phases, under the supervision of Accelerates’ Tasmanian Project Manager, Robert Reid, concluding on the 16th December 2018. 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 included in Table 1.

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

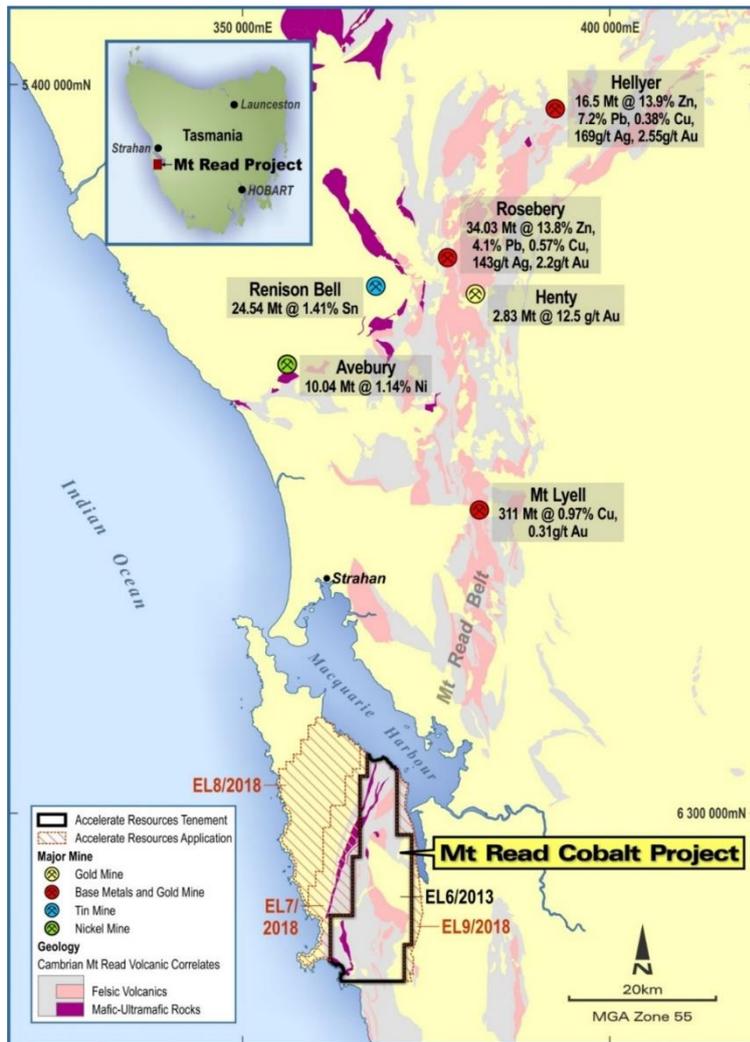


Figure 1. Mount Read Project Location

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

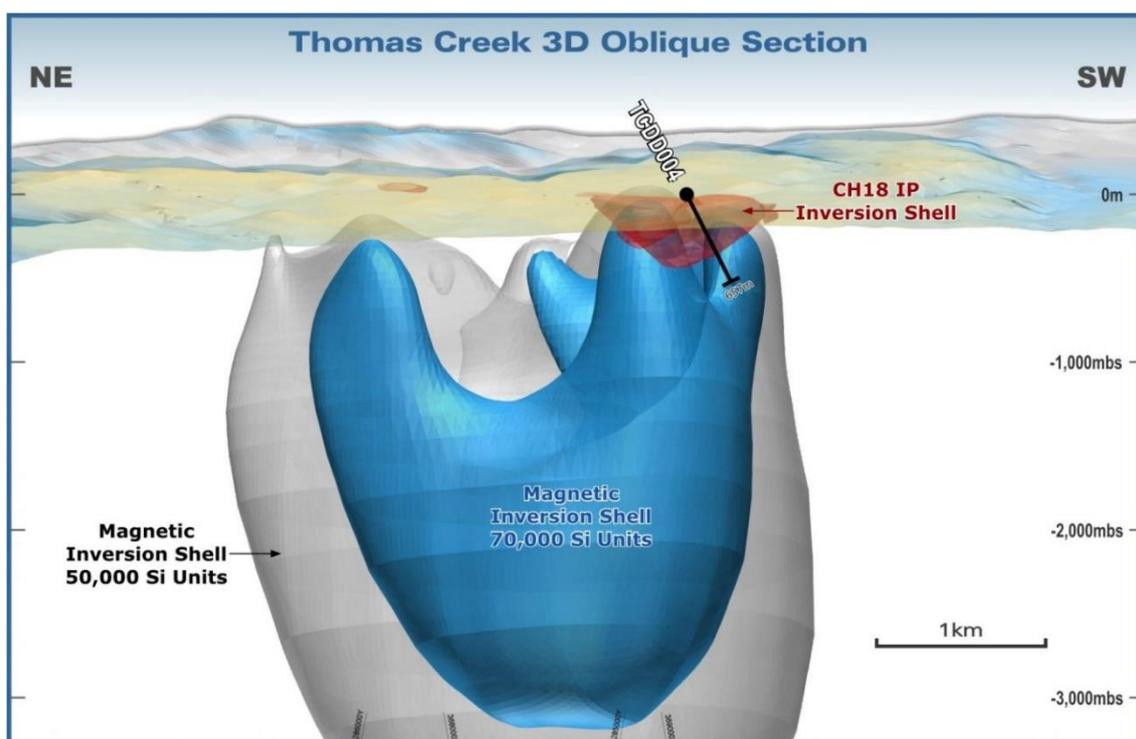


Figure 2. IP chargeability and magnetic inversion shells targeted by TCDD004.

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 650.0metres of core drilled. The drill core was geologically logged on site, with a number of geological and structural features recorded, including; lithology, alteration, mineralisation, magnetic susceptibility and structure.

The HQ and NQ sized 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 collected from the hole.

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, 126m 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 the ALS independent certified laboratory 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.

Details of the logging, sampling and assay results are included in the Appendices.

Results of Drilling

Drill hole TCDD004 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 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 (288.50m 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 (429.78m 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 (see Table 3.).

A series of thin volcanoclastic sedimentary horizons were intersected in the lower part of the hole, including a volcanoclastic sandstone at 510.9m to 511.3m containing 1% disseminated chalcopyrite, which returned 0.4m at 0.15% copper, a volcanoclastic sandstone at 519.25m to 519.46m containing 10% semi-massive to disseminated pyrite and a volcanoclastic sandstone and siltstone horizon at 627.50m to 629.0m containing 0.1% disseminated pyrite and chalcopyrite.

These sulphidic, volcanoclastic 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 survey grid, coincident with elevated potential VHMS Copper indicator elements (Bi, Te, Mo & Co).

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

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

Post Drilling Exploration – Mobile MT Survey

During early January 2019, Expert Geophysics completed an airborne Mobile MagnetoTellurics (“MobileMT”) survey over the Thomas Creek prospect and areas to the north and southwest. The MobileMT system is the latest generation of airborne Audio-Frequency Magnetic Electromagnetic (AFMAG) technologies, which is capable of mapping resistivity and conductivity contrasts at depth, utilising the naturally occurring electromagnetic field in the frequency range of 25 – 20,000Hz.

A Total of 430-line kilometres, covering ~104 km² were completed on 200m and 400m line spacings, in the immediate area over the ~13km² Thomas Creek copper-cobalt prospect and a smaller area in the southwest over the Mount Lowren prospect (see Figure 3.). The final MobileMT data was inverted via Computational Geoscience Incorporated to generate 3D results, mapping the conductivity spectrum to highlight absolute and relative discrete resistive and conductive anomalies.

The survey results highlighted a new conductive anomaly in the north-eastern part of the Thomas Creek prospect on the eastern flank of the Thomas Creek magnetic complex. The survey also confirmed a zone of conductivity associated with the initial Thomas Creek IP Chargeability and geochemical target area. (see Figure 4.)

The recently identified conductive zone lies to the north of a major northwest-southeast striking regional fault, which separates the target area from the previously identified Thomas Creek mineralisation. (see Figure 4.)

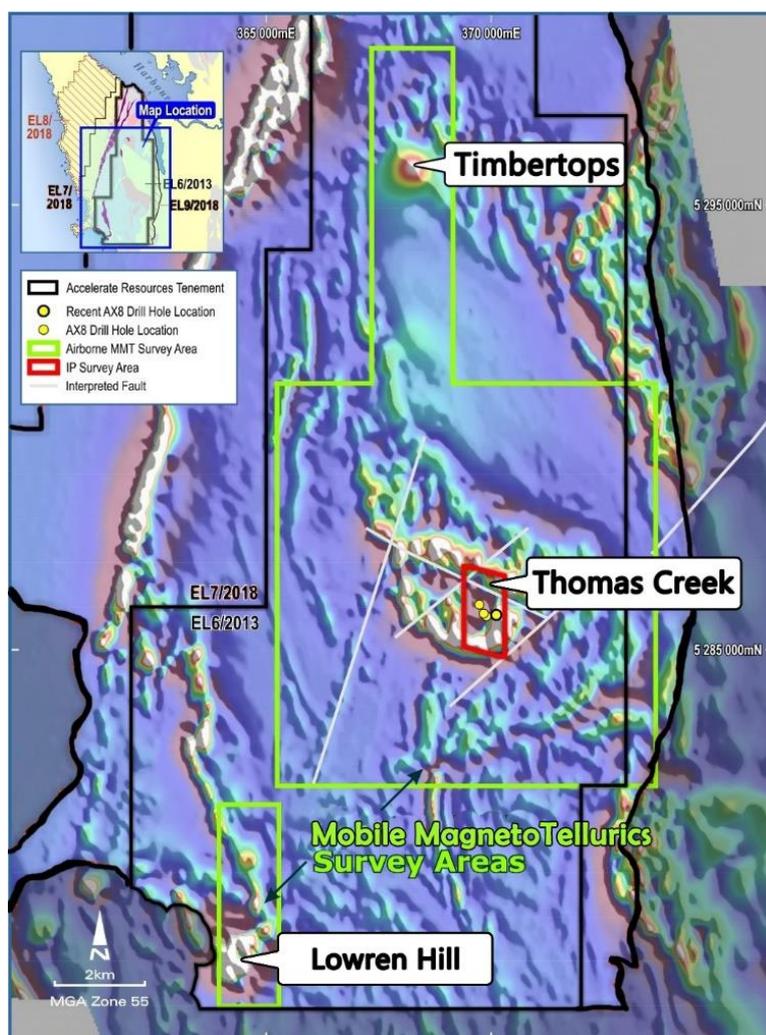


Figure 3. Mobile MagnetoTellurics Survey Areas on 1vd RTP Aeromagnetic Imagery

Field mapping undertaken by Accelerate during late 2018, identified a 20m wide zone of gossanous sub-crop associated with silica-magnetite altered diorite, proximal to the western side of the relatively shallow (>400m depth) conductive MobileMT anomaly. It is interpreted that the presence of gossanous material in association with the structural setting of the north-eastern conductive anomaly and the correlation between MobileMT conductance and the previously identified copper-cobalt mineralisation at Thomas Creek, highlights the potential for the new anomaly to represent sulphide mineralisation.

The 3D conductivity results also identified a number of high resistivity (very low conductivity) anomalies, including one in the central part of the Thomas Creek magnetic complex (see Figure 4.). Analysis and interpretation of soil geochemistry in conjunction with mapping, indicates that this resistive body likely represents a silica-magnetite altered diorite intrusive core to the Thomas Creek complex.

Preliminary evaluation of the 3D inversion results over the larger survey area, have also identified a number of other potential target zones including a discrete conductive anomaly on the northern side of the Timbertops magnetic high and another broader anomaly at Lowren Hill in the south of the project area. (see Figure 3.)

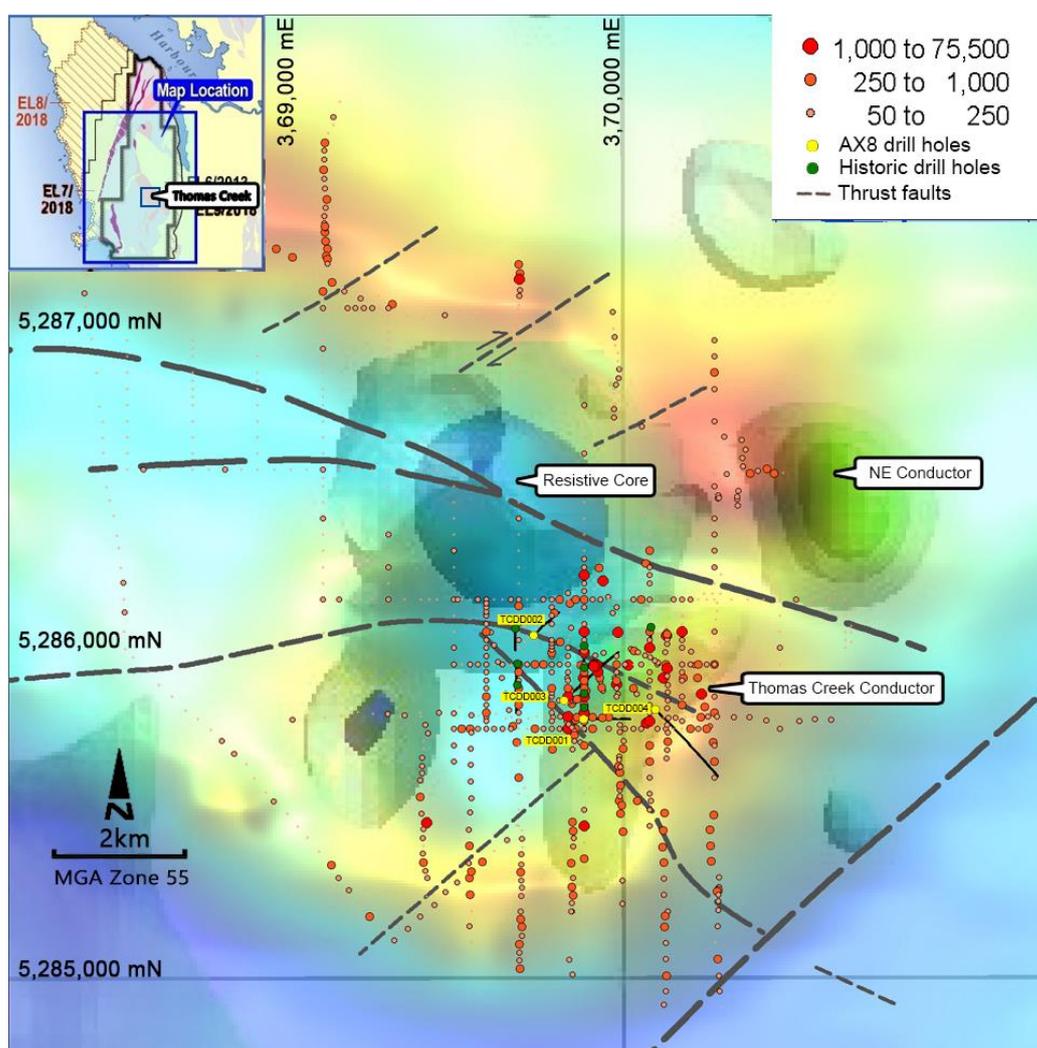


Figure 4. Thomas Creek MobileMT Results, Geochemistry and Drilling

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.

Zones of weak to moderate K Feldspar-silicate (potassic-like) alteration and mineralised, likely phreomagmatic, breccias were evident in the drilling, particularly within the southern hole, TCDD001. Whilst pervasive silica dominated the more extensively copper mineralised, northern drill holes, particularly TCDD002.

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 volcanoclastic sedimentary horizons in the lower part of the hole. These horizons comprised a volcanoclastic sandstone at 510.9m to 511.3m containing 1% disseminated chalcopyrite, which returned 0.4m at 0.15% copper, a volcanoclastic sandstone at 519.25m to 519.46m containing 10% semi-massive to disseminated pyrite and a volcanoclastic sandstone and siltstone horizon at 627.50m to 629.0m containing 0.1% disseminated pyrite and chalcopyrite.

These sulphidic, volcanoclastic horizons are interpreted to highlight the potential for exhalative VHMS seafloor horizons to occur within the project area and expand the geological and stratigraphic understanding of the Thomas Creek Prospect and the Mount Read Project area in the Sorrell Peninsula.

Ongoing analysis of Thomas Creek Prospect drilling and regional data, including the recently completed MobileMT survey, is defining a protracted late Cambrian 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.

Appendices

File Type	Filename	File format
Interim Report	EL062013_TCDD004_EDGI InterimReport.pdf	<i>pdf</i>
Drilling	EL062013_TCDD004_SL_1.xls	<i>xls</i>
	EL062013_TCDD004_DS_1.xls	<i>xls</i>
	EL062013_TCDD004_DL_1.xls	<i>xls</i>
	EL062013_TCDD004_DG_1.xls	<i>xls</i>
	EL062013_TCDD004_Lithologycodes.xls	
Drilling Invoices	Edrill 576	<i>pdf</i>
	Edrill 581	<i>pdf</i>
	Edrill 583	<i>pdf</i>
	Edrill 585	<i>pdf</i>
File Verification Listing	EL062013_TVDD004_FileListing.xls	<i>xls</i>