

**Corona Minerals**

**Annual Report**

**EL12/2009**

**For Period 21 December 2013 to**

**20 December 2014**

**Tasmania**

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## LIST OF DIGITAL FILES ACCOMPANYING THIS REPORT

EL122009\_20141215\_1\_Text  
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EL122009\_20141215\_3\_APPENDIX2

## **1.0 INTRODUCTION**

EL12/2009 is located due south of Queenstown on the West Coast of Tasmania.

Corona Minerals Ltd (“Corona”) entered into a Joint Venture agreement (JV) with Pacifico Minerals Ltd (“Pacifico”) on 9 June 2010 to explore EL12/2009.

Corona has since earned 80% of EL12/2009, and is the operator of the tenement. Pacifico has elected not to contribute to exploration and Corona is now increasing its tenement ownership accordingly.

Despite the lack of any resolution with regard to the ongoing 14M/1996 saga, this reporting period Corona drilled 9 diamond drill holes for a total of 89.5m using a man portable drill rig, testing a VTEM anomaly in the Specimen creek area, the target being polymetallic VHMS mineralisation akin to that seen at Hellyer.

## **2.0 TENURE**

EL12/2009 encompasses 55km<sup>2</sup>. Tenure is composed of Crown Land and Forestry land.

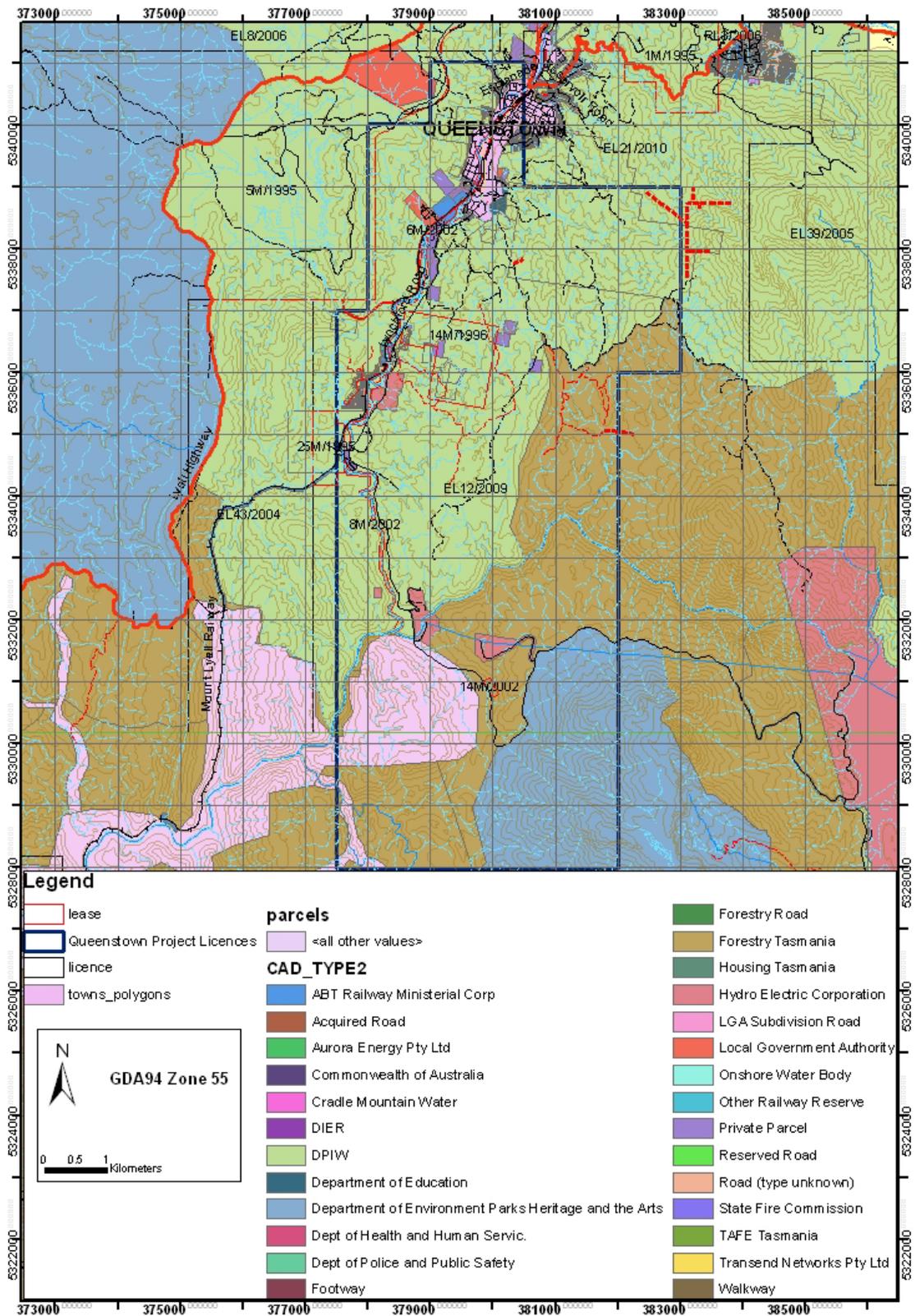


FIGURE 1: TENURE

### 3.0 ACCESS

Access within the tenement is good. Main access is roughly North-South bituminised Lynchford Road heading out of South Queenstown with numerous gravel tracks running east into the tenement.

### 4.0 GEOLOGY

The oldest rocks on the tenement are the Miners Ridge basalt and the Miners Ridge Sandstone, reputed to be of late Proterozoic or early Cambrian age, and are exposed in the core of a major anticline.

The mid-late Cambrian Mount Read Volcanics (MRV) dominate the tenement. The volcanic succession is composed of Central Volcanic Complex (CVC) rhyolites, Western Volcano Sedimentary (WVS) volcanoclastic and epiclastic sequences, and Tyndal group volcanoclastic sequences. The WVS sequence is host to several andesite-basalt units which appear to be contemporaneous with mineralisation throughout the MRV. The Lynchford Tuff is host to the exhalative Pb-Zn massive sulphide bodies at Comstock and Tasman Crown within the Mt Lyell mining lease and composes the lower most Tyndal group within EL12/2009.

Ordovician aged Owen group siliciclastic conglomerates and sandstones are found in the south east of the tenement, and a thin unit of Gordon Limestone is found in the west.

Silurian aged Eldon group shales sandstones and minor conglomerates are found in the west of the tenement.

### 5.0 MINERALISATION

20 historical prospects are known within the tenement, the majority are gold workings within the MRV, spatially associated with a major North-West trending fault.

### 6.0 STRUCTURE

Predominant structure has a north west orientation. Several phases of folding starting in the late Cambrian, throughout the Ordovician and during the Devonian Tabberaberan orogeny have created complex structural relationships.

### 7.0 EXPLORATION PHILOSOPHY

EL12/2009 was targeted for VHMS and related mineralisation, with a focus on the apparent association of gold workings and a major North West trending structure. Previous work by Newcrest (Kitto, 2008) recorded a 20 m zone of anomalous gold mineralisation (~0.2 g/t) 400m vertically below the Mt Ellen gold mine (on the adjacent EL51/2008 tenement also operated by Corona), associated with albite-silica alteration. Corona hypothesised this could represent a distal setting to a system similar to Henty. In addition to this it is recognised that the geology within the Lynchford area is similar to that of Hellyer, and previous workers identified a zone of intense hydrothermal alteration within volcanics that are adjacent to a hypothesised synvolcanic fault (Specimen Creek fault). Corona has since identified a VTEM conductor within this area of alteration.

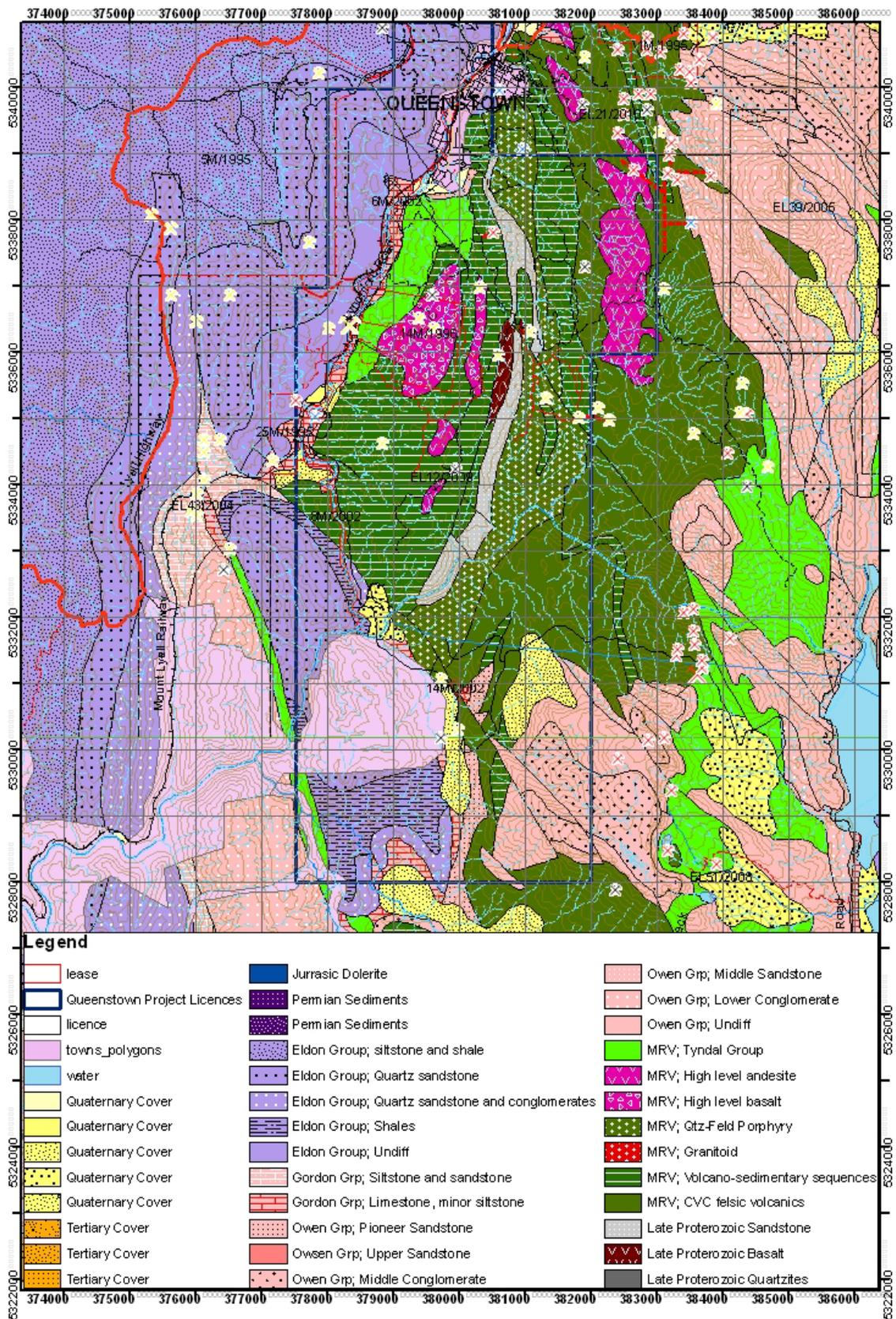


FIGURE 2: GEOLOGY

**8.0 EXPLORATION HISTORY**

Mineral exploration in and around EL12/2009 began in the 1880's, with the discovery of gold in the Lynchford area predating the discovery of the Mt Lyell system.

Modern exploration began in earnest in the 1960's, and has been intermittent since then. Summary of historical exploration is presented in Table 1 over leaf.

Table 1. Historical Exploration Summary

Year	Operator(s)	Relevant Reports	Exploration Activities	Significant Results
1965-67	Picklands Mather	6805_12	Stream and soil geochemistry and ground magnetic survey	Only background levels of base metals in MRV
1971-72	Cyprus Mines Corp.	71_0814 72_0858	Soil and rock chip sampling petrographic samples, IP, ground magnetics and mapping of area between Lynch Creek and Roaring Meg Creek, including the King Gold Mine.	Prospective MRV mapped in area with significant alteration of volcanics. Broad >100ppm Cu in soil anomaly.
1979-81	MLMR	81_1519 84_2258	24km airborne Dighem EM survey, IP over old Cyprus grid.	Re-interpretation of Dighem data by consultant geophysicist produced 11 very small anomalies of minor significance.
1985-88	CRA	87_2636	Ground EM survey, stream sediment and soil sampling.	Minor zones of Cu-Zn-Ba soil geochemistry were identified in Specimen Creek related to fuchsite-sericite-pyrite tuff outcropping in the area.
1988-94	Aberfoyle (JV with CRA)	89_2977 90_3152 94_3539 95_3706	Mapping, gridding, rock chip and soil sampling, costeaning, petrology, UTEM ground survey, ground magnetic survey, helimag survey, grab sampling and drilling of one diamond drill hole for 697m.	At Specimen Creek a Ba/As + low order Au in soil anomaly outlined. Soil anomalism followed-up with costeaning. One costean north of Fu/Se/Py/Cb alteration zone returned peak Ba 3.6% and 9775ppm Pb. Ground magnetics delineated mafic bodies and outlined extent of Comstock Tuff. Helimag survey allowed reinterpretation of the Specimen Creek alteration zone with geometry indicative of a structurally controlled dispersion halo. Two conceptual targets were recommended with the prioritized FW target testing the Lynchford Tuff-Lower Tyndall Group correlate and stratigraphic contact between the Lynchford Tuff and altered mafic Lynch Creek Basalt due to stratigraphic correlation with Rosebery and Comstock-style VHMS mineralisation. This target was drilled in 1994 but intersected no significant mineralisation, nor did it reach the Lynch Creek Basalt contact despite end of hole at 697m. DHEM failed to detect any off-hole conductors.
1991-95	Pasminco	91_3278	Detailed mapping, radiometric survey and UTEM survey Lynchford area	Mapping at Lynchford outlined several weakly mineralized units which could correlate to Rosebery-Hercules host rock stratigraphic position. Geochemical similarities with Que-Hellyer volcanics also previously recognized. UTEM identified several bedrock responses, one of which (G) was associated with a broadly coincident Ba/As/Pb soil anomaly. Anomalism is interpreted to be associated with sheared and veined graphitic siltstone and not considered part of a volcanogenic massive sulphide system. Aeromagnetics highlighted a major east-west oriented structural corridor reflecting deep seated fracture and potential mineralisation feeder system.
1994-99	RGC	95_3732 97_4016 98_4200	Evaluation of magnetic anomaly in Miners Ridge area. Soil and rock chip grid, 1:5000 scale mapping, helimag survey.	Weak Cu in soil levels coincide with bulls-eye magnetic anomaly and weak Pb and Zn results rim the low level Cu anomalism like at Garfield. Drill hole LF002 failed to intersect a magnetic source to explain the magnetic target. Drill hole LF005 intersected significant quantities of magnetic pyrrhotite which may explain the magnetic anomaly. Rare sulphides (Py-Sp) intersected in either hole were interpreted to be epigenetic and hence not related to a Cambrian hydrothermal event.
2005-08	Bass Metals Ltd	09_5799	Aster	None

## **9.0 PREVIOUS WORK COMPLETED BY CORONA**

A helicopter supported VTEM and aeromagnetic survey and modeling of VTEM results has been conducted this reporting period. Two small VTEM anomalies were delineated, one between Diorite Hill and Nasty Knob (anomaly one), and one on the western boundary with 14M/1996 in the vicinity of specimen creek (anomaly two). Both anomalies have been modeled by SGC, and warrant follow up work (see Figure 3). Further details can be found in Hughes (2011).

Corona has reviewed exploration targets within EL12/2009. Of note are two gold workings which require further investigation. The Princess River Gold Mine and the Halls Creek Gold Mine which have both produced gold in the late 1800's/early 1900's and both operations were stopped due to unmanageable water inflow. There is little information available for both of these workings but Blake (1949) indicated that several thousand ounces of gold was mined from The Princess River Gold Mine at a grade of about 24 g/t.

Corona Staff visited the Halls Creek Gold mine which is situated near the John Butters Power Station. The area is accessed by a track that is open to the public leading from the car park near the power station. Several open stopes, adits and shafts are visible, along with historical mining related items such as skiffs and the remains of a battery stamp, within an area that has numerous young Huon Pine growing.

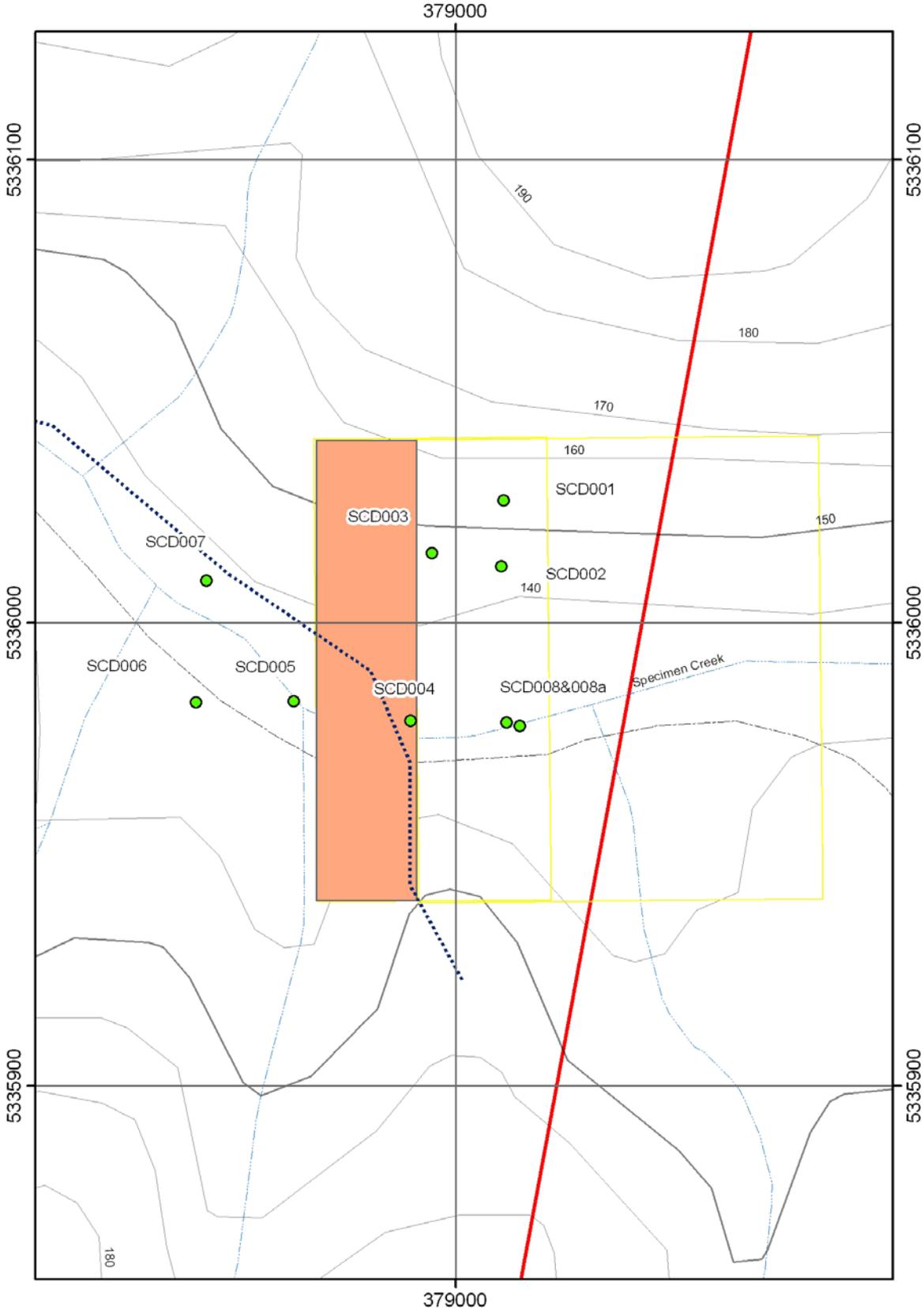
## 10.0 WORK COMPLETED IN THE CURRENT REPORTING PERIOD

Corona contracted Independent Geologist (IG) to drill 9 short BQ diamond holes in a fence pattern over the VTEM anomaly reported at Specimen creek. Access was prepared by Rogers Exploration Pty Ltd. Drilling utilised a very small “rucksack drillrig”, to drill vertical holes to capacity (~10m), in order to assess the geology which is obscured by valley cover in the vicinity of the VTEM anomaly. The core was logged and photographed by IG at site and carried out by hand and transported to Corona’s core yard in Queenstown. The core will be logged by Hylogger or ASD before it is cut and assayed as the cutting process will destroy most of the core. Modelling of the VTEM anomaly indicated a potentially outcropping massive sulphide source. No massive sulphides were intersected, and alteration intersected in drilling doesn’t appear to be proximal, although sericite alteration with pyrite stockworking (oxidised) was encountered.



**Plate 1: Photos from Drilling at Specimen Creek**

A: “diamond drilling rig” set up over hole SCD001, B: Collar at SCD004, C: photo of BQ core for SCD004, D: core on racks at Corona core yard, Queenstown.



**FIGURE 3: PLAN OF DIAMOND DRILLING SHOWING TOPOGRAPHY AND MODELLED VTEM CONDUCTOR PLATE**

### 11.0 DISCUSSION/CONCLUSION

This first phase testing of the VTEM anomaly at Specimen creek has failed to explain the VTEM anomaly which is supposed to be near surface. Drilling did intersect altered andesitic volcanoclastics with some weathered sulphide stockworks, but the strength and style of alteration is not really consistent with very proximal VHMS alteration. Some Spectral work will be completed on the core to see if there is any zonation in sericite wavelength before the core is cut and dispatched to a laboratory.

### 12.0 ENVIRONMENT

Nine drill holes were capped with PVC and covered. No other disturbances were made during the course of the program, other than the meter wide access tracks.

### 13.0 EXPENDITURE

*Table 2. Expenditure*

ITEM	COST
Access Preparation	\$2,040
Diamond drilling	\$11,101
Travel and accommodation	\$4,390
Wages & Oncosts	\$19,656
Consumables	\$224
Hire vehicles	\$773
Sub Total	\$38,184
Administration @ 10%	\$3,818
<b>TOTAL</b>	<b>\$42,002</b>

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