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## **EL28/2001 Annual Report**

### **'Tyndall Creek'**

### **EL28/2001**

### **Vol. 1 of 1**

<b>HELD BY:</b>	<b>UNITY MINING LTD.</b>
<b>MANAGER &amp; OPERATOR:</b>	<b>UNITY MINING LTD</b>
<b>AUTHOR:</b>	<b>M. Blake</b>
<b>DATE:</b>	<b>June 2018</b>
<b>MAP SHEETS:</b>	<b>1:25k Tyndall (3835) Oceana (3635) 1:100k Sophia</b>
<b>GEOGRAPHIC COORDS (GDA94):</b>	<b>Min East: 379,100mE Max East: 382,100mE Min North: 5,356,200mN Max North: 5,360,200mN</b>
<b>COMMODITY(s):</b>	<b>Au, Basemetals</b>

## **Summary**

EL28/2001 has been consolidated to create a tenement of 18km Sq. In the preceding 12 months diamond hole TC10 was drilled on the flank of the Tyndall Range, targeting the intersection of potential Lower Tyndall Group equivalents with the Henty Fault. Results indicate only minor alteration at the Great Lyell Fault position, with stratigraphic interpretation suggesting shallowly dipping strata adjacent to the fault position.

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## **1. Introduction**

This report details work completed by Unity Mining Limited (UML) on EL 28/2001 from 11<sup>th</sup> May 2017 until 10<sup>th</sup> May 2018.

The licence area consists of crown land and land vested in the HEC, both land uses coming under the Mines Act. The far western edge of the tenement is part of the Mt Dundas Regional Reserve (World Heritage Recommended Area for Protection). The far eastern extent, east of the HEC high-tension power lines is the Tyndall Regional Reserve. Any disturbances in these areas require notification and approval from the Mineral Exploration Working Group (MEWG). Further conditions of exploration are outlined in the Exploration Code of Practice (produced by Mineral Resources of Tasmania (MRT)).

The land vested in the HEC includes Lake Newton and associated pump station, the Henty canal, the high-tension power lines and service tracks.

### **1.1 Tenure**

EL28/2001 was acquired in 2002 by Placer Dome Asia Pacific (formerly AurionGold Exploration and previously Goldfields Exploration) after a successful tender for ETA 552.

Barrick (Henty) Limited acquired the EL in January 2006, following the global takeover of Placer Dome by Barrick Gold Ltd.

In July 2009 Bendigo Mining Limited (BML) purchased the Henty Gold Mine and EL 28/2001 from Barrick Australia. BML subsequently applied for, and were granted, a variation to the tenement, which enlarged the area to the south by 1.4 sq km (Figure 1). BML changed its name to Unity Mining Limited on the 6<sup>th</sup> December 2010.

On 1<sup>st</sup> June 2016, after a protracted series of offers and counter-offers, UML was taken over by Diversified Minerals Ltd. UML remains an entity but has been de-listed from the ASX.

On 17<sup>th</sup> April 2018, EL 28/2001 was consolidated with the unrelinquished area of EL13/2011, and newly acquired area from EL12/2016 to create a combined tenement area of 18 sq km.

At the time of writing tenure expires on 10/5/2019.

### **1.2 Location and Access**

Lake Newton (EL28/2001) occurs midway between Queenstown and Tullah on Tasmania's West Coast. The EL's northern boundary abuts the Henty Gold Mine lease 5M/2002 (Figure 1). Local access to the tenement is off the Howards and Anthony Roads.

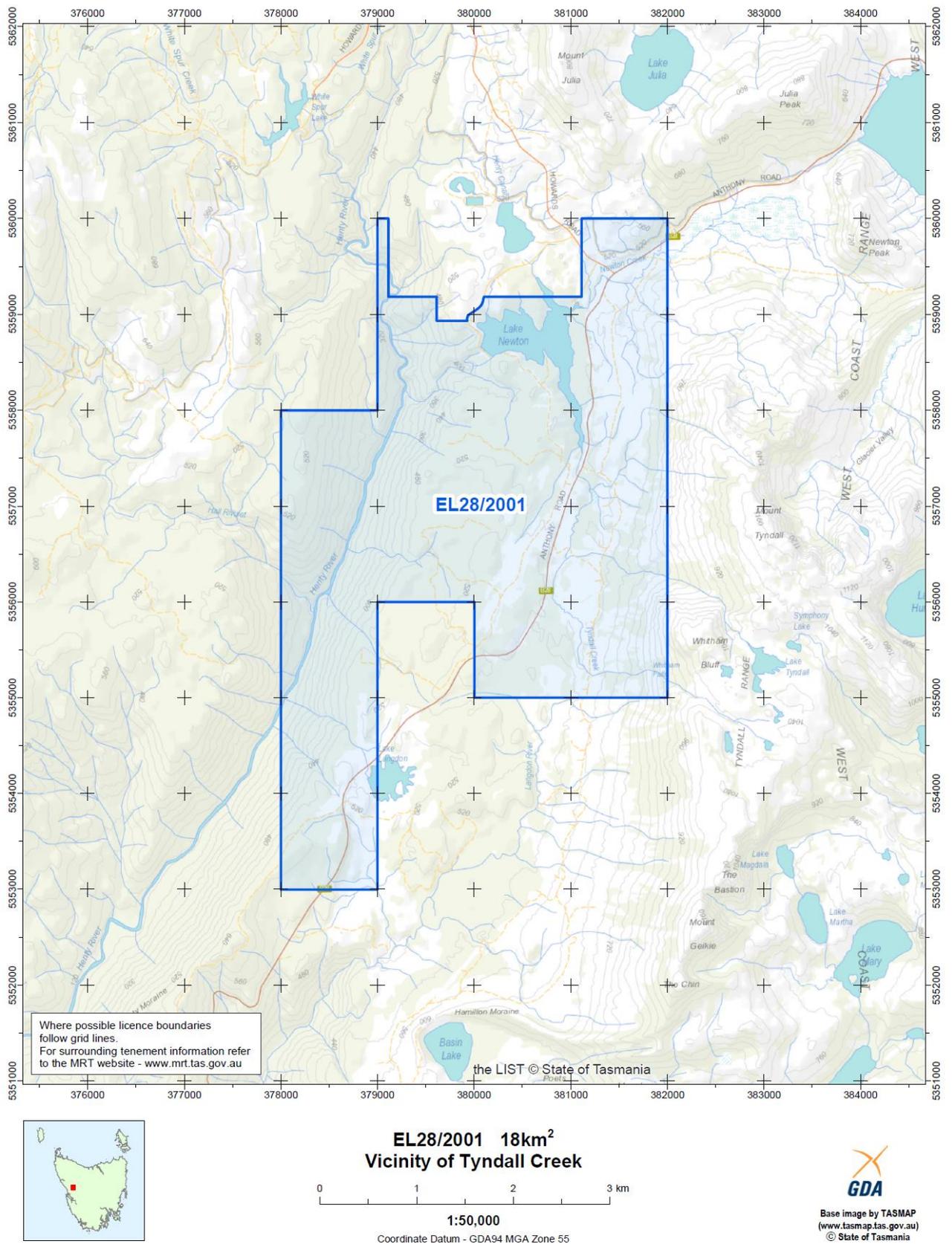


Figure 1: Location of EL28/2001 (map in GDA 94 projection).

### 1.3 Regional and Local Geology, Alteration and Mineralisation and Previous Exploration

Regional and Local Geology, Alteration and Mineralisation and Previous Exploration are detailed in the 2014 tenement report (Timms et al, 2014), and have been excluded from this report for succinctness.

## 2. Work Completed during the Reporting Period 2017 to 2018

### 2.1 Diamond drilling

One diamond drill hole, TC 10, was completed during the reporting period. The location and details of TC10 are shown in figures 2-3 and in Appendix 1.

The drilling program was undertaken by contractor Wholecore Drilling, using a track-mounted Cortech CSD 1800 diesel-hydraulic rig.

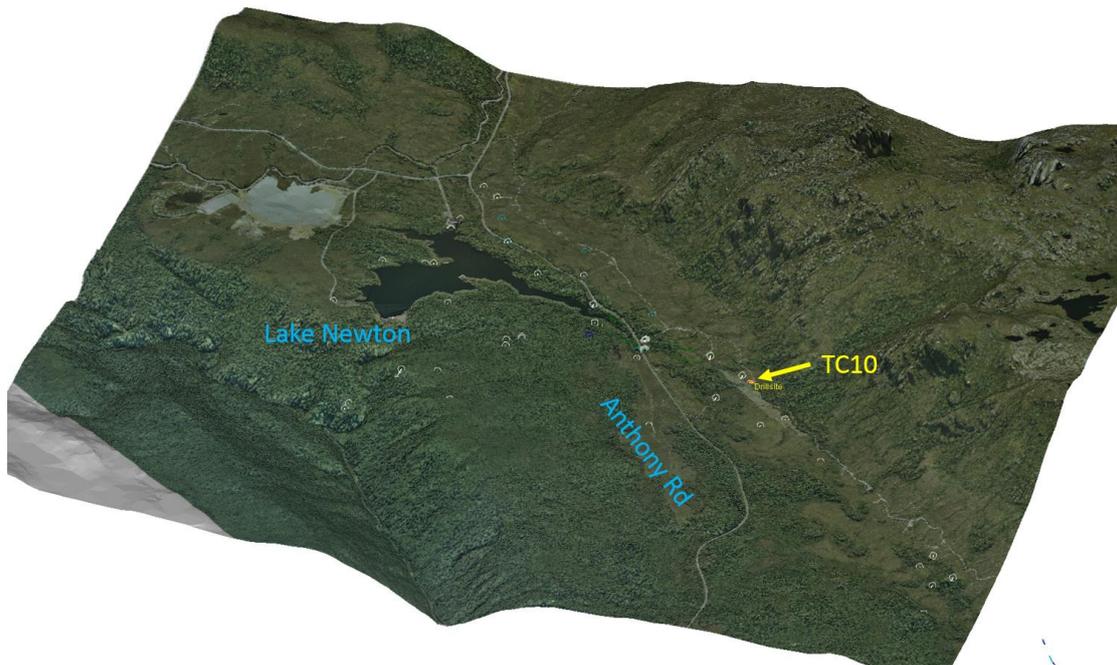


Figure 2: Topographic location of TC10

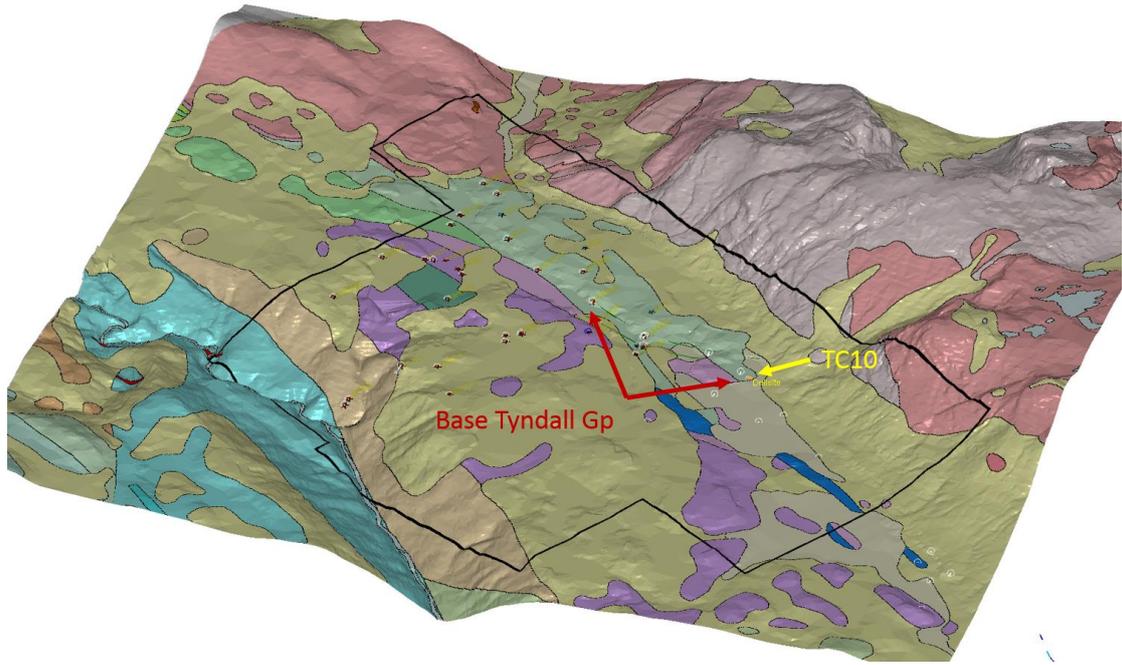


Figure 3: Geology Drape EL 28/2001

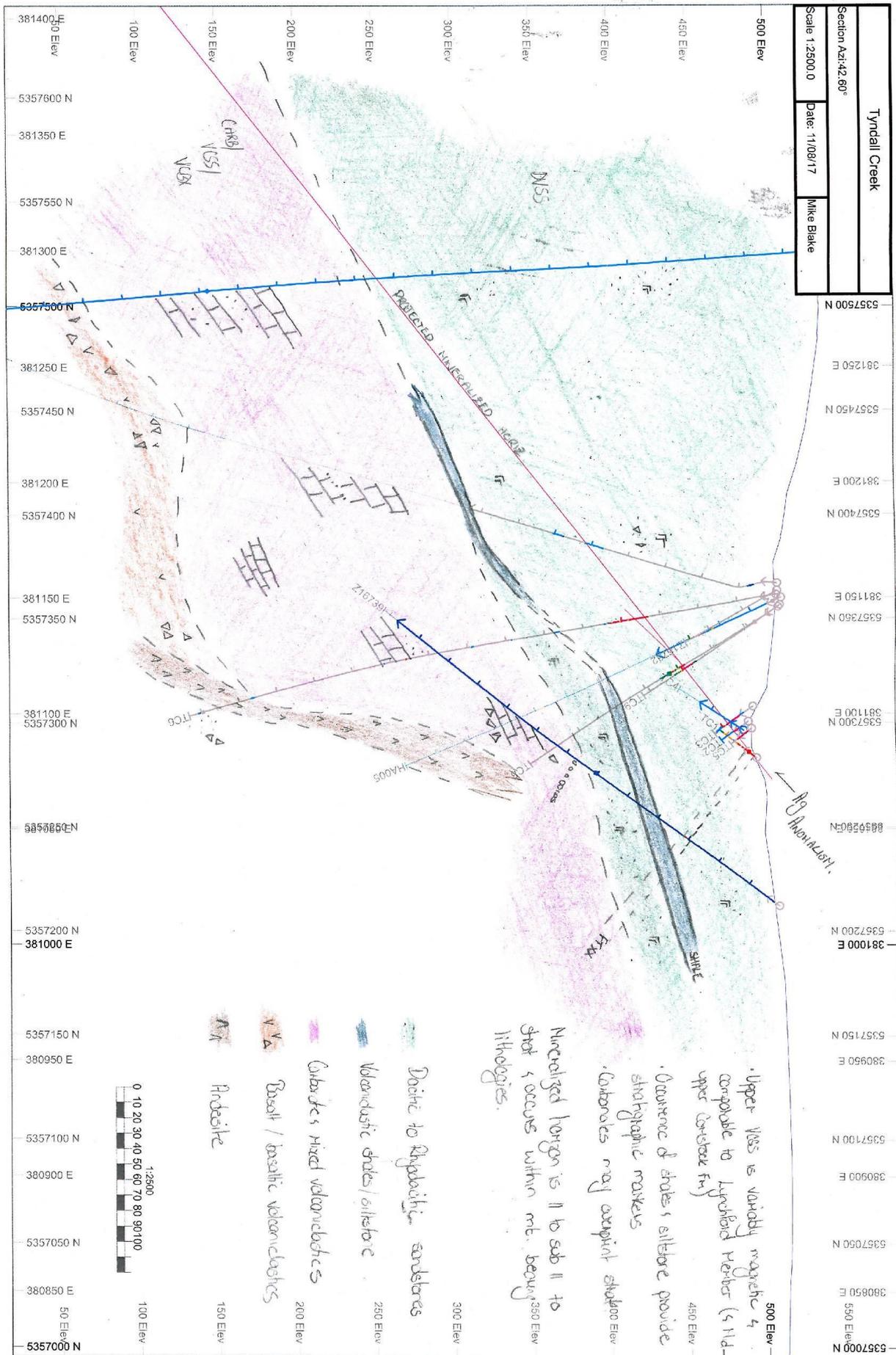


Figure 4: Interpreted section, Tyndall Creek. MGA94

## 2.2 Results

TC10 was drilled through a sequence of feldspathic crystal sandstone, carbonate and marls, andesite/basalt and associated breccias, intersecting the great Lyell Fault and the Newton Creek Formation conglomerates to the north. Within the carbonate sequence, a 12.4 meter cavity was encountered.

Mineralization consisted of minor chalcopyrite observed in carbonate veining and chalcopyrite dominant veins. Only low level gold was found, associated with chalcopyrite mineralization at the Great Lyell Fault position, shown in figure 5. below. The best result was 0.15ppm Au recorded within the Great Lyell Fault cataclasite. A graphic log of the drill hole is provided in Appendix 1.



Figure 5: Drill Core from DDH TC10 showing Great Lyell Fault intercept.

## 2.3 Interpretation

Holes previously drilled at Tyndall Creek were interpreted on section, suggesting that stratigraphy is more shallowly dipping than previously thought, and that mineralization is contained within magnetite bearing lithologies analogous to the Lynchford Member of the Comstock formation. Production of the lithological interpretation builds on observations by Lorrigan, 1997 of shallow dipping mineralization and possible controls.

The interpreted section is shown in figure 4.

Drilling at TC10, south east of Tyndall Creek was targeted at the intersection of lithologies of the basal Tyndall Group with the Great Lyell Fault. Rationale was exploration for structurally remobilized gold mineralization.

Section interpretation suggests a shallowly dipping stratigraphy, as was interpreted at Tyndall Creek, rather than around 70 degrees as was expected regionally. This means that the intercept between basal Tyndall Group and the Great Lyell Fault may be further updip on the Great Lyell Fault plane than was expected.

The nature of the Great Lyell Fault in the TC10 intersection shows significantly less alteration, shearing and cataclasite development than commonly seen on the Henty Fault, with an intercept thickness of less than half a metre. It may be that movement on the Great Lyell Fault at this location was not sufficient to generate significant dilation and remobilization of target minerals.

### **3. Environment**

A recent inspection of the drill site for TC8-9 shows the holes are soundly capped and labelled and there is no leakage from them. The site has not been rehabilitated in case it is required for future drilling but water run-off is minor and is controlled via a system of riffles and settling ponds.

Diamond Hole TC10 was sealed above and below the cavity encountered at 137.8m with Van Ruth plugs placed at 163.7m and 118.5m. 36 meters of grout was placed above 118.5m. The collar for TC10 was secured by cementing of a capped steel collar. DDH TC10 made no water during or after drilling operations.

The site of DDH TC10 has subsequently been fully re-habilitated, with an offer for creation of a car parking area for the Tyndall Range walking track declined by Parks and Wildlife.

### **4. Conclusion**

The completed drilling has clarified the controls on gold mineralisation and also enabled future prospective areas to be identified.

### **5. Planned Work - 2017/2018**

The following work is planned:

- Continue 3D interpretation of data and follow up of structural/stratigraphic intersections
- Drill-test identified target zones.

## 6. Expenditure 2017/18 Reporting Period

Total Expenditure for the 2015/16 Reporting Period was:

<b>Expenditure May 2017-April 2018</b>	<b>\$</b>
Geology	15,100
Geochem	1055
Drilling (incl. mob.)	84,376
Rehab	2800
Tenement Other	5312
Admin	5432
<b>TOTAL</b>	<b>114,075</b>

Table 1: E28/2001 Tyndall Creek Exploration Expenditure 2016/17.

## 7. Forecast Expenditure 2017/18 and 2018/19

Forecast expenditure for the following year is as follows:

### Planned Exp. 2018

Geology	30,000
Geochemistry	10,000
Drilling	120,000
Admin (10%)	16,000

Table 2: E28/2001 'Tyndall Creek' Exploration Budget Forecast 2018/19

## References

- Timms, C. et al 2014. EL 28/2001 Annual Report 'Tyndall Creek' May 2014. Unity Mining Ltd, Australia (Unpublished).
- Lorrigan, A. 2017. EL 28/2001 Annual Report 'Tyndall Creek' June 2017. Unity Mining Ltd, Australia (Unpublished).