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Unity Mining Limited
Henty Gold Mine
EL 8/2009 Red Hills
Annual Report for Period
16 November 2014 to 15 November 2015
Vol. 1 of 1
November 2015

Held by:	Unity Mining Limited
Manager & Operator	Unity Mining Limited
Author:	A.N. Lorrigan
Date:	November 2015
Map Sheets:	Tasmania 1:25,000 Series Selina (3836) Tasmania 1:100,000 Series Sophia (8014)
Geographic Co-ordinates (GDA94):	Min East: 381,000m Max East: 384,000m Min North: 5,363,000m Max North: 5,368,000m
Commodity(s):	Base metals, gold, silver

1.0 ABSTRACT

Unity Mining Ltd received an exemption from expenditure for 12 months on this tenement. There has been minimal work done on the tenement in the current year.

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2.0 INTRODUCTION

This report details exploration completed by Unity Mining Limited (UML) on EL 8/2009 Red Hills over the past year.

UML intends to continue exploration on the EL in the next 12 months, principally with diamond drilling to test at depth the 'Northern Adits' Cu-Au mineralisation.

2.1 Location & Access

EL 8/2009 Red Hills is centred approximately 25 km north of Queenstown in western Tasmania. The western boundary of the EL abuts UML's Henty Gold Mine Lease 7M-1991 (Figure 1).

Access to the EL 8/2009 area from the south is via the Anthony Road (B28), the unsealed Howards Road to the Henty mine site, then by mine service road and formed 4WD tracks. The main 4WD track from the Henty mine crosses from the west over Moxon Saddle into the central section of the EL. Alternative access to the eastern section of the EL is possible on foot from a departure point along the Anthony Road (B28) north of Lake Plimsoll.

2.2 Tenure

EL 8/2009 Red Hills, covering 11.0 sq km, was granted to Bendigo Mining Ltd (BML) on the 16th November 2009 for a period of five years. The company submitted a successful bid to explore the tenement in accordance with Mineral Resources Tasmania's Exploration Release Areas process. Application for the EL was lodged shortly after BML's acquisition of the Henty gold mine in July 2009. BML announced a change of company name to Unity Mining Ltd (UML) effective from 6 December 2010. An application to extend the tenure until November 2016 is currently with MRT.

Recent amendment of the Land Tenure classification has resulted in the entire EL area being located within the Mount Murchison and Lukes Knob Regional Reserves. All exploration activity proposed on the tenement requires assessment by and approval from the Mineral Exploration Working Group (MWE) prior to commencement. Approval of exploration programs is conditional upon UML meeting the requirements of the Mineral Exploration Code of Practice and all site specific conditions.

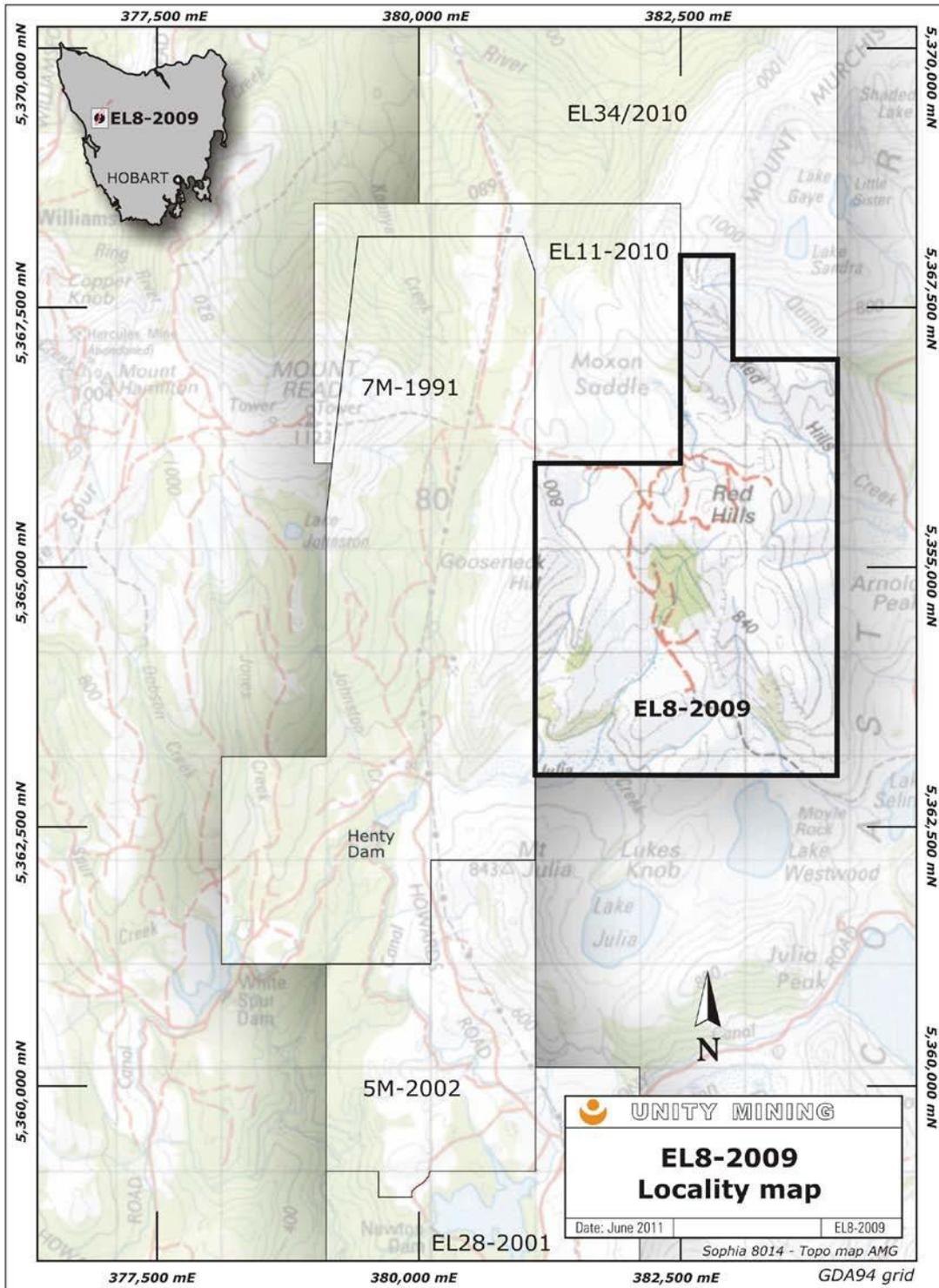


Figure 1: EL8/2009 Red Hills location map. Other UML tenements in the Henty mine area and adjacent to EL 8/2009 are also shown. Projection is UTM Zone 55 MGA94 co-ordinate system.

2.3 Topography Climate and Vegetation

The EL 8/2009 Red Hills area is located at the northern end of the West Coast Range. Elevations range from 607 m AHD at Lake Westwood, immediately to the south of the EL, up to 1275 m AHD at Mount Murchison, north of the tenement area. The distinctive Red Hills in the central section of the EL are up to 850 m AHD in elevation. Snowfall is frequent during winter months and the area receives very high rainfall. Average rainfall calculated from

observations at nearby Mount Read weather station, over the period from 1996 – 2009, is 3086 mm per year.

Low-growing montane vegetation is dominant throughout the EL area. Buttongrass moorland, typical of blanket bog terrain in western Tasmania, is extensively developed on the poorly drained soils of the area. Some scattered stands of low scrub, mainly banksia, teatree, bauera and eucalypt occur in relatively sheltered and fire resistant areas. Rainforest vegetation, including Myrtle Beech (*Nothofagus cunninghamii*), Deciduous Beech (*Nothofagus gunnii*) and King Billy Pine (*Athrotaxis selaginoides*), is preserved in sheltered gullies in the headwaters of Julia Creek.

3.0 GEOLOGY

3.1 Regional Geology

A major portion of the EL 8/2009 Red Hills area is underlain by the Cambrian Mount Read Volcanics (MRV), apart from the eastern section of the tenement which covers a thin strip of Late Cambrian - Ordovician Owen Group.

The MRV comprise a package of massive, feldspar-phyric lavas and volcanoclastics, which passes upwards into a mixed sequence of basaltic to rhyolitic lavas, intrusives and volcanoclastics, with intercalated shale and siltstone. In general, there is a transition from feldspar-phyric to strongly quartz-phyric lithologies from the bottom to the top of the sequence. On a regional scale the MRV is divided by the north-northeast – trending Henty Fault. Red Hills EL 8/2009 is located to the east of this major structural feature (Ref. Figure 2).

The Owen Conglomerate consists of siliciclastic sediments, including large volumes of very coarse siliciclastic conglomerate, which unconformably overlie the MRV. Clasts within the conglomerate are dominantly metaquartzite, derived from the Proterozoic Tyennan basement further to the east, with little or no material from the MRV.

Rocks in the region have been subjected to at least two major polyphase deformations, one in the Cambrian and the other in the Devonian (the latter probably equivalent to the Tabberabberan Orogeny). Evidence of the Devonian deformation is apparent in a regional NNE - striking cleavage and development of west-over-east thrusting on pre-existing, NNE structures and synchronous NW striking structures.

3.2 Local Geology

The oldest rocks in the EL 8/2009 Red Hills area are rhyodacitic lavas of the MRV, with intercalated black siltstone and shale (correlated with the Central Volcanic Sequence). These volcanic and volcanoclastic sequences are exposed on the eastern limb of an interpreted south - plunging syncline. Massive, quartz-phyric lavas (Mt Julia Rhyolite) and quartz-phyric volcanoclastic sediments, correlated with the Tyndall Group, occur stratigraphically above the CVC rocks in the keel of the interpreted synclinal structure. These younger rocks are also exposed along the overturned western limb of the syncline, truncated by the Henty Fault in proximity to the Henty mine.

3.2.1 Alteration and Mineralisation

Two principal styles of mineralisation have been identified in the Red Hills area:

- Stratabound base metal sulphides+gold+silver VMS mineralisation hosted by CVC mass flow units (Lower Mineralised Horizon). Modern exploration has mainly focused on testing for this style of mineralisation following the discovery intersection in hole RH5. Based on isotopic data, metal ratios and analysis of the alteration assemblages this

mineralisation has strong similarities to the Rosebery VHMS system (Purvis, 2010).

- Vein and disseminated copper+gold+magnetite mineralisation associated with chlorite+feldspar alteration of the Red Hills lava. Earliest prospecting and small scale mining activity was concentrated on this type of mineralisation, as at the Northern Adits area.

Thin zones of base metal sulphides+gold mineralisation hosted within black shale and siltstone units in the CVC comprise the Upper Mineralised Horizon (UMH). Recent drilling has also intersected gold mineralisation associated with pyrite veining in CVC dacitic volcanics, located between the LMH and UMH.

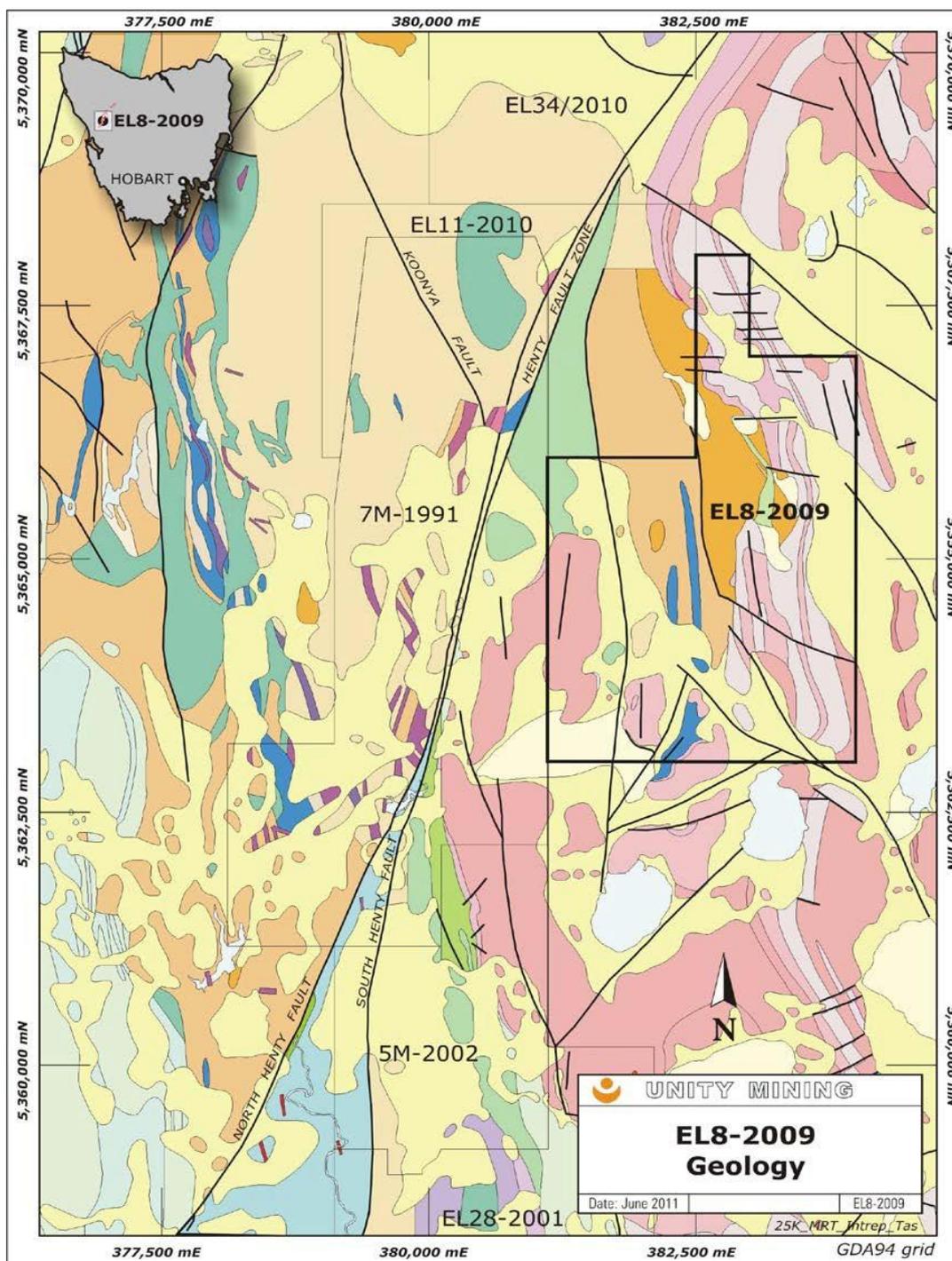


Figure 2: EL 8/2009 Red Hills interpreted geology map (from 1:25000 MRT). Projection is UTM Zone 55 MGA94 co-ordinate system.

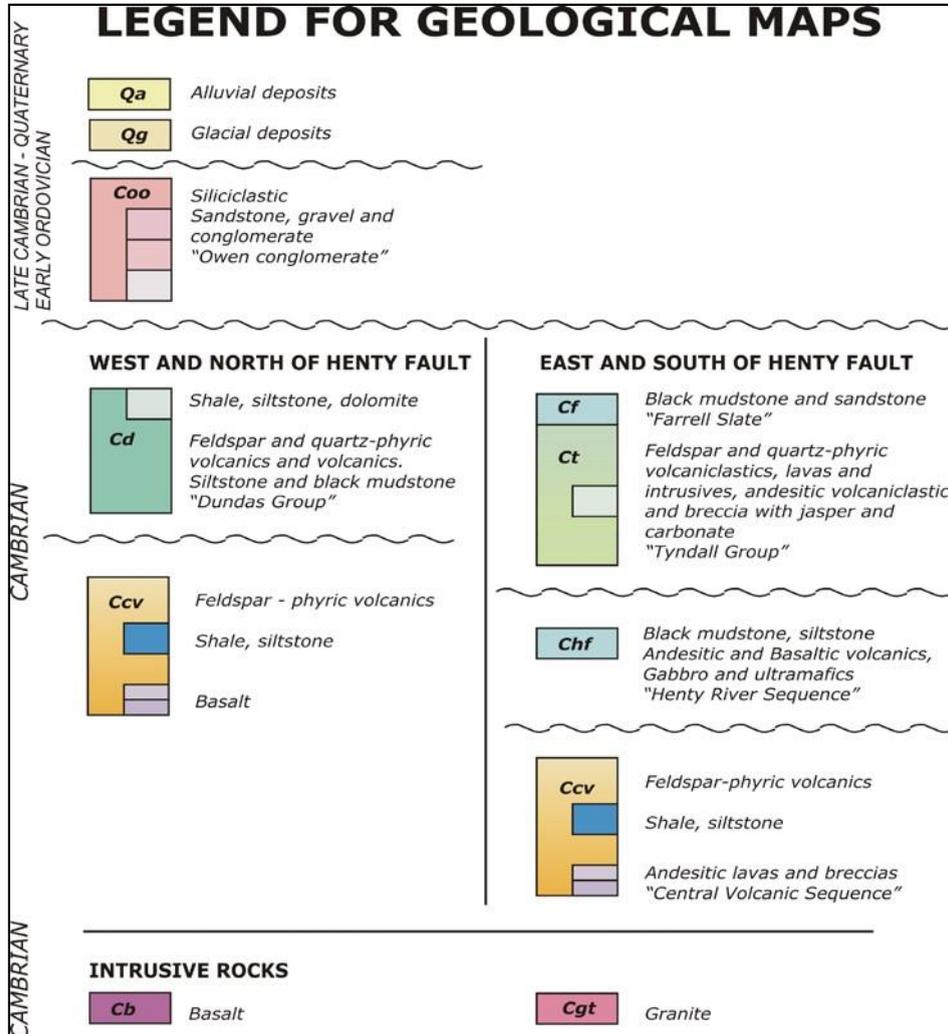


Figure 3: Legend for geological map.

Henty Mine Area Stratigraphy				
	Group	Formation	Unit	Lithologies
Late Cambrian-Ordovician	Owen Group		Owen Conglomerate (OC)	Siliciclastic conglomerate and sandstone
			Newton Creek Sandstone (NCF)	Turbiditic micaceous siltstone, quartzwacke and conglomerate
Cambrian	Tyndall Group (Suite 1)	Zig Zag Hill Formation (ZZH)		Rhyolitic volcanoclastic sediments
				Bedded sandstone-siltstone units
		Comstock Formation		Syn-eruptive quartz-feldspar crystal rich sandstone. Massive quartz-phyric rhyolitic lavas, breccias and intrusions (Mt Julia Rhyolite)
			Mt Julia Member (MJM)	Quartz + feldspar-phyric lava and intrusives
			Upper Howards Basalt Breccia (UHBB)	Fine grained basaltic andesite dykes, lavas and lithic breccias (Howards Basalt). Commonly haematitic and carbonate alteration
			Lynchford Member (LYM)	Syn-eruptive feldspar crystal rich volcanoclastic sandstone.
	Massive carbonate and marly sediments			
	Central Volcanic Complex (Suite II)	Anthony Road Volcanics	Suite II Porphyry	Quartz-feldspar-hornblende porphyry. Intrusive sill. Peperitic top and bottom contacts
			Anthony Road Andesite (CVC)	Feldspar-hornblende phyric andesite and breccia, extrusive and intrusive
			Lower Howards Basalt Breccia (LHBB)	
	Central Volcanic Complex (Suite I)	Newton Creek Dacite		Dacitic volcanoclastic pumice breccias
				Dacitic, feldspar-phyric to aphyric lavas, breccias and intrusions. Peperitic contacts
				Dacitic to andesitic volcanoclastic sediments\vitric tuff, minor shale, sandstone
			Spillway Breccia	Coarse polymict and dacitic massflows with some sulphide clasts
			Spillway Basalt Breccia	Massive to stratified clast-supported monomictic basalt breccia 'fire fountain'
Yolande River Sequence		Footwall Pumice Breccia	Rhyolitic-dacitic massflows, commonly graded	
			Bedded vitric siltstone and sandstone	

Figure 4: Henty area stratigraphy.

4.0 PREVIOUS EXPLORATION

Prospecting activity in the Red Hills area commenced in the late 19th Century. Several adits and shallow shafts were mined to work near surface copper mineralisation. Mount Lyell Mining and Railway Company acquired all mineral rights over the area in 1905, however this early phase of prospecting and mining activity ceased shortly afterwards.

Modern exploration techniques were first applied in the Red Hills area in the late 1950s. Work by Rio Tinto and Electrolytic Zinc Company, in joint venture, included various geophysical surveys followed up by drilling of four diamond drillholes.

Exploration was undertaken semi-continuously from 1969 – 1985 when the area was included within EL 9/66 held by Mount Lyell Mining and Railway Company. Work was carried out in joint venture with Getty Oil Development Company from 1977. Numerous geophysical surveys were completed in this extended phase of exploration and drilling comprised 26 open hole percussion and 17 diamond drillholes. Massive base metals sulphides were intersected in drillhole RH5 completed by Mt Lyell in early 1977. A mineral resource of 1 Mt at 2 g/t gold, 37 g/t silver, 4.6% zinc and 1.3% lead was estimated based on intersections in this discovery hole and four step-out diamond drillholes. The mineralisation was considered to be open both above and below the intersection in drillhole RH5.

Geochemical sampling and additional geophysical surveys, including downhole EM surveying of RH5, were undertaken in 1985 – 1993 by CRA Exploration in joint venture with Aberfoyle. Limited diamond drilling follow up was completed. Four additional diamond drillholes were completed in the Red Hills area by Plutonic/Homestake, in joint venture with Goldfields Exploration (later AurionGold, then Placer Dome Asia Pacific).

Newcrest Mining acquired EL 9/2005 over Red Hills in mid 2005. Prior to relinquishing the EL area in 2008 Newcrest completed four deep diamond drillholes (NCT006, NCT007, NCT009 and NCT010). Maximum depth drilled was 792.1m in drillhole NCT 006. Three of these holes were designed to test at depth in areas of prospective stratigraphy for continuation of the stratabound gold-rich base metal sulphides discovered in drillhole RH5. One drillhole (NCT009) was aimed at testing a conceptual gold+copper rich footwall stringer zone within the Red Hills lava of the Central Volcanic Complex.

During the 2010-2011 reporting period, an appraisal of the Red Hills prospect was commissioned by BML and completed by J.G. Purvis, consulting geologist. Recommendations from this review formed the basis of an eventual six-hole diamond drilling program undertaken in the period. The holes were designed to test at 50 m spacing around the RH5 discovery intersection. Alternative drillhole collar locations were also proposed in the review to ensure that environmental impact of site preparation earthworks would be minimised. This program confirmed that the VHMS mineralisation in historical drillhole RH5 represents a small, irregularly shaped lens with limited potential as an economic mineral resource. Holes aimed at testing up dip from the RH5 intersection failed to intersect the target LMH host, due to faulting or localised changes in morphology of the adjacent CVC sequences. Drilling intersected several thin zones of gold mineralisation hosted in silica altered dacitic lavas located in the stratigraphic hanging wall of the LMH.

During the 2011-2012 reporting period, Outer-Rim Exploration was commissioned for downhole electromagnetic logging of drillholes RHD24-25 AND RHD27-29 (RHD26 was permanently sealed after drilling due to making water). RHD28 collar was not located and so logging of holes RHD24, RHD25, RHD27 and RHD29 was carried out using a Crone Pulse EM. Measurements were taken by time-domain EM or Transient EM. Results failed to identify any significant conductor.

During the 2012-2013 reporting period, 34 rock chip samples were collected and analysed from the Northern Adits prospect of the tenement, and diamond drillhole RHD30 was drilled to test for an offset of the LMH to the east above the previously defined mineralised zone. RHD30 intersected the broken and faulted LMH at the up-dip projection calculated from previous

drilling. This confirmed the faulted and broken nature of the LMH up-dip from RH5, but discounted an offset of the horizon to the east of the projected position.

On 17th October 2013, Mineral Resources Tasmania approved the drilling of a drillhole of approximately 300m to test at depth the mineralisation in the Northern Adits area of Red Hills (WPA13/43). Due to company restructuring and financial pressures at Henty Mine, at the time of writing this drillhole was yet to be drilled.

In the work reported by UML last year, the Northern Adits area was identified as a relatively untested area of merit (Stonestreet, 2014).

5.0 WORK COMPLETED (2014 TO 2015)

The only exploration work completed was a single field trip to determine access for drilling and to visit outcrops previously sampled.

8.0 EXPENDITURE FOR 2013/14

Expenditure by UML on EL 8/2009 for the year ended 15 November 2014 was \$9268.

Expenditure Item	\$
Personnel	500
Rock chip assays	
Total	500

9.0 PLANNED WORK AND EXPENDITURE FOR 2014/15

Historically only two drillholes have tested the “Northern Adits” area of EL8/2009, both to the south into the shear zone which hosts the dispersed pyrite-chalcopyrite- magnetite ± gold mineralisation. Unity intends to follow up the rock chip and grab sampling results from last year and drill two holes (300m). These will test the intersection of the Red Hills Lower Mineralised Horizon with an ENE-WSW-oriented structure, in the Northern Adits area, discovered as a result of work reported last year.

Estimated expenditure on EL 8/2009 Red Hills in the 12 month report period, ending 15 November 2015, is \$150,000.

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