



# OONAH MINE PROJECT

**Final Drilling Project  
Report for EDGI 2021  
Round 5**

**(Revised 20 May 2022)**



**Oonah Mine Project**  
**EL 13/2018**  
**Final Drilling Project Report for**  
**Exploration Drilling Grant Initiative**  
**Round 5, 2021**

**Zeehan**  
**Tasmania**

For  
Mineral Resources Tasmania

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April 2022

(Revised 20 May 2022)

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**Tenement number – Exploration Licence 13/2018**

**Original grant date – 26<sup>th</sup> November 2018**

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**Reporting period – 29th April 2022**

**Project name – Oonah Mine Project**

**Project operator – Stellar Resources Ltd**

**Tenement Holder – Columbus Metals Ltd (a wholly owned subsidiary of Stellar Resources Ltd)**

**Date of the report – 14<sup>th</sup> of April 2022**

**Author – Mark Dugmore**

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## EXECUTIVE SUMMARY

Stellar Resources Ltd (“Stellar”) was awarded four Exploration Drilling Co-Funding grants totalling \$185,000 under the Tasmanian Government’s Exploration Drilling Grant Initiative (EDGI Round 5) in June 2021. The grants awarded to Stellar were for the drill testing of four exploration prospects: Montana No. 1 (2 holes) and Queen No. 4 (1 hole) in ML2023P/M plus Zeehan Western (2 holes) and Oonah (2 holes) in EL13/2018.

This report details the results of two diamond drill holes, ZO142 and ZO144, drilled between August and November 2021 under the Oonah Mine. Two holes, spaced approximately 100m apart, were designed to test for down dip transitional cassiterite mineralisation below the base metal and stannite veins.

Metal zonation within granite related tin mineralising systems is well documented with proven examples within the Zeehan Mineral field. The Oonah mine is located on the NW trending Oonah Fault Zone and consists of sub parallel Ag-Pb-Zn fissure lodes and the Sn-Cu sulphide Stannite lode.

Holes ZO142 and ZO144 were drilled to a total depth of 494m and 401m respectively. The mineralised zones are typically structurally controlled fissure veins and brecciated faults that contain brecciated pyrite and stannite +/- cassiterite, chalcopyrite, galena, sphalerite, siderite and quartz.

The results from both holes are comparable and intersected lower grade tin mineralisation below the silver-lead-zinc fissure lodes mined in the historically significant Oonah mine and the Oonah Inferred Resource.

Tin mineralisation intersected suggests the transition down-dip from stannite to cassiterite mineralisation occurs within both holes but grade may not warrant further drilling. Further desk top studies will be undertaken aimed at understanding the structural relationship of the Oonah deposit with Queen Hill and Severn Deposit and an update the stratigraphic models for the Oonah Mine.

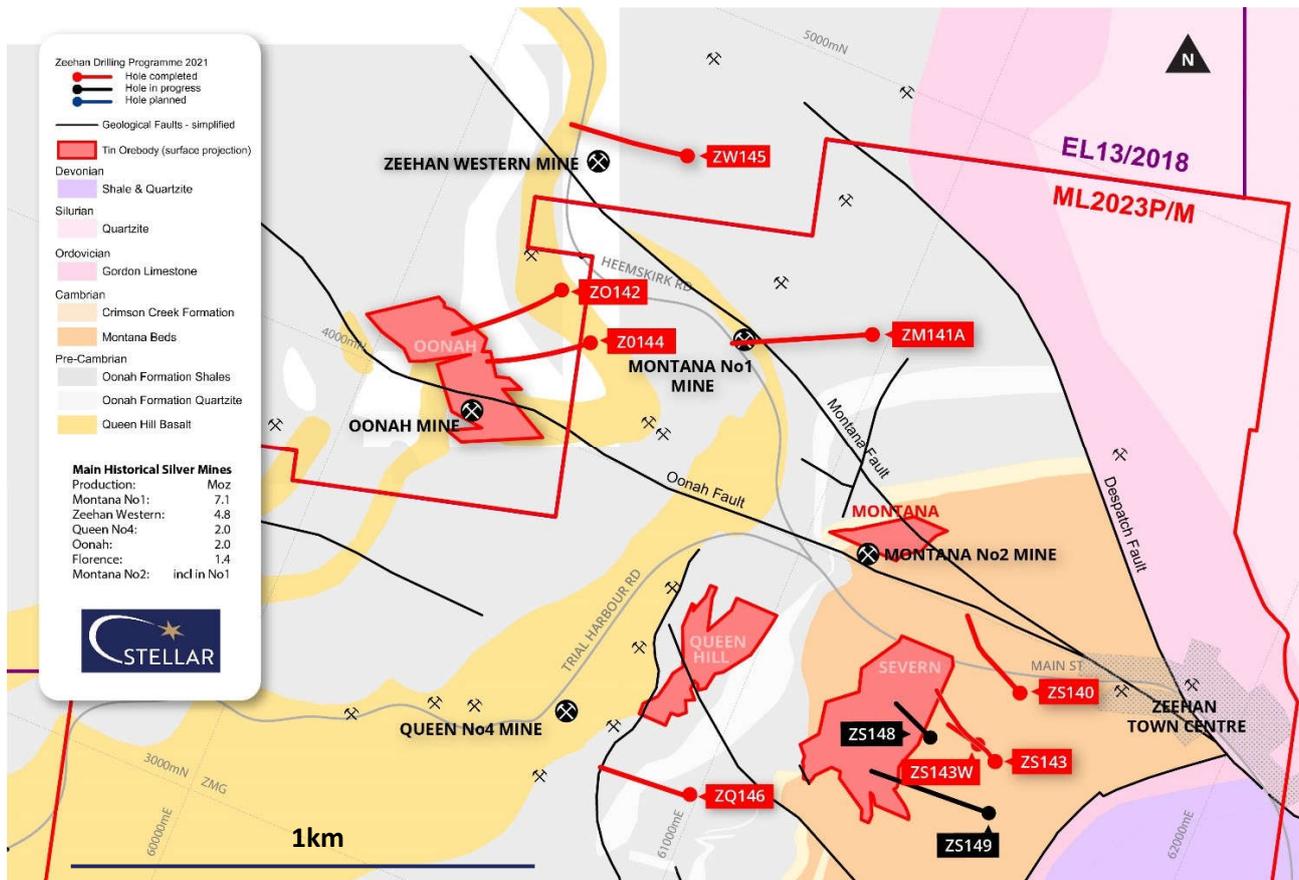


Figure 1. Exploration Index Map

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- Appendix 3. Core Tray Photos

# 1. INTRODUCTION

## 1.1 Introduction

Stellar Resources Ltd (“Stellar”) was awarded four Exploration Drilling Co-Funding grants totalling \$185,000 under the Tasmanian Government’s Exploration Drilling Grant Initiative (EDGI Round 5) in June 2021. The grants awarded to Stellar were for the drill testing of four exploration prospects: Montana No. 1 (2 holes) and Queen No. 4 (1 hole) in ML2023P/M plus Zeehan Western (2 holes) and Oonah (2 holes) in EL13/2018. Funding awarded to each of the project areas comprised \$50,000 (Montana No 1), \$35,000 (Queen), \$50,000 (Zeehan) and \$50,000 (Oonah).

Stellar’s Heemskirk Tin Project is located 18km to the southwest of the Renison tin mine and access to the port of Burnie 150km to the north via sealed highway (Figure 2). The Heemskirk Tin Project includes 4 nearby tin deposits: Severn, Queen Hill, Montana and Oonah. Stellar holds secure Mining Leases over the Heemskirk Tin Project including the tailings pipeline route and tailings storage site and also over the St Dizier satellite tin deposit.

In addition to the Heemskirk Tin Project, Stellar owns a portfolio of nearby Exploration Licences including the Montana Flats and Mount Razorback EL’s which contain several historic silver-lead-zinc mines with associated tin mineralization, and the St Dizier and Mount Razorback satellite tin deposits.

This report details the work completed under the EDGI Round 5 2021 grant for the Oonah Mine Project including drill testing of the Oonah Mine target between August and November 2021.

## 1.2 Location and Access

EL13/2018 is located near Zeehan on the Queenstown (SK5505) 1:250,000 map sheet and Pieman (7914) 1:100,000 map sheet Figure 2. The southeast boundary is 1.75 kilometres from the Zeehan PO. EL13/2018 adjoins the north and northwest boundary of Stellar Resources Mining Lease 2023P/M at Zeehan and extends north for seven kilometres. Main road access is from the Heemskirk Road which passes through the centre of EL13/2018 (Figure 3). Numerous unsealed tracks traverse the area.

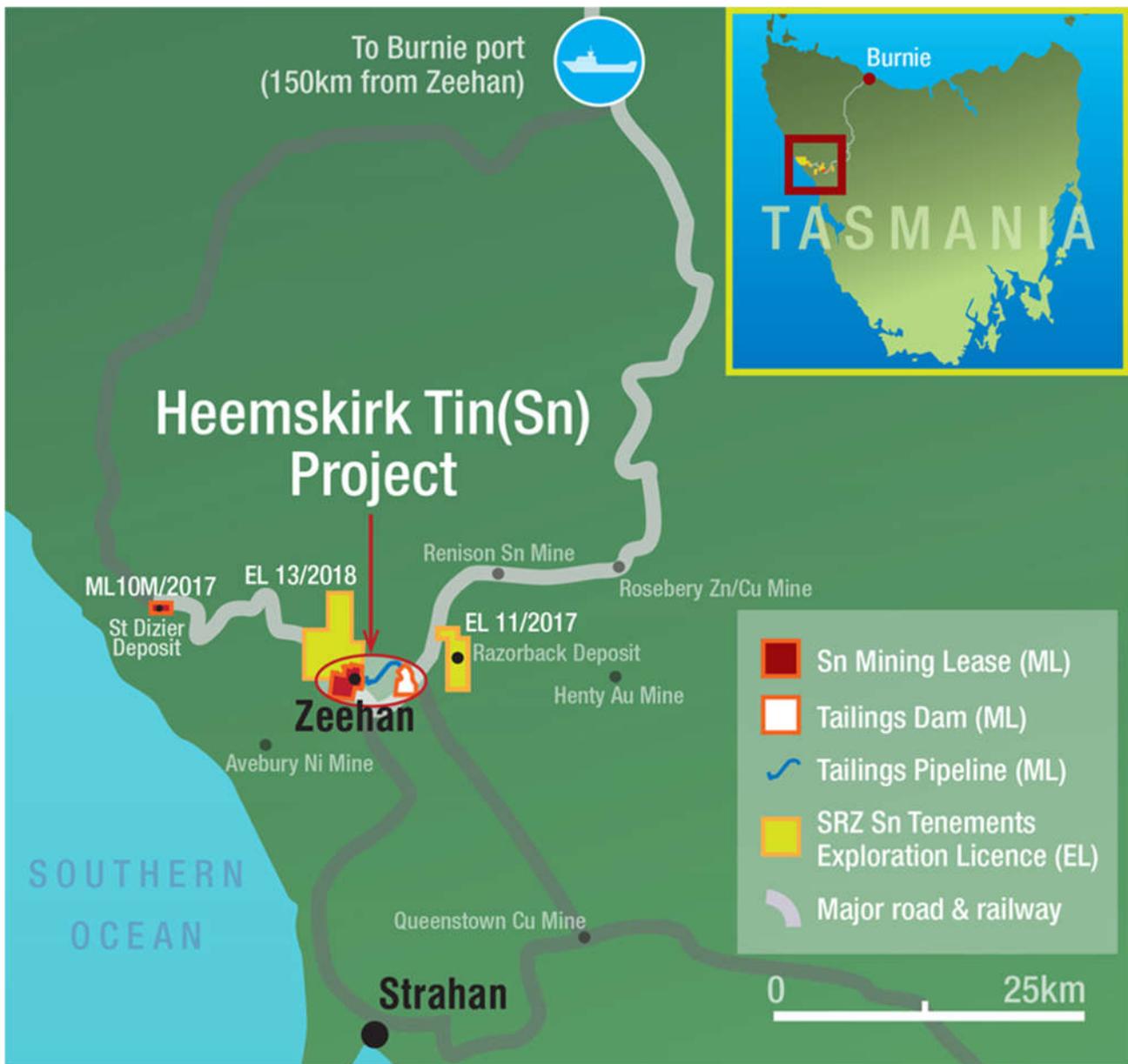


Figure 2. Location of Stellar Resources Projects, West Coast Tasmania

### 1.3 Tenement Details

ML2023P/M and EL13/2018 are 100% held by Columbus Metals Ltd, a wholly owned subsidiary of Stellar Resources Ltd. The mining lease was granted on 13 February 2017 for twelve years while the exploration licence was granted for five years on 26 November 2018 (see Table 1). The EL area is comprised entirely of crown land, with some coverage of the Mt Heemskirk Regional Reserve in the southwest, and the Parting Creek Regional Reserve in the northeast (Figure 3). The ML area comprises both cleared urban or farmland and regrowth forest after logging or burning (Figure 4). The operator of the tenements is Stellar Resources Ltd.

Table 1. Tenure details.

Title	Name	Area (km <sup>2</sup> )	Expiry Date
ML2023P/M	Zeehan	6	1/2/2029
EL13/2018	Montana Flats	24	25/11/2023

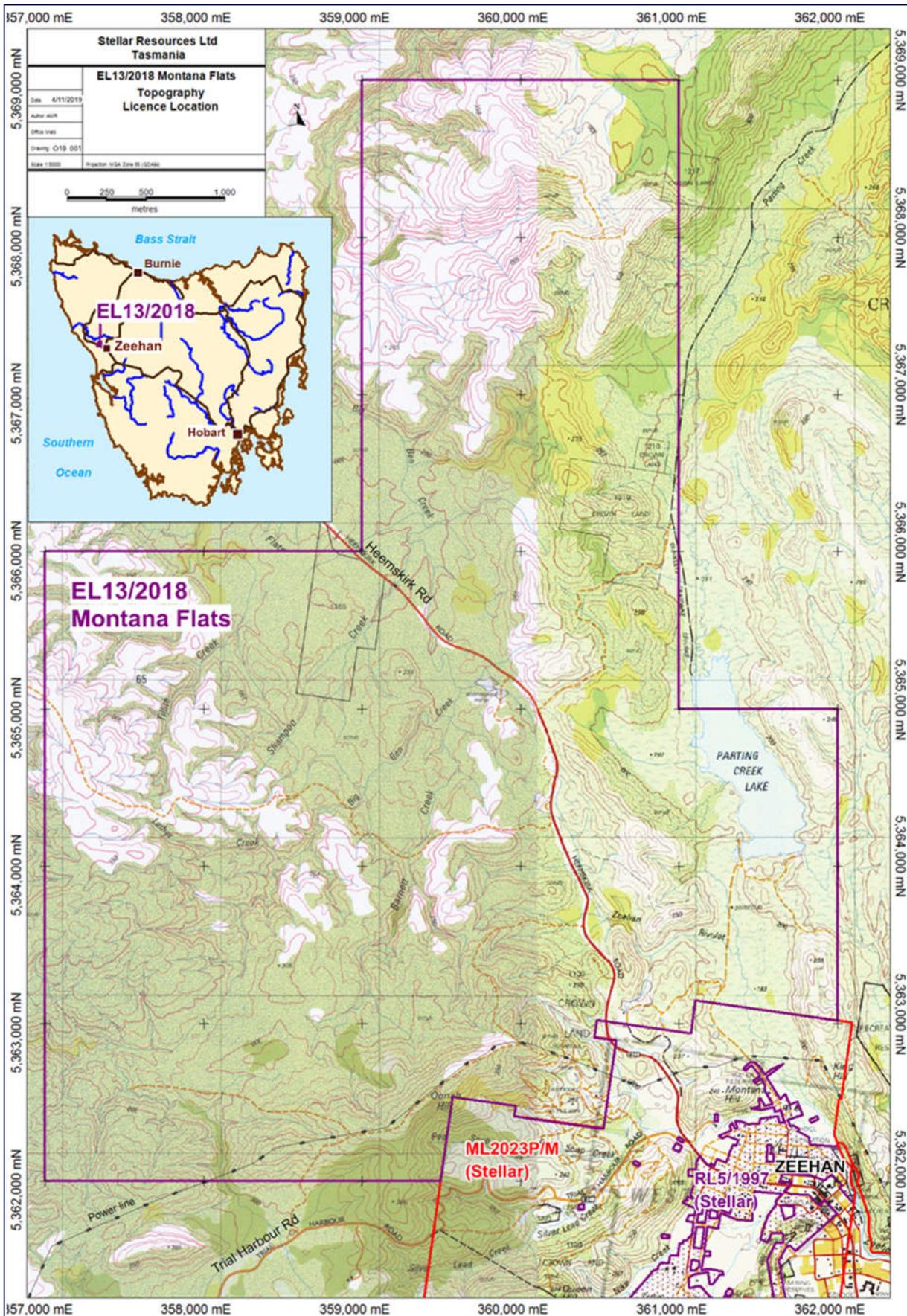


Figure 3. EL13/2018 Location Plan

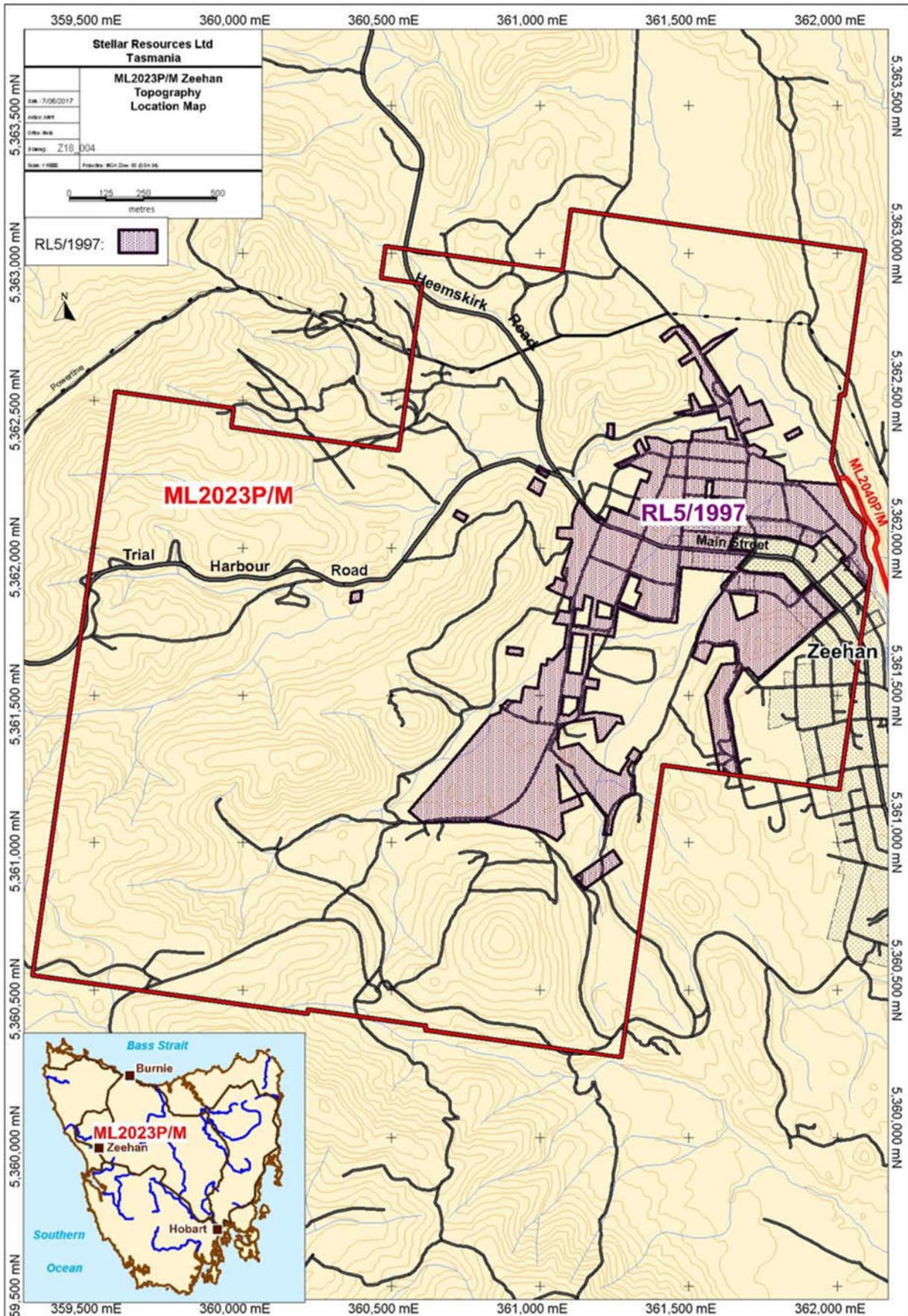


Figure 4. ML2023P/M Location Plan

## 1.4 Exploration Rationale

The principal objective of the program is to locate additional cassiterite mineralisation in proximity to the Queen Hill & Severn deposits to; (a) augment the current project resource base and extend the potential life of the Heemskirk Tin Project, and (b) potentially identify higher grade areas of tin mineralisation which may improve the project economics.

Subsidiary objectives are definition of project stratigraphy and structure and refinement of the geological model. Such information will assist further targeting and resource definition.

The (EDGI Round 5) holes were planned to test depth extensions below the historically significant Montana No. 1, Zeehan Western, Oonah and Zeehan Queen No. 4 mines (Figure 5 and Figure 6) which were amongst the largest silver-lead mines that made Zeehan one of the largest mining centres in Australia in the late 1800's. These mines had reported production grades of between 20 to 100 oz/t silver hosted in fissure veins ranging from a few cm up to 2.7m wide and mined over lengths of up to 300m.

None of these historic silver-lead mines have ever been drill tested, other than Oonah, where an Inferred Mineral Resource (0.59 Mt at 0.9% Sn, 0.8% Cu, 0.1% Pb, 0.1% Zn. Ag not included) has been defined above the depth of the planned holes. Drilling targeted depths below the historically mined silver-lead lodes where transition to tin mineralisation (cassiterite) is expected to have occurred.

Metal zonation from Sn-sulphide (stannite) to Ag-Pb-Zn within the Zeehan Mineral Field is well documented with proven examples at Montana No 2, Queen Hill and Oonah.

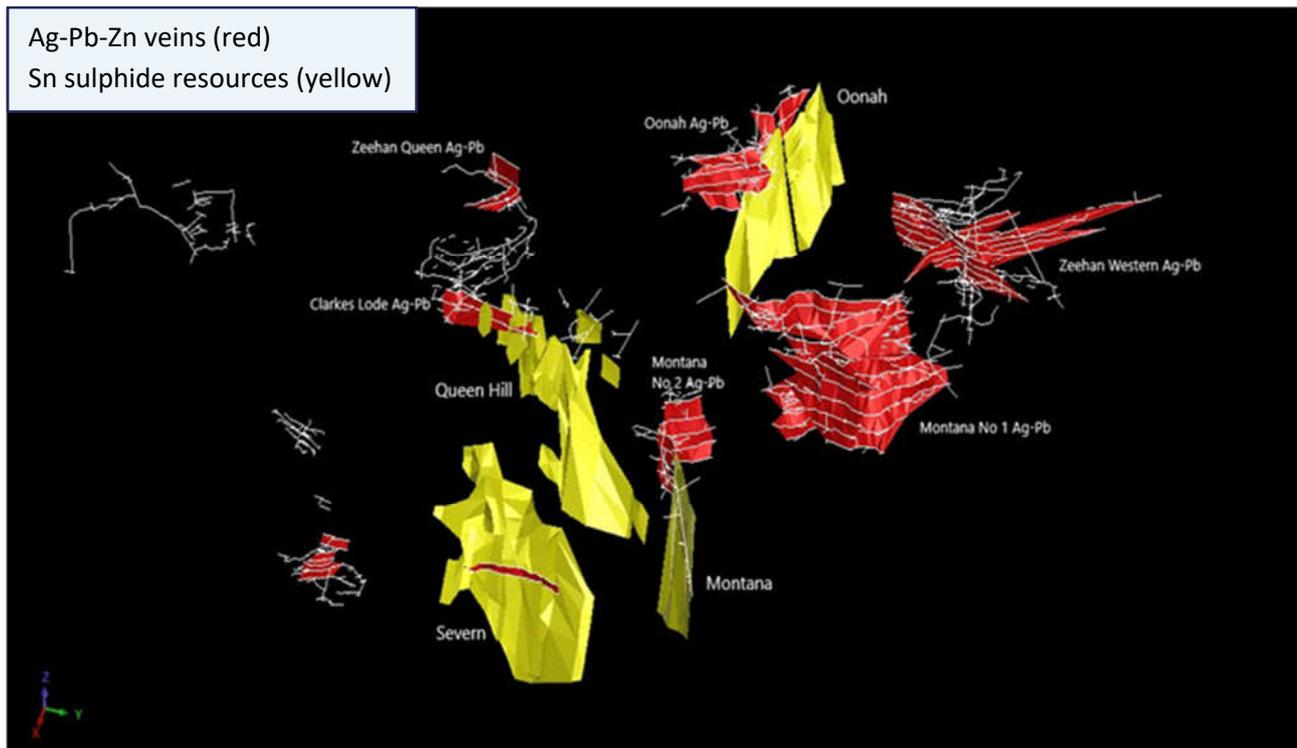


Figure 5. Zeehan Mineral Field Oblique View

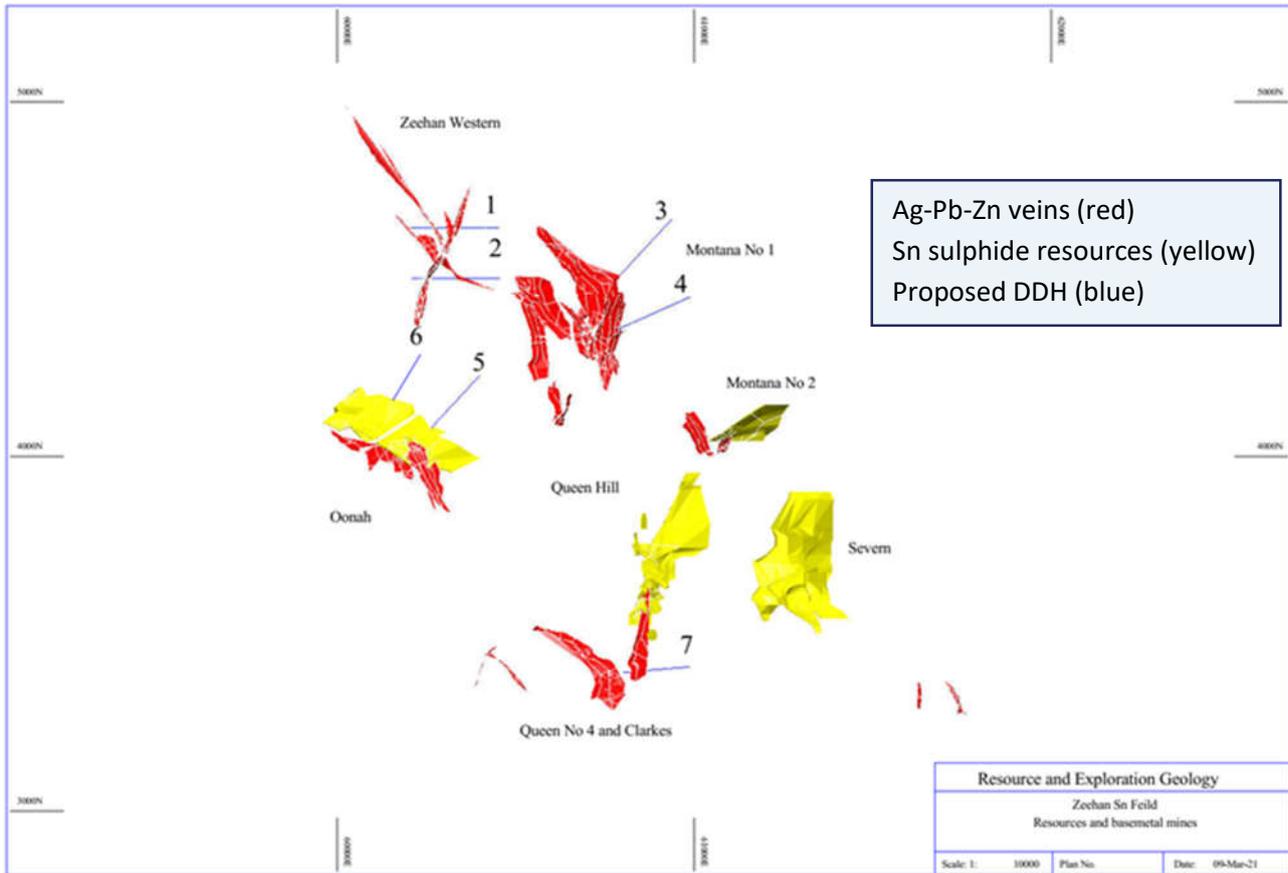


Figure 6. Zeehan Mineral Field Plan View: proposed drillhole locations

## 2. Previous Exploration

### 2.1 Prior to Stellar Resources

Previous exploration over EL13/2018 is described below.

**BMR (1963 – 1964)** geophysical surveys (IP, SP, Turam-EM & magnetic surveys)

**Placer Prospecting (1963 – 1965)** tested BMR anomalies via 7 dd holes. 4 holes at Oonah Mine intersected the Stannite Lode. 3 holes southwest of the Oonah Mine at Bradshaw’s Lode were unsuccessful.

**Minops (1971)** drilled a further 10 dd holes, which tested along strike and down dip of the Stannite Lode. 5 holes intersected significant mineralisation.

**Aberfoyle-Gippsland Minerals JV (1974 – 1977)** drilled 1 dd hole at Bradshaw’s Lode. It was unsuccessful.

**CRA Exploration (1979 – 1996)** joint ventured the project with Minops. They carried out detailed mapping, re-assayed core and drilled 12 more dd holes around the prospect.

**RGC Exploration (1987 – 1995)** were granted EL 42/1987, which surrounded the Queen Hill and Oonah Mine ML’s. They carried out 1:10,000 scale mapping, rock chip sampling and a helicopter borne magnetic survey. In the 90’s RGC drilled a 673m dd hole at Montana Hill, but it intersected nothing significant.

**Rio Tinto & Allegiance JV (1996 – 2002)** flew a high-resolution magnetic survey seeking nickel or shale hosted zinc deposits, with negative results.

**Mt Conqueror & Central West Gold (2002 – 2003)** reassessed the viability of the Stannite Lode but concluded it was “insufficient to support a stand-alone mining operation”.

**Bass Metals (2004 – 2009)** took up EL 63/2004 because of the Despatch Fault and the juxtaposition of the Gordon limestone against the Oonah formation and the potential for carbonate-replacement mineralisation and sampled and drilled the Montana Silver Lead Mine: Insufficient economic mineralisation was encountered.

**TNT Mines (2009 – 2017)** drilled two diamond holes at the Oonah Mine and a 200m diamond hole under Anomaly 370 north of Parting Lake. A ground magnetic survey was also carried out over the Anomaly 370 area.

Previous exploration over adjoining ML2023P/M is described below.

**Gippsland Minerals & Aberfoyle (1970 – 1989)** completed mapping, sampling, geophysics, and geochemistry. Drilling comprised 89 diamond drill holes for 23,000m. This work culminated in the discovery & definition of the Queen Hill, Montana & Severn (tin) Deposits with resource delineation of 7.3 million tonnes @ 0.69% Sn & 10.9 g/t Ag. Subsequent work involved metallurgical testing & Pre-Feasibility Study.

## 2.2 Exploration by Stellar Resources

Work completed by Stellar Resources to define the target include the location of historic workings and the registration of old mine plans at Oonah Mine. Data obtained from this work has been modelled in Surpac software. Digital models of registered workings and drilling from previous explorers (up to 18 drill holes) have been used to construct a digital 3D model of the lodes.

Resource modelling by Stellar in 2019 of the Oonah deposit estimated an Inferred Resource of 0.59Mt @ 0.9% Sn (0.6% Sn as stannite). The 3D model has been used to design the holes.

## 3. GEOLOGICAL SETTING

### 3.1 Regional Geology

The oldest rocks in the project area are a sequence of volcanics and sediments equivalent to the Neoproterozoic Oonah Formation (708 +/-6 to 690 +/- 10Ma), the oldest stratigraphy in the Zeehan area. These are predominantly quartzites with some interbedded arenaceous siltstones and shales. The upper part of the Oonah Formation is predominantly pelite and/or carbonate, including some evaporites, mafic volcanic rocks and conglomerate. Basalt in the vicinity of Queen Hill is highly vesicular and altered to sericite-chlorite-quartz-dolomite assemblages (Bottrill and Woolley, 2013)

Overlying the Oonah Formation rocks is a sequence of dolomites, carbonaceous pyritic slates and minor volcanics equivalent to the Neoproterozoic Success Creek Group (700 to 600Ma). This group comprises reddish brown siltstones with intercalated limestones and dolomite, referred to locally as the Poverty Point Beds, they correlate to that part of the Success Creek Group which hosts the Renison replacement tin deposits.

The Success Creek Group rocks are overlain by the Cambrian Crimson Creek Formation, comprising basal pyroclastic volcanics overlain by a sequence of greywackes and argillites with minor tuffaceous slates and grits. Basalt in the vicinity of Severn are MORB-type tholeiitic basalts and altered to albite-chlorite-calcite-quartz assemblages (Bottrill and Woolley, 2013).

Ordovician Gordon Limestone crops out northeast of Queen Hill while Siluro-Devonian Eldon Group sandstones and siltstones underlie most of the Zeehan town site.

The Devonian Heemskirk Granite outcrops 7 kilometres west of Zeehan, forming Mt Agnew and Mt Heemskirk, with a ridge of granite believed to extend beneath Queen Hill at depth.

The structure of the rocks in the area is complex with intense folding and faulting at all scales. The deformation is thought to be due to the Tabberabberan Orogeny. Broadly the Zeehan tin deposits are associated with the wide hinge zone of the northwest trending Heemskirk Anticlinorium, which is thought to have been the focus of the intrusion of the Heemskirk Granite at depth in this area.

At Zeehan, the Oonah Formation and the Success Creek Group both host vein and replacement tin deposits. Tin mineralisation within the dolomitic Poverty Point Beds at Montana is of cassiterite sulphide replacement style. Mineralisation at Severn may be similar, being due to smeared-out Poverty Point carbonates along the Severn Fault. Simplified geology is shown in Figure 1 and regional geology in Figure 7.

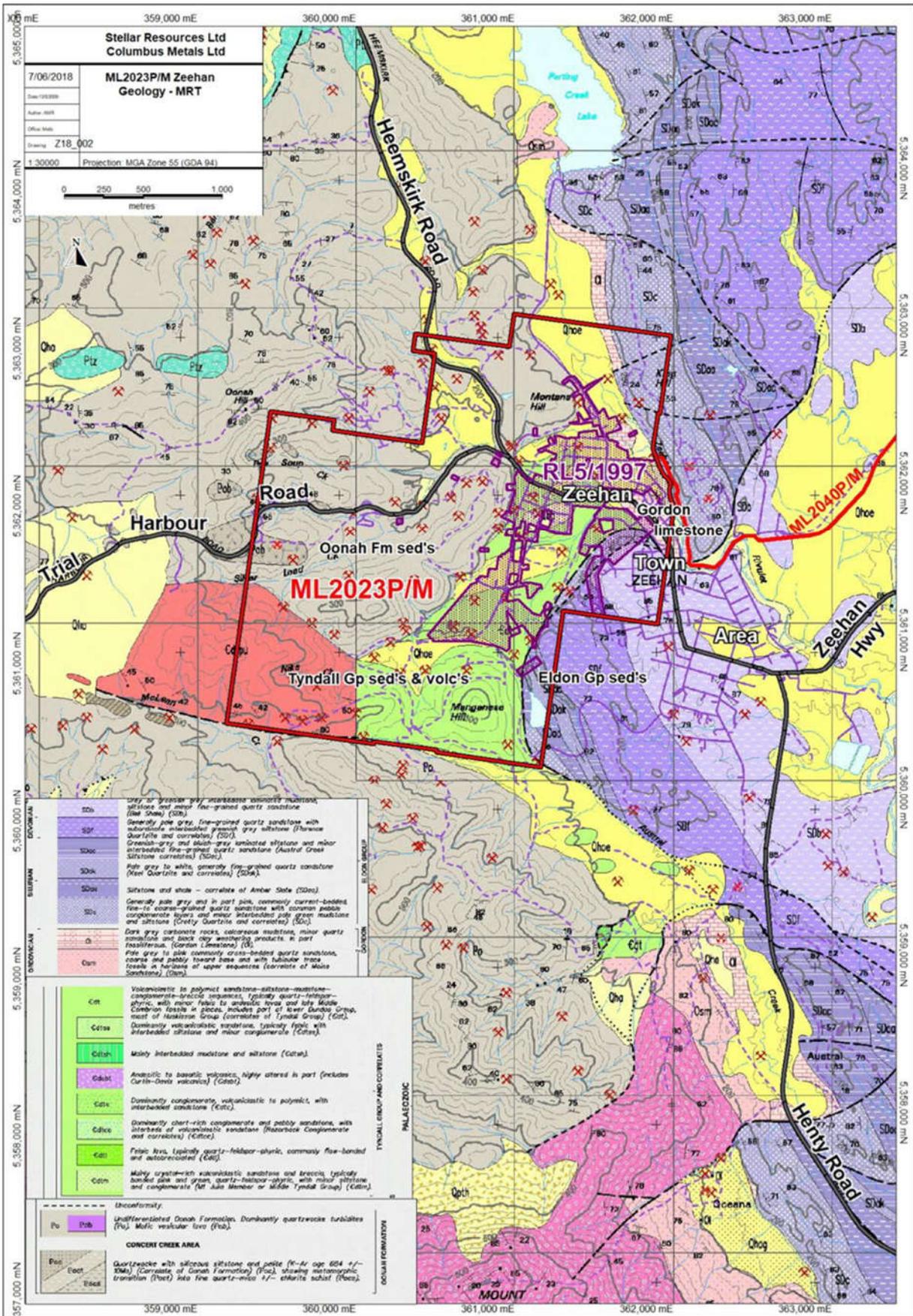


Figure 7. Regional Geology (MRT) Map

## 3.2 Mineralisation

Tin mineralisation at the Heemskirk Tin Project occurs as cassiterite in three main deposits: Severn, Queen Hill and Montana, with minor outcropping occurrences at Golf Course, Stormsdown and Poverty Point. The deposits are Renison Bell / Cleveland-type tin deposits in which granite-derived hydrothermal fluids, carrying tin, sulphur and other base metals, intruded along structural conduits and reacted with suitable lithologies, such as dolomite and carbonate rich volcanoclastic horizons, to precipitate generally sulphide-rich lodes containing cassiterite. Typical associated gangue minerals include pyrite, pyrrhotite, quartz, tourmaline, carbonates and fluorides.

In addition to the main high temperature tin-mineralising event, a later stage, cooler fluid event appears to have resulted in the formation of Pb-Zn-Ag sulphide lodes, which are not significantly tin-bearing. These lodes (Montana, Queen Hill and Oonah) were the focus of early 20th century silver-lead mining activity.

In all the Zeehan deposits cassiterite occurs as fine grained (20 - 70 microns) disseminations in stockworks and masses of fine-grained gangue comprising siderite, chlorite, silica, pyrite and pyrrhotite.

The four main lodes, including Queen Hill, Severn (Figure 8), Montana and Oonah deposits comprise a resource of 6.61Mt @ 1.1% Sn.

At the Oonah Mine the host rocks are quartzites, siltstones and black shales with interbedded mafic lavas and volcanoclastics of the Upper Oonah Formation. These have been folded into an east to southeast plunging syncline, which has resulted in the rocks at the mine striking north – south and dipping east with NW to NE trending faults disrupting and complicating the structural setting.

At the Oonah mine there are several mineralised lodes, but only the “Main Galena Lode” and the “Stannite Lode” are significant. The lodes are approximately parallel to stratigraphy (strike slightly west of north and dip east at about 50° - 60°). At surface the lodes are about 80 metres apart though they may converge at depth.

The lodes are disrupted by post mineralisation cross faulting. The Stannite Lode is hosted by brecciated, quartz/siderite veined black and grey shales and mafic volcanics. It is comprised of semi-massive bands and veins of pyrite-stannite-chalcopyrite in a quartz-siderite gangue. There is also minor pyrrhotite-cassiterite-galena-tetrahedrite-arsenopyrite-jamesonite-bismuthinite mineralisation.

## 3.3 Historic Production

Between 1888 to 1925 the Oonah Mine produced 2.05 mill ozs Ag and 12,800 tonnes of Pb from 19,400t of high grade Pb-Ag ore (Galena Lode) and 20,000 of Cu-Sn-Ag ore (Stannite Lode).

Between 1892 to 1936 the Montana No 1 Mine produced 7.1mill ozs Ag and 49,580 tons of Pb from 8 levels to a depth of 253m, where the lode had diminished to a small uneconomic size.

Between 1901 to 1928 the Zeehan Western Mine produced 4.8mill ozs Ag and 26,300 tons of Pb from 13 levels to a depth of 330m, where the lode had diminished to a small uneconomic size.

Between 1902 to 1929 the Queen No 4 Mine produced 2mill ozs Ag and 16,530 tons of Pb from 4 levels to a depth of 70m.

In the 1920's several Pb/Ag prospects northwest of Zeehan were tested, and three small fissure style Pb/Ag mines (Barnett's, Quigley's and Big Ben) were operated sporadically.

From 1925 to 1954 the Oonah Mine was under lease but little production and from 1937 to 1950's the Montana Silver Lead Mine was worked.

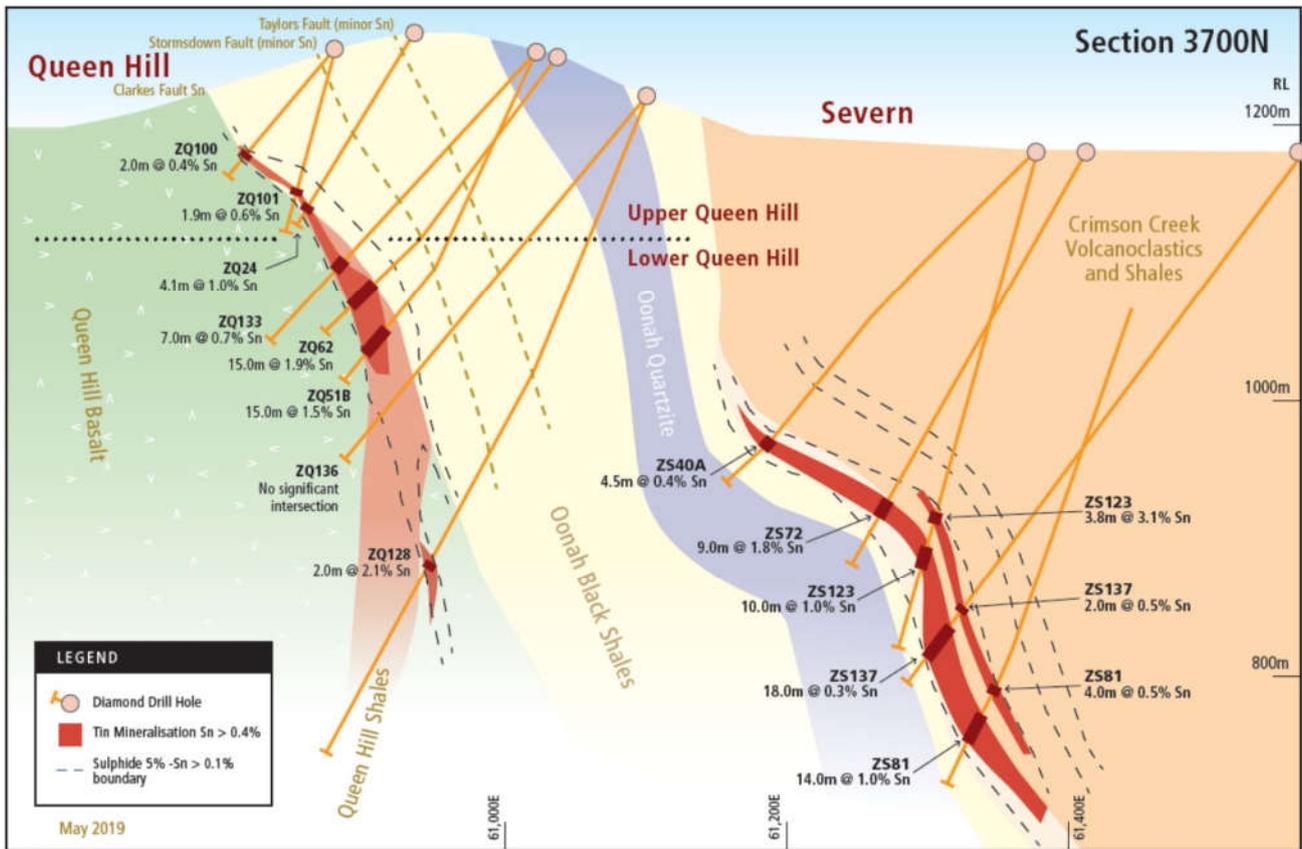


Figure 8. Schematic W-E cross-section 3700N, Queen Hill and Severn tin deposits

## 3.4 Geology of the Target

### 3.4.1 Oonah Mine Target

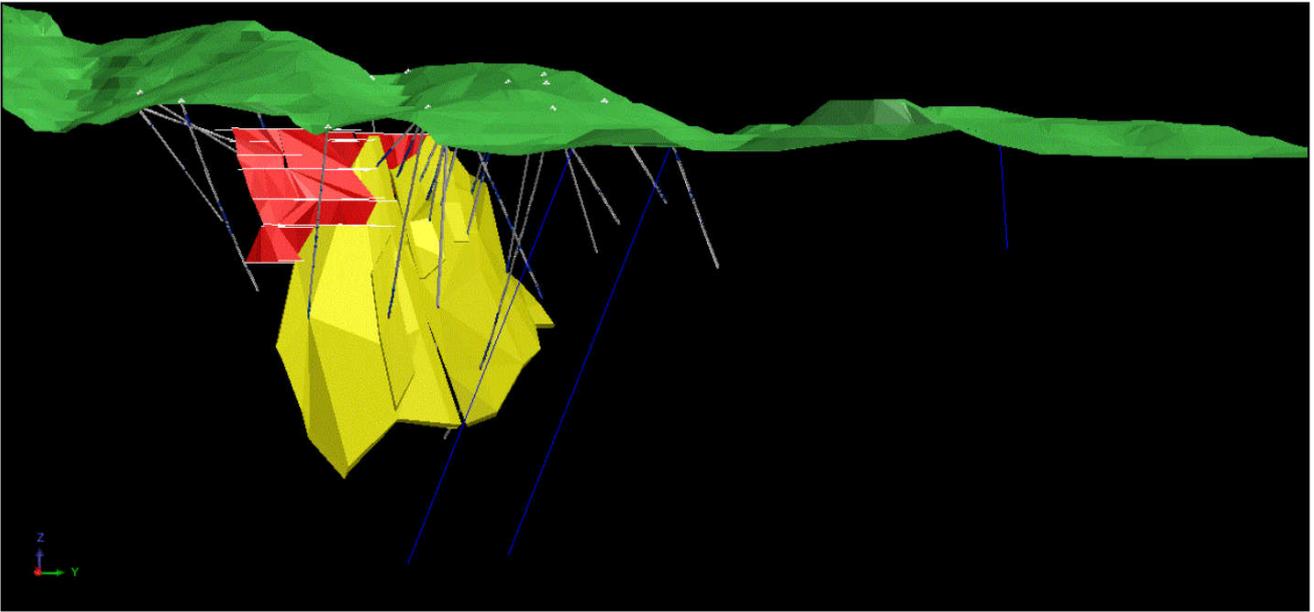
The Oonah mine is located on the NW trending Oonah Fault Zone and consists of sub parallel Ag-Pb-Zn fissure lodes and the Sn-Cu sulphide Stannite Lode. Historic mining extended to approximately 120m depth producing 2.05 Moz Ag and 12,800 tons Pb with the Stannite Lode also producing a Sn-Cu matte from 15-20kt of ore. The historic Oonah Mine exploited both the Pb-Ag lodes and the Stannite Lode.

The Oonah deposit is reasonably well understood from historic workings and exploration diamond drilling. Base metal sulphide Pb-Zn-Ag veins were mined near surface. Mineralisation continues into Sn sulphide mineralisation at depth. The base metal sulphides are located up dip from the Sn lodes (similar to Queen Hill). The deposit consists of a main NNW striking steeply NE dipping lode. The mineralisation is offset by the Oonah Fault. Mineralisation is localised along the Montana Basalt-Oonah formation contact. Mineralisation remains open down dip and may plunge to the SE.

Two reconnaissance diamond drillholes (ZO142, ZO144) were designed to test for down dip transitional cassiterite mineralisation below the base metal and stannite veins. The holes were planned test approximately 250m below the lowest mine level and approximately 100m below the base of the Oonah Stannite resource and historic drilling (Figure 5 Figure 6 and Figure 9).

The holes were to demonstrate the potential of the mineral field below historic Ag-Pb-Zn mines, particularly the transition to cassiterite-dominant Sn mineralisation.

The proposed drillholes testing the depth extensions of the Oonah deposit are displayed as a plan in Figure 6 and in oblique section in Figure 9.



*Figure 9. Oonah Planned Drillholes - Oblique View Looking SW*

## 4. WORK COMPLETED

From August to November 2021, two diamond holes (ZO142 and ZO144) were completed on EL13/2018 and ML2023P/M as part of Mineral Resources Tasmania’s (MRT) Exploration Drilling Grant Initiative Program (Round 5) to test for down dip transitional cassiterite mineralisation below the base metal and stannite veins at the Oonah Mine. The holes tested approximately 250m below the lowest mine level and approximately 40m to 70m below the base of the Oonah Stannite resource.

### 4.1 Drilling

Between the 18th of August 2021 and the 1st of November 2021, Spaulding Drillers Pty Ltd of Devonport drilled two angled diamond holes at Oonah for a total of 895.2 metres within EL13/2018 and ML2023P/M. These drill holes, ZO142 and ZO144 are detailed in Table 2 and locations shown in Figure 1. The holes were drilled to the west-southwest at roughly right-angles to the NNW trending/NE dipping mineralisation.

Hole ZO142 was drilled triple tube HQ diamond drilling to 240m and then triple tube NQ diamond drilling to the end of hole at 494m.

Hole ZO144 was drilled triple tube HQ diamond drilling to 204m and then triple tube NQ diamond drilling to the end of hole at 401.2m. The original EDGI proposal was for two 400m holes (total 800m) however, hole ZO142 was drilled deeper as mineralisation was observed beyond the planned depth of the hole.

**Table 2. Drillhole locations - Oonah Mine (GDA94 MGA 54 grid)**

Hole	East	North	Elevation (mRL)	Azimuth	Inclination	Total Depth
<b>ZO142</b>	360,539	5,362,814	213.1	242.85	-64.1	<b>494.0m</b>
<b>ZO144</b>	360,602	5,362,703	204.9	254.38	-61.4	<b>401.2m</b>

### 4.2 Surveying

Collar coordinates (E & N) are recorded by GPS and are yet to be surveyed. The RL’s have been determined by pressing collars onto the Lidar topography surface due to inaccuracy in GPS Z values.

Both holes were drilled triple tube (HQ3, NQ3) with oriented core using digital Ori tool.

Both holes were surveyed with a single shot magnetic survey instrument at 30 metre intervals.

The downhole surveys are provided in Appendix 1.

### 4.3 Logging and Photography

The holes were geologically logged in full for core recovery, RQD, weathering, oxidation, lithology, alteration, mineralisation, vein types and vein intensity, structure (structural measurements were taken for hole ZO142 but not for ZO144). Primary data was collected digitally using a field laptop computer using in-house logging codes. The data was checked and verified prior to entering into a master database. Logging codes are provided in Appendix 2.

The drill core was photographed while wet and before cutting (full core). Photos of core trays are presented in Appendix 3.

For hole ZO144, magnetic readings were collected and on 1m intervals over the core using a magnetic susceptibility meter. For hole ZO142, no magnetic susceptibility readings were taken.

pXRF readings were taken at irregular intervals down the hole.

Digital drilling data, including collar, survey, lithology, alteration, veining, mineralisation, structure (ZO142 only), recoveries and magnetic susceptibility (ZO144 only) are provided in Appendix 1.

## 4.4 Sampling and Analysis

HQ and NQ drill core was cut on site and ½ core samples collected. Core was sampled to mostly 1 metre lengths but also to geological boundaries where relevant.

A total of 246 samples for ZO142 and 111 samples for ZO144 (plus 12 QA/QC samples for ZO142 and 10 samples for ZO144) were sent to ALS in Burnie for sample preparation and total Fe, S, Sn and WO<sub>3</sub> analysis using the ME-XRF15d fused disc XRF method before being on-sent to ALS Brisbane for acid soluble aqua regia digestion ICP-MS multi-element analysis (ME-ICP41a method), and, where required, overlimit Pb, Zn & Ag analysis by acid soluble aqua regia digestion (ME-OG46 method) and, where required, overlimit Pb analysis using the fused disc XRF technique (ME-XRF15d method) (see Table 3).

Assay results are in are provided in Appendix 1.

**Table 3. Analytical Methods**

ALS Code	Digestion	Analysis	Elements
ME-XRF15d	NA	XRF fusion	Fe, S, Sn, WO <sub>3</sub>
ME-ICP41a	Aqua Regia Digestion on 0.4g sample	ICP-MS	Ag, Al, As, Ba, Be, Bi, Ca, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn Sr, Th, Ti, Tl, U, V, W, Zn.
ME-OG46 (Overlimit Base Metals Method where over ME-ICP41a limits)	Aqua Regia Digestion on 0.4g sample	ICP-MS	Pb, Zn, Ag
ME-XRF15d (Pb Overlimit Method where Pb over ME-OG46 limits)	NA	XRF fusion	Pb

## 5. RESULTS

### 5.1 Summary of Results

A summary of the lithology, alteration and veining within the drill hole is given below together with commentary on the analytical results.

### 5.2 Hole ZO142

Drillhole ZO142 was designed to test the depth extensions of the NE-dipping tin and base metal mineralisation where the tin transitioned from stannite-dominant to cassiterite-dominant.

The hole intersected lithologies of the Oonah Formation comprising sandstone with interbedded siltstone from surface to 57.4m. Amygdaloidal basalt dominates the sequence from 57.4m to 297.3m with interbedded black and grey shales plus sandstone and siltstone. Sandstone then predominates over black shale and minor quartzite, basalt to the end of hole. Pyrite was commonly noted from 41m down to 472m.

The upper mineralised zone in ZO142 is within basalt with siderite-sulphide veining. The lower mineralised zones in ZO142 are within interbedded sandstone and black shale typically structurally controlled by faults that contain pyrite, cassiterite, siderite and quartz (Photo 1).

The hole was extended from the planned depth of 400m to 494m due to intervals of mineralisation observed in core beyond the expected depth.

The results of the first Oonah drillhole, ZO142, included multiple zones of lower grade tin mineralisation as shown in Table 4 and confirmed the continuation of tin mineralisation ~70m below the historical Oonah silver lead mine as shown in Figure 10.

**Table 4. ZO142 Significant Intersections**

Hole	From (m)	To (m)	Length (m)	Sn %	Cassiterite % of Total Sn
ZO142	288.0	289.0	1.0	0.54	100%
ZO142	299.4	300.0	0.6	0.80	100%
ZO142	320.0	321.0	1.0	0.40	100%
ZO142	336.0	347.0	10.9	0.22	100%
ZO142	352.0	355.1	3.1	0.39	100%
ZO142	378.0	380.0	2.0	0.32	100%

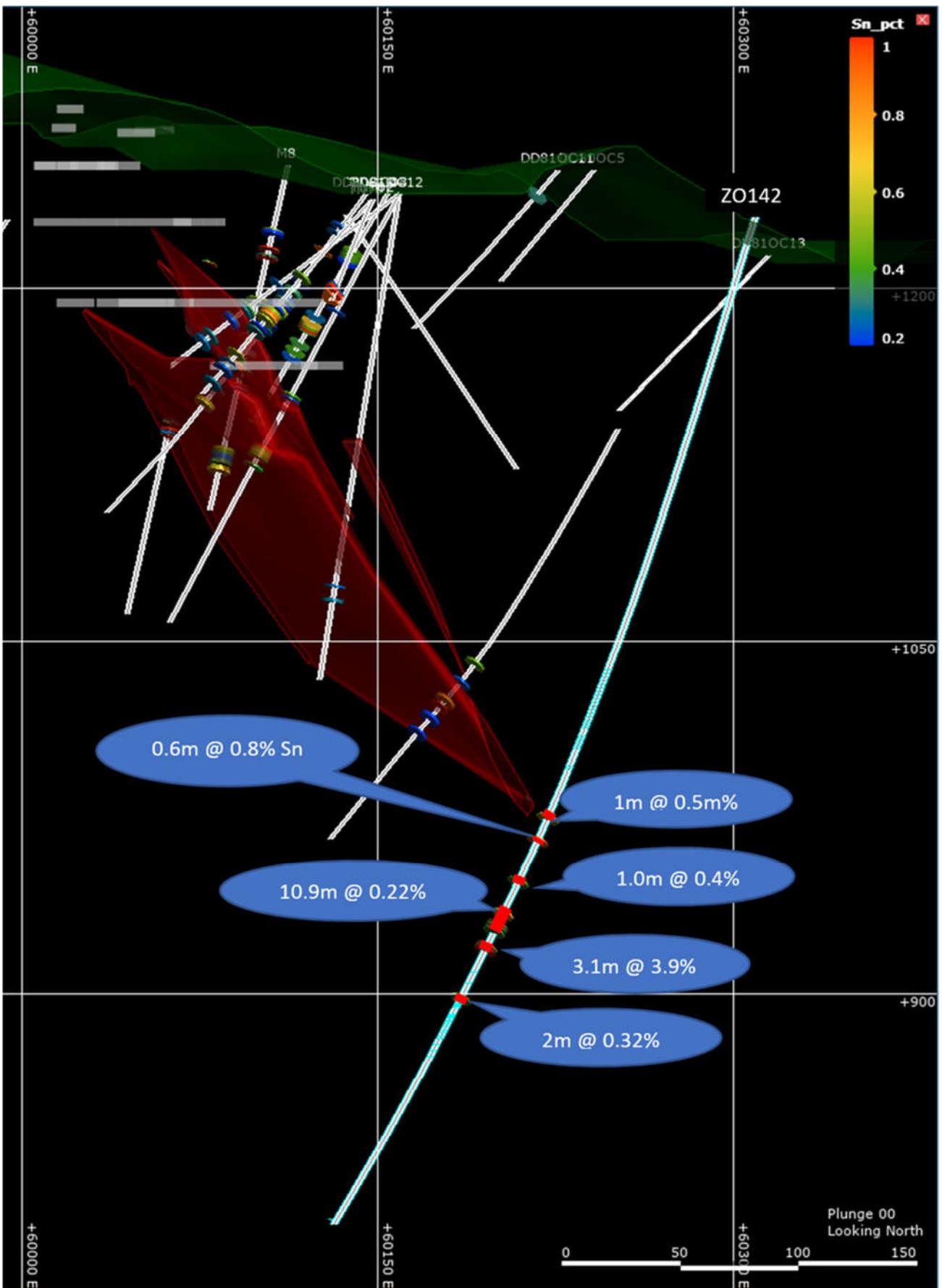


Figure 10. Oonah West-East Cross-section 4150mN (ZMG) showing hole Z0142

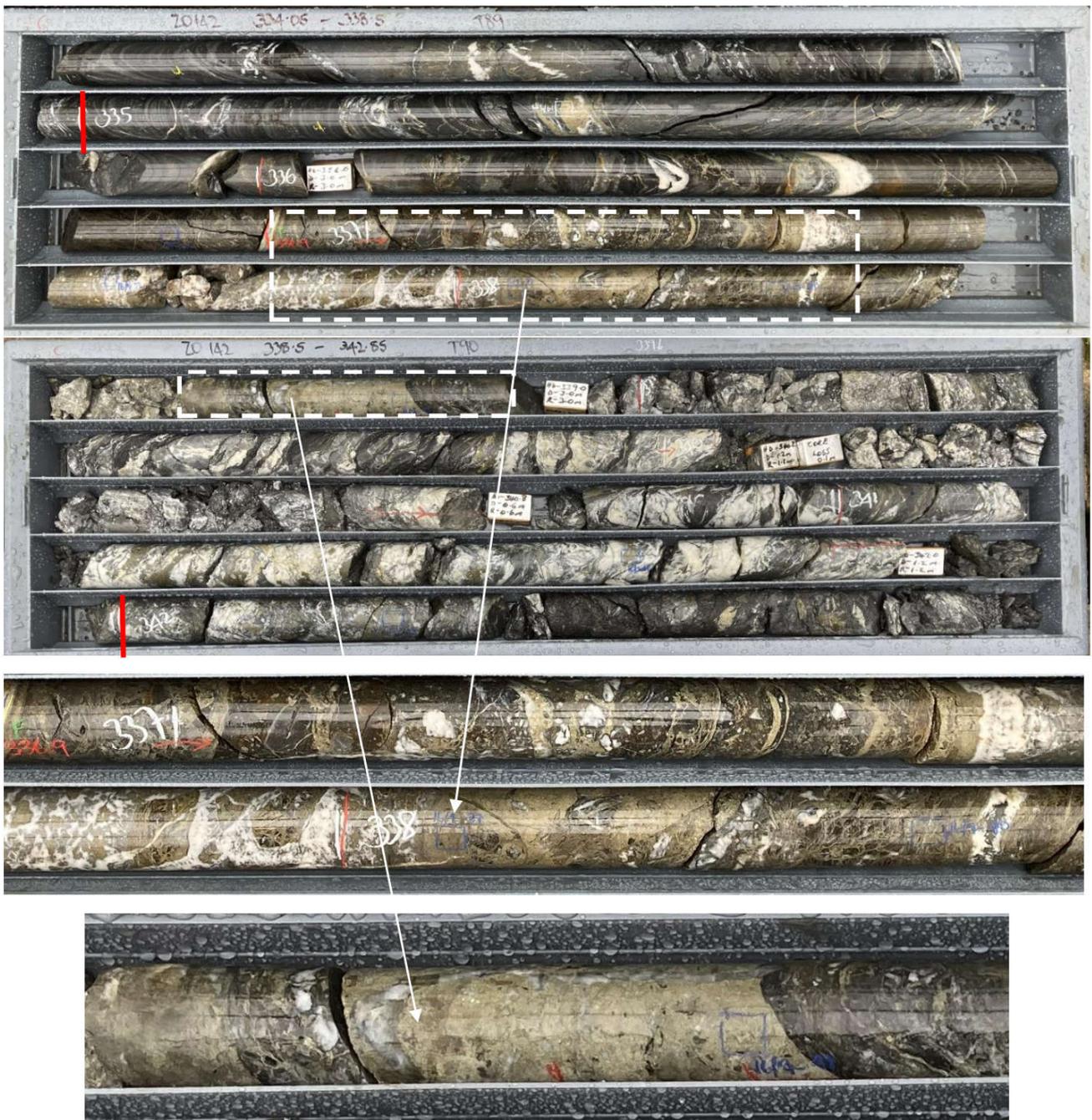


Photo 1. Z0142 cassiterite mineralisation from 335m to 342m

### 5.3 Hole Z0144

Drillhole Z0144 was also designed to test the depth extensions of the NE-dipping tin and base metal mineralisation with the collar located approximately 100m to the SE of Z0142.

Lithologies intersected were the same Oonah Formation units as seen in Z0142. Black shale is the predominant lithology in the hole with basalt in two zones between 112.5m to 136m and 203.6m to 274.3m.

Mineralisation is associated with pyrite and siderite, hosted within several zones in brecciated black shale from 311.1m to 357m. The zone from 311.1m to 316.2m consists primarily of massive to semi-massive pyrite (Photo 2) with stannite (tin-copper sulphide) within brecciated black shale. The mineralised zone from 354.6m to 358.8m consists of narrow veins of pyrite with some visible cassiterite in brecciated black shale.

Tin mineralogy appears to transition from cassiterite>stannite in the upper part of the drillhole to 100% cassiterite in the lower portion.

Assay results from Z0144 confirm multiple zones of lower grade tin mineralisation ~40m below the Oonah Inferred Mineral Resource as shown in Figure 11. Significant intercepts from drillhole Z0144 are in Table 5.

Table 5. Z0144 Significant Intersections

Hole	From (m)	To (m)	Length (m)	Sn %	Cassiterite % of Total Sn
Z0144	311.1	314.7	2.2	1.02	73.5%
Z0144	318.0	320.0	2.0	0.35	100.0%
Z0144	321.0	322.0	1.0	0.57	94.4%
Z0144	328.0	330.0	2.0	0.41	97.8%
Z0144	334.0	338.0	4.0	0.26	100.0%
Z0144	346.9	348.0	1.1	0.20	100.0%
Z0144	354.6	357.0	2.4	0.40	100.0%



Photo 2. Z0144 cassiterite-stannite mineralisation from 303.7m to 316.2m (massive pyrite below)

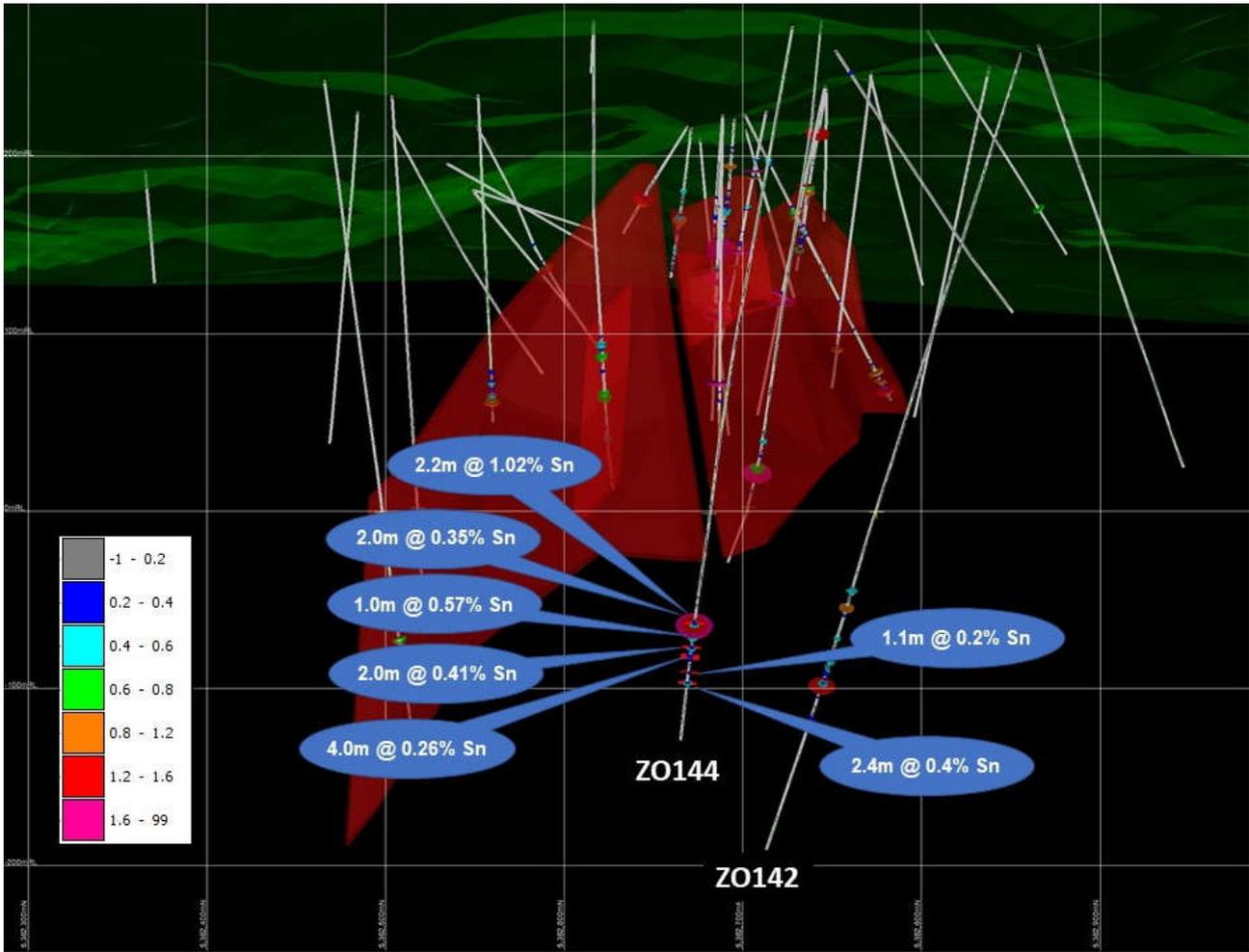


Figure 11. Oonah West-East Cross-section 4150mN (ZMG) showing Hole Z0144

## 5.4 QA/QC

OREAS certified reference material standards are inserted approximately every 20 samples using Sn standards SZSt.1, SZSt.2, SZSt.3 and Pb-Zn standard Std. 630b. Two (2) OREAS\_SZ\_St.1 standards, three (3) OREAS\_SZ\_St.2 standards, three (3) OREAS\_SZ\_St.3 standards and 1 Std. 604 were submitted.

Course blanks and fine blanks are also inserted after mineralised zones. Four (4) coarse and three (3) fine blanks were submitted.

Duplicate samples are requested approximately 20 samples for the lab to repeat the sample. Six (6) Duplicates were sampled.

Analyses for the certified reference material, blanks and duplicates returned values within acceptable limits for all standards and the duplicate assays showed very good precision.

## 6. DISCUSSION OF RESULTS

The two drillholes co-funded under EDGI 2021 Round 5 were successful in targeting tin mineralisation which continues below the base of the existing drilling at the Oonah Mine, albeit lower Sn grade than expected. The Oonah mine was historically known for Pb/Ag production as well as tin from the “Stannite Lode”. Both drill holes intersected lower grade tin mineralisation below the silver-lead-zinc fissure lodes mined in the historically significant Oonah mine.

The assay results of two drillholes (ZO142 and ZO144) included multiple zones of lower grade tin mineralisation compared to the Oonah Inferred Mineral Resource (0.59 Mt at 0.9% Sn, 0.8% Cu, 0.1% Pb, 0.1% Zn).

Lower Sn grades are associated with mineralisation in ZO142 ~70m below the Oonah Inferred Mineral Resource consisting primarily of massive to semi-massive pyrite and siderite with cassiterite.

Lower Sn grades are associated with mineralisation in ZO144 ~40m below the Oonah Inferred Mineral Resource consisting primarily of massive to semi-massive pyrite contained within a breccia zone with cassiterite>stannite (tin-copper sulphide) in the upper zones and cassiterite only in the lower zones.

While it was considered that at depth that cassiterite will replace stannite as the major component of the tin mineralisation at Oonah, the drilling confirmed that this transition has occurred at the current depths of this EDGI Round 5 drilling.

The drilling program at Oonah has added important geological information regarding the tin zonation together with stratigraphy, structure, alteration, and controls to mineralisation of the prospect area. This new information provides Stellar with encouragement to plan follow-up exploration and drilling programs at Oonah. The company will continue to use the data collected to make further interpretations, particularly with the use of multielement data and detailed stratigraphic data.

## 7. RECOMMENDATIONS FOR FURTHER WORK

Further work would be required to elucidate the significance of the low grade, stannite and cassiterite tin mineralisation and whether the Company consider the tenor of alteration, mineralisation and veining too weak to warrant any further drill testing. This work would involve updating the stratigraphic and zonation model and a structural study for the Oonah Mine ahead of a commitment of deeper drill testing.

## 8. ENVIRONMENTAL MANAGEMENT

Two diamond holes were drilled at Oonah Mine as part of EDGI 2021 Round 5 with hole ZO142 collared on EL13/2018 and hole ZO144 collared on ML2023P/M (majority of ZO144 length is within EL13/2018). The Oonah drill sites required the construction of an access track for two drill pads.

The track access and one pad site were found to interact with a mining heritage, which included a mullock heap and two shafts. The shafts were taped off and the pad was built so it would not disturb the old workings. The track construction ensured it didn't not disturb or move the mullock heap.

ZO142 intersected a water table and was making water at the completion of drilling. The entirety of the hole was grouted to prevent any water movement within the hole, and to prevent water leaving through the collar.

Pad preparation, drilling and rehabilitation was conducted in accordance with the Mineral Exploration Code of Practice. The completed drill collars have yet to be capped, as they are awaiting a survey pickup for a measured collar location. Both drill sites have been rehabilitated, with all sumps back filled.

## 9. EXPENDITURE

Stellar Resources Ltd (Stellar) was successful in its application for an Exploration Drilling Co-funding grant (\$50,000) under the Tasmanian Government's Exploration Drilling Grant Initiative Program 2021, Round 5 for the Oonah Mine Project.

The total direct drilling costs, excluding mobilisation, of the 2 holes drilled at Oonah (ZO142 & ZO144) was \$158,485. The total eligible direct drilling cost (50%) were \$79,243 (Table 6).

The final EDGI grant amount is therefore the maximum grant amount of \$50,000.

The Approved Purpose is: Oonah Mine Drilling Project - 2 x Exploration drillholes for 800m as specified in the EDGI Proposal.

**Table 6. Expenditure (excl GST)**

Drillholes	Total Direct Drilling Costs	Eligible Direct Drilling Costs
ZO142, ZO144	\$158,485	\$79,243

An Excel spreadsheet which calculates the direct drilling cost for each hole from daily drill plod and invoice data has been provided along with this report. Copies of the drilling invoices and drill plods have also been provided.

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## 11. LIST OF FILES ACCOMPANYING THIS REPORT

Exploration Work Type	Filename	File format
<b>Report</b>	EL132018_202204_EDGI_Oonah_01_Report Body.pdf	<i>pdf</i>
<b>Drilling</b>		
	EL132018_202204_EDGI_Oonah_02_Appendix 1_data-submission.accdb	accdb
	EL132018_202204_EDGI_03_Appendix 2_Logging Codes.pdf	pdf
	EL132018_202204_EDGI_Oonah_04_Appendix 3_Core Photos.jpg	jpg
	EL132018_202204_EDGI_Oonah_05_ZO142_Tabulated Core Photo Index.xls	xls
	EL132018_202204_EDGI_Oonah_06_ZO144_Tabulated Core Photo Index.xls	xls

## APPENDIX 1 - Digital Data

## APPENDIX 2 – Logging Codes

## APPENDIX 3 – Core Photos