STELLAR RESOURCES LIMITED
Columbus Metals Ltd

EL 11/2017 DUNDAS

FIRST ANNUAL TECHNICAL REPORT FOR THE PERIOD 6 December 2017 – 5 December 2018

Compiled by R.K. Hazeldene

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ABSTRACT

This first Annual Technical Report for EL 11/2017, Dundas, covers the period from 6 December 2017 to 5 December 2018

EL 11/2017, Dundas, is centred about 7 km east north east of Zeehan Township and covers the old Dundas townsite. Principal access is via the Dundas Road from the Murchison Highway, which parallels the western edge of the licence.

The area was mined originally for lead and silver during the late 1800's. Small-scale mining continues in the area for mineral specimens, particularly for crocoite and stichtite. Modern exploration for tin and Cu-Zn-Ag commenced in the 1930's. Between 1975 and 1978 Minops Ltd mined 1800,000 tonnes of 0.6% Sn ore from an open pit on the Razorback deposit.

In the past the area has undergone exploration for nickel, base-metals and tin. Stellar has a tin focus and is developing the Queen Hill-Montana-Severn tin orebodies at its Heemskirk Tin Project at Zeehan on ML2023P/M. The Dundas tin mineralised zone and the old Razorback Mine tailings are of interest to Stellar as they have potential as a source of additional mill feed for the proposed treatment plant at Queen Hill.

During 2018 Tim Callaghan reviewed historical data, created a new database, modelled the Razorback and Grand Prize orebodies and suggested exploration targets. At the old Razorback mine trenches were excavated across the floor of the old open pit for fresh samples, which confirmed historical grades.

The Razorback Mine north tailings dam was sampled via a grid of hand auger holes. Tailings samples were assayed then used for metallurgical test work, which was carried out in Burnie at the ALS Lab. These initial metallurgy tests suggest the remaining tin in the tailings is amenable to simple gravity separation. More testing is required.

Total expenditure on EL 11/2017 during 2018 totalled $105,851.

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Appendix 8. 3D Model DXF Files (8 DXF Files). T. Callaghan

Appendix 9. Gravity Assessment of Razorback Tails Composite Samples. ALS Metallurgy.

Appendix 10. File Listing in MRT Format.

Exploration Work Type	Filename	File format
Report	EL112017_201812_01_Report.pdf	*pdf*
Drilling		
	EL112017_201812_02_SL_1.xls	xls
	EL112017_201812_03_DG_1.xls	xls
	EL112017_201812_04_DS_1.xls	xls
	EL112017_201812_06_QAQC_1.xls	xls
Surface sampling		
	EL112017_201812_05_SG_1.xls	xls
	EL112017_201812_06_QAQC_1.xls	xls
Other (specify)		
	EL112017_201812_07_T. Callaghan Report.pdf	*pdf*
	EL112017_201812_08_ T.Callaghan DXF Files	Folder (8 DXF Files)
	EL112017_201812_09_ALS Metallurgy Report.pdf	*pdf*
File Verification Listing *(this file)*	EL112017_201812_10_FileListing.xls	xls

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1. INTRODUCTION

1.1. EXPLORATION RATIONALE

The Mt Razorback licence was acquired to target tin deposits at the intersection of faults (conduits for Devonian granite sourced fluids) and carbonate bearing horizons within the Cambrian host rocks.

The tailings from the Minops mining activities at Razorback may be amenable to modern metallurgical treatment and will be tested. Though small, they could provide feed to the proposed Zeehan treatment plant at Queen Hill.

1.2. GEOLOGICAL SETTING

The regional scale geology within EL 11/2017 (Figure 3) comprises a fault-bounded wedge of serpentinised Early Cambrian dunite juxtaposed against predominantly Middle Cambrian Dundas Group marine sedimentary rocks to the southwest, and predominantly Late Cambrian Owen Group and Late Proterozoic Oonah Formation marine sedimentary rocks to the northeast.

Stratigraphy of the Razorback - Grand Prize area (based on Renison Ltd. geological interpretation.)

Comet Fm.	Dolomite and siltstone
Fernfields Fm.	Siltstone and poorly sorted siliciclastic conglomerate.
Brewery Junction Fm.	Fragmental greywacke and siltstone
Razorback Conglomerate	Pebble conglomerate and sandstone
Hodge Slate	Black carbonaceous shale
Red Lead Conglomerate	Volcaniclastic cobble conglomerate
Ultramafic	Serpentinised or dolomitized dunite

Several silver-lead-zinc and tin prospects exist within the EL. Their alteration and ore mineralogy styles and their structural settings are typical of Zeehan and Dundas district mineralisation genetically related to Late Devonian-Early Carboniferous granite batholiths and dykes. The known mineralisation appears to be controlled partly by a major northwest-southeast trending fault structure, which forms the southwest margin of the serpentinite wedge (Figure 3). There is evidence of metal zonation along the structural trend, with silver-lead-zinc prospects grouped towards the southeast and tin prospects aligned further to the northwest at Razorback and Grand Prize.

At Razorback the Cambrian serpentinite is overlain by a talc-carbonate unit, (the mineralised unit), a shear, the Red Lead Conglomerate and the Hodge Slate. The sequence strikes northwest and is near vertically dipping. Tin mineralisation occurs mainly in the talc-carbonate, but some has also been reported in the shear and in the conglomerate. The lode is a vertical, south plunging body of disseminated and massive pyrrhotite up to 19m thick and 130m long. Historic drilling indicates it extends to at least 140m below surface. Mineralisation is cassiterite, with some minor stannite, in association with pyrrhotite, pyrite, arsenopyrite, chalcopyrite, sphalerite and galena.

Grand Prize is located about 1.5km north of Razorback. The rocks are the same as those at Razorback being Cambrian sediments of the Dundas Group overlying basic and ultrabasic igneous rocks. There are mudstones, siltstones, grit and conglomerate but few carbonate bearing units.

Mineralisation is controlled by large faults, principal being the 15-30m wide, NNW-trending, west dipping Grand Prize Fault. A smaller sub parallel mineralised structure, the Grand Reward Fault, is 100m to the east of the Grand Prize Fault. The host sediments strike ENE, at 90º to the faults, and dip south at 50º. Mineralisation occurs largely in the faults where their nature is influenced by the varying lithologies forming the fault walls. Cassiterite is the principal mineral in association with pyrite and pyrrhotite but there is also chalcopyrite, sphalerite, galena and arsenopyrite.

1.3. LICENCE

Tenement number: 11/2017

Tenement name: Mt. Razorback

Tenement location: Centred approximately 7km east north east of the town of Zeehan. Primary road access is from the Murchison Highway in the north, and the unsealed Dundas Road which runs easterly through the south/central part of the licence passing through the site of the historic Dundas Township. (Figure 1). The licence covers 12km^2 largely to the east of the Murchison Highway from Melba Siding in the north and extends to 2km south of the Dundas town site. Almost all of the licence area is Crown Land, and in accordance with the West Coast Planning Scheme 1999 is covered by "Natural Resources". Private land and small gazetted public reserves are restricted to the Dundas town site. The Mt Dundas Regional Reserve covers part of the south of the licence (Figure 2).

The topography within the licence ranges from low/undulating to steep. Vegetation coverage includes button grass valleys, tea tree/acacia forest, nothofagus rainforest, wet eucalyptus forest and wet scrub. Access is provided from the all-weather Dundas Road, from which further access is gained to old mining and exploration tracks, which range in condition from good vehicular passage to foot access only. A northwest track gives access to the Razorback mine area and continues further north to the Grand Prize mine area. Other areas are not well serviced by tracks and may at present only be accessible by foot.

Reporting period: 6 December 2017 to 5 December 2018.

Tenement holder: Columbus Metals Ltd., a wholly owned subsidiary of Stellar Resources Ltd.

1.4. LOCATION OF LICENCE

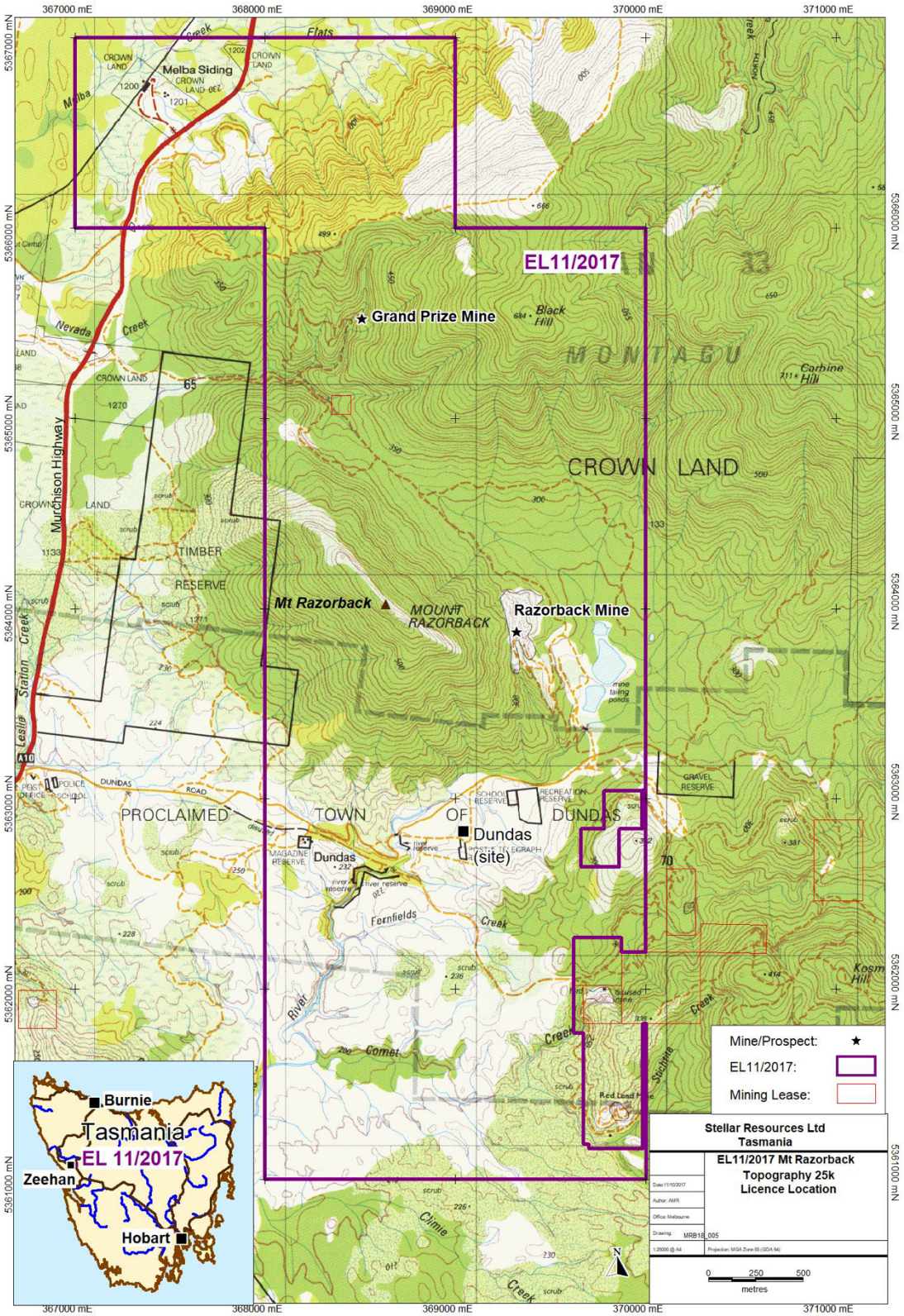

Figure 1. EL11/2017, Dundas: Location Map.

1.5. LAND TENURE

SCHEDULE

LAND DISTRICT OF MONTAGU VICINITY OF DUNDAS
MUNICIPALITYOF WEST COAST

EXPLORATION LICENCE 17/2017 12m^2
COLUMBUS METALS LTD.

LAND TENURE

The area comprises: Private Property
Crown Lease
Crown land
Multiple Use State Forest
Mount Dundas Regional Reserve

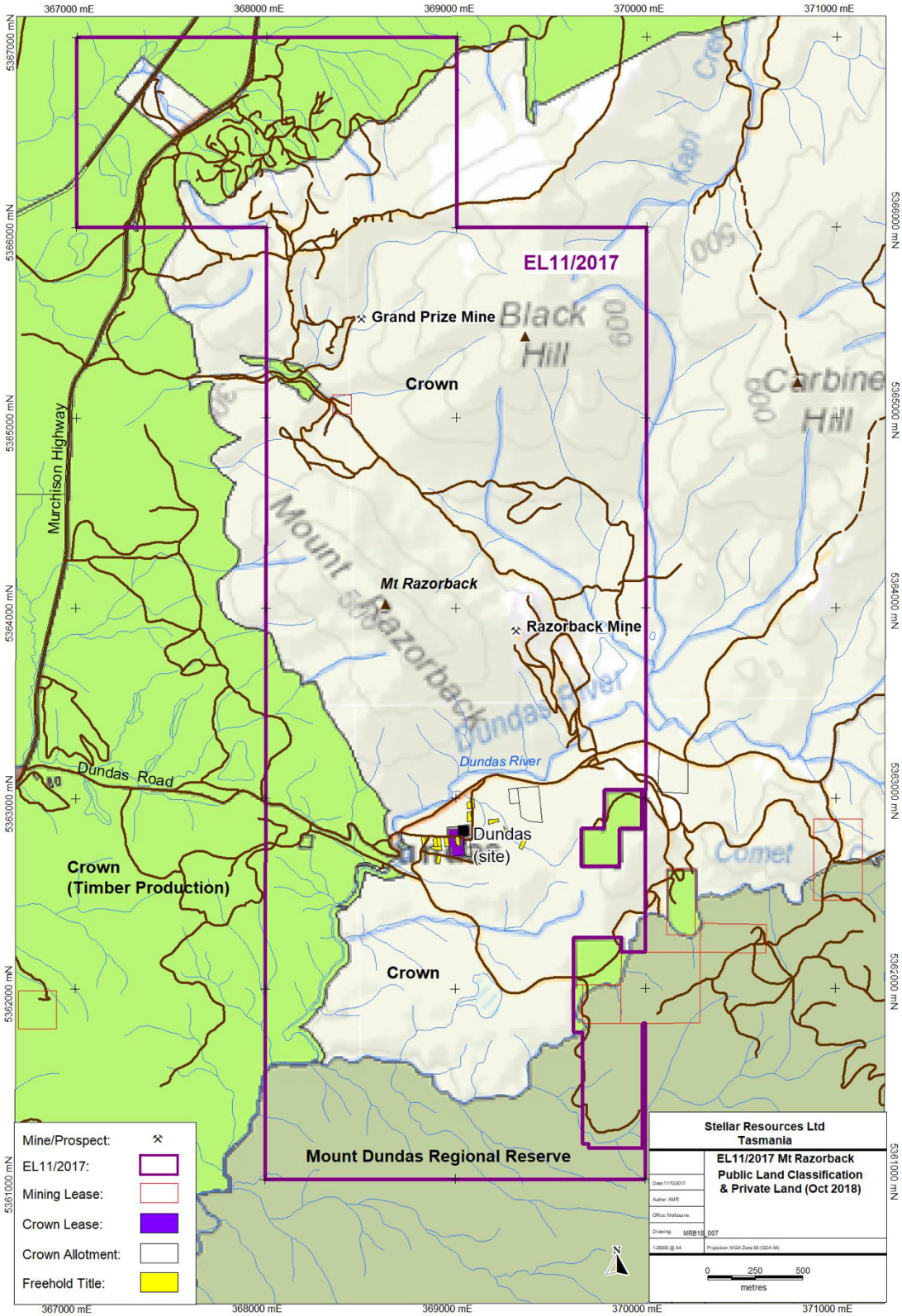

Figure 2. EL11/2017, Dundas: Land Classification

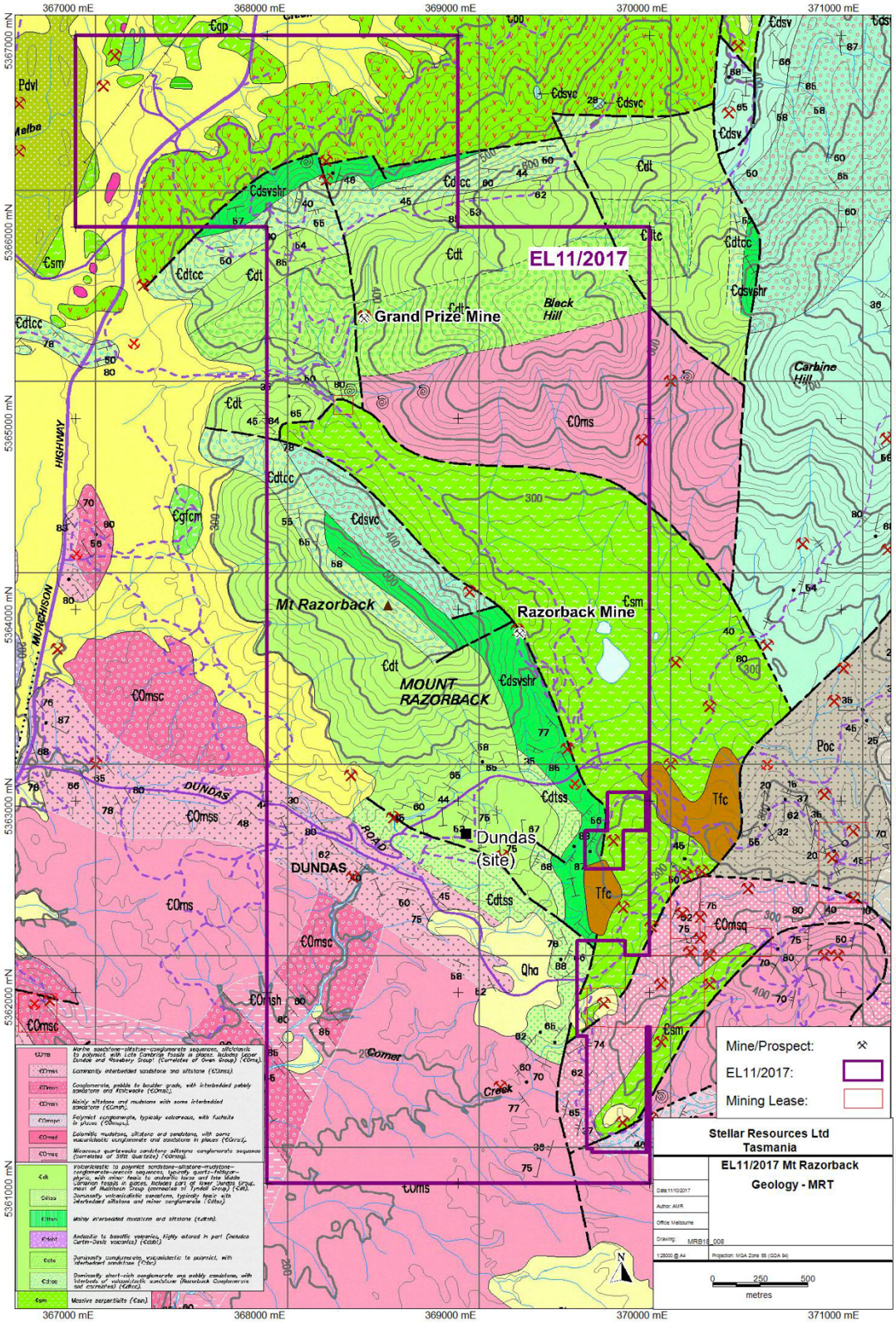

Figure 3. EL11/2017, Dundas: MRT Geology

2. REVIEW OF PREVIOUS WORK

The Dundas area has been the focus of sporadic exploration activity since the 1930's, when modern exploration commenced. Minops Ltd carried out open pit tin mining at Razorback from 1975 to 1978. Stellar Resources Ltd carried out nickel exploration on EL 21/2004 from 2006 until 2009.

Table 1 and Figures 4 - 7 give an overview of previous work by other companies.

Table 1. Previous Work in EL 11/2017 Area

COMPANY	PERIOD	PROSPECT/ COMMODITY	METHODS	RESULTS
BHP	1959 - 60	Razorback Grand Prize (Sn)	Turam, SP and Magnetics	Inconclusive except over known mineralisation.
PLACER	1964 - 66	Razorback Grand Prize (Sn)	Underground Drilling & Mining	No new ore bodies found.
GEOPHOTO	1968 - 74	Dundas (Pb Zn Ag)	IP, REM, SP, Mag, Mapping, Geochem & 79 Drill Holes	Intensive drilling located Pb-Zn- Ag in several thin fissure veins separated by barren host rocks. Didn't meet corporate objectives.
CSR	1976 - 87	Nevada Razorback Montezuma Carbine Hill (Sn Cu Pb Zn Au)	EM, Mag, IP, Dighem, Input, Mapping, Stream Geochem, Soil Geochem & 7 Drill holes	Several geochem anomalies identified and followed up. Airborne geophysical anomalies were followed up by 7 unsuccessful holes.
RENISON LTD	1971 - 87	Grand Prize (Fault), North Dundas Grid, Commonwealth Hill, Razorback Grid, Kapi, Carbine Hill, Serpentine Hill, (Sn Cu Asbestos, PGM)	Gridding, mapping, Airborne EM, drilling. Soil/rock geochem. IP, Dighem.	Extremely deep diamond drilling on the Kapi Fault returned in S652: 313.4-313.9m depth - 0.5m @ 2.14% Cu. Grand Prize Fault: S 947A @ 534.8m tourmaline alteration zone. S 969: 406.8-409.8 - 3m @ 5.21% Sn, 0.23% Cu, 13 g/t Ag 408.4-409.8 - 1.4m @ 10.93% Sn
MINOPS LTD	1975 - 78	Razorback (Sn)	Drilling (7 DDH) & Open Pit Mining	Mined 180,000 tonnes @ 0.6% Sn for 53 tonnes of tin in concentrate
CRAE	1979 – 82	Razorback (Sn)	Drilling (5 DDH)	Drilling for extensions of Razorback
PASMINCO	1996-2001	Pb-Zn	Reconnaissance mapping and GIS. HEM/mag 100m fls survey	Structural interpretation re: Precambrian, EM targets defined and followed-up, some related to shallow glacial cover. Concluded that the Dundas area vein-style deposits could not meet corporate objectives.
DISCOVERY NICKEL	2004 - 06	Dundas ultramafics, (Ni)	Literature/data review; limited rock chip sampling.	Sold/relinquished western Tasmania nickel tenements to pursue overseas projects.
STELLAR RESOURCES LTD.	2006 - 09	Dundas ultramafics, (Ni) Razorback & Grand Prize lodes	Literature/data review; GIS capture; rock chip sampling. Drilling: BHD 1 & 2 VTEM Survey 3D computer modelling	Consistent 0.2% Ni background in Dundas serpentinite. No mineralisation intersected. Anomaly over Razorback Mine Similar to CRAE (1980) model
CREATE RESOURCES	2009 – 13	Dundas ultramafic (Ni)	Drilled 1 DDH	Drilled Ni geochem target north of Razorback

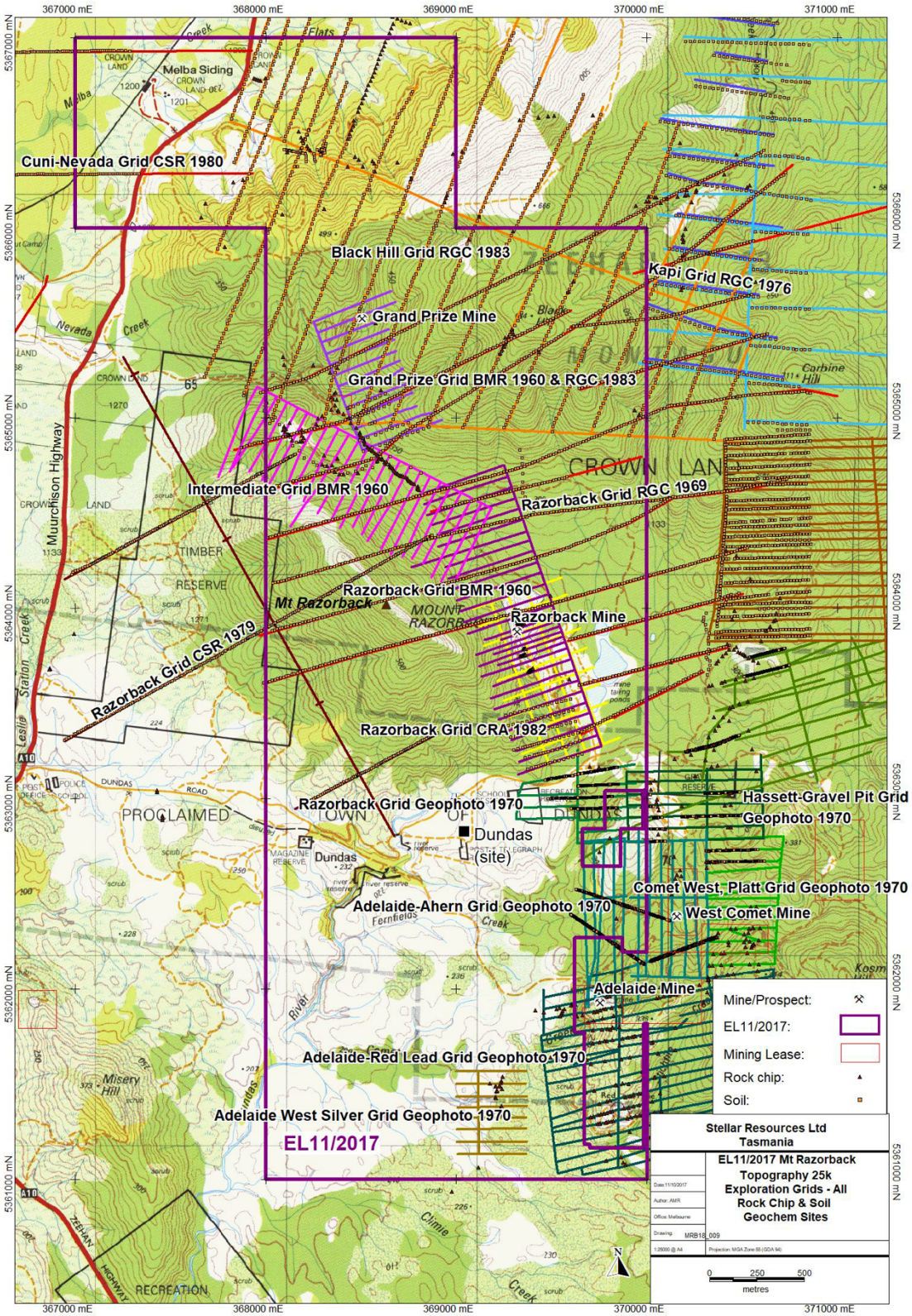

Figure 4. EL11/2017, Dundas: Historic Exploration Grids & Geochem Sampling Sites

Razorback Mine: Minops pit, underground workings, underground & surface drilling.

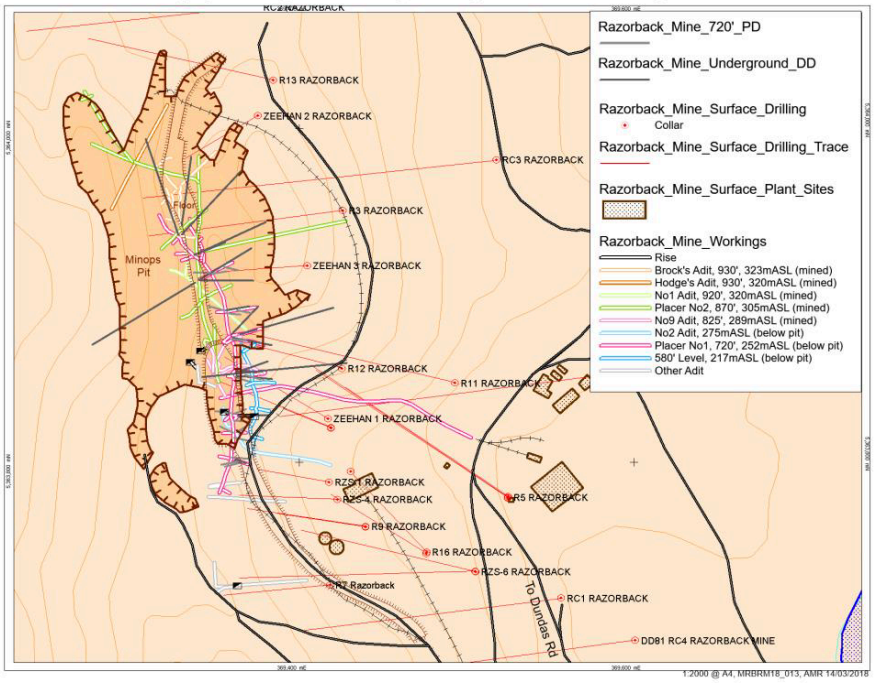

Figure 5. EL11/2017: Razorback Mine, Historic Surface & Underground Drilling

Razorback Mine: Minops pit, underground workings, surface & underground Geochem Sn sample sites.

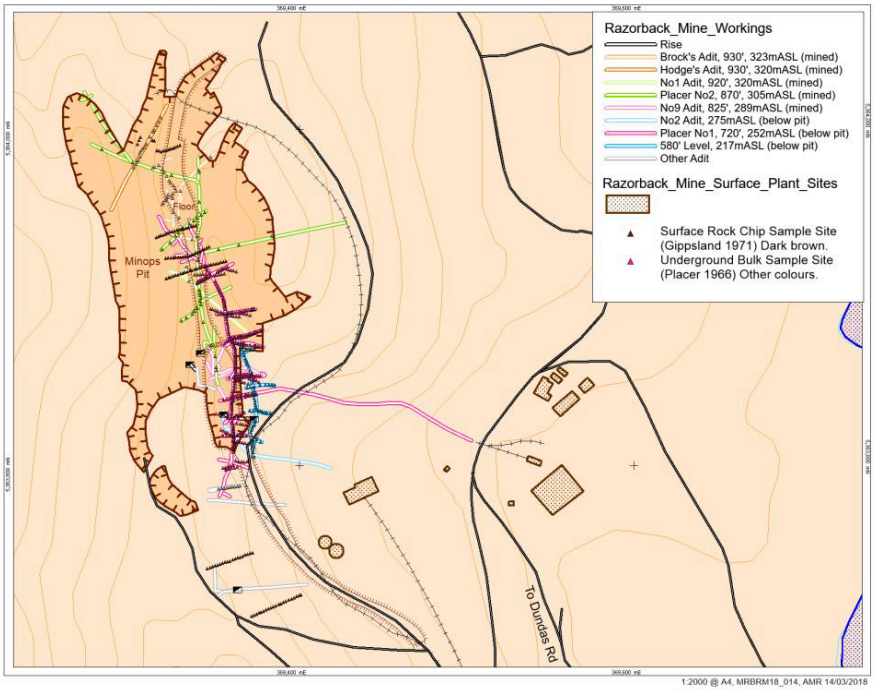

Figure 6. EL11/2017: Razorback Mine, Historic Surface & Underground Geochem Sampling Sites

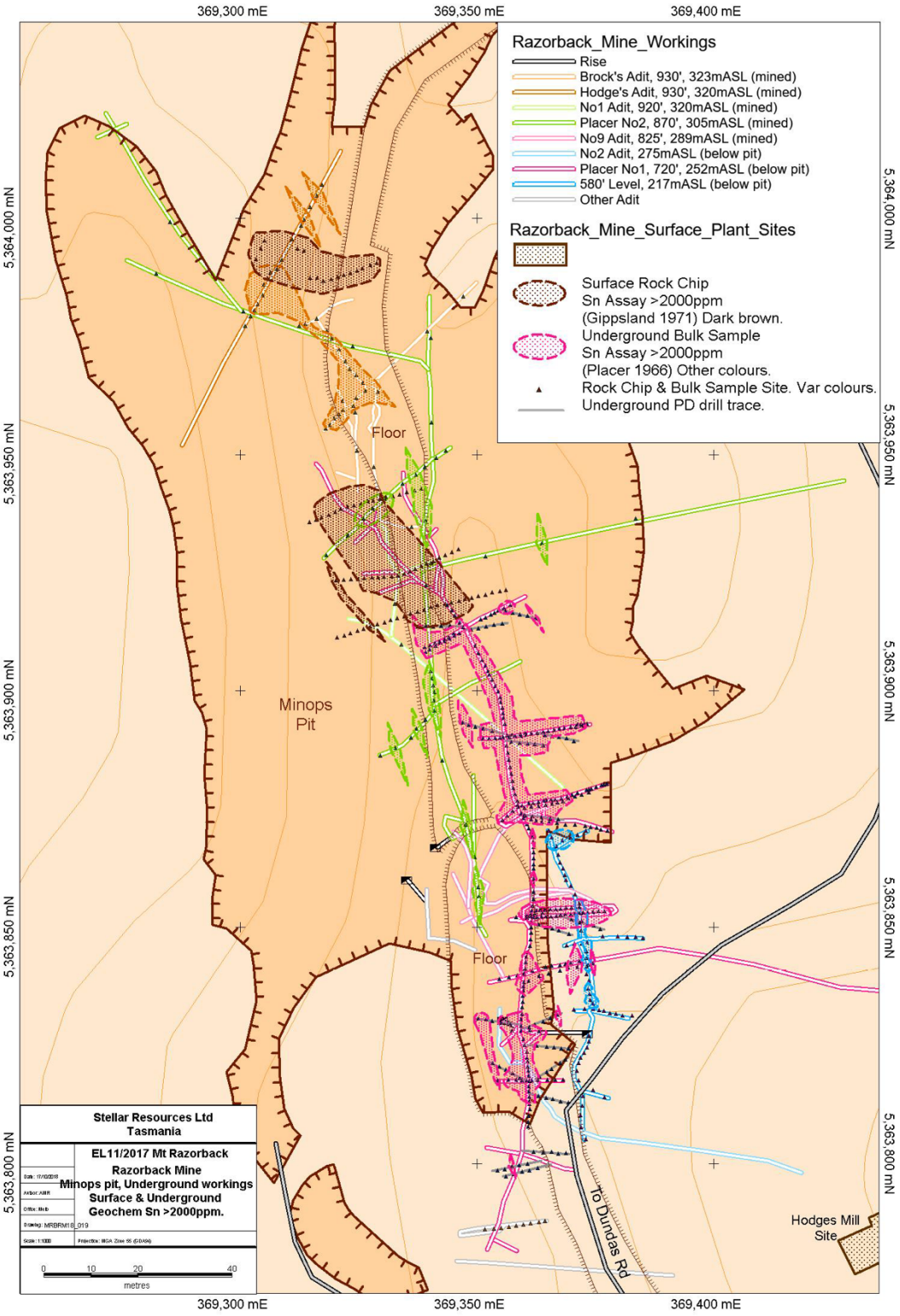

Figure 7. EL11/2017: Razorback Mine, Historic Surface & Underground Sampling Sites, with Sn Geochemistry >2000ppm Sn

3. WORK COMPLETED DURING THE REPORTING PERIOD

3.1. DATA COMPILATION & REVIEW

Historic drilling at Razorback was carried out at close spacing by several mining companies (Placer, Minops & CRAE) with the aim of "Reserve" definition for mining. Only limited step out drilling exists around the deposit. Drilling at Grand Prize consists of broad spaced exploration holes in the order of 100-200m spacings.

Tim Callaghan, of Resource & Exploration Geology, was commissioned to review the Grand Prize and Razorback Mines using 3D modelling software and models created by PNG Geoscience. The available data was found to be inadequate to assess the models as it did not have a suitable drill hole database and the models were corrupted. Considerable time was spent acquiring and validating historic data, a process that is ongoing. Data quality for the Razorback Mine is poor, mainly due to drill hole location problems but also QAQC of historic data. Data quality for Grand Prize is significantly better.

Preliminary solid models were created for the Razorback–Grand Prize Fault system, the Red Lead Conglomerate at Grand Prize and 0.1% Sn boundaries for the Razorback and Grand Prize prospects. Two simple Inverse Distance Squared (ID^2) block model estimations of the prospects were interpolated to quickly assess the metal endowment and potential of each prospect. Refer to figures 8 -11 for a depiction of this work.

Tim Callaghan's report and digital model files are appended in digital form as Appendices 7 & 8.

3.2. RAZORBACK OPEN PIT SAMPLING

In order to provide fresh exposure for mapping and fresh surfaces for channel sampling an existing face was cleaned off and two 1m deep trenches dug across the floor at the southern end of the open pit. See Figure 12 for face / trench locations.

The face and trenches were channel sampled at 1metre intervals. Sample mid points were surveyed by licenced surveyors, L. Mackenzie & Associates. Samples were submitted to ALS in Burnie for assay. Refer to Table 2 for sample locations and tin assays. The full assay results are appended digitally (Appendix 5).

Table 2. EL11/2017: Razorback Mine, Open Pit Trench Tin Assays

Trench	Dist. (m)	East (GDA)	North (GDA)	RL (m)	Descript'n	Sample No.	Sn %	Interval %Sn
Face	0.5	143,369,344.99	5,363,869.31	290.89	Clay Gossan	SZ000222	1.29	
	1.5	144,369,346.18	5,363,869.40	290.75	Gossan	SZ000223	0.29	
	2.5	145,369,347.38	5,363,869.93	290.75	Clay Gossan	SZ000224	0.41	
	3.5	146,369,348.16	5,363,870.39	290.67	Adit	SZ000225	0.11	
	4.5	147,369,349.00	5,363,870.92	290.43	Clay Gossan	SZ000226	0.08	11m @ 0.45% Sn
	5.5	148,369,349.76	5,363,871.43	290.30	Clay Gossan	SZ000227	0.55	
	6.5	149,369,350.52	5,363,871.79	290.17	Adit	SZ000228	0.43	
	7.5	150,369,351.47	5,363,872.03	290.09	Talc Shale	SZ000229	0.14	
	8.5	151,369,352.37	5,363,872.61	290.34	Alt Shale	SZ000230	0.31	
	9.5	152,369,353.06	5,363,872.85	290.48	Alt Shale	SZ000231	0.57	
	10.5	153,369,354.15	5,363,872.88	290.62	Highly Alt. Rock	SZ000232	0.76	
Trench 1	0.5	130,369,348.35	5,363,850.00	287.65	Stopefill	SZ000233	0.18	
	1.5	130,369,349.46	5,363,850.17	287.54	Stopefill	SZ000234	0.23	
	2.5	131,369,350.28	5,363,850.50	287.33	Stopefill	SZ000235	0.21	
	3.5	132,369,351.28	5,363,850.76	287.24	Stopefill	SZ000236	0.12	
	4.5	133,369,352.22	5,363,851.01	287.10	Stopefill	SZ000237	0.38	
	5.5	134,369,353.21	5,363,851.28	286.99	Stopefill	SZ000238	0.82	
	6.5	135,369,354.22	5,363,851.52	287.01	Stopefill	SZ000239	0.4	
	7.5	136,369,355.26	5,363,851.82	287.27	Weathered Rock	SZ000240	0.47	
	8.5	137,369,356.22	5,363,852.03	287.44	Weathered Rock	SZ000241	0.28	
	9.5	138,369,357.43	5,363,852.29	287.60	Breccia	SZ000242	0.32	11m @ 0.56% Sn
	10.5	139,369,358.32	5,363,852.18	287.71	Sulphide cobbles	SZ000243	0.91	
	11.5	140,369,359.24	5,363,852.19	287.83	Blue Shale	SZ000244	0.42	
	12.5	141,369,360.14	5,363,852.36	287.91	Blue Shale	SZ000245	0.37	
	13.5	142,369,361.15	5,363,852.77	287.85	Stopefill	SZ000246	0.38	
	14.5	142,369,362.14	5,363,852.99	287.84	Stopefill	SZ000247	1.41	
Trench 2	0.5	110,369,353.33	5,363,822.53	287.22	Stopefill	SZ000248	0.63	
	1.5	111,369,354.50	5,363,823.19	287.15	Stopefill	SZ000249	0.37	
	2.5	112,369,355.27	5,363,823.86	287.10	Blue Shale	SZ000250	0.45	
	3.5	113,369,356.07	5,363,824.31	287.03	Blue Shale	SZ000181	0.12	
	4.5	114,369,356.85	5,363,824.92	286.98	Blue Shale	SZ000182	0.33	
	5.5	116,369,357.66	5,363,825.48	286.92	Blue Shale	SZ000183	0.84	
	6.5	117,369,358.50	5,363,826.17	286.75	Weathered Shale	SZ000184	0.32	13m @ 0.68% Sn
	7.5	118,369,359.20	5,363,826.76	286.62	Weathered Shale	SZ000185	0.73	
	8.5	119,369,359.96	5,363,827.37	286.86	Talc Shale	SZ000186	0.14	
	9.5	120,369,360.89	5,363,827.91	286.91	Talc Shale	SZ000187	0.69	
	10.5	121,369,361.50	5,363,828.62	287.01	Blue Shale	SZ000188	2.05	
	11.5	122,369,362.28	5,363,829.27	287.16	Blue Shale	SZ000189	1.45	
	12.5	123,369,362.97	5,363,829.78	287.26	Gossan	SZ000190	0.7	
	13.5	124,369,364.04	5,363,830.47	286.79	Gossan	SZ000192	0.12	
	14.5	124,369,364.92	5,363,831.52	286.82	Gossan	SZ000193	0.1	

3.3. RAZORBACK TAILINGS DAM SAMPLING & METALLURGICAL TESTING

Twenty-one hand auger samples from 11 sites on the north Razorback Tailing Dam were collected in order to determine the average grade and evaluate the metallurgy of the tailings from the Minops operation. The tailings were sampled along two east-west lines across the north dam. The sample lines were 50m apart with sample sites spaced 20m apart on each line. Samples were taken at 1 metre intervals downhole to a depth of 2 metres, or to refusal, at the sites. Sites were surveyed using hand held GPS and samples were assayed at the ALS Lab in Burnie.

Figure 12 depicts the sample locations. Table 3 sets out the sample locations and tin grades. Full assay results are appended digitally (Appendix 3).

Table 3. EL11/2017: Razorback Mine, Tailings Sample Tin Assays

Sample No.	Site	GDA East (GPS)	GDA North (GPS)	From (m)	To (m)	Interval (m)	% Sn
SZ000201	RT1	369763	5363700	0.00	1.00	1.00	0.21
SZ000202	RT1	369763	5363700	1.00	1.60	0.60	0.23
SZ000203	RT2	369780	5363700	0.00	1.00	1.00	0.17
SZ000204	RT2	369780	5363700	1.00	2.00	1.00	0.26
SZ000205	RT3	369800	5363700	0.00	1.00	1.00	0.22
SZ000206	RT3	369800	5363700	1.00	2.00	1.00	0.25
SZ000207	RT4	369820	5363700	0.00	1.00	1.00	0.24
SZ000208	RT4	369820	5363700	1.00	2.00	1.00	0.28
SZ000209	RT5	369840	5363700	0.00	1.00	1.00	0.18
SZ000210	RT5	369840	5363700	1.00	2.00	1.00	0.21
SZ000211	RT6	369860	5363700	0.00	1.00	1.00	0.21
SZ000212	RT6	369860	5363700	1.00	1.75	0.75	0.22
SZ000213	RT7	369880	5363700	0.00	0.30	0.30	0.20
SZ000214	RT8	369780	5363750	0.00	1.00	1.00	0.22
SZ000215	RT8	369780	5363750	1.00	1.60	0.60	0.20
SZ000216	RT9	369800	5363750	0.00	1.00	1.00	0.23
SZ000217	RT9	369800	5363750	1.00	2.00	1.00	0.32
SZ000218	RT10	369820	5363750	0.00	1.00	1.00	0.23
SZ000219	RT10	369820	5363750	1.00	1.80	0.80	0.26
SZ000220	RT11	369840	5363750	0.00	1.00	1.00	0.22
SZ000221	RT11	369840	5363750	1.00	1.80	0.80	0.34

Metallurgical testing was carried out by ALS in Burnie on 4 composite samples produced from the tails sampling. These composite samples were:

A. SZ000203, SZ000204
B. SZ000207, SZ000208
C. SZ000216, SZ000217
D. SZ000218, SZ000219

The composite samples were sized and subjected to gravity separation test work. Magnetic separation of the gravity concentrate was then tested.

The ALS Metallurgy Report is appended digitally as Appendix 9.

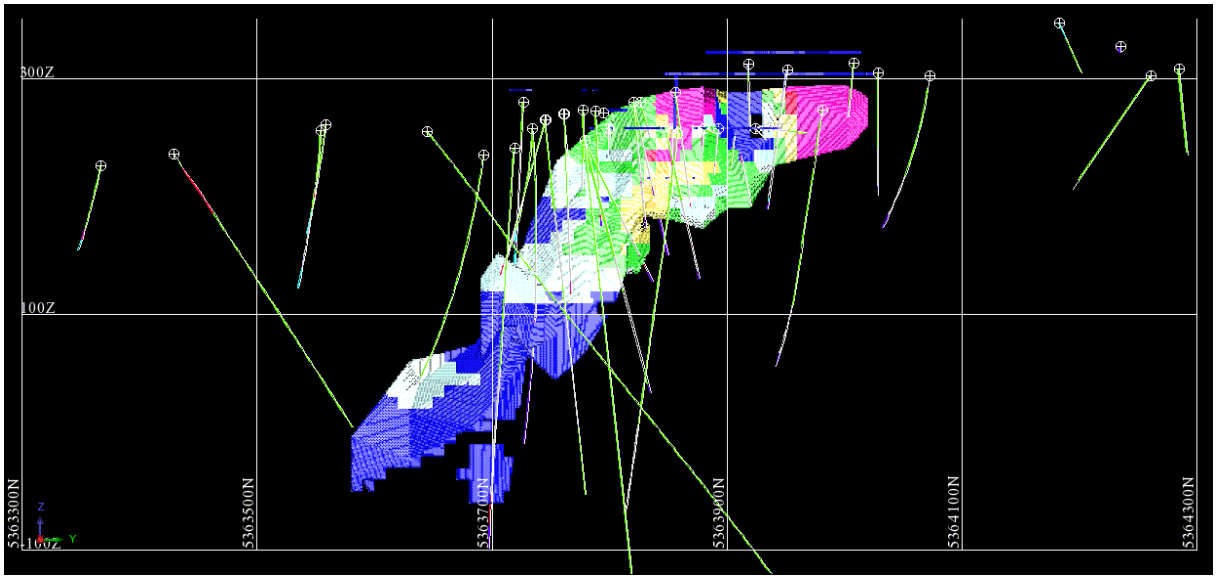

Figure 8. EL11/2017: Razorback Mine, Block modelled Sn mineralisation.

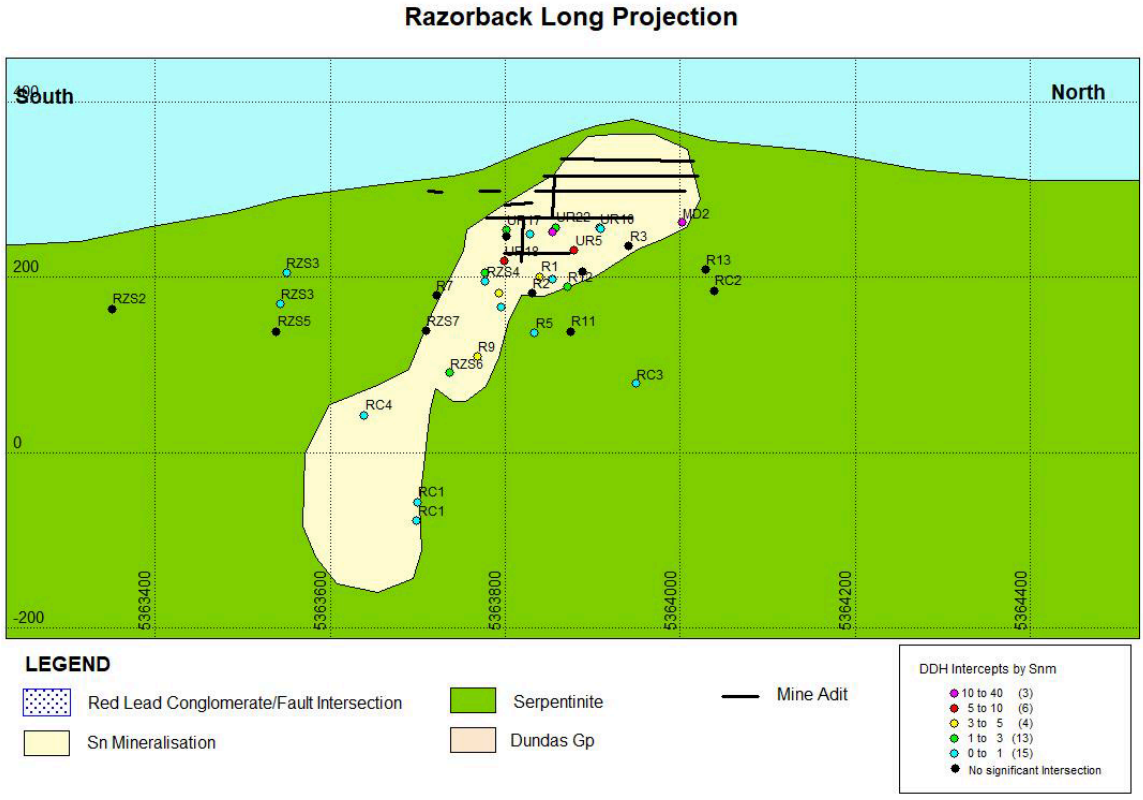

Figure 9. EL11/2017: Razorback Mine, Long Section

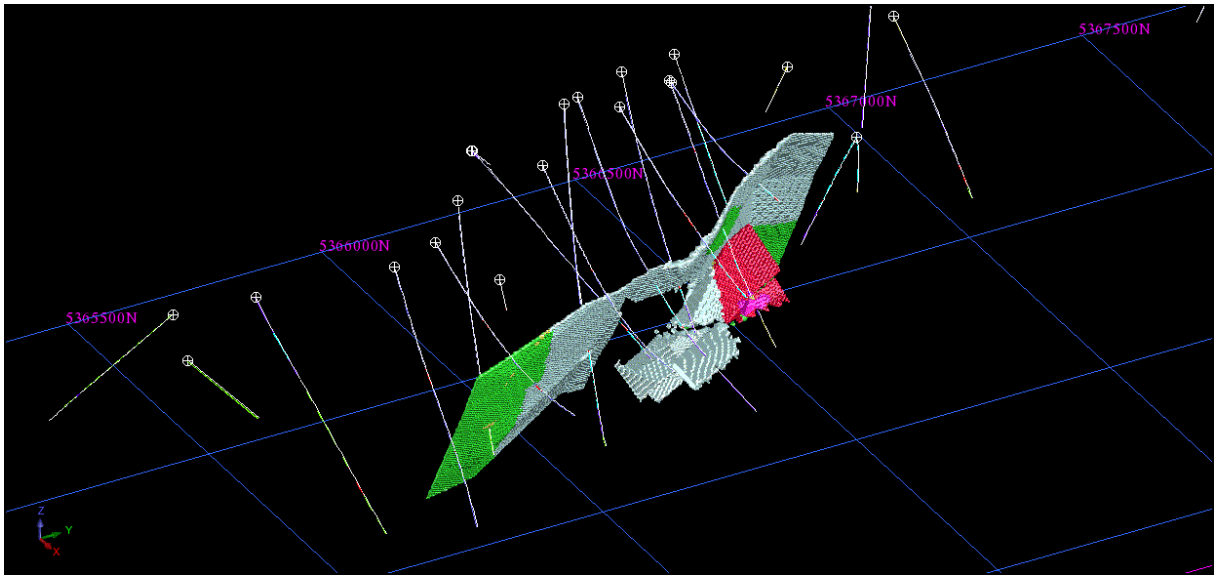

Figure 10. EL11/2017: Grand Prize, Block Modelled Sn Mineralisation >0.2% Sn

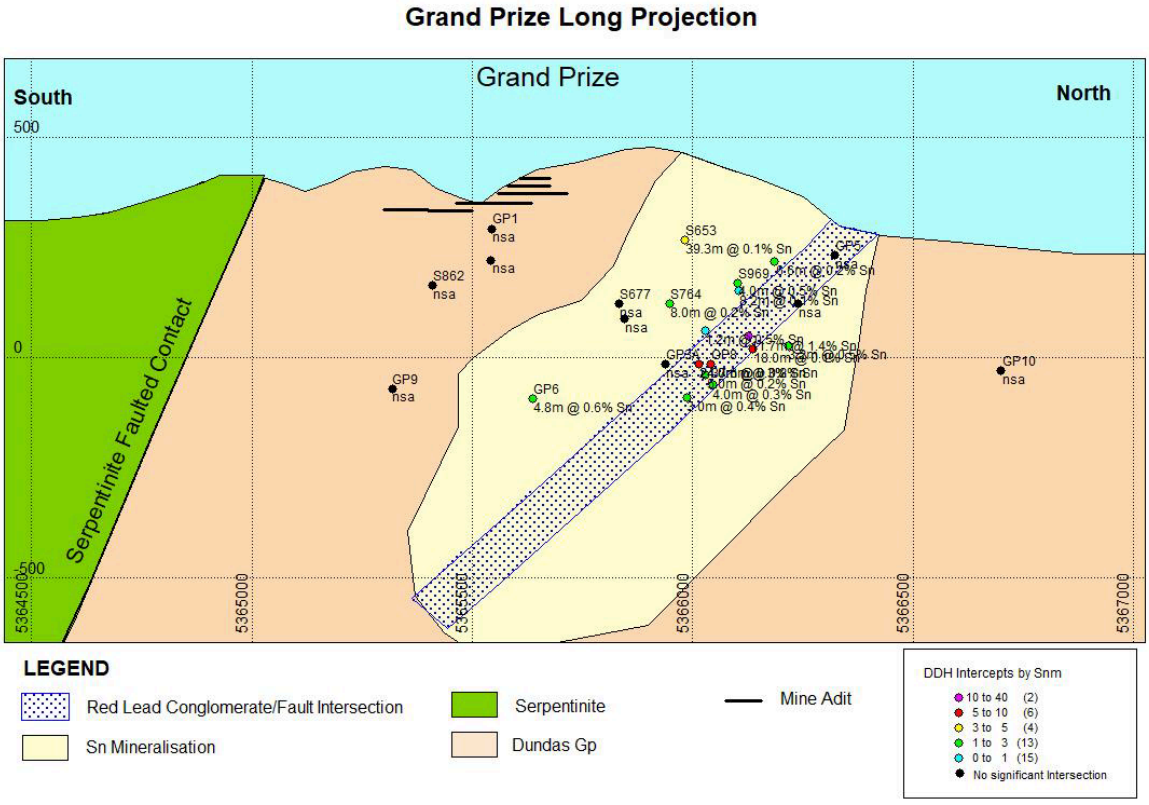

Figure 11. EL11/2017: Grand Prize, Long Section

EL11/2017 Mt Razorback: Razorback Tin Mine, Stellar Tin Sampling Sites 2018

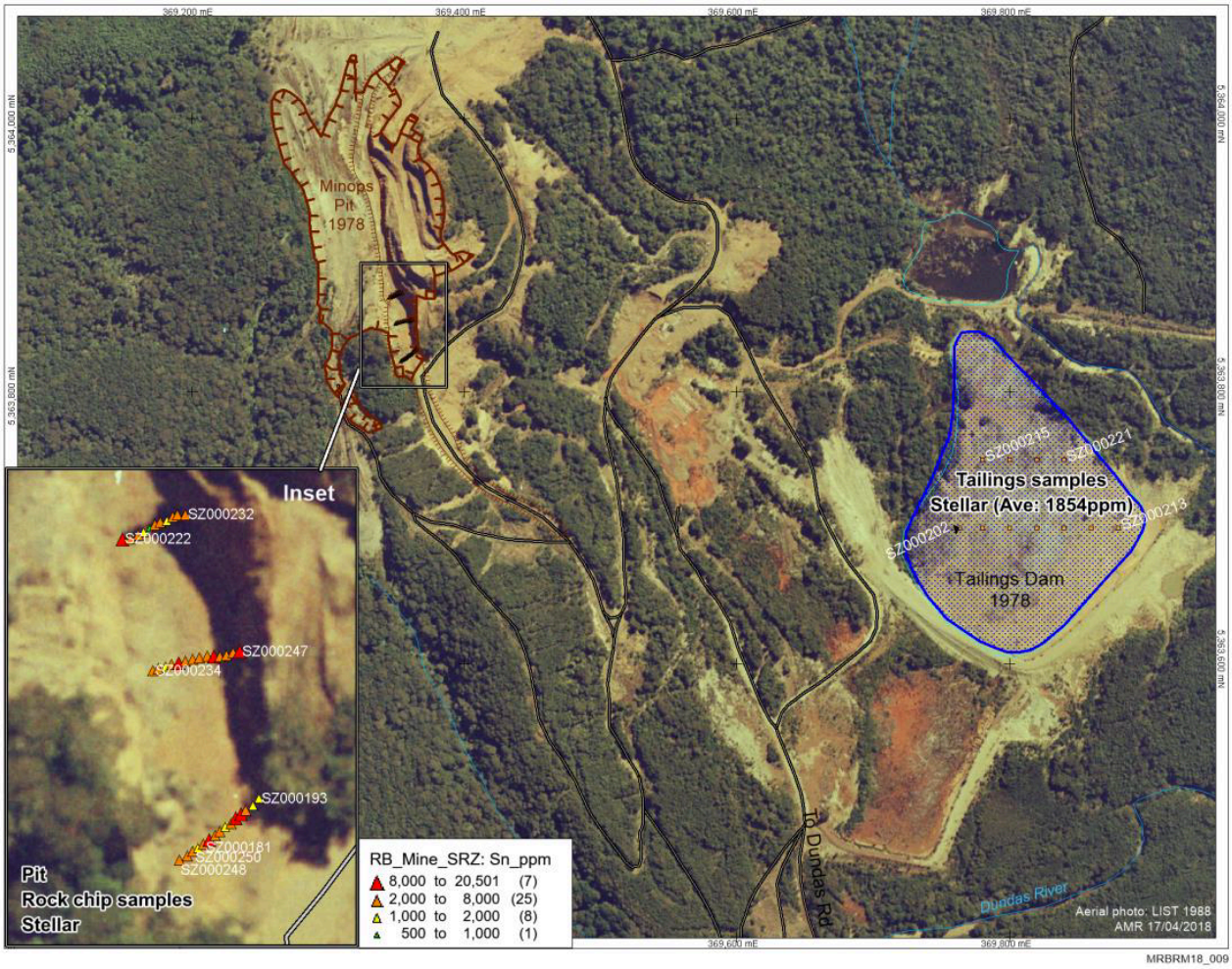

Figure 12. EL11/2017: Razorback Mine, Surface Geochemical Sampling Sites

4. DISCUSSION OF RESULTS

4.1. DATA COMPILATION & REVIEW

Tim Callaghan found that the Grand Prize-Razorback Fault structure is a large mineralizing system. Its proximity to the Pine Hill Granite and the Renison Bell Tin Mine make it highly prospective for structural and replacement style tin-copper deposits.

Mineralisation is mainly hosted in or adjacent to major faults with some replacement mineralisation in the Red Lead Conglomerate and to a limited extent the dolomitized serpentinite at Razorback. The Red Lead Conglomerate is a particularly reactive lithology preferable for replacement mineralisation at both deposits. It should be preferentially targeted where it is in close proximity to mineralizing structures.

The Razorback Mine has the potential to host a small resource in the order of 220 – 260kt at 0.6 - 0.8% Sn. The accessibility of this resource suggests it may be amenable to mining and treating at existing or proposed processing plants. Step out drilling, particularly down dip and along strike has only been partially effective with many of the deeper holes pulling up short of the Red Lead Conglomerate. It is recommended that the historic workings be surveyed to accurately locate some of the historic data. Some short validation drill holes are warranted to facilitate resource estimation. Broader step out drilling testing the full fault structure and Red Lead Conglomerate in the footwall is recommended.

The Grand Prize prospect is a very large Sn mineralizing system (>1km strike length), similar to the Federal Basset Fault at Renison. Modelling on a 0.1% Sn cutoff suggests the area has the potential to host a sub grade resource in the order of 5-6Mt @ 0.3-0.4% Sn and 0.2-0.3% Cu above a cutoff of 0.2% Sn with the potential for higher grade mineralisation at reduced tonnages.

4.2. RAZORBACK OPEN PIT SAMPLING

Even in the fresh cuts the rocks were found to be so altered and weathered that no geological or structural data could reliably be determined. Assay results however confirmed historical grade and mineral distribution.
Results of pit sampling are set out below. Detailed results are set out in Table 2 and Appendix 5.

- The face sampling returned an average grade of 0.45% Sn over its full 11metre length.
- Trench 1 returned an average grade of 0.56% Sn over 11m. The western 4m of the trench was a stope.
- Trench 2 returned an average grade of 0.68% Sn over 13m.

Refer to Figures 13 – 16 for comparison between surface sampling assays and underlying historical drill assays.

4.3. RAZORBACK TAILINGS METALLURGICAL TESTING

- Only minor acid soluble Sn is present at ~6.9% of the total Sn across the tailings samples.
- Sulphur (expected to concentrate up across gravity) is low at an average of 0.29%.

Size by size assays results:

- Although the sizing of the four samples tested varies considerably (to be expected for TSF material due to natural segregation effects), the general trends are reasonably consistent between the samples.
    - Sizings vary from a P80 ~83 to ~183 µm, with Sn P80 (passing size of the tin) varying from ~54 to ~144 µm
- Generally the slimes fractions (<8 µm) are very low Sn grade indicating Sn losses to slimes should be low.
- The coarser fractions (>75 µm,) are generally low Sn, particularly for the finer samples. This suggests historical treatment performed reasonably on these fractions.
- The majority of Sn is present in the <75 >8 µm fractions (79% to 53% of the total Sn present).
    - These size ranges would traditionally be considered “fine gravity” and “Sn flotation” recoverable.

Gravity separation results:

- Despite the fine size of the Sn, initial gravity separation testing was quite encouraging.
    - Achieved from ~32 to ~47% Sn recovery (overall) to a grade of ~23 to ~31% Sn from the <75 >34 µm fraction.
    - Coarser fractions performed fairly poorly, largely reflecting their low grade (little gravity recovery Sn appears to be left here)
    - Sn loss to the <34 µm fraction (not treated via gravity) was low at ~2 to ~17% (overall)
        - This is really in tin float feed size range, but suggests there won't be a significant penalty for not including tin float
    - Overall results are encouraging. Results suggest it should be possible to produce a moderate grade concentrate (suitable from dressing) at a recovery of the order of 35 to 45%.
- Magnetic separation of the gravity concentrate has shown minimal upgrade/mass rejection indicating little magnetic is present in the concentrate
- The major diluents in the concentrate appear to be;
    - Sulphides: This should be readily rejectable in concentrate dressing flotation stage
    - Carbonates; likely siderite/rhodochrosite:
        - There is likely some scope to clean this out of the concentrate further. However, this is a more challenging separation due to the relatively high SG.
        - Alternatively this could be readily leached from the concentrate

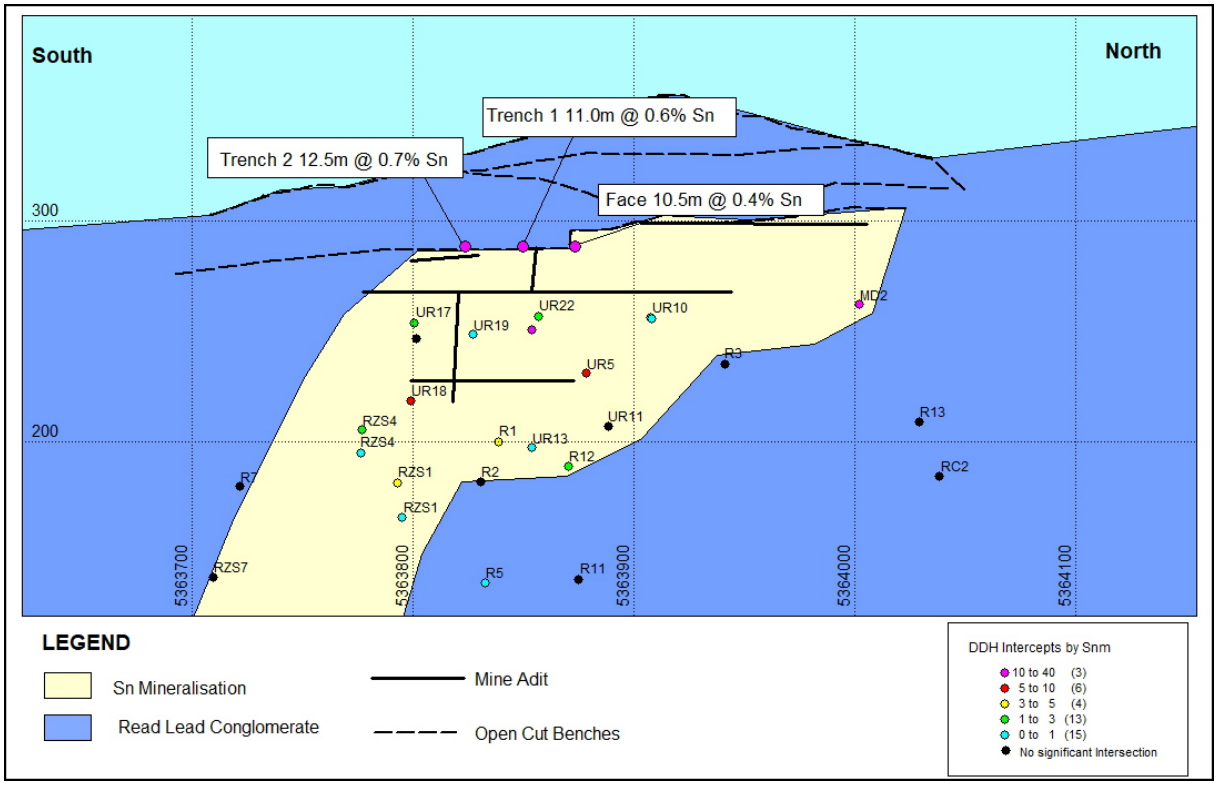

Figure 13. EL11/2017: Razorback Mine, Long Section with Face / Trench Sampling

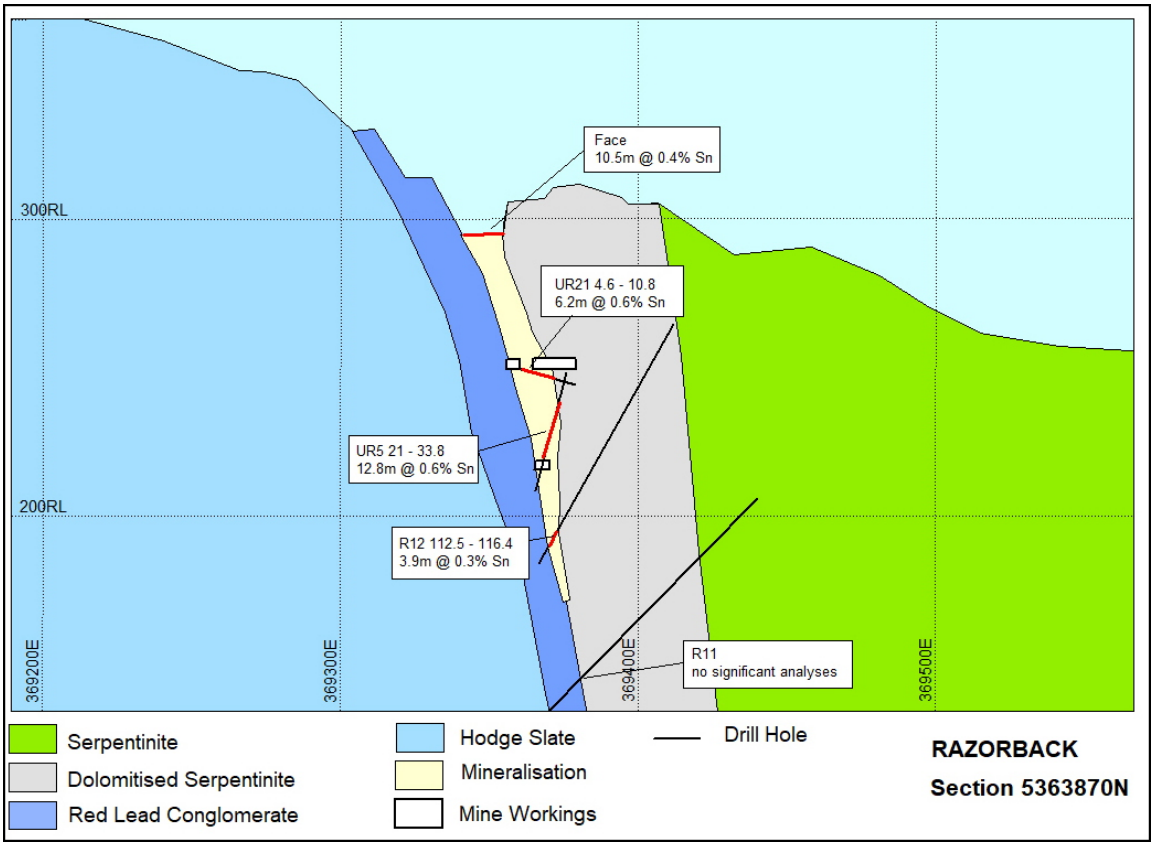

Figure 14. EL11/2017: Razorback Mine, 5,363,850mN Cross Section with Drill & Face Assays

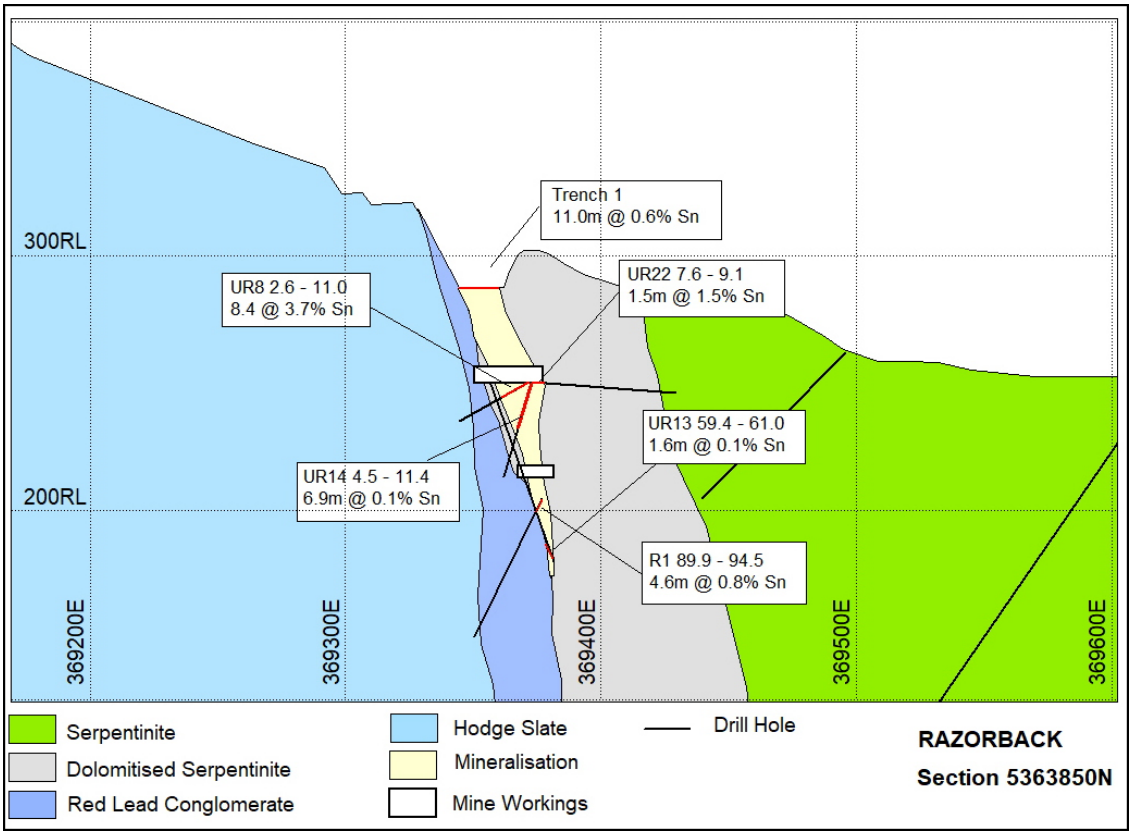

Figure 15. EL11/2017, Razorback Mine, 5,363,850mN Cross Section with Drill & Trench Assays

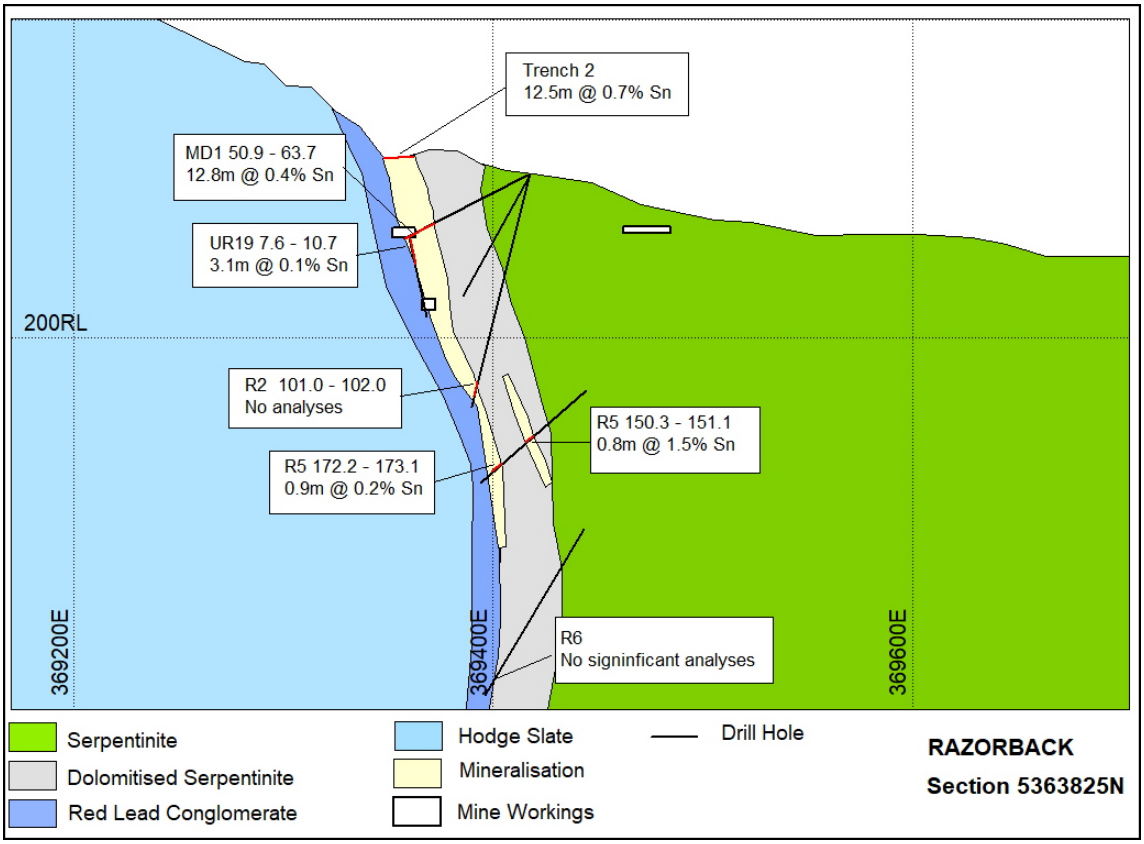

Figure 16. EL11/2017: Razorback Mine, 5,363,825mN Cross Section with Drill & Trench Assays

5. RECOMMENDATIONS / PLANNED WORK

5.1. EXPLORATION

- Survey historic workings
- Short range validation drilling at Razorback
- Step out exploration at Razorback testing the Fault and Red Lead Conglomerate
- Drilling Section 5366150N at Grand Prize, targeting the Grand Prize Fault-Red Lead Conglomerate contact. Followed by further exploration and infill drilling at Grand Prize if warranted.
- Continue acquisition and validation of historic drilling data
- Assess historic geochemistry and geophysics
- Exploration Drill Targeting, particularly along Red Lead Conglomerate-Serpentine contact north of the Razorback Mine.

5.2. RAZORBACK TAILINGS METALLURGY

- Collect more samples (including from the Southern Dam)
- Auger all holes to refusal to determine tailings depth and hence total resource.
- Include standards with samples for QAQC purposes.
- Complete (larger scale) spiral testing to better assess achievable performance in a simple gravity only circuit utilising industrial scale equipment.

6. ENVIRONMENT

The costeans in the floor of the Razorback pit were filled and track rolled on completion of mapping and sampling.

The augur holes in the Razorback North Tailings Dam collapsed as sampling was completed.

7. EXPENDITURE

Job No	Job Details	Department	
Tran. Date	6/12/2017– 5/12/2018	Doc Ref - Description	Amount
Job Code: 9006	**EL 11/2017 Razorback**		
		Admin / Management	AU$16,120.50
		Technical	AU$39,300.89
Phase Total		**STAFF COSTS**	**AU$55,421.39**
		Professional Technical	AU$22,725.00
Phase Total		**CONTRACT PERSONNEL**	**AU$22,725.00**
		Engineering	AU$1,086.73
Phase Total		**CONSULTANT PERSONNEL**	**AU$1,086.73**
		Earthworks	AU$1,410.00
Phase Total		**EARTHWORKS**	**AU$1,410.00**
		Sample analysis / Met Tests	AU$20,247.55
Phase Total		**ASSAYS**	**AU$20,247.55**
		Geophysical Airphoto Surveys	AU$730.00
Phase Total		**DATA ACQUISITION**	**AU$730.00**
		Vehicle Costs All	AU$1,740.10
		Office Costs	AU$1,560.00
Phase Total		**SUPPORT COSTS**	**AU$3,300.10**
		Drafting & Presentation	AU$930.00
Phase Total		**DATA PROCESSING**	**AU$930.00**
Job Total:		**TOTAL**	**AU$105,850.77**

8. REFERENCES

Blissett, A.H. and Gulline, A.B., 1961, Tin Mineralisation near Mt. Razorback, Dundas. Tas. Dept. Mines, Technical Report, No.5 pp. 26-29.

Bottrill, R., Williams, P., Dohnt, S., Sorrell, S. & Kemp, N., 2006 Crocoite and Associated Minerals from Tasmania. Aust Journ of Min, Vol 12, No. 2

Brown, A.V., 1986. Geology of the Dundas-Mt Lindsay Mt Youngbuck Region. Geology Survey Tasmania Bull. 6.

Layden, C.E., 1974. Special Prospecting Licence 120, North Dundas, Tasmania. Report on exploration activities for period 15th December 1972 to 15th June 1974.

Odell, J., 1982. Exploration at the Razorback Tin Mine, Western Tasmania, January 1981 – April 1982, CRA Exploration P/L, Unpublished Report (**TCR 82-1724**).

Purvis, J.G., 1980 Exploration at the Razorback Tin Mine, Western Tasmania, March 1979 – September 1980, CRA Exploration P/L, Unpublished Report (**TCR 81-1561**). Unpublished Report (**TCR 89-2973**).

Morrison, K., Rigg, A. & Hazeldene, R., 2008 EL21/2004, Dundas, Year 4 Annual Report.

Reid, A.M., 1925. The Dundas Mineral Field, Geological Survey Bulletin 36, Tasmania Department of Mines, Hobart, 98p.

Rigg, A.M., 2007 EL21/2004, Dundas, Annual Report for the Period 26 June 2006 - 25 June 2007.

Thorp, N., 2008. EL21/2004 Dundas – Razorback, Grand Prize Project 3D Review, PGN Geoscience P/L, Appendix 1 Unpublished Report (**TCR 09-5886**)

Veska, L. and Brooks, S., 2010. Exploration Licence 21/2004 Annual Report, June 2009 – June 2010. Creat Resources Holdings. (**TCR10-6098**).

Veska, L., 2011. Exploration Licence 21/2004 Annual Report, June 2010 – June 2011. Creat Resources Holdings. (**TCR11-6265**).

Veska, L., 2014. Annual Report Exploration Licence 21/2004 Dundas Western Tasmania for the Period March 2013 – June 2014. Australian Hualong Pty Ltd. (**TCR14-7000**).

Weber, G.B. & Murphy, F.C., 1997. Dundas EL 21/96. Annual report for the period ending October 1997. Unpubl. Pasminco Exploration Report VC184.

Keywords

Location:	Dundas
Mineralisation environment:	Hydrothermal
Minerals:	Tin, Silver-lead-zinc
Exploration methods:	Auger drilling (Tailings), Costeans, Mapping
Mine/prospect name:	Razorback Mine, Grand Prize Mine
Lithology:	Cambrian Ultramafics, Serpentinite, Chert, Devonian Granite
Geological age:	Cambrian, Devonian