Mt Ramsay
Exploration Licence 72/2007

Annual Report for the period 4/04/2021 to 3/04/2022

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1 Summary

Exploration Licence 72/2007 is located in western Tasmania and is prospective for tin, tungsten and magnetite mineralisation within meta-sedimentary rocks adjacent to the Meredith Granite. Modelling and evaluation of VTEM Max data in conjunction with soil geochemistry, geological mapping and historic search has led to the prioritisation of Sn-W targets within EL72/2007 for drill testing. Four targets, CAL, MRD, Ramsay A and CAI, are prioritised for drill testing, although further detailed mapping surface sampling and geophysics is recommended to refine drill hole location.

2 Introduction

Exploration Licence 72/2007 is situated in the tin-tungsten province of western Tasmania within the eastern contact metamorphic aureole of the Meredith Granite. The Meredith Granite is part of a suite of Devonian granites which is very important to tin-tungsten mineralisation in Tasmania, and deposits associated with this suite include the world class Renison Bell tin mine (26 Mt at 1.46% Sn), Mount Bischoff (10.54 Mt at 1.1% Sn), Cleveland (12.4 Mt at 0.62% Sn, 0.25% Cu) and King Island (17 Mt at 0.85% W03). Cleveland and Mount Bischoff are situated around the northern margin of the Meredith Granite, and Renison Bell is associated with the smaller Pine Hill Granite c. 15 km to the southeast of the Meredith Granite.

Previous exploration activities mainly for tin and tungsten within the area now covered by E72/2007 also indicate the presence of potentially economic magnetite skarns. There are currently two producing magnetite mines in Tasmania: the Kara magnetite-scheelite mine located near Hampshire approximately 40 km northeast of EL72/2007 and the Savage River magnetite mine (371 Mt at 31.9% Fe in magnetite) situated c. 20 km west, north-west of Mt Ramsay.

3 Location and Access

EL72/2007 currently covers 24 km^2 and is located approximately 80 km by road southwest of the coastal port of Burnie, and c. 16 km by road from the nearest town of Waratah (Figure 1). The tenement is on Crown Land entirely within the Meredith Range Regional Reserve. The terrain is characterised by steeply incised valleys into broad forested plateaux and mountains. Elevation ranges from 180 m above sea level in the Ramsay River valley to 855 m on a spur to the north east of Mt Ramsay. Average annual rainfall is approximately 2000 mm and vegetation is dominated by temperate rainforest with relatively open understory away from the Meredith Granite. Eucalyptus forest and dense sub-alpine scrub cover granitic basement in the western part of the tenement, and areas of regenerating rainforest.

Ground access to the licence can currently be made via Waratah from the north, and via Huskisson Drive from the southeast (Figure 1). From Waratah access is via the Wombat Flat

– Mt Ramsay 4WD track which branches off the Waratah Road c. 7 km south west of Waratah. From the Waratah Rd to the CAL target area beneath Mt Ramsay the trip takes approximately four hours on foot. Road conditions comprise rocky track in rainforest with loose cobbles and small boulders, broken by large bogs occurring where drainage from the road has been blocked with silt. The track near wombat flat traverses granite through scrubby forest and comprises granite derived gravel which is deeply scoured by water through steeper sections. There are also some deeply rutted sections, particularly around 372167mE 5399795mN (MGA55 GDA94) where there are permanent bog holes up to c. 1m deep and 50m along the road. Vandalised signage indicates that the 4WD road is closed to the public, however, there is evidence of recent ATV and 4WD use.

From the south access is via Huskisson Drive, a gravel forestry road which branches off the Murchison Highway c.12 km south of the Fingerpost intersection. Access to Huskisson Drive can also be made from Pearsefield Road. Huskisson Drive is in good condition and driveable to within 1 km of the Hatfield River crossing. A recent landslide has restricted passage to 4WD only past this point, and Forestry Tasmania bridges across the Hatfield, Que and Huskisson rivers have been washed away. Between the Hatfield and Huskisson rivers the road travels through low-lying rainforest with significant bog holes. After the Huskisson River crossing the 4WD road traverses rainforest with very steep sections. Access is also possible from the Huskisson – Hatfield confluence north to Waratah via a rough 4WD track on the west side of the Coldstream River known locally as “The Thousand Dollar Track”, as shown on the 1:25,000 and 1:100,000 topographic map sheets.

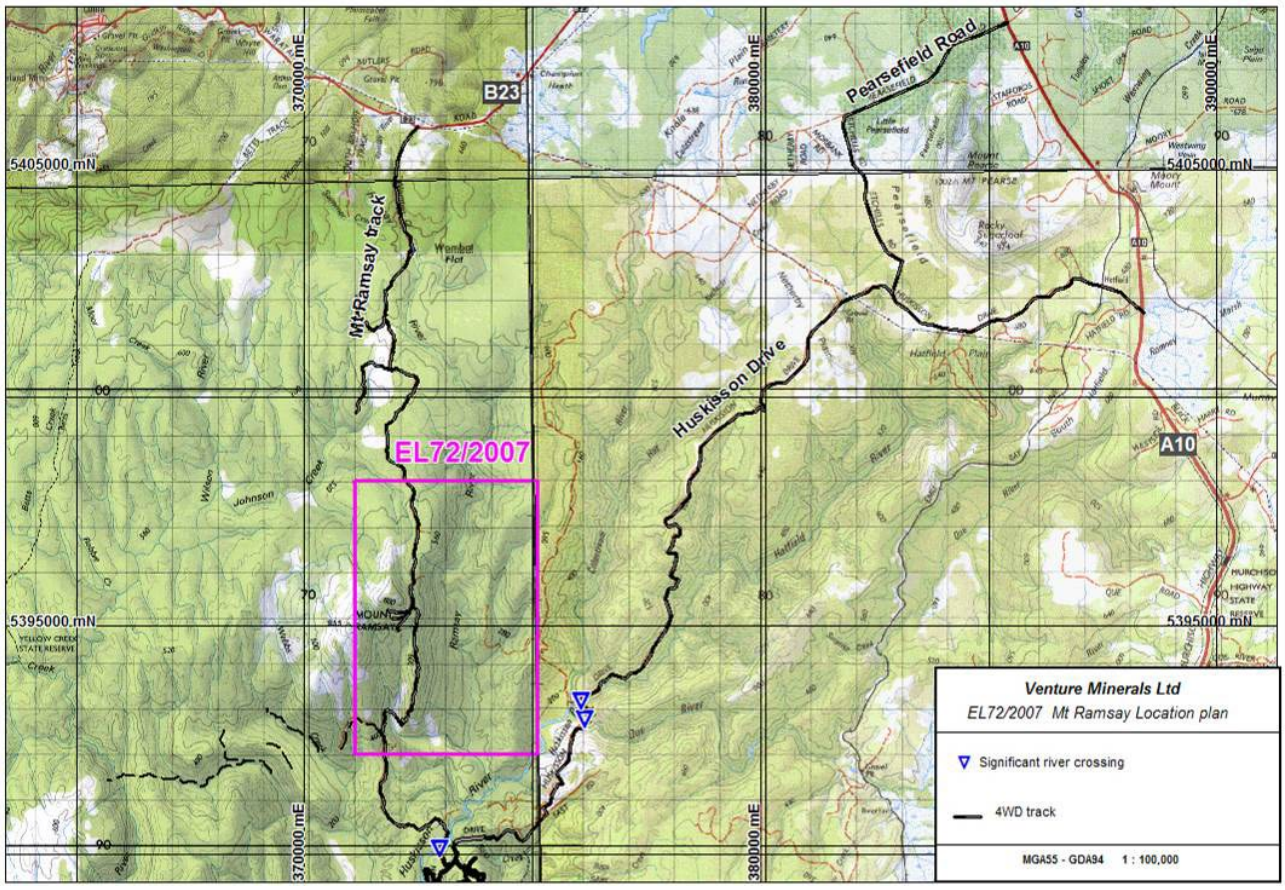

Figure 1: EL72/2007 Location and access

4 Geological Setting

Mapping by the Tasmanian Geological Survey (Brown, 1986) and mineral explorer Comstaff Pty Ltd ("Comstaff") shows the area now covered by EL72/2007 is underlain from east to west by the Neoproterozoic Oonah Formation, Crimson Creek Formation, and the Devonian Meredith Granite (Figure 2). In the northern part of EL72/2007 these basement units are partly overlain by Tertiary basalt. There are also Quaternary fluvial gravel terraces in the larger river valleys.

The Oonah Formation (Fm) is mainly comprised of strongly deformed (isoclinally folded) thin to medium bedded quartz sandstone with carbonaceous siltstone, shale, and phyllite. Mapping by Comstaff along the Ramsay River indicates the presence of dolomite units within the Oonah Fm. A fault separates the Oonah Fm from the younger Crimson Creek Formation (Fm) within EL72/2007. The Crimson Creek Fm consists of thin to thick bedded dark green-grey volcanic lithic sandstone, siltstone and thin bedded mudstone with thin bedded calcareous sandstone units with distinctive thin bedded intraclast breccias (flakestone), and locally abundant basalt (flows?), dolerite and microgabbro intrusions.

The Meredith Granite intrudes the Crimson Creek Fm in the western part of EL72/2007. Historic exploration drilling suggests the granite margin dips moderately to steeply east. The Meredith Granite is an I-type biotite granite, at Mt Ramsay comprising an equigranular adamellite and porphyritic adamellite. The granite contains numerous quartz+tourmaline veins and commonly has roughly circular patches of quartz+tourmaline alteration. A zone of massive quartz-tourmaline alteration is developed in the margin of the Meredith Granite adjacent to the RAM A skarn within the Crimson Creek Fm on the south eastern flank of Mt Ramsay. Drilling by Comstaff shows the proximal part of the RAM A skarn dips steeply east and most likely plunges south-southwest. The skarn is up to c. 80 m thick and intermittently exposed for c. 800 m strike extent from the granite contact. The end of exposure appears to coincide with a northeast striking fault interpreted from aeromagnetic imagery. A prominent magnetic ridge can be traced a further 2 km along strike, but it is unclear whether it represents subsurface magnetite-skarn or a stratigraphically separate magnetite-rich hornfels.

An inspection report to the Tasmanian Department of Mines in 1909 on the workings at the Mt Ramsay skarn recorded an amphibole-rich mineral assemblage including native bismuth, arsenopyrite, pyrite, chalcopyrite, ilmenite, magnetite, scheelite, fluorite, garnet and rare axinite. It was noted that specks and "large pieces" of native bismuth were commonly associated with scheelite. Comstaff drilled several diamond core holes into the RAM A skarn in the 1980s and report a mineral assemblage comprising variable percentages of coarsely crystalline garnet, vesuvianite, diopside and ferrohastingsite with characteristic compositional banding. Massive crystalline and banded magnetite was also recorded throughout the skarn. Fluorite and calcite were reported as common interstitial minerals, with lesser pyrrhotite, pyrite, tourmaline and minor chalcopyrite, ilmenite, arsenopyrite, scheelite and native bismuth. Cassiterite was not identified in hand specimen or thin section. The skarn is typically enveloped by mottled pyroxene, amphibole and biotite hornfels, locally with andalusite pseudomorphs. The mineral assemblages and zonation is very similar to the Main and No.2 Sn-W-magnetite deposits at Mt Lindsay c. 15 km to the southwest of Mt Ramsay.
Drill testing of other magnetic and EM targets has identified the presence of widespread pyrrhotite mineralisation occurring as disseminations, veins and in hydrothermal breccia.

Well-developed hydrothermal breccia zones intersected in Malachite Resource drill hole MRDD1 c. 750m to the east of the RAM A indicate repeated mineralisation and brecciation from multiple fluid stages. The breccia zones have well-developed amphibole, quartz, pyroxene, biotite and sulfide alteration halos. A petrographic report by B. J. Barron suggests the mineral assemblage of the breccia vein fill would have been formed in high temperature fluid conditions too proximal to the granite to have been conducive for Sn mineralisation. Similar hydrothermal breccia zones have been observed at Mt Lindsay in hornfels adjacent to Sn-W-magnetite skarn or carbonate protolith.

The Ramsay region has been affected by multiple northeast striking faults which appear to post-date granite emplacement and sinistrally offset the prominent north trending magnetic fabric within the Oonah and Crimson Creek formations.

5 Exploration and Mining History

The earliest recorded exploration efforts in the Mt Ramsay area were conducted by the Tasmanian Bismuth and Gold Mining Company who constructed shafts and adits into the Mt Ramsay Skarn close to the granite. In the late 1800's Mt Ramsay was considered to be a significant bismuth deposit but later extension of exploration tunnels identified no further enrichment with the best grades found at surface. Although scheelite was identified the tungsten potential was apparently not considered. There are also no records of tin mineralisation or any mention of tin mining or prospecting being pursued in any significant way.

Comstaff Pty Ltd ("Comstaff") took up the Mt Ramsay area in the 1970's and in the following 15 years conducted geological mapping, geophysical surveying, geochemical sampling and 10 diamond core drill holes. After early reconnaissance works Comstaff established four cut grids named CAF, CAI, CAE and CAL. Each grid was auger sampled and geologically mapped. The CAF grid covering the RAM A target was the most extensively sampled area and showed significant Sn (up to 800 ppm) and W (up to 320 ppm) anomalism over an area 60-100m wide with a strike extent of 1.4 km. Grid CAE straddling the northern boundary of current EL72/2007 returned no significant soil anomalism. A strong Sn (to 1000 ppm), Pb (to 4600 ppm) and Zn (to 2750 ppm) anomaly was identified in the SW corner of the CAL grid over a greisen zone in the margin of the Meredith Granite. A low-level (12 ppm) Sn anomaly was also identified associated with calcsilicate hornfels with disseminated pyrrhotite and arsenopyrite in the eastern part of the grid adjacent to the interpreted faulted contact between Crimson Creek and Oonah formations. A modest Sn and As anomaly was identified in the western part of the CAI grid within the Crimson Creek Fm.

Comstaff completed seven diamond drill holes CAF1 to CAF7 totalling 1110.6 m within and adjacent to the historically identified Mt Ramsay skarn (RAM A) within the CAF grid. CAF2, CAF3 and CAF5 were drilled in the north of the CAF grid close the granite contact and intersected metasediments, minor calc-silicate skarn and granite. Economic grades were not encountered and intersection of the granite at shallow levels indicates limited exoskarn potential. Approximately 200 m south of CAF2, 3 and 5 thicker more substantial calc-silicate skarn zones were intersected and the drill holes were anomalous for Sn, W, Cu, Fe and Bi.

The best results are in the southernmost drill holes; CAF7 intersected 73 m of skarn inclusive of 7.3 m at 0.16 % Sn from 143.3 m down hole, and CAF1 encountered 83 m of skarn including 17 m at 0.17 % Sn from 199.25 m down hole. Cassiterite was not identified in any of the holes. Holes CAF4 and CAF6 were drilled to the east away from the CAF geochemical-magnetic target and significant mineralisation and alteration were not encountered.

Comstaff drilled one hole (CAL1) in the northern CAL grid and two holes (CAI1 and CAI2) at the southern CAI grid encountering extensive pyrrhotite disseminations and veinlets within greywacke and shale dominated sequences assignable to the Crimson Creek Fm. Some calcsilicate hornfels was intersected, especially in CAL1 which was proximal to the Meredith Granite. CAI2 encountered the most encouraging calcareous protoliths for skarn or carbonate replacement mineralisation and extensive disseminated pyrrhotite with narrow bands (up to 0.6 m) with up to 50% visually estimated pyrrhotite replacement.

A frequency domain heliborne EM survey (hummingbird) by the Tasmanian Geological Survey in 2001-2002 showed the presence of a significant conductor about 800 m east of the Mt Ramsay skarn (RAM A), and Malachite Resources ("Malachite") targeted the area during the 2004 to 2008 period for carbonate replacement style Sn mineralisation. Malachite conducted a partial (due to very steep terrain) ground EM survey over the western part of the hummingbird EM conductor. Several conductors potentially representing sulphide mineralisation were identified and prospected. Geological mapping located electrically conductive graphitic shales and minor sulphide veining, and a conductor to the east of the CAF grid was select for drill testing due to the favourable logistics, high magnetic anomalism, and the presence of calcareous strata at surface. Malachite drilled one diamond core hole MRDD1 for 408 m which intersected a thick hydrothermally brecciated pyroxene and biotite hornfels unit from approx. 265 m to 408 m end of hole. The breccia returned a best intersection of 30 m at 117 ppm Sn and 50 ppm WO_3 from 354 m. Breccia vein and cement is comprised of pyrrhotite and actinolite with minor chalcopyrite, pyrite and marcasite.

EL72/2007 prospects and targets are shown in Figure 2.

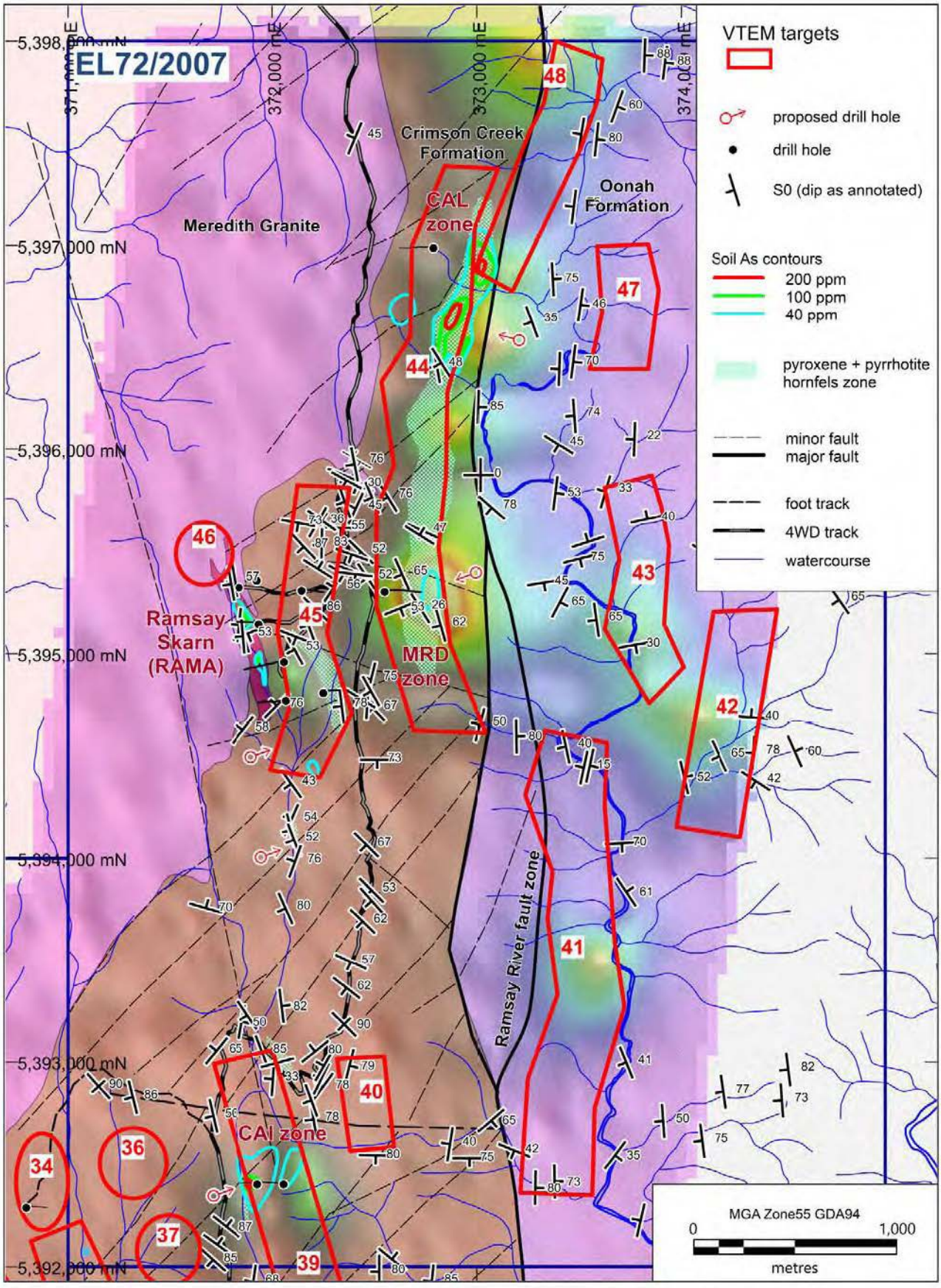

Figure 2 : EL72-2007 VTEM conductivity image channel 49 with basement geology interpretation, drill holes, S0 (bedding), soil As anomalies and EM targets

6 2021 - 2022 Anniversary Year Exploration Activities

During the 2021-2022 reporting period fieldwork activities were disturbed by the Covid-19 pandemic and focussed mainly on enhancing the Ramsay drill targets via data review and on updating the Ramsay exploration program.

6.1 Field Work and Covid-19

No field work was undertaken on EL72/2007 during the 2021 – 2022 period. This was due to flow on effects of lockdowns in Tasmania and though Australia, which led to the prioritising of fieldwork on some of the other Mt Lindsay tenements during the limited time available. Due to the remote nature of the entire tenement, access is mostly restricted to the summer period, and long walk ins or helicopter access are necessary.

6.2 Planning of upcoming exploration activities

6.2.1 Diamond core drilling

Venture applied for an extension of WPA19-43, environmental work program which was submitted in December 2019 and subsequently approved in March 2020. WPA19-43 covers the drilling of three (3) diamond core holes, CAL, MRD and CAI, for a total of 1,350 m drilled, as well as the creation of each drill pad and driller camp associated. In March 2022, a team of four persons, supported by helicopter, day tripped to the CAL proposed drill pad location from the Mt Ramsay Helipad, as reconnaissance for the upcoming drill pad preparation and drilling.
CAL drill pad and drillers campsite preparation will start as soon as approval of WPA19-43 extension has been received from MRT, drilling will start shortly afterwards.

Planned drill holes are shown in Figure 2, refer to Table 1 for hole details.
WPA19-43 approval is included in Appendix A.

Table 1 : Proposed diamond drill holes (please note proposed location of MRD and CAI pads has been revised).

Prospect	Proposed hole	Easting (m)	Northing	RL (m)	Azi_MGA	Plunge	EOH (m)	Comments
Ramsay CAI	CAI	371695	5392350	2410	70	-50	450	coincident geochemical and VTEM anomaly (north end of VTEM conductor 44)
Ramsay CAL-A	CAL	373250	5396560	2370	270	-45	400	coincident geochemical and VTEM anomaly (north end of VTEM conductor 44)
Ramsay MRD	MRD	373180	5395385	2285	265	-45	500	coincident geochemical and VTEM anomaly (VTEM conductor 39)
Ramsay A Skarn	RAMA1W	371880	5394500	2569	70	-55	500	
Ramsay A Skarn	RAMA2W	371930	5394010	2550	70	-55	500	

6.2.2 Passive seismic survey

In February 2022, Venture engaged the Institute of Mine Seismology (IMS) to conduct a passive seismic survey of the Mt Lindsay Sn-W-Fe deposit and Livingstone Sn-W-Fe deposit. This survey served as a trial run for the whole Mt Lindsay Project, including EL72/2007. The passive seismic survey will notably permit to refine the Ramsay current drill targets and a similar survey with an array of c. 160 nodes, on a 400 m x 400 m mesh, is planned for late April 2022. Planned passive seismic survey over EL72/2007 is shown in Figure 3.

The relevant environmental work program, covering helicopter-supported passive seismic survey over the entire EL72/2007 tenement as well as surface sampling, geological and structural mapping and helipad preparation was submitted on the 18th March 2022.
Proposed helipad locations as well as proposed CAL-A (CAL) MRD, CAI, RAMA1W and RAMA2W drill holes locations are shown in Figure 4. Drilling of proposed MRD, CAI and RAMA diamond drill holes will be contingent on the passive seismic survey outcome.

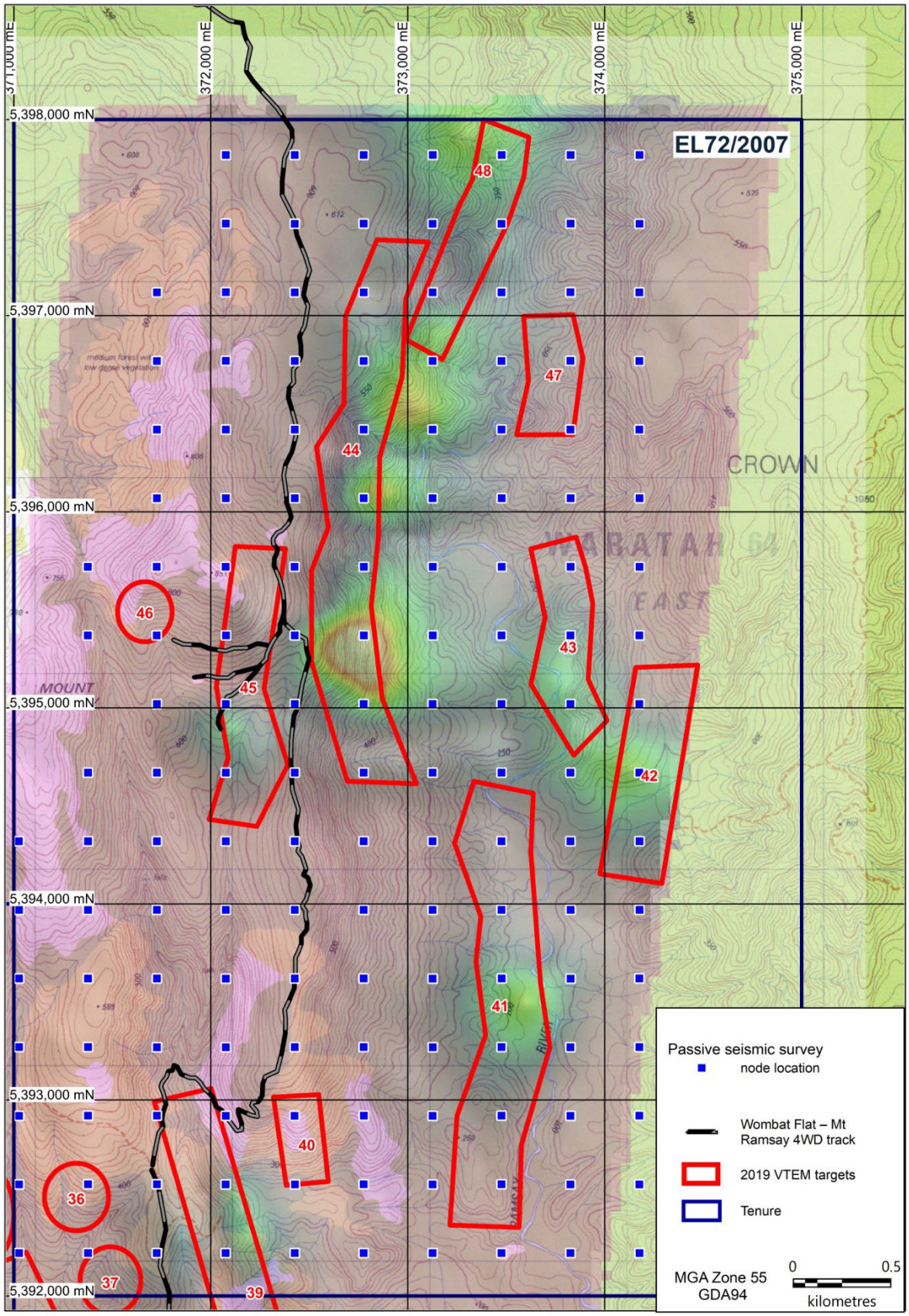

Figure 3 : Proposed passive seismic survey on topography with 2019 VTEM CH45 BZ field underlay

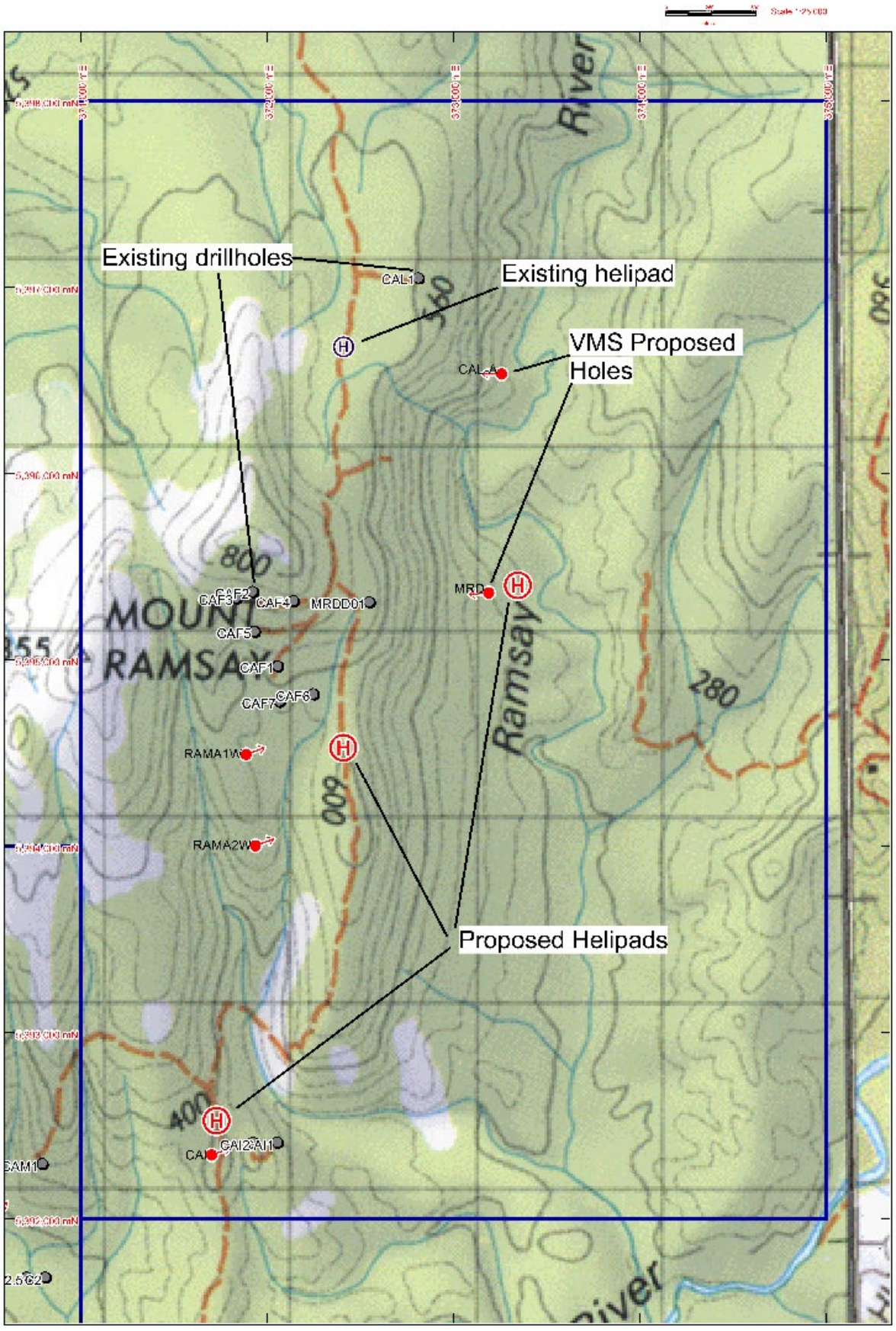

Figure 4. Planned diamond drill holes and proposed helipads.

6.2.3 Surface sampling and mapping

A total of 145 soil samples have been planned over the historic + 30 ppm As Comstaff soil anomaly in the southern CAI target area. Fine stream sediment sampling has also been planned over the drainages covering 2019 VTEM targets. Comstaff historic As anomaly and planned soil sample locations are shown in Figure 5.

Surface sampling and mapping activities will be carried out this Autumn around the drilling of CAL hole and will resume in the 2022-2023 summer.

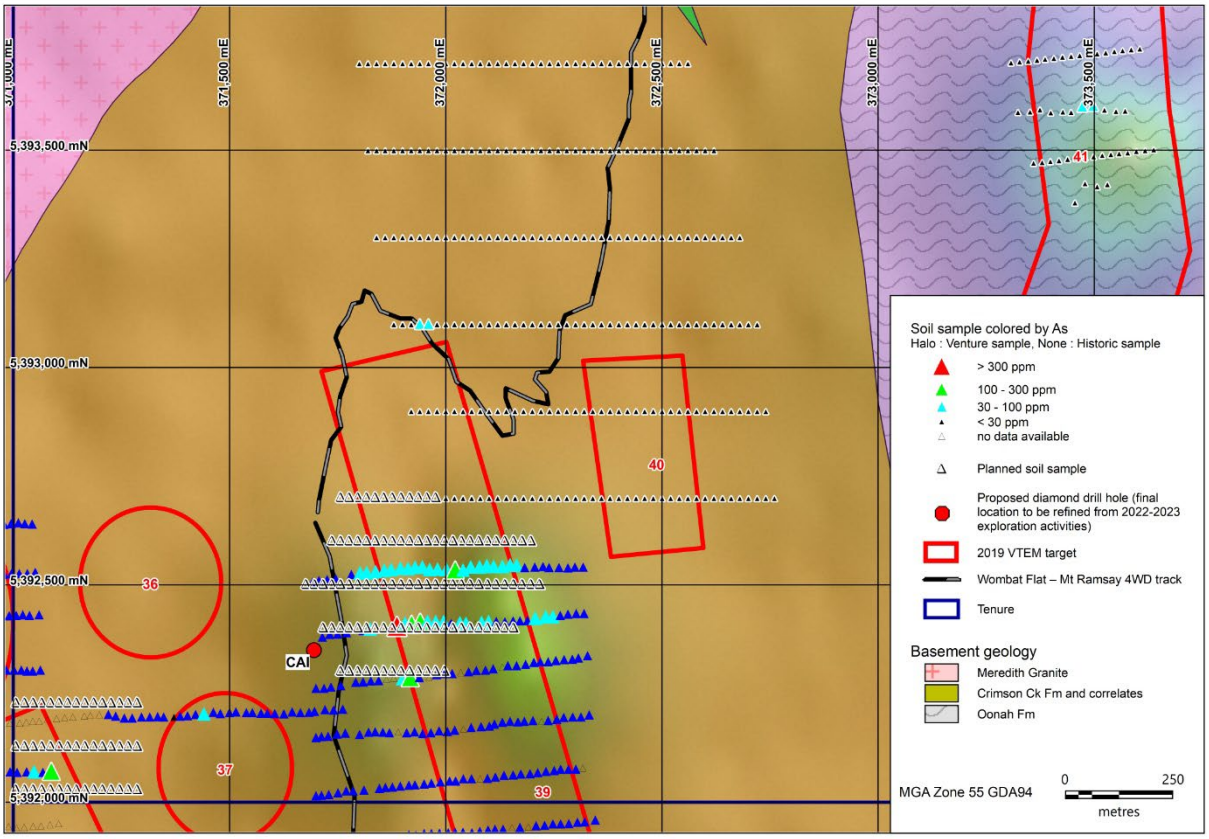

Figure 5 : Planned soil samples location and proposed CAI location over basement geology with 2019 VTEM CH45 BZ field underlay

6.3 Flora and Fauna Survey

In April 2021, an addendum to the February 2021 North Barker Natural Values Assessment was received by Venture Minerals. The addendum comprised survey and clearance of CAL-C (renamed CAL), which was omitted from the originally report.

The complete report and addendum are included in Appendix B and Appendix C respectively.

7 Conclusions and Recommendations

Modelling and evaluation of VTEM Max data in conjunction with previous soil geochemistry and mapping led to the prioritisation of four Sn-W targets within EL72/2007 for drill testing. Because VTEM does not directly detect Sn and/or W mineralisation caution is necessary when planning drill testing of the identified conductors. It appears that the tin-tungsten skarn peripheral pyrrhotite-rich pyroxene hornfels zones are capable of producing a strong conductive response, and additionally the modelled flat or shallow-dipping EM plates may represent the top of broad conductors rather than the 3D form. If the shallow dipping plates modelled represent the tops of broad conductors the holes should be drilled perpendicular to stratigraphy, not the plates. Careful mapping of S_0 and detailed soil sampling over the prioritised drill targets is proposed before the drill positions and orientations are finalised. The large brecciated hornfels zone developed in MRDD01 suggests VTEM conductor 44 includes some localised very high fluid flow zones but it remains unclear whether the conductor breccia zone flanks the target zone (i.e. Ramsay and Mt Lindsay skarn type zoning) or is a pyroxene-pyrrhotite distal cap over the target. Prospecting of the eastern flank of conductor 44 may resolve this. The CAI and Ramsay A skarn targets are conceptually more obviously similar to the Mt Lindsay skarns.

Soil sampling over the eastern flank of VTEM target 44 in the vicinity of MRDD01 show a distinct coincidence of Sn with Bi. Peaks in both Sb and As at the northern end of target 44 are also considered highly encouraging. Detailed geological mapping of the MRD target is recommended to confirm proposed drilling orientation is suitable (Figure 2). Soil sampling is also proposed to confirm and assess extent of the historic + 30 ppm As Comstaff soil anomaly in the southern CAI target area (Figure 5).

Passive seismic survey is also recommended over the entre EL72/2007, to confirm areas of high density rocks and help further refine drill targets.

In summary, four targets, CAL, MRD, Ramsay A, and CAI, are largely drill ready but some can benefit from the following activities prior to finalisation of drill hole designs:

- Passive seismic survey and modelling of results
- Detailed mapping of the prioritised CAL, MRD, Ramsay A and CAI drill site(s)
- Infill soils in the CAI grid area
- Evaluation and finalisation of access logistics

These works will start in Autumn 2022 and will resume in the 2022-2023 summer.

8 Expenditure

Expenditure for the 2021-2022 period is presented in Table 2.

Table 2: EL72/2007 2021-2022 expenditure.

Activity	Costs
Geology (e.g. mapping, 16 petrological descriptions, 7 cross section interpretations)	
Data analysis, database maintenance, interpretation and targeting, evaluation of drill sites, reporting	$36,929
Exploration equipment (includes purchase of magnetic susceptibility meter, 2D/3D software maintenance)	$8,706
Total	**$45,635**
Geochemistry (e.g. 37 rock chip samples analysed, 55 soil samples, 7 whole rock analyses)	
Purchase of commercially certified multi element reference materials	
Total	**$477**
Others	
Tenement rent	$1,307
Accommodation, messing and travel	$1,819
Total	**$3,126**
Admin (10% expenditure)	**$4,923**
Total amount spent during the 2021-2022 period	**$54,161**

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Appendix A
WPA19-43 drill approval

13th March 2020

Mr Travis Holmes
Exploration Geologist
Venture Minerals Limited
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WEST PERTH WA 6005

PROPOSED DRILLING PROGRAM
EXPLORATION LICENCE 72/2007

Dear Mr Holmes,

Thank you for your work program application received on the 23rd December 2019. The program is approved conditional on you abiding by the requirements of the Mineral Exploration Code of Practice and the Site Specific Conditions outlined in this letter.

Work Program Summary

Helicopter supported diamond drilling program (of potentially up to three holes) in a difficult-to-access area, between Mount Ramsay and the Ramsay River.
Reference Number: WPA19/43.
Land Tenure: Regional Reserve, (overlain by High Quality Wilderness)

Significant Conservation Issues

Landscape Values

Locations: Ramsay area

Issue: The Meredith Range Regional Reserve is also overlain by High Quality Wilderness in this area. Designated as such during the Tasmanian Regional Forest Agreement process (circa 1997). Under the RFA, Parties agreed that measures will be taken under State processes to minimise the effects of mineral exploration on wilderness values. Rehabilitation of any exploration activity impacts will aim both to achieve world's best practice and to return the site to its wilderness condition.

Plant and Animal Diseases

Locations: Ramsay area

Issue: Phytophthora cinnamomi (Pc) is unlikely to be a key risk, as the sites are within rainforest. Other pathogen and disease that may be a risk in this environment include (but are not limited to) Chytrid frog disease, Platypus mucor disease and Myrtle wilt, as mentioned below.

Significant Conservation Issues (continued)

Rainforest Areas

Locations: Ramsay area

Issue: Sites are located in areas mapped largely as Nothofagus rainforest. Myrtle wilt is a fungal disease of myrtle beech trees (Nothofagus cunninghamii) caused by the fungus Chalara australis and it is exacerbated by disturbance to myrtle trees. Minimise any cutting/trimming of this species within the project area.

Threatened Fauna Habitat

Locations: Ramsay area

Issue: The area contains suitable habitat for a number of threatened species, including but not limited to the Grey Goshawk, Masked Owl, Azure Kingfisher, Tasmania Devil, Spotted-tail Quoll, Australian Grayling, Tussock Skink, Swift Parrot and White-bellied Sea and Wedge-tailed Eagles. Negligible impact on these habitats is envisaged in terms of this program.

Threatened Species Fauna

Locations: Ramsay area

Issue: The area is suitable nesting and foraging habitat for eagles. There are no recorded nest sites within the area concerned, however this is likely from a lack of surveys, rather than none being present. The breeding season has ended for this period, hence their sensitivity to disturbance is of less concern at present, however caution should still be exercised, as eagles will continually be vulnerable to strikes from low flying aircraft.

Site Specific Conditions

Approval Variations/Timing

Locations: All locations

Conditions: Variations or additions to the work program can be accommodated within the existing approval, without the need for a new assessment, if they fit within the scope of the original proposal. Please contact MRT prior to proceeding.

The approval is valid for 12 months. If a start on this program has not been made after this time, the proposal will need to be resubmitted (if the works are still intended).

If work on this program has commenced, but is not completed within 12 months of the approval date, then please notify MRT. Circumstances relevant to the original approval may have changed in this time.

Site Preparation and Clearing

Locations: All locations

Conditions: Drill sites/camp site/helipads should only prepared when it is certain that they will be utilised and that the location has been verified on the ground by either the project geologist or designated site supervisor.

Any vegetation removal required must be closely monitored by the project geologist or designated site supervisor, to ensure that any new (or refurbished existing clearings) are both - safe to use and not excessive in size.

Mature hollow bearing trees, supporting nesting or potential nesting sites should not to be fallen without an inspection, as to the occupancy (or otherwise), by any listed threatened species.

Camping-Hut or Tent

Locations: All locations

Conditions: Guidelines from the Mineral Exploration Code of Practice are to be applied in circumstances where anything other than rudimentary overnight camping is involved.

Portable toilets should be used for standing camps, with the waste removed from site and disposed of at a recognised waste disposal facility.

For light weight overnight style camping, every effort should be made take your waste out with you as well.

All rubbish, including food waste, should be securely contained while on site and is to be removed from the area & disposed of at a recognised waste disposal facility.

With the exception of timber from vegetation removed for the establishment of a camp site/helipad or similar - do not no fall any trees specifically for use as bush furniture.

Drill Site Management-Diamond

Locations: All locations

Conditions: At the outset of the drilling, implement any procedures necessary in order to reduce the likelihood of a drill hole discharging water, post completion - which may then be difficult to stem.

Direct any drill hole return water to an above ground or excavated sump system and treat with oil absorbent material. Where the provision of a sump is not feasible or will be of negligible value, do not allow drill hole return water to directly enter a flowing watercourse.

Any artesian or sub-artesian flows encountered are to be sealed to the extent that there is no cross contamination of aquifers.

Upon completion of the program, drill holes are to be securely capped with a steel collar pipe or plugged/sealed below ground level. Following any DHEM & prior to final abandonment, any protruding collar pipe needs to be cut off below ground level & the hole permanently sealed (i.e. not left making water)

A record must be kept of the abandonment procedure that documents the following: Collar position in GDA co-ords, casing and/or collar details, particulars if any aquifers were sealed, how the hole was plugged/capped, i.e. type and quantity of materials and photographs that illustrate the hole and site on abandonment.

Drilling Water Requirements

Locations: All locations

Conditions: Ensure that the supply pump is positioned a reasonable distance from the water source and that it is safeguarded from the risk of hydrocarbon leaks/spills or being flooded during a high rainfall event.

During dryer periods monitor the water source location regularly and ensure that the natural stream flow present at the time is not adversely diminished by the pumping.

Do not release used water back into a stream, without any prior settling to reduce as much of the turbidity as possible.

Water pumped to the site (in excess of that being used for the drilling) should be diverted away the drill pad and/or from continually flowing through and diluting the sump/s.

Fire Risk Management

Locations: All locations

Conditions: The exhaust and any other components of the machinery that could present a fire risk are to be adequately safeguarded from the possibility of igniting vegetation.

Firefighting equipment kept on hand, should be adequate for the containment of any outbreak that can be reasonably anticipated in terms of the risk posed by any component of this work.

Fires (for cooking, comfort, etc.) are generally not permitted at any time of the year. In the case of an emergency (injured, stranded, hypothermic) your survival in this situation will take precedent over this requirement.

When a Total Fire Ban is in force, equipment such as chainsaws, power augers, and petrol driven engines, tools that generate sparks or use a naked flame, must not be used outdoors (in the open air).

Teams working in remote or isolated locations need to be able to be reliably updated on weather conditions, current fire bans and alerts, etc.

Hydrocarbon Management

Locations: All locations

Conditions: Any additional fuel (and oil) kept on hand for the duration of these works is to be stored in containers that are in sound condition.

Oil absorbent matting should be used w here appropriate to further minimise any potential contamination from hydrocarbons.

A spill kit is also to be readily available as part of the equipment for the operational.

Adequate precautions are to be taken when refuelling, in order minimise the risk of any hydrocarbon contamination of the ground.

If fuel is stored on site, depending on the quantity, it should (as far as is practical) adhere to clause 2.2.5 of the Australian Standard AS 1940-2017; Minor storage in open land.

Induction and Register

Locations: All locations

Conditions: The person/s responsible for this program must conduct an induction for employees and contractors involved with this work to ensure that personnel have been made aware of the approval conditions, any land owner or land manager requirements and are familiar with any sections of the Mineral Exploration Code of Practice that may apply.

The site supervisor must ensure that works comply with the MECOP and approval conditions and a record/register (signed off by a company representative, employees and contractors) should be kept, noting this compliance.

Phytophthora Cinnamomi (Pc), other Pathogens and Weeds

Locations: All locations

Conditions: All equipment must be managed to control the spread of weeds and Pc and other possible pathogens. The manual Keeping it Clean - A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens is referred to as a key source of information on this topic.

Controls should include thoroughly cleaning (and disinfecting if necessary) equipment in advance of mobilisation to the site and then prior to moving into any neighbouring areas. Wherever possible avoid any disturbance to Myrtles, i.e. their roots and damage to limbs and trunks, in order to minimise the risk of introduction or the spread of the disease Myrtle wilt, caused by the fungus Chalara australis and exacerbated by disturbance.

The use of portable foot baths, containing Phytoclean solution, to clean footwear prior to entering disease free areas will also help reduce the risk of spreading pathogens.

Should hygiene plans continue to evolve for the project, then they should be in accordance with the Department of Primary Industries, Parks, Water and Environment's publication Weed and Disease Planning and Hygiene Guidelines-Preventing the spread of weeds and diseases in Tasmania.

If you wish to discuss this approval further please call me on 03 6165 4723 or 0419 553 413. If unavailable other officers may be contacted at Mineral Resources Tasmania on +61 (0)3 6165 4800.

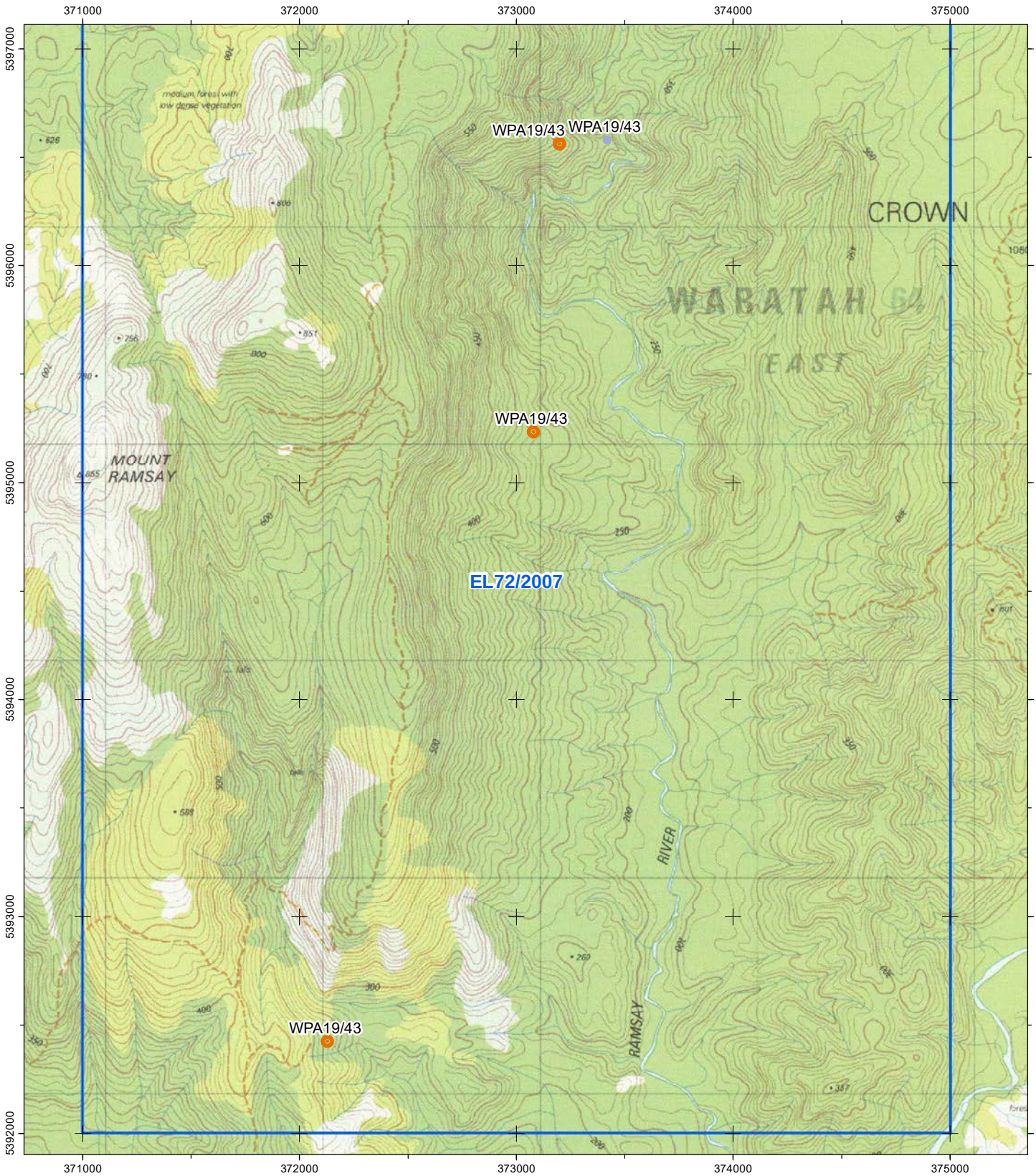
Yours sincerely,

David Gatehouse
Environmental Assessment Officer

Department of State Growth

MINERAL RESOURCES TASMANIA

Tasmanian Government



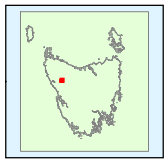
WPA 19/43

0 — 1 Kilometers

1:25,000

Coordinate Datum - GDA94 MGA Zone 55

- * Exploration Licence
- Mining Lease
- Drill Site
- Drilling Area
- Costean
- Costeaning Area
- Grid
- Gridding Area
- Seismic Line
- Geophysics Loop Line
- Geophysics Survey Area
- Camp Site
- * Helipad Site
- Helicopter Drop Point
- * Helicopter Drill Site
- Shaft Site
- Survey Mark Site
- Soil Sample Area
- Soil Sample Site
- Stream Sediment Sample Site
- Stream Sediment Sampling Area
- Geological Mapping Area
- Bulk Sample Site
- Vehicular Track
- Quad Bike Track
- Walking Track



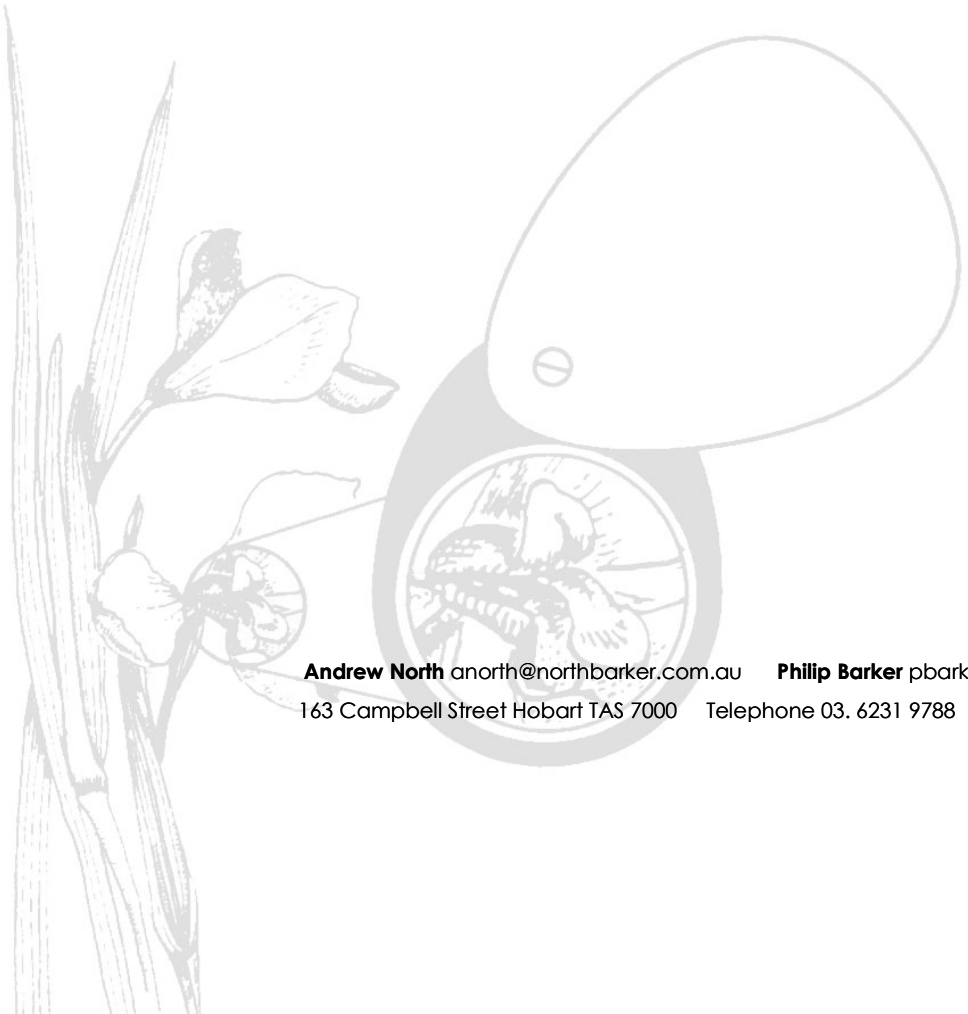
Appendix B
North Barker Report: Venture Minerals drill test sites, Mt Lindsay, 9th April 2021

Venture Minerals drill test sites, Mt Lindsay

Natural Values Determination

9th April 2021

For Venture Minerals (PAS066)



Andrew North anorth@northbarker.com.au **Philip Barker** pbarker@northbarker.com.au
163 Campbell Street Hobart TAS 7000 Telephone 03. 6231 9788 Facsimile 03. 6231 9877

Date of Field Survey: 14th - 15th December 2020 and 9th-10th March 2021.

Field Survey [1], Report [2] and Photos [3]: Cody McCracken [123] and Phil Barker [2].

Summary:

The following sites are proposed for consideration in an exploration drilling program.

- *Salmons5*
- *Salmons1*
- *Southeast2*
- *CAL*
- *CAL Drillers Camp Alternative*
- *Southeast1*
- *CAL Drillers Camp*
- *Salmons 2*
- *SerpRidge1*
- *Harmen1 and drillers camp*
- *Eastern1*
- *Limestone1*
- *Limestone2*

Vegetation

Five native vegetation communities are present across the site. No are threatened vegetation types and all are well reserved. The communities are Tasveg mapping units:

Nothofagus rainforest - RMT,

Phyllocladus rainforest - RMS,

Wet Eucalyptus obliqua over rainforest - WOR,

Dry Eucalyptus nitida forest - DNI and

Acacia melanoxylon forest on rises - NAR

Flora

The threatened (rare) Micrantheum serpentinum is present at Serp Ridge 1. This species should be avoided to the extent possible.

Fauna

There are no significant fauna values present but there are large habitat trees present at Harman 1 drillers camp and Limestone1. Disturbance within 20 m radius of these trees should be limited to 120 m^2 to protect the root zones.

Weeds

Gorse is present at Salmon 2. This should be removed before works begin and a weed management and hygiene plan should be developed and implemented across all sites.

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

No implications under this Act.

Tasmanian *Threatened Species Protection Act 1995*

A Permit is required if disturbance of *Micrantheum serpentinum* is anticipated.

Tasmanian *Weed Management Act 1995*

As zone B species within the West Coast Council, the proponent must prevent spread of Gorse due to works.

1. Project Details

Background: This report has been prepared by an Ecologist from North Barker Ecosystem Services to inform on proposed drill test sites put forward by Venture Minerals. The drill test sites are contained within Venture Minerals existing prospecting leases, proximal to the Mt Lindsay deposits Figure 1.

Venture Minerals owns the Mt Lindsay Tin-Tungsten mine, including all the surrounding prospects. Recently, Venture has focussed efforts at Mt Lindsay on identifying additional high-grade tin/tungsten targets near the Mt Lindsay Deposits, as well as targets prospective for copper and nickel mineralization. The exploration work is part of a broader strategy focussed on identifying high grade mineralization within trucking distance of the existing deposit that has the potential to further strengthen the economics of the Mt Lindsay Project.

Each of the drill sites have been surveyed within a circumference of 25m from the GPS location given by Venture minerals. The 25m boundary allows for any site-specific changes when emplacing drill rigs on site and for any error associated with GPS marked locations.

Methods: Plant species composition of the potential impact footprint was surveyed using an area search based on the Timed Meander Search Procedure[1]. Vegetation was classified according to TASVEG 4.0 units, with boundaries determined in the field and with the aid of aerial imagery.

The Tasmanian Natural Values Atlas database was searched for records of threatened species and vegetation types within a 5 km radius. The possibility of threatened values known from within this radius occurring within the impact area has been considered in the interpretation of results.

Limitations: The field survey was undertaken in December and March. Values that are seasonal may have been overlooked or absent; the potential for this is considered where relevant in the discussion. The quality of fauna habitat, including the presence of tree hollows, was assessed from ground level only.

[1] Goff *et al.* 1982

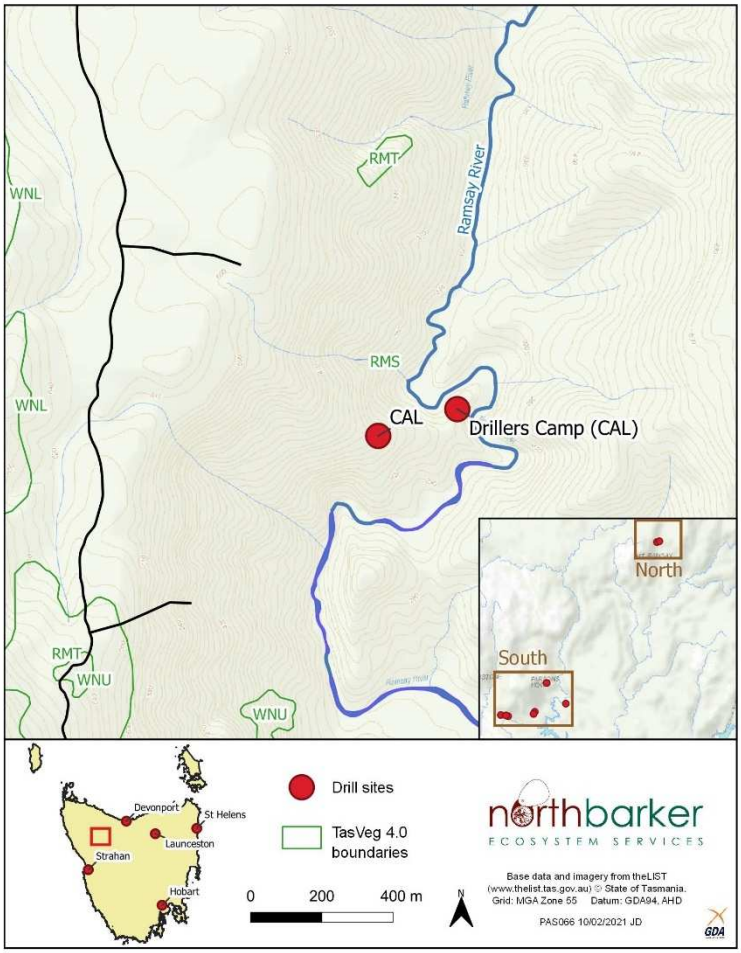


Figure 1 a. The northern drill sites

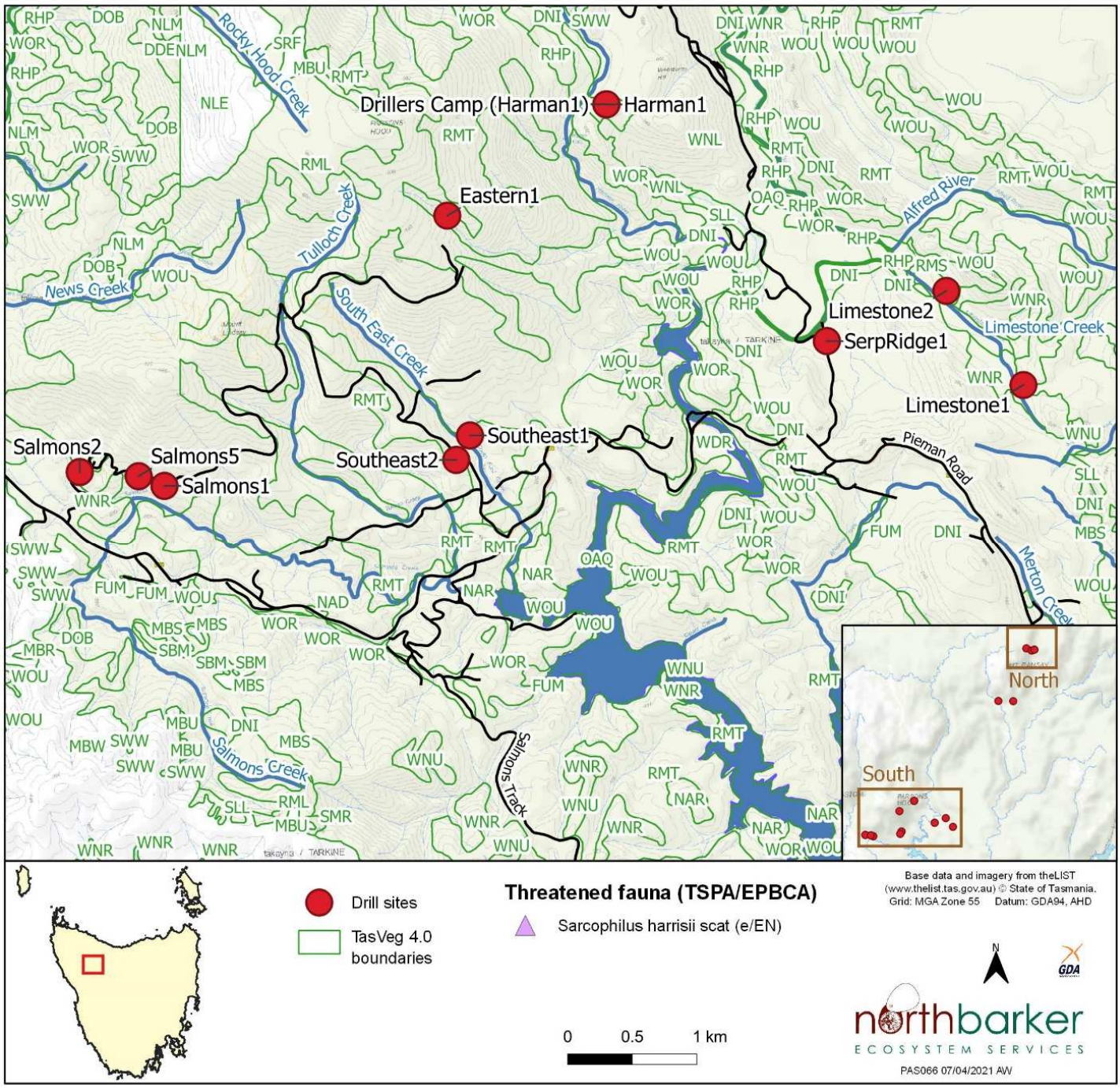


Figure 1b. The southern drill sites

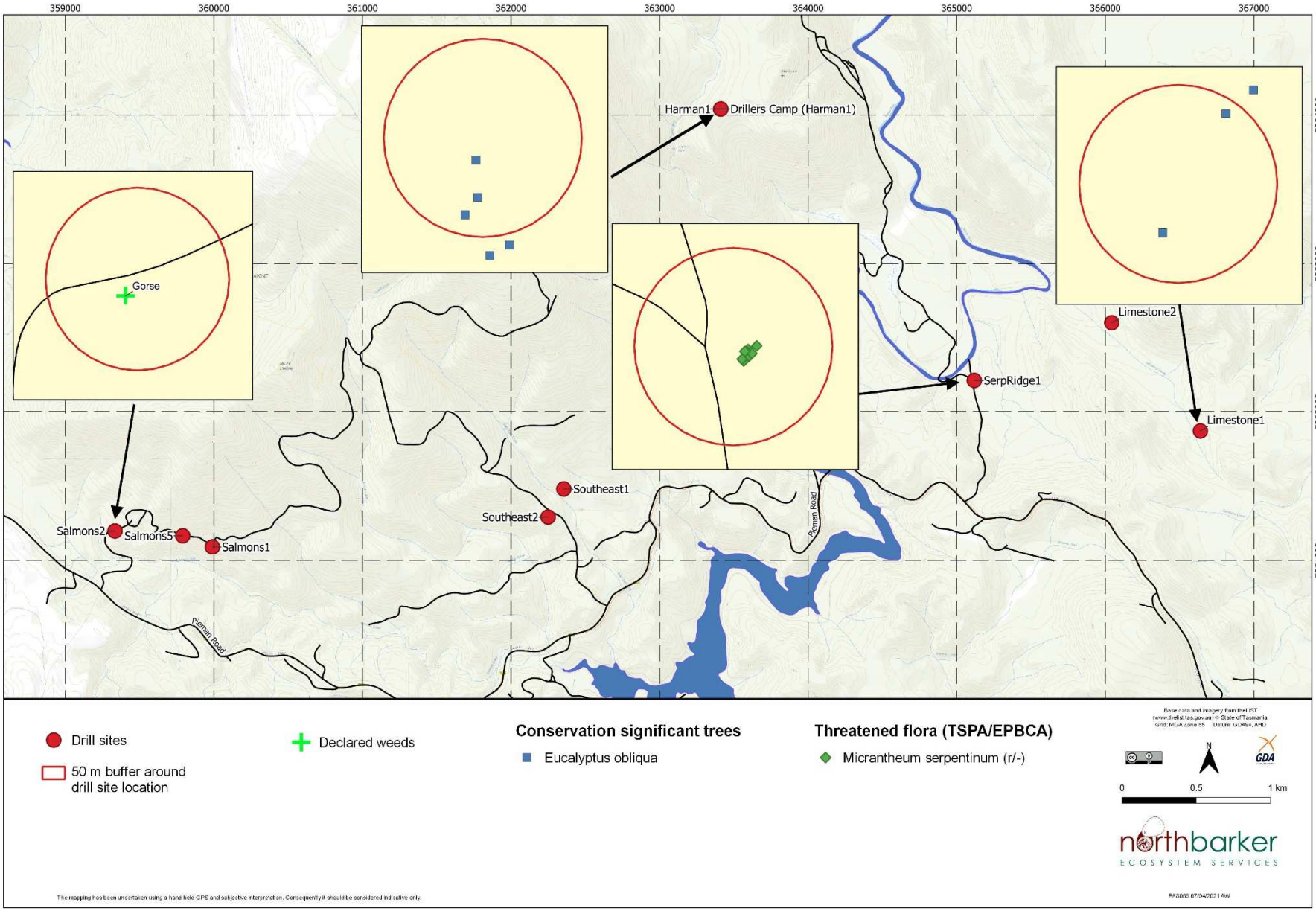


Figure 2. Weeds, threatened flora and habitat trees at 3 sites

2. Site Values

Overall Site Characteristics

Sites are in two groupings across the south-eastern and eastern extents of the Meredith Range Regional Reserve, Western Tasmania. Geologically, the area lies within the contact metamorphic aureole of the Meredith Granite and contains a mix of very complex Cambrian and Pre-Cambrian lithologies. Vegetation across much of the sites is dominated by rainforest communities, with intersections by some wet eucalyptus forest and dry eucalyptus forests on serpentine related lithologies.

Pieman Road runs east-west at the southern extent of the study area, providing the closest easy vehicle access through to the southern sites. Rough 4WD access tracks lead off the Pieman Road, providing access to many of the southern sites, with some requiring easy reconnaissance on foot and others requiring longer and more arduous walking to access the drill pad locations. The northern sites are currently accessed via helicopter via the Mt Ramsay helipad. A very steep walk descends towards the Ramsey River below, where both drill pad an intended drillers camps are situated towards the bottom of the valley.

Vegetation Characteristics

68 species of plant were identified in field surveys undertaken. Sites contained a relatively low diversity, due to the domination of rainforest communities such as *Nothofagus-Atherosperma* Rainforest and the small sample areas (25m circumference). An exception to this was the site SerpRidge1, situated on a mafic/serpentine rich substrate, with a *Eucalyptus nitida* dry forest woodland community.

The distribution of sites with weeds, threatened flora and habitat trees are illustrated on Figure 2.

Vegetation Communities

NOTHOFAGUS-PHYLLOCLADUS SHORT RAINFOREST (RMS)

Sites included:

- *Southeast1*
- *CAL Drillers Camp*

RMS is associated with lower lying sections of rainforest, with particular association to riparian areas. RMT grades to RMS, with some overlapping species at both Southeast1 and CAL Drillers Camp, due to their proximity to the border with RMT. Both sites grade between smaller areas of thamnic, with most areas dominated by implicate rainforest structure, with the height and composition of the community also likely influenced by past fire history.

The canopy trees are up to 15m tall, with a dominance of *Phyllocladus aspleniifolius,* mixed with other rainforest species including; *Nothofagus cunninghamii* (myrtle), (celerytop pine) and *Eucryphia lucida* (leatherwood).

Small trees/shrubs are moderately diverse and included *Anodopetalum biglandulosum as the dominating shrub layer, mixed with Anopterus glandulous* and *Cenarrhenes nitida*. The large sedge *Gahnia grandis* (cutting grass) and ground fern *Blechnum wattsii* (hard waterfern) were the most common species in the understorey.

This community is well reserved and not threatened.

Plate 1: Southeast1 drill pad location

Plate 2: CAL Drillers Camp

NOTHOFAGUS-ATHEROSPERMA RAINFOREST (RMT)

Sites included:

- *Salmons5*
- *Salmons1*
- *Southeast2*
- *CAL*
- *CAL Drillers Camp Alternative*
- *Limestone2*
- *Eastern1*

RMT is extensive across the north and south of the study area, its distribution being influenced by past disturbance history, i.e. it occurs in areas that have not been affected by fire or other disturbances. Structurally it ranges between thamnic and callidendrous.

The canopy trees can be in excess of 30m tall with mature old growth *Nothofagus cunninghamii* being the dominant species. The secondary tree layer reaches heights of up to 25m, and common species include *Atherosperma moschatum*, *Phyllocladus aspleniifolius*, *Eucryphia lucida*, *Nothofagus cunninghamii* and the occasional *Acacia melanoxylon*. The shrub layer is of a low diversity and included species such as *Anodopetalum biglandulosum, Anopterus glandulosus, Cenarrhenes nitida*, *Coprosma quadrifida* and saplings of the canopy trees.

Dicksonia antarctica are present at several sites, as are several ground ferns including *Polystichum proliferum* and *Blechnum wattsii*, and a range of epiphytic ferns including *Hymenophyllum rarum*, *Grammitis billardierei*, *Rumohra adiantiformis* and *Microsorum pustulatum* subsp. *pustulatum*.

This community is well reserved and not threatened.

Plate 3: Salmons5, approximate drill pad location.

Plate 4: Salmons1 RMT vegetation community

Plate 5: Southeast2 drill pad location

Plate 6: CAL RMT vegetation community

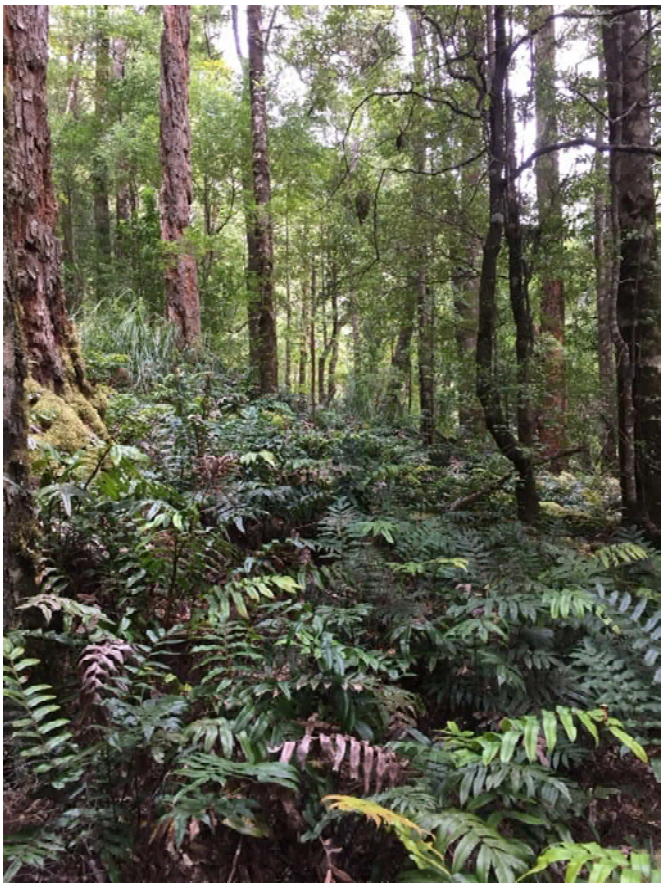


Plate 7: Cal Driller Camp Alt RMT vegetation community

Plate 8: Eastern1 drill pad location

Plate 9: Limestone2 drill pad location

EUCALYPTUS NITIDA DRY FOREST AND WOODLAND (DNI)

Sites Included:

- *SerpRidge1*

DNI is restricted to the SerpRidge1 site and holds a relatively diverse mix of dry eucalyptus woodland species. This site is influenced predominantly by its geology (mafic/serpentine) and fire history (relatively frequent) compared with surrounding areas. The site has been directly impacted by disturbance and has an open area, which has allowed for the proliferation of small shrubs.

The canopy species is dominated by sparse *Eucalyptus nitida* trees and tall shrubs of *Acacia mucronata, Banksia marginata, Leptospermum scoparium and Pittosporum bicolour.*

Shrubs are moderately diverse and include *Bauera rubioides, Coprosma nitida, Leptomeria drupacea, Lomatia polymorpha, Wrestringia rubiaefolia, Micrantheum serpentinum, Pultenaea juniperina, Trochocarpa cunninghamii. The large sedge Gahnia grandis* co-dominates the understory with *Lepidosperma elatius.*

This community is considered well reserved and not under threat.

Plate 10: SerpRidge1 vegetation community

ACACIA MELANOXYLON FOREST ON RISES (NAR)

Sites included:

- *Salmons2*

NAR is restricted to Salmons2 and reflects the fire history. The drill pad location lies on an old disturbance site and is unlikely to impact on the vegetation within the 25m circumference. For the purpose of this report, the adjoining community has been commented on to provide flexibility in the case of changing the drill pad location.

The TASVEG 4.0 has the site mapped as RMT, however due to the dominance of *Acacia melanoxylon* in the overstory, the site has been identified as NAR in this report. The site is close to a transition of community to *Eucalyptus nitida* over rainforest (WNR), which in connection to the determination of NAR on the site, indicates a fire history within decades to several hundred years.

The canopy tree species are dominated by *Acacia melanoxylon,* with emergent *Atherosperma moschatum subsp. moschatum, Eucryphia lucida* and *Nothofagus cunninghamii*.

The shrub layer is relatively sparce, with *Aristotelia peduncularis, Bauera rubioides, Cenarrhenes nitida, Leptecophylla pogonocalyx ssp. pogonocalyx, Lomatia tinctoria, Tasmannia lanceolata* and *Trochocarpa gunnii.*

Ferns include *Histiopteris incisa and Pteridium esculentum subsp. Esculentum.*

Plate 11: Salmons2 drill pad location

EUCALYPTUS OBLIQUA FOREST OVER RAINFOREST (WOR)

Sites Included:

- *Harmen1 and drillers camp*
- *Limestone1*

WOR is found at Harmen1 and drillers camp and Limestone1, mapped as WOU with TASVEG 4.0. The sites have a mature overstory of *Eucalyptus obliqua* with DBH ranging from 0.9-2.2m within the site. The site is influence by a fire history within the past several hundred years, containing some transitioning species from wet forest to rainforest.

The emergent tree and tall shrub layer includes *Atherosperma moschatum subsp. moschatum, Phyllocladus aspleniifolius, Anodopetalum biglandulosum, Anopterus glandulosus, Leptospermum nitidum, Monotoca glauca, Nematolepis squamea subsp. Squamea* and *Pittosporum bicolor.*

The ground layer is dominated by *Dianella tasmanica* and *Gahnia grandis.*

Plate 12: Harmen1 and Driller Camp vegetation community

Plate 13: Limestone1 drill pad site

Threatened flora

Threatened flora recorded within the site is restricted to *Micrantheum serpentinum*, a straggly shrub in the Euphorbiaceae (spurge) family, restricted to ultramafics (Cambrian serpentinite) in Tasmania's northwest. The survey recorded 9 individual plants on the proposed drill pad site of SerpRidge1. The presence of *Micrantheum serpentinum* is likely due to previous disturbance on the site. Proximal to the disturbance site, but still within the survey area the scrub is very heavily dominated by *Bauera rubioides,* this is a guiding factor for the lack of *M. serpentinum* outside of the disturbance area.

Other threatened flora that has been observed within 500m of the site includes *Epacris glabella* and *Euphrasia amplidens.* Both of these species prefer the ultramafic substrates that exist on this site and are suitable to the vegetation community present in DNI. It is possible for these species to occur within the site, however it is unlikely, due to the size of the survey area being so small. It is likely that *Euphrasia amplidens* species would have been picked up within the survey undertaken due to the flowering period coinciding with the survey. Epacris glabella has a flowing period during spring, however considering the foliage is relatively distinctive and no other Epacris genus were found onsite, it is unlikely it was missed in the survey.

Plate 14: *Micrantheum serpentinum* at SerpRidge1

Table 1: Known threatened flora observations within 500 m of the proposal – SS = Tasmanian *Threatened Species Protection Act 1995*, NS = Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Epacris glabella	smooth heath	e	EN	e	96	08-Mar-2016
Euphrasia amplidens	pieman eyebright	e		e	41	08-Mar-2016
Micrantheum serpentinum	western tridentbush	r		e	15	02-May-2012

Threatened Fauna and Fauna Habitat

The fauna habitat assessment established that one site poses a threat to potential habitat sites. Harman1 and Drillers Camp is in an area with large (0.9-1.9m DBH*) Eucalyptus obliqua* trees that can contain some primary foraging and some nesting habitat (medium priority) for Grey Goshawk[2]. No nest sites were observed during the survey and no verified records exist within 500m of the sites, albeit that it is with the range of this species.

The scat of a small Tasmanian Devil (*Sarcophilus harrisii)* was recorded proximal to Salmons5 and Salmons1. No suitable dens or layups were identified within the 25m circumference of any of the sites, this does not demonstrably rule out the potential for dens to occur elsewhere in this extensive habitat.

Hollow-bearing trees with hollows of a suitable size for masked owls (>15 cm entrance diameter) – characterised as significant habitat for masked owls - occur in an occasional large tree within the Eucalyptus forest (WOR – Harmen1 and Drillers Camp / Limestone1). Although the frequency of records on the west coast is low the presence of significant habitat requires investigation to determine if it supports a nest. The likelihood of a nest being present is low. The owl has not been recorded within 500m of the study area; however the site is flagged as core habitat according to the published ranges[3], the Natural Values Atlas and EPBC protected matters report[4].

[2] Forest Practices Authority 2010
[3] Todd (2012) and FPA (2014)
[4] DPIPWE, nvr_5_17-Sep-2019; EPBC Protected Matters Report, 17/09/2019, Ref#PMST_W90P95

Plate 15: Tasmanian Devil Scat between sites Salmons5 and Salmons1

Plate 16: *Eucalyptus obliqua* at Limestone1 with DBH 2.2m

Table 2: Known threatened fauna observations within 500 m of the proposal, including threatened fauna based on range boundaries – SS = Tasmanian *Threatened Species Protection Act 1995*, NS = Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Oxyethira mienica	caddis fly (ouse river)	r		e	1	04-Apr-2012
Sarcophilus harrisii	tasmanian devil	e	EN	e	9	11-Oct-2012

Unverified Records

No unverified records were found!

Threatened fauna within 500 metres

(based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
Dasyurus maculatus subsp. maculatus	spotted-tail quoll	r	VU	n	1	0	0
Prototroctes maraena	australian grayling	v	VU	ae	1	0	0
Ceyx azureus subsp. diemenensis	Tasmanian azure kingfisher	e	EN	e	0	0	1
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	3	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Accipiter novaehollandiae	grey goshawk	e		n	1	0	1
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0

Weeds

One species listed as declared weeds under the Tasmanian *Weed Management Act 1999* were observed on site (Plate 13).

Gorse (ulex europaeus) was located within site Salmons2.

Plate 17: *Ulex europaeus* Gorse at Salmons2 (middle right)

3. Impact Assessment and Scope for Mitigation

Vegetation Communities

The proposal will have no impact to threatened vegetation communities listed under the NCA.

TASVEG community and extent in study area	**current Ha**	**Reservation ha / %**	**Pre 1750 / current ha**	**Reservation ha / %**	**Status** (JANIS)
	TAS	**TAS**	**West Coast**	**West Coast**	
Tall Myrtle Rainforest (RMT)	436,367	380,736 *87 %*	266,786	248,394 93 %	Adequately reserved
Short Myrtle Rainforest (RMS)	205.025	156,734 76 %	130,605	109.532 83.9 %	Adequately reserved
Eucalyptus obliqua forest with broad leaf shrubs (WOR) Tasveg (WOU)	441,000	141,400 24.4 %	53,300	33,900 61.9 %	Adequately reserved
Eucalyptus nitida dry forest (DNI)	58,000	44,000 79%	22,000	19,900 90%	Adequately reserved
Acacia melanoxylon on Rises (NAR)	19,500	9,500 49%	6,400	4.800 75%	Adequately reserved

Threatened Flora Species

Micrantheum serpentinum – occurs at SerpRidge 1. The species should be avoided and protected from disturbance. If the species cannot be avoided then a Permit to take will be required under the Tasmanian Threatened species protection Act 1995.

Threatened Fauna Habitat and Trees

The large habitat trees at Harman one should be retained and protected from major root disturbance by limiting disturbance within 20 m of each tree to less than 120 m^2.

Weeds

Earthworks on site are likely to stimulate germination of the declared weed observed. The use of machinery and vehicles during drilling also brings an increased risk of spreading these weeds and introducing others. Some form of primary and secondary control should be implemented to prevent the proliferation, spread and/or introduction of weeds due to the proposal. It is recommended that works utilise washdown facilities to ensure machinery, tools and boots have been cleaned of soil prior to being brought to the site. Soil at Salmons2 should be contained on site to ensure the spread of gorse seeds does not occur.

4. Legislative Implications

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

No implication under this Act.

Tasmanian *Threatened Species Protection Act 1995*

A Permit is required is disturbance of *Micrantheum serpentinum* is anticipated.

Tasmanian *Weed Management Act 1995*

As zone B species within the West Coast Council, the proponent must prevent spread of Gorse due to works.

Appendix 1

Site Specific Vegetation reports:

Site: Harmen 1 and Drillers Camp

TASVEG 4.0 Community: WOR

Grid Reference:	363409E, 5383993N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	14 Dec 2020
Trees:	*Atherosperma moschatum subsp. moschatum, Eucalyptus obliqua, Phyllocladus aspleniifolius*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus, Leptospermum nitidum, Monotoca glauca, Nematolepis squamea subsp. squamea, Pittosporum bicolor*
Shrubs:	*Aristotelia peduncularis, Bauera rubioides, Cenarrhenes nitida, Leptecophylla pogonocalyx ssp. pogonocalyx, Lomatia tinctoria, Tasmannia lanceolata, Trochocarpa gunnii*
Herbs:	*Dianella tasmanica, Drymophila cyanocarpa*
Graminoids:	*Gahnia grandis*
Ferns:	*Hymenophyllum rarum*
Climbers:	*Billardiera longiflora*

Site: Serpentine Ridge 1

TASVEG 4.0 Community: DNI

Grid Reference:	365126E, 5382208N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	14 Dec 2020
Trees:	*Eucalyptus nitida*
Tall Shrubs:	*Acacia mucronata, Banksia marginata, Leptospermum scoparium, Pittosporum*
Shrubs:	*Bauera rubioides, Coprosma nitida, Leptomeria drupacea, Lomatia polymorpha, Wrestringia rubiaefolia, Micrantheum serpentinum, Pultenaea juniperina, Trochocarpa cunninghamii*
Low Shrubs:	*Pimelea humilis*
Herbs:	*Comesperma retusum, Hakea epiglottis subsp. epiglottis*
Graminoids:	*Gahnia grandis, Lepidosperma elatius*
Climbers:	*Cassytha pubescens*

Site: Salmons 2

TASVEG 4.0 Community: NAR

Grid Reference:	359333E, 5381182N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	14 Dec 2020
Trees:	*Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucalyptus nitida, Eucryphia lucida, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus, Leptospermum*
Shrubs:	*Coprosma quadrifida*
Herbs:	*Leptecophylla juniperina subsp. juniperina*
Graminoids:	*Gahnia grandis*
Ferns:	*Histiopteris incisa, Pteridium esculentum subsp. esculentum*

Weeds: *Ulex europaeus*

Site: Salmons 5

TASVEG 4.0 Community: RMT

Grid Reference: 359792E, 5381170N
Accuracy: GPS (within 10 metres)
Recorder: Cody McCracken
Date of Survey: 14 Dec 2020

Trees: *Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs: *Anodopetalum biglandulosum, Anopterus glandulosus, Prostanthera lasianthos var. lasianthos*
Shrubs: *Coprosma quadrifida, Gaultheria hispida, Tasmannia lanceolata*
Graminoids: *Gahnia grandis*
Ferns: *Blechnum wattsii, Dicksonia antarctica, Histiopteris incisa, Microsorum pustulatum subsp. pustulatum, Polystichum proliferum, Rumohra adiantiformis, Sticherus*
Climbers: *Clematis aristata*

Site: Salmons 1

TASVEG 4.0 Community: RMT

Grid Reference: 359986E, 5381090N
Accuracy: GPS (within 10 metres)
Recorder: Cody McCracken
Date of Survey: 14 Dec 2020

Trees: *Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs: *Anodopetalum biglandulosum, Anopterus glandulosus*
Shrubs: *Coprosma quadrifida*
Herbs: *Pterostylis sp.*
Graminoids: *Gahnia grandis*
Ferns: *Dicksonia antarctica, Histiopteris incisa, Hymenophyllum rarum, Microsorum pustulatum subsp. pustulatum, Polystichum proliferum, Rumohra adiantiformis*

Site: Southeast 2

TASVEG 4.0 Community: RMT

Grid Reference: 362237E, 5381361N
Accuracy: GPS (within 10 metres)
Recorder: Cody McCracken
Date of Survey: 14 Dec 2020

Trees: *Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii*
Tall Shrubs: *Anodopetalum biglandulosum, Anopterus glandulosus*
Shrubs: *Coprosma quadrifida*
Graminoids: *Gahnia grandis*
Ferns: *Histiopteris incisa, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei, Polystichum proliferum, Rumohra adiantiformis*

Site: Southeast 1

TASVEG 4.0 Community: RMS

Grid Reference: 362358E, 5381483N

Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	14 Dec 2020
Trees:	*Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus*
Shrubs:	*Coprosma quadrifida*
Graminoids:	*Gahnia grandis*
Ferns:	*Blechnum wattsii, Dicksonia antarctica, Histiopteris incisa, Microsorum pustulatum subsp. pustulatum, Rumohra adiantiformis*

Site: CAL

TASVEG 4.0 Community: RMT

Grid Reference:	373227E, 5396575N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	15 Dec 2020
Trees:	*Atherosperma moschatum subsp. moschatum, Nothofagus cunninghamii*
Tall Shrubs:	*Anopterus glandulosus*
Shrubs:	*Cenarrhenes nitida, Leptecophylla pogonocalyx ssp. pogonocalyx*
Herbs:	*Drymophila cyanocarpa*
Graminoids:	*Gahnia grandis*
Ferns:	*Blechnum wattsii, Hymenophyllum rarum, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei*

Site: CAL Drillers Camp Alternative

TASVEG 4.0 Community: RMT

Grid Reference:	373344E, 5396574N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	15 Dec 2020
Trees:	*Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii*
Tall Shrubs:	*Anopterus glandulosus, Nematolepis squamea*
Shrubs:	*Cenarrhenes nitida, Leptecophylla pogonocalyx ssp. pogonocalyx*
Graminoids:	*Gahnia grandis*
Ferns:	*Blechnum wattsii, Dicksonia antarctica, Hymenophyllum flabellatum, Hymenophyllum rarum, Notogrammitis billardierei*

Site: CAL Drillers Camp

TASVEG 4.0 Community: RMS

Grid Reference:	373444E, 5396660N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	15 Dec 2020
Trees:	*Atherosperma moschatum subsp. moschatum, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus*
Shrubs:	*Cenarrhenes nitida, Trochocarpa cunninghamii*
Graminoids:	*Gahnia grandis*
Ferns:	*Blechnum wattsii, Hymenophyllum rarum, Notogrammitis billardierei*

Site: Eastern1

TASVEG 4.0 Community: RMT

Grid Reference:	361852E, 5382280N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	10 Mar 2021
Trees:	*Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii*
Tall Shrubs:	*Anopterus glandulosus*
Shrubs:	*Aristotelia peduncularis, Tasmannia lanceolata*
Herbs:	*Hydrocotyle hirta*
Ferns:	*Blechnum penna-marina subsp. alpina, Blechnum wattsii, Dicksonia antarctica, Histiopteris incisa, Hymenophyllum australe, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei, Polystichum proliferum, Rumohra adiantiformis, Sticherus lobatus*
Weeds:	*Trifolium sp.*

Site: Limestone 1

TASVEG 4.0 Community: WOR

Grid Reference:	366648E, 5381867N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	9 Mar 2021
Trees:	*Atherosperma moschatum subsp. moschatum, Eucalyptus nitida, Eucalyptus obliqua, Eucryphia lucida, Nothofagus cunninghamii, Phyllocladus aspleniifolius*
Tall Shrubs:	*Anodopetalum biglandulosum, Monotoca glauca, Pomaderris apetala, Telopea truncata*
Shrubs:	*Cenarrhenes nitida, Coprosma quadrifida, Leptecophylla pogonocalyx ssp. pogonocalyx, Lomatia tinctoria*
Herbs:	*Dianella tasmanica, Drymophila cyanocarpa*
Graminoids:	*Gahnia grandis*
Ferns:	*Dicksonia antarctica, Hymenophyllum australe, Hymenophyllum flabellatum, Hymenophyllum rarum, Hypolepis rugosula, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei*

Site: Limestone 2

TASVEG 4.0 Community: RMT

Grid Reference:	366040E, 5382595N
Accuracy:	GPS (within 10 metres)
Recorder:	Cody McCracken
Date of Survey:	9 Mar 2021
Trees:	*Acacia melanoxylon, Atherosperma moschatum subsp. moschatum, Eucryphia lucida, Nothofagus cunninghamii*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus, Monotoca glauca*
Shrubs:	*Coprosma nitida, Coprosma quadrifida*

Graminoids:	*Gahnia grandis*
Ferns:	*Blechnum penna-marina subsp. alpina, Blechnum wattsii, Dicksonia antarctica,*
	Histiopteris incisa, Hymenophyllum australe, Hymenophyllum flabellatum, Hymenophyllum rarum, Hypolepis rugosula, Microsorum pustulatum subsp. pustulatum, Notogrammitis garrettii, Polystichum proliferum

Appendix 2

Species list - project: PAS066

Status codes:

ORIGIN	NATIONAL SCHEDULE	STATE SCHEDULE
i - introduced	EPBC Act 1999	TSP Act 1995
d - declared weed WM Act	CR - critically endangered	e - endangered
en - endemic to Tasmania	EN - endangered	v - vulnerable
t - within Australia, occurs only in Tas.	VU - vulnerable	r - rare

Name	Common name	Status
DICOTYLEDONAE		
APIACEAE		
Hydrocotyle hirta	hairy pennywort	
ATHEROSPERMATACEAE		
Atherosperma moschatum subsp. moschatum	sassafras	
CUNONIACEAE		
Anodopetalum biglandulosum	horizontal	en
Bauera rubioides	wiry bauera	
ELAEOCARPACEAE		
Aristotelia peduncularis	heartberry	en
ERICACEAE		
Gaultheria hispida	copperleaf snowberry	en
Leptecophylla juniperina subsp. juniperina	common pinkberry	t
Leptecophylla pogonocalyx ssp. pogonocalyx	pinkberry	en
Monotoca glauca	goldey wood	
Trochocarpa cunninghamii	straggling purpleberry	en
Trochocarpa gunnii	fragrant purpleberry	en
ESCALLONIACEAE		
Anopterus glandulosus	tasmanian laurel	en
EUCRYPHIACEAE		
Eucryphia lucida	leatherwood	en
EUPHORBIACEAE		
Micrantheum serpentinum	western tridentbush	en r

FABACEAE		
Acacia melanoxylon	blackwood	
Acacia mucronata	variable sallow wattle	
Pultenaea juniperina	prickly beauty	
Trifolium sp.	clover	i
Ulex europaeus	gorse	d
FAGACEAE		
Nothofagus cunninghamii	myrtle beech	
HEMEROCALLIDACEAE		
Dianella tasmanica	forest flaxlily	
LAMIACEAE		
Prostanthera lasianthos var. lasianthos	christmas mintbush	
Westringia rubiaefolia	sticky westringia	en
LAURACEAE		
Cassytha pubescens	downy dodderlaurel	
MYRTACEAE		
Eucalyptus nitida	western peppermint	en
Eucalyptus obliqua	stringybark	
Leptospermum lanigerum	woolly teatree	
Leptospermum nitidum	shiny teatree	en
Leptospermum scoparium	common tea-tree	
PITTOSPORACEAE		
Billardiera longiflora	purple appleberry	en
Pittosporum bicolor	cheesewood	
POLYGALACEAE		
Comesperma retusum	mountain milkwort	
PROTEACEAE		
Banksia marginata	silver banksia	
Cenarrhenes nitida	native plum	en
Hakea epiglottis subsp. epiglottis	beaked needlebush	en
Lomatia polymorpha	mountain guitarplant	en
Lomatia tinctoria	guitarplant	en
Telopea truncata	tasmanian waratah	en
RANUNCULACEAE		
Clematis aristata	mountain clematis	
RHAMNACEAE		
Pomaderris apetala	common dogwood	
RUBIACEAE		
Coprosma nitida	mountain currant	
Coprosma quadrifida	native currant	
RUTACEAE		
Nematolepis squamea	satinwood	
Nematolepis squamea subsp. squamea	satinwood	

SANTALACEAE		
Leptomeria drupacea	erect currantbush	
THYMELAEACEAE		
Pimelea humilis	dwarf riceflower	
WINTERACEAE		
Tasmannia lanceolata	mountain pepper	
GYMNOSPERMAE		
PHYLLOCLADACEAE		
Phyllocladus aspleniifolius	celerytop pine	en
MONOCOTYLEDONAE		
CYPERACEAE		
Gahnia grandis	cutting grass	
Lepidosperma elatius	tall swordsedge	
LUZURIAGACEAE		
Drymophila cyanocarpa	turquoise berry	
ORCHIDACEAE		
Pterostylis sp.	greenhood	
PTERIDOPHYTA		
ASPIDIACEAE		
Polystichum proliferum	mother shieldfern	
Rumohra adiantiformis	leathery shieldfern	
BLECHNACEAE		
Blechnum penna-marina subsp. alpina	alpine waterfern	
Blechnum wattsii	hard waterfern	
DENNSTAEDTIACEAE		
Histiopteris incisa	batswing fern	
Hypolepis rugosula	ruddy groundfern	
Pteridium esculentum subsp. esculentum	bracken	
DICKSONIACEAE		
Dicksonia antarctica	soft treefern	
GLEICHENIACEAE		
Sticherus lobatus	spreading fanfern	
Sticherus tener	silky fanfern	
GRAMMITIDACEAE		
Notogrammitis billardierei	common fingerfern	
Notogrammitis garrettii	sandstone fingerfern	en
HYMENOPHYLLACEAE		
Hymenophyllum australe	southern filmyfern	
Hymenophyllum flabellatum	shiny filmyfern	

Hymenophyllum rarum	narrow filmyfern

POLYPODIACEAE

Microsorum pustulatum subsp. pustulatum	kangaroo fern

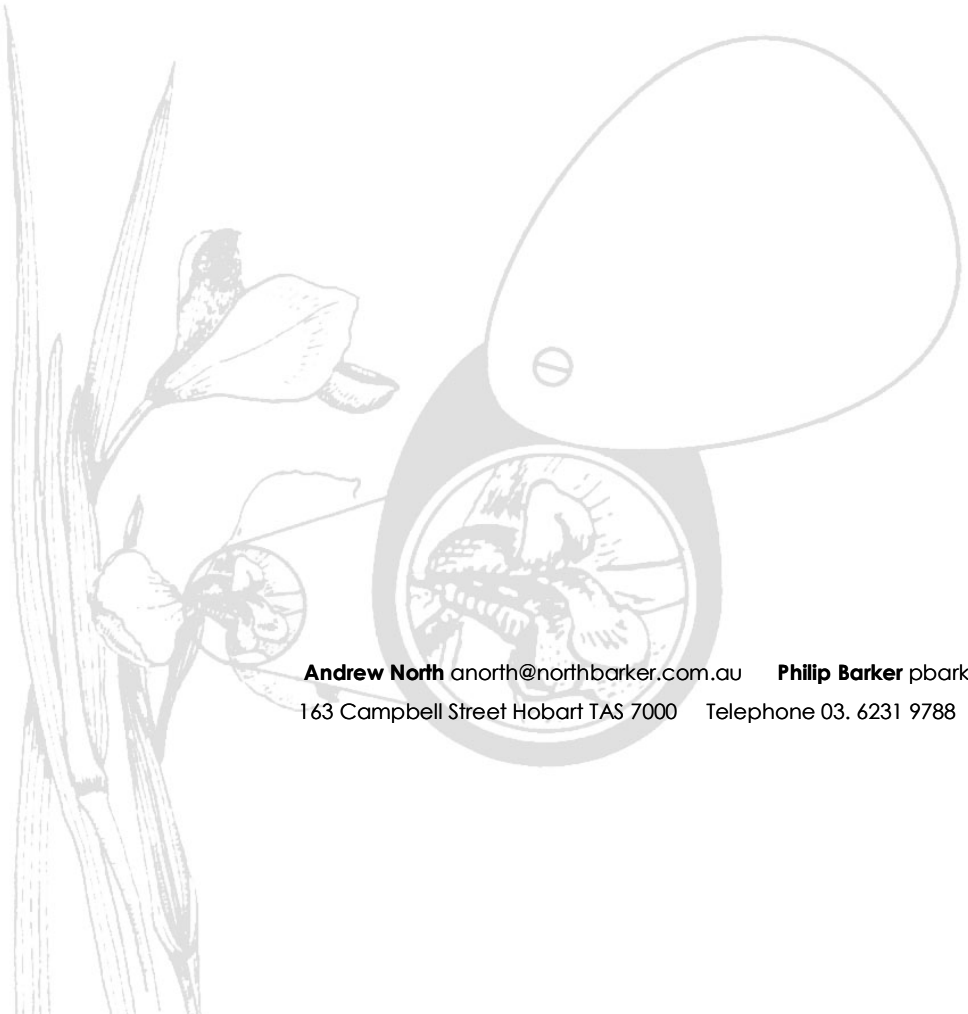
Appendix C:
Addendum to Venture Minerals drill test sites, CAL-C, 12th February 2021

Addendum to Venture Minerals drill test sites, CAL-C.

Natural Values Determination

12th February 2021

For Venture Minerals (PAS066)



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163 Campbell Street Hobart TAS 7000 Telephone 03. 6231 9788 Facsimile 03. 6231 9877

1. Project Details

Addendum specifics: This addendum has been produced as a contingency drill site option on behalf of Venture Minerals. The determination relates to one specific site in the northern extent of the project area. This addendum should be read in conjunction with the original report produced: Venture Minerals drill test sites, Mt Lindsey and surrounds – Natural Values Determination.

Background: This report has been prepared by an Ecologist from Northbarker Ecosystem Services to inform on proposed drill test sites put forward by Venture Minerals. The drill test sites are contained within Venture Minerals existing prospecting leases, proximal to the Mt Lindsey deposits.

Venture Minerals owns the Mt Lindsey Tin-Tungsten mine, including all the surrounding prospects. Recently, Venture has focussed efforts at Mt Lindsay on identifying additional high-grade tin/tungsten targets near the Mt Lindsay Deposits, as well as targets prospective for copper and nickel mineralization. The exploration work is part of a broader strategy focussed on identifying high grade mineralization within trucking distance of the existing deposit that has the potential to further strengthen the economics of the Mt Lindsay Project.

Each of the drill sites have been surveyed within a circumference of 25m from the GPS location given by Venture minerals. The 25m boundary allows for any site-specific changes when emplacing drill rigs on site and for any error associated with GPS marked locations.

Date of Field Survey: 15th December 2020.

Field Survey [1], Report [2] and Photos [3]: Cody McCracken [123] and Phil Barker [2].

Methods: Plant species composition of the potential impact footprint was surveyed using an area search based on the Timed Meander Search Procedure[1]. Vegetation was classified according to TASVEG 4.0 units, with boundaries determined in the field and with the aid of aerial imagery.

The Tasmanian Natural Values Atlas database was searched for records of threatened species and vegetation types within a 5 km radius. The possibility of threatened values known from within this radius occurring within the impact area has been considered in the interpretation of results.

Limitations: The field survey was undertaken in December. Values that are seasonal may have been overlooked or absent; the potential for this is considered where relevant in the discussion. The quality of fauna habitat, including the presence of tree hollows, was assessed from ground level only.

[1] Goff *et al.* 1982

2. Site Values

Vegetation community for CAL-C

NOTHOFAGAS-ATHEROSPERMA RAINFOREST (RMT)

RMT is extensive across the north of the study area, its distribution being influenced by past disturbance history, i.e. it occurs in areas that have not been affected by fire or other disturbances. Structurally it ranges between thamnic and callidendrous.

The canopy trees are in excess of 30m tall with mature old growth *Nothofagus cunninghamii* being the dominant species. The secondary tree layer reaches heights of up to 25m, and common species include *Atherosperma moschatum* and immature *Nothofagus cunninghamii*. The shrub layer is of a low diversity and included species such as *Anodopetalum biglandulosum, Anopterus glandulosus, Cenarrhenes nitida* and saplings of the canopy trees.

Ferns include Histiopteris incisa, Hymenophyllum rarum, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei.

This community is well reserved and not threatened.

Plate 1: Drill pad location for CAL-C

Threatened Flora

No threatened flora was identified at the site

Threatened Fauna and Fauna Habitat

No threatened fauna or fauna habitat was identified at the site

This addendum should be considered in conjunction with fauna habitat ranges outlined in the main report.

3. Impact Assessment and Scope for Mitigation

Vegetation Communities

The proposal will have no impact to threatened vegetation communities listed under the NCA.

TASVEG community and extent in study area	**current Ha**	**Reservation ha / %**	**Pre 1750 / current ha**	**Reservation ha / %**	**Status** (JANIS)
	TAS	**TAS**	**West Coast**	**West Coast**	
Tall Myrtle Rainforest (RMT)	436,367	380,736 *87 %*	266,786	248,394 93 %	Adequately reserved

Threatened Flora Species

The proposed drill sites are unlikely to impact on threatened flora.

Threatened Fauna Habitat and Trees

The proposed drill sites are unlikely to impact on threatened fauna.

4. Legislative Implications

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

No action required.

Tasmanian *Threatened Species Protection Act 1995*

No action required.

Appendix 1

Communities for Project: PAS066

Site CAL-C: RMT

Trees:	*Atherosperma moschatum subsp. moschatum, Nothofagus cunninghamii*
Tall Shrubs:	*Anodopetalum biglandulosum, Anopterus glandulosus*
Shrubs:	*Cenarrhenes nitida*
Herbs:	*Drymophila cyanocarpa*
Graminoids:	*Gahnia grandis*
Ferns:	*Histiopteris incisa, Hymenophyllum rarum, Microsorum pustulatum subsp. pustulatum, Notogrammitis billardierei*

Species list - project: PAS066

Status codes:

ORIGIN	NATIONAL SCHEDULE	STATE SCHEDULE
i - introduced	EPBC Act 1999	TSP Act 1995
d - declared weed WM Act	CR - critically endangered	e - endangered
en - endemic to Tasmania	EN - endangered	v - vulnerable
t - within Australia, occurs only in Tas.	VU - vulnerable	r - rare

Name	Common name	Status
DICOTYLEDONAE		
ATHEROSPERMATACEAE		
Atherosperma moschatum subsp. moschatum	sassafras	
CUNONIACEAE		
Anodopetalum biglandulosum	horizontal	en
ESCALLONIACEAE		
Anopterus glandulosus	tasmanian laurel	en
FAGACEAE		
Nothofagus cunninghamii	myrtle beech	
PROTEACEAE		
Cenarrhenes nitida	native plum	en
MONOCOTYLEDONAE		
CYPERACEAE		
Gahnia grandis	cutting grass	
LUZURIAGACEAE		
Drymophila cyanocarpa	turquoise berry	
PTERIDOPHYTA		

DENNSTAEDTIACEAE

Histiopteris incisa	batswing fern

GRAMMITIDACEAE

Notogrammitis billardierei	common fingerfern

HYMENOPHYLLACEAE

Hymenophyllum rarum	narrow filmyfern

POLYPODIACEAE

Microsorum pustulatum subsp. pustulatum	kangaroo fern