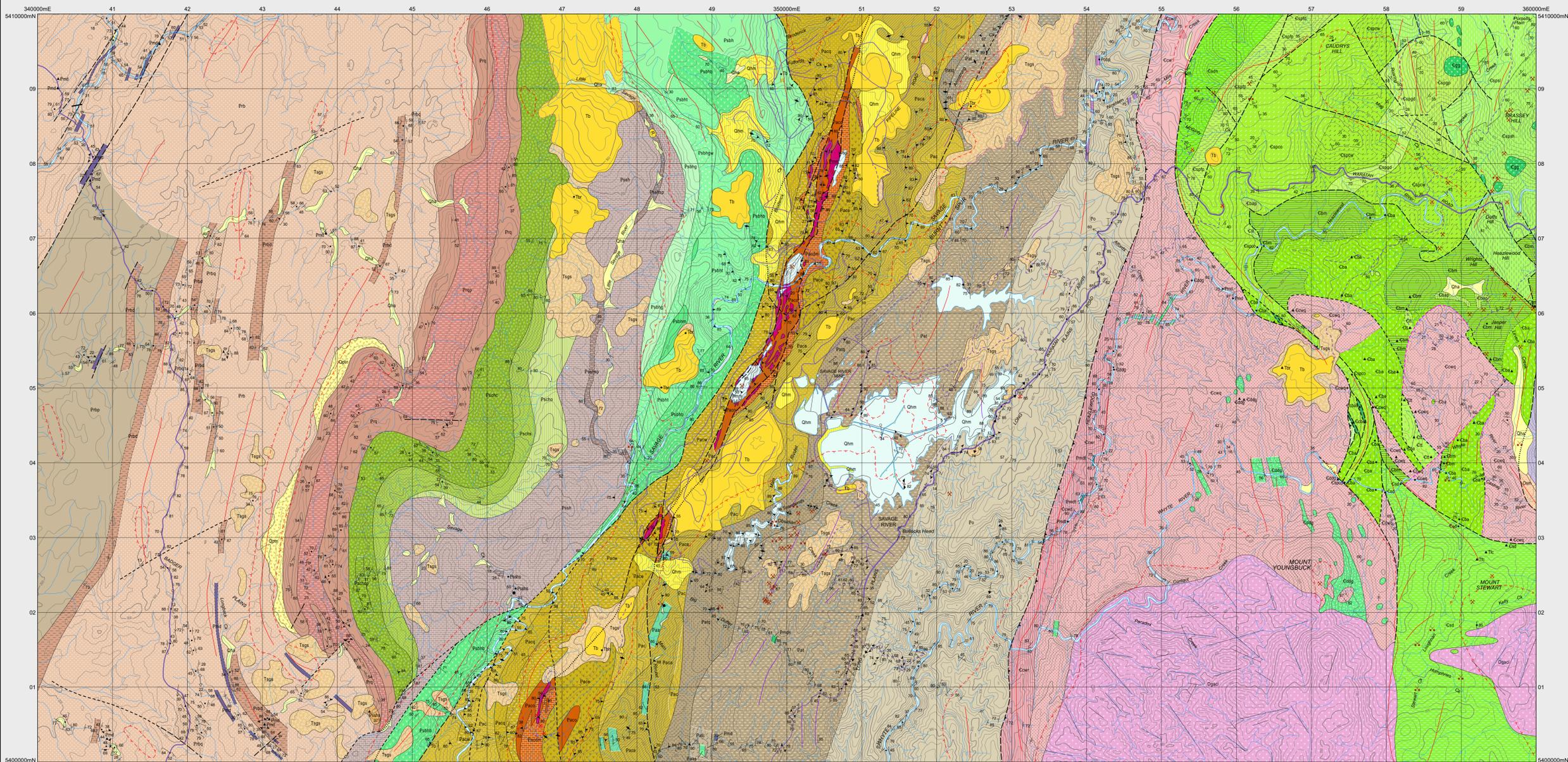
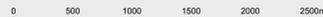


# SAVAGE RIVER

Scale 1:25 000



PERIOD	UNIT	DESCRIPTION
QUATERNARY	Qhm	Mine tailings and man-disturbed ground (Qhm)
	Qha	Stream alluvium, swamp and marsh deposits (Qha)
	Qpt	Talus of Proterozoic orthoquartzite (Qpt)
PALEOGENE-NEOGENE	Tb	Erosional surface
	Tba	Basalt (Tb): transitional olivine basalt (Tbr) and hawaita (Tbh)
	Tba1	Crystal-rich basaltic breccia, sandstone, tuff and agglomerate (Tba)
	Tsga	Interbedded siliceous gravel, quartz sand and clay (Tsga)
	Tsqh	Silica-cemented quartzite breccia (Tsqh)
	Tt	Ironstone flow developed on Cambrian serpentinite (Tt)
	U	Unconformity
MIDDLE CAMBRIAN	SDq	Quartz sandstone with minor mudstone and granule conglomerate (correlate of Crofty Formation) (SDq)
	Ql	Limestone and impure limestone (correlate of Gordon Group) (Ql)
	Qm	Poorly sorted quartz sandstone and minor mudstone (probable correlate of Mona Sandstone) (Qm)
EARLY CAMBRIAN	Cwm	Volcaniclastic lithowacke with interbedded siltstone, mudstone and minor mafic volcanics (Cwm)
	Cwv	Interbedded grey, brown and maroon chert, shale and argillite (Cwv)
	Cwq	Micaceous quartzose lithowacke with interbedded siltstone, mudstone and minor mafic volcanics (including correlates of Crescent Spur Sandstone) (Cwq)
	Cwd	Interbedded fine-grained dolomite and diamictite (Cwd)
	Cw	Red, maroon and brown argillite-siltstone and mudstone (Cw)
	Cw	Mafic volcanoclastic sandstone-siltstone-mudstone-chert-minor carbonate sequences with intercalated felsitic basalt flows. Considered allochthonous (Cw)
	Cw	Fine- to coarse-grained, commonly vesicular and locally pillowed or flow-banded basaltic lava (high magnesium andesite and basalt) intercalated with breccia and agglomerate. Usually porphyritic with common resorbed phenocrysts of clinopyroxene and orthopyroxene (Cw)
	Cw	Flow- to coarse-grained, massive to amygdaloidal locally pillowed flows of aphyric to sparsely and finely plagioclase-phyric basalt (flow glass) (Cw)
	Cw	Interbedded breccia, agglomerate and minor sedimentary rocks. Interstitial primary quartz commonly present; locally grades to granophyre (Cw)
	Cw	Minor intercalated chert and sedimentary rocks (Cw)
	Cw	Faulted contacts (major thrusts) of Early Cambrian rocks with Onah Formation

PERIOD	UNIT	DESCRIPTION
NEO-PROTEROZOIC	Po	Graded beds of quartzwacke, interbedded with pelitic siltstone and mudstone (Po)
	Pob	Mafic vesicular lavas (Pob); pillow lavas indicated (Pobp)
NEO-PROTEROZOIC (PROTOLITH AGE)	Pab	Quartzite and quartz-mica schist with lesser phyllite (Pab)
	Pab1	Chlorite schist and mica-schist, with lesser quartz-mica schist, and phyllite (Pab1)
	Pab2	Quartz-mica schist with lesser quartzite, phyllite and rare dolomite (Pab2)
	Pab3	Transitional to relatively sharp lithological boundary of Keith Schist (Pab3) with Pat. Pab3
	Pab4	Quartz-chlorite-illite schist (characterised by 1-2mm rounded, albite prophyroblasts), Armstrong Creek Schists (Pab4)
	Pab5	Chlorite-illite ± epidote ± amphibole ± carbonate metapelitic rocks, includes Eastern Wall Mafic Assemblage (Pab5)
	Pab6	Massive to banded magnetite-stone ± dolomite and interbedded metapelitic rocks and talc ± chlorite ± carbonate schist. Includes Carbonate-Mafic Assemblage (Pab6)
	Pab7	Lithologically diverse unit of leucogranite ± biotite ± garnet ± amphibole ± magnetite ± quartz ± pyrite ± calcic schists with metamafics. Includes Main Host Assemblage to magnetite ore and magnetite skarns (Pab7)
	Pab8	Lithologically diverse unit including albite ± quartz ± amphibole ± chlorite ± mica and carbonate schists. Includes Western Wall Banded Schists (Pab8)
	Pab9	Minor porphyroblastic schist, amphibolite and metacarbonate. Includes Fulford Creek Muscovite Schist (Pab9)
	Pab	Undifferentiated chlorite, amphibole, muscovite and quartz schists, metamafics, carbonates and magnetite (Pab)
	Pab	Faulted contact of Arthur Metamorphic Complex (Pab, Pab1-Pab9) with Alberg Group (Pab1, Pab2, Pab3, Pab4, Pab5, Pab6, Pab7, Pab8, Pab9)
CONTACTS	Geological contact	Geological contact
	Geological contact - inferred from radiometric data	Geological contact - inferred from radiometric data
FAULTS	Fault - inferred	Fault - inferred
	Fault - concealed	Fault - concealed
LINEARS	Lineament - visible on aerial photographs	Lineament - visible in magnetic data
	Lineament - visible in digital terrain model	Magnetic gradient or lineament (direction towards lower values indicated)

PERIOD	UNIT	DESCRIPTION
WESTERN AREA	Pab10	Abundant metabasalt, with grey volcanoclastic and pelitic siltstone (Pab10)
	Pab11	Relatively massive metabasalt or fine-grained metadiorite (Pab11)
	Pab12	Interbedded slaty or phyllitic relatively massive, green to grey volcanoclastic and pelitic chlorite metapelites with minor fine-grained foliated metamorphosed basalt and amphibolite wicks (Pab12)
	Pab13	Dominantly grey volcanoclastic and pelitic metasilstone with scattered layers of pebbly basaltic sandstone (Pab13)
	Pab14	Dolomite (Pab14)
	Pab15	Interbedded metabasalt, basaltic sandstone, slaty to phyllitic siltstone, quartz sandstone and minor dolomite (Pab15)
	Pab16	Planar laminated, carbonaceous, grey-black to pale-green weathering siltstone (mappable unit within Pab15) (Pab16)
	Pab17	Variably silicified dolomite (variant of Pab15) (Pab17)
	Pab18	Grey slaty pelitic siltstone with minor banded chert and thin layers of silicified oolitic dolomite (Pab18)
	Pab19	Micaceous quartzwacke in graded beds with interbedded slaty, locally pelitic siltstone and mudstone (Pab19)
MESO-PROTEROZOIC	Erp	Inferred angular unconformity of Donaldson Formation (Erp) on Rocky Cape Group (Erp)
	Erp	Common to dominant micaceous quartz sandstone and cross-bedded orthoquartzite within siltstone (Erp)
ECTASIAN	Erp	Dominantly planar laminated grey and dark grey to pale-green weathering pelitic siltstone and mudstone with thin micaceous fine-grained cross-bedded quartzite sandstone interbeds (mappable unit within Erp) (Erp)
	Erp	Pale to medium grey-green, slaty to relatively massive planar bedded chlorite siltstone and minor mudstone (Erp); derived from Corvina 1:50 000 and Pliaman 1:63 360 sheets; includes Intervale Sandstone
	Erp	Dark grey slaty to relatively massive planar-bedded carbonaceous and/or chloritic siltstone and minor mudstone (Erp); derived from Corvina 1:50 000 sheet
	Erp	Undifferentiated cross-bedded quartzite, micaceous quartz sandstone, planar-bedded slaty to relatively massive chlorite siltstone and minor mudstone (Erp, Erp1, Erp2, Erp3 - correlates of Ballour Group)

PERIOD	UNIT	DESCRIPTION
UPPER DEVONIAN	Dgac	Very coarse-grained equigranular biotite-bearing orthopyroxene/clinopyroxene gneiss with very abundant inclusions of fine- to coarse-grained, porphyroblastic (4-6mm) and plagioclase biotite gneiss and abundant quartz-dioritic nodules (Merrett Granite, type) (Dgac)
	Dgag	Dolomite and microgabbro (Dgag)
	Dgab	Coarse-grained pyroxenite related to boninitic lavas (Dgab)
	Dgbc	Massive, fine- to medium-grained tonalite and related rocks (Dgbc)
	Dgbd	Multiple intruded irregular bodies and dykes of very fine- to medium-grained gabbroite (Dgbd)
	Dgbe	Well-layered actinolite to orthoclase sequence of hornblende and plagioclase hornblende, orthopyroxene and orthopyroxene, and minor websterite, plagioclase hornblende and amphibole, and with cross-cutting gabbroite and anorthosite dykes (Brassay Hill Plagioclase, Upper Member) (Dgbe)
	Dgbf	Layered orthoclase to actinolite sequence of actinolite hornblende, orthopyroxene and plagioclase hornblende, hornblende, plagioclase hornblende and orthopyroxene, and with cross-cutting gabbroite and anorthosite dykes (Purcell Hill Plagioclase, Upper Member) (Dgbf)
	Dgbg	Massive serpanitised plagioclase dunite, intruded by numerous silt (1-3m thick) of medium-grained to pegmatitic saucroitic gabbroite, grading to plagioclase websterite (East of Purcell Hill, Lower Member) (Dgbg)
	Dgbh	Poorly layered actinolite to mesoactinolite sequence of orthopyroxene, plagioclase hornblende and plagioclase hornblende derived from lower member (Gabbro Hill Plagioclase Pyroxenite, lower dunite member) (Dgbh)
	Dgbi	Poorly layered orthoclase to mesoactinolite sequence of orthopyroxene, plagioclase websterite and plagioclase hornblende (Caughy Hill Orthopyroxene, upper plagioclase websterite member) (Dgbi)
CAMBRIAN	Cgaa	Poorly layered actinolite sequence of orthopyroxene and diorite orthopyroxene with minor serpanitised dunite and hornblende (Caughy Hill Orthopyroxene, diorite) (Cgaa)
	Cgab	Layered actinolite sequence of olivine orthopyroxene, hornblende and minor hornblende, websterite and orthopyroxene (Fanton Spur Pyroxenite, lower dunite member) (Cgab)
	Cgac	Coarsely layered actinolite sequence of dunite and hornblende with minor orthopyroxene and orthopyroxene (Fanton Spur Pyroxenite, lower dunite member) (Cgac)
	Cgad	Strombolitic actinolite sequence of massive, variably serpanitised dunite with subordinate thin (10-100mm) layers of hornblende and orthopyroxene (Nelson Mile Creek Dunite) (Cgad)
	Cgae	Serpentinised interlayered dunite and minor hornblende, with common dykes of orthopyroxene (includes Mt Stewart ultramafic complex) (Cgae)
	Cgaf	Massive serpanitised (Cgaf)
	Cgag	Undifferentiated dolerite dykes (Pnd)
	Cgah	Tholeiitic dolerite dykes (Pnd)
	Cgai	Cr-spinel bearing dolerite dykes (Pnd)
	Cgaj	Amphibolite (Paa)
PROTEROZOIC	Paa	Cr-spinel bearing amphibolite (Paa)
	Paa	Magnetite ore and magnetite skarn (Paa)

PERIOD	UNIT	DESCRIPTION
INTRUSIVE ROCKS	Dgac	Very coarse-grained equigranular biotite-bearing orthopyroxene/clinopyroxene gneiss with very abundant inclusions of fine- to coarse-grained, porphyroblastic (4-6mm) and plagioclase biotite gneiss and abundant quartz-dioritic nodules (Merrett Granite, type) (Dgac)
	Dgag	Dolomite and microgabbro (Dgag)
	Dgab	Coarse-grained pyroxenite related to boninitic lavas (Dgab)
	Dgbc	Massive, fine- to medium-grained tonalite and related rocks (Dgbc)
	Dgbd	Multiple intruded irregular bodies and dykes of very fine- to medium-grained gabbroite (Dgbd)
	Dgbe	Well-layered actinolite to orthoclase sequence of hornblende and plagioclase hornblende, orthopyroxene and orthopyroxene, and minor websterite, plagioclase hornblende and amphibole, and with cross-cutting gabbroite and anorthosite dykes (Brassay Hill Plagioclase, Upper Member) (Dgbe)
	Dgbf	Layered orthoclase to actinolite sequence of actinolite hornblende, orthopyroxene and plagioclase hornblende, hornblende, plagioclase hornblende and orthopyroxene, and with cross-cutting gabbroite and anorthosite dykes (Purcell Hill Plagioclase, Upper Member) (Dgbf)
	Dgbg	Massive serpanitised plagioclase dunite, intruded by numerous silt (1-3m thick) of medium-grained to pegmatitic saucroitic gabbroite, grading to plagioclase websterite (East of Purcell Hill, Lower Member) (Dgbg)
	Dgbh	Poorly layered actinolite to mesoactinolite sequence of orthopyroxene, plagioclase hornblende and plagioclase hornblende derived from lower member (Gabbro Hill Plagioclase Pyroxenite, lower dunite member) (Dgbh)
	Dgbi	Poorly layered orthoclase to mesoactinolite sequence of orthopyroxene, plagioclase websterite and plagioclase hornblende (Caughy Hill Orthopyroxene, upper plagioclase websterite member) (Dgbi)
ALLOCHTHONOUS SEQUENCES	Cgaa	Poorly layered actinolite sequence of orthopyroxene and diorite orthopyroxene with minor serpanitised dunite and hornblende (Caughy Hill Orthopyroxene, diorite) (Cgaa)
	Cgab	Layered actinolite sequence of olivine orthopyroxene, hornblende and minor hornblende, websterite and orthopyroxene (Fanton Spur Pyroxenite, lower dunite member) (Cgab)
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	Cgae	Serpentinised interlayered dunite and minor hornblende, with common dykes of orthopyroxene (includes Mt Stewart ultramafic complex) (Cgae)
	Cgaf	Massive serpanitised (Cgaf)
	Cgag	Undifferentiated dolerite dykes (Pnd)
	Cgah	Tholeiitic dolerite dykes (Pnd)
	Cgai	Cr-spinel bearing dolerite dykes (Pnd)
	Cgaj	Amphibolite (Paa)
MINERALISATION	Paa	Cr-spinel bearing amphibolite (Paa)
	Paa	Magnetite ore and magnetite skarn (Paa)

**SOURCE DIAGRAM**

Compiled by G.V. Cumming, B.Sc.(Hons); C.J. Jackman, B.Sc.(Hons) and J.L. Everard, B.Sc.(Hons) 2019 from the following sources (see source diagram):

- A PECK, D.C. 1960. Platinum-group element geochemistry and petrogenesis of the Headwood River mafic-ultramafic complex, Tasmania. PhD Thesis, University of Melbourne (unpub).
- B J.L. Everard. Field mapping Savage River 2016-2018.
- C BROWN, A.V., 1986. Geology of the Dundas - Mt Lindley - Mt Youngback Region. Geological Survey Bulletin 62. Tasmanian Department of Mines, Hobart.
- D RIGG, A.M. and MORRISON, K.C. 2013. EL402/010 Headwood Hill annual report for the period 1 June 2012 - 31 May 2013. Rubicon Mt Tech Ventures Pty Ltd (TR 13-065).
- E RADFORD, D. 2016. Geological Mapping from Radar Imagery with Machine Learning. Honours Thesis, University of Tasmania.
- F TURNER, N.J., BROWN, A.V., MCCLEMMAN, M.P. & SCOTTRISNO, I. 1991. Geological Atlas 1:50 000 series. Sheet 7314N (43). Corvina, Tasmanian Department of Mines.
- G JOYCE, R.M. 1982. Mendith Granite Project. EL161978 Savage River progress report for the six months ending April 20. Aberley Exploration Pty Ltd (TR 82-176).
- H MARTIN, A., OWEN, S., 2014. Post Office and Paradox Creeks Exploration Licence 332007 - Final relinquishment report for the period ending 28/07/2014 to 27/02/2014. Veritas Minerals Limited (TR 14-065).
- I C.J. Jackman Field Mapping Savage River 2017-2018.
- J G.V. Cumming Field Mapping Savage River 2017-2018.
- K N. Turner, 2005-2016. 1:10 000 Geological mapping of Savage River and compilation of previous work by Australian Bulk Minerals Savage River Project - A Division of Goldcare Pty Ltd.

**LOCATION DIAGRAM**

**INDEX TO ADJOINING SHEETS**

LEY	DONALDSON	WANTER
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INTERVIEW	MERRETH	RANSAY

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**SAVAGE RIVER 3440**

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