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ABERFOYLE EXPLORATION PTY. LTD.
MEREDITH GRANITE PROJECT
REPORT FOR THE SIX MONTHS ENDING
OCTOBER 20, 1979.

C.H. Young,
Project Geologist, Tasmania.

October, 1979.

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ACS Labs 11 pages

INTRODUCTION

In 1978 Meredith Granite E.L. 16/78 was pegged over vacant ground adjoining the south-west side of the Cleveland Exploration Licence. The pegging of the area resulted from Aberfoyle's policy of intense exploration activity for Sn and W mineralisation and the awareness that part of the E.L. area covers Cambrian sediments thought to be similar to those at Cleveland. (Plate MER 12).

The Meredith Granite itself is a proven tin bearing granite which has greisen and alluvial tin deposits and also contact and replacement Sn/W deposits near its margins.

The area incorporated within the E.L. has been prospected for both its hard rock and alluvial tin potential for decades. However, only recently has the region been subjected to modern exploration techniques. Comstaff Pty. Ltd. under E.L. 1/68 carried out limited work until 1973 when they relinquished the licence. ANZECO, under E.L. 11/75 held the property until 1976. Both companies undertook stream sediment sampling programmes covering parts of the Meredith Granite and contact rocks to the north. Large areas were omitted due to inaccessibility.

Aberfoyle commenced exploration of the E.L. with a reconnaissance mapping and stream sediment sampling programme designed to outline areas of attractive Cambrian stratigraphy with potential for either skarn or sulphide replacement Sn and W mineralisation. Within the Meredith Granite itself the programme was designed to search for possible greisen and breccia-pipe Sn mineralisation.

All results of the 1978/79 summer exploration programme are presented in this report and a recommendation for further exploration is made.

SUMMARY

The Meredith area, in particular the northern contact zone of Cambrian sediments is considered to have high potential for contact Sn and W skarn deposits of the Mt. Lindsay-Mt. Ramsay type and replacement Sn deposits of the Cleveland-Renison type. The granite itself has the potential for greisen and breccia-pipe Sn mineralisation.

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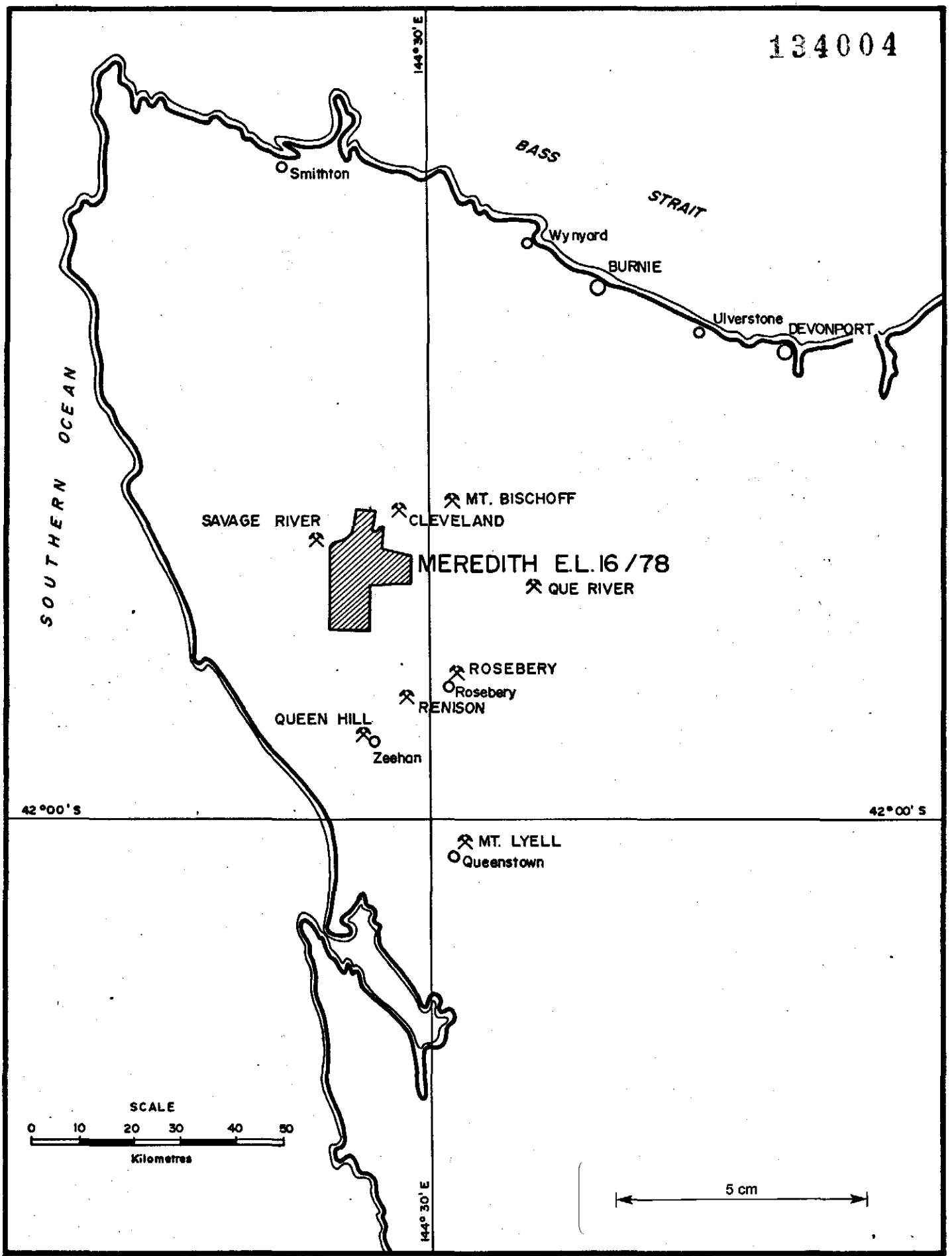

Aberfoyle Exploration Pty Ltd

Drawn: R.J.E.	NORTH WEST TASMANIA MEREDITH E.L. 16/78 Locality Map	Location code:
Traced:		Date: September, 1979
Checked:		Scale: 1 : 1,000,000
Revised by: Date:		Plate No Mer. 12

In the summer of 1978/79, following a literature review and compilation of previous company exploration data, a reconnaissance programme of stream sediment sampling and geological mapping, at air photo scale (1:15,000) was initiated. The areas covered by the stream sediment and mapping programmes are shown on Plate MER 15.

360 Stream sediments were collected from creek and stream beds at an average frequency of 6 per km^2. The samples were reduced in the field by a 12# sieve and later dried and seived through 80#.

Geological mapping was accomplished primarily by creek and stream traverse supported by exposure on the rather infrequent tracks. Fact geology plotted on 1:10,000 base plans and interpreted at 1:50,000, was presented on Plates MER 4, A-G and MER 3 respectively in the preliminary report of April 1979. Petrological reports are appended.

Three distinct areas with potential for Sn and W were outlined by the integrated geochemical and geological programme, these are:

- The Contact Creek-Scheelite Creek area where there are metasomatised Cambrian tuffaceous greywackes identical to the Crimson Creek Formation at Mt. Lindsay and at Dreadnought Hill near Renison. In this area is included an alluvial flat on the Whyte River which will be evaluated for alluvial Sn content.

- The Upper Castray River area where stream sediment values highly anomalous for Sn and W outline a lobate section of the Meredith Granite where there is the potential for greisen, and breccia pipe mineralisation.

- The Betts Track area where anomalous Sn and highly anomalous Zn values occur adjacent to a circular air-photo and aeromagnetic feature underlain by Cambrian sediments and basic volcanics.

Follow-up work is proposed for each of the above areas. This will include where applicable; soil sampling, base of slope soil sampling, ground magnetometer reconnaissance, geological mapping, rock chip sampling and heavy mineral concentrate sampling.

The use of the "DIGHEM" helicopter borne EM system, is under consideration as a technique for direct ore search.

Ancilliary work will include hand cut and bulldozer tracks to provide access and exposure.

GEOLOGY

Lithologies within the licence area vary from Precambrian to Devonian in age. To date, exploration by Aberfoyle has been concentrated on Cambrian Sediments and to a lesser extent Devonian granitic rocks, both in the northern part of the Meredith Granite area (Plate MER 11).

The Meredith Granite forms a large stock, irregular in outline, intruding Cambrian rocks. It is considered to be of Upper Devonian age, dating by K-Ar gives an age of 350 m years and by Rb-Sr 353 $\pm$ 7 m years. The granite is similar in age to the Housetop, Pieman, Granite Tor and Heemskirk granites, and is a porphyritic biotite granite with a generally consistent composition of orthoclase and quartz with minor muscovite, hornblende, tourmaline and apatite. In some areas, near granite margins, a greisenised variant occurs. Zones of north-south trending quartz-tourmaline veins, microgranites, aplites, pegmatites and greisen veins are reported.

To the west and north-west of the granite the Precambrian Whyte schists outcrop as quartzite, muscovite-quartz schists and black carbonaceous slates. These rocks are included in the Arthur Lineament and are believed to be in fault contact with Cambrian sediments at the western margin of the E.L.

Basic volcanics, basic tuffs, layered ultramafics, mafic tuffs, pyroxenites, peridotites and serpentinites occur in the Heazlewood-Bald Hill area north of the granite at Mt. Stewart and comprise the Heazlewood Complex. In the elongate strip from the Harman River South to Rileys Knob, just north of Renison Bell, a similar suite of rock types has been mapped as an ophiolite sequence.

The relationship of Cambrian sediments to the (?) older Heazlewood Complex is not fully understood as contacts are often intensely sheared. At one location, on the Castray River, there is an apparent unconformity between these units. A conglomerate consisting of ultramafic boulders (up to 20 cm) in a matrix of fine amphibole (tremolite/actinolite) apparently overlies basic volcanics and volcaniclastics of the Heazlewood Complex. This conglomerate passes into undeformed Cambrian black mica-sandstone, suggesting the conglomerate is basal to the sequence of Cambrian sediments in the region.

In general within the E.L. area there are two types of Cambrian sediments:

- A sequence of labile turbiditic rocks; greywackes, tuffs and cherts.

- A sequence of lithic sandstone and pelites; micaceous sandstones and massive siltstones.

The greywacke sequence consists of green, grey and purple siltstones, tuffs, cherts, greywackes and minor shales which display a marked similarity to the Crimson Creek Formation exposed at Renison Bell. Sediments of this type are known to contain mineralised carbonate horizons at Renison and Mt. Lindsay. In the Meredith area, probably due to recessive weathering characteristics and lack of exposure, similar carbonate horizons have not yet been mapped, although their presence is almost certain.

The sandstone sequence consists of red to black generally massive and coarse grained micaceous sandstones. They occur throughout the Cambrian stratigraphy. Lithic fragments identifiable as feldspar and quartz are common. The massive siltstones are red to green in colour and contain variable amounts of fine muscovite, with quartz and feldspar fragments. Red chert horizons occur within the siltstone horizons.

Regional greenschist metamorphism and localised metasomatic alteration proximal to the granite contact enriches the prospective sediments with diopside and tremolite-actinolite assemblages and with bands and fine disseminations of pyrite-pyrrhotite. The micaceous sandstone lithologies favour phlogopitisation and grade into a cordieritic hornfels.

Small dolerite dykes containing xenoliths of Cambrian rocks occur within the Cambrian sequence. Although the age of the dolerite is unknown, it has been included with the Cambrian.

Situated between Mt. Stewart and Cleveland, Ordovician-Silurian sediments contact the Meredith Granite and overly the Cambrian rocks. Poorly consolidated, white, Crotty quartzites constitute the majority of the younger sediments. However, stylolitic limestone has also been mapped along the Castray River. Limestones are also reported at the Godkin Mine, these may be up-sequence in relation to the stylolitic limestones.

Holocene alluvial deposits are developed along the principal water courses traversing the granite. There are also local alluvial deposits along the Whyte River.

STREAM SEDIMENT GEOCHEMISTRY

A major component of the summers exploration programme was stream sediment geochemical coverage of the prospective Cambrian rocks in the area of the northern contact of the Meredith Granite.

An overlay to Plate MER 11 indicates areas covered by Aberfoyle and other company stream sediment sampling. Aberfoyle sampling was confined to the areas not covered, apart from areas previously outlined as anomalous for Sn and W. One of the areas resampled near the Castray River is underlain by granite.

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Areas covered by other company exploration (Comstaff, ANZECO)

Areas covered by Aberfoyle, 1978-79 for stream geochemistry

Aberfoyle Exploration Pty Ltd

Drawn:	Areas Covered by ABERFOYLE EXP'N & other Company Exploration	Location code:
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Revised by: Date:		Plate No Mer-15

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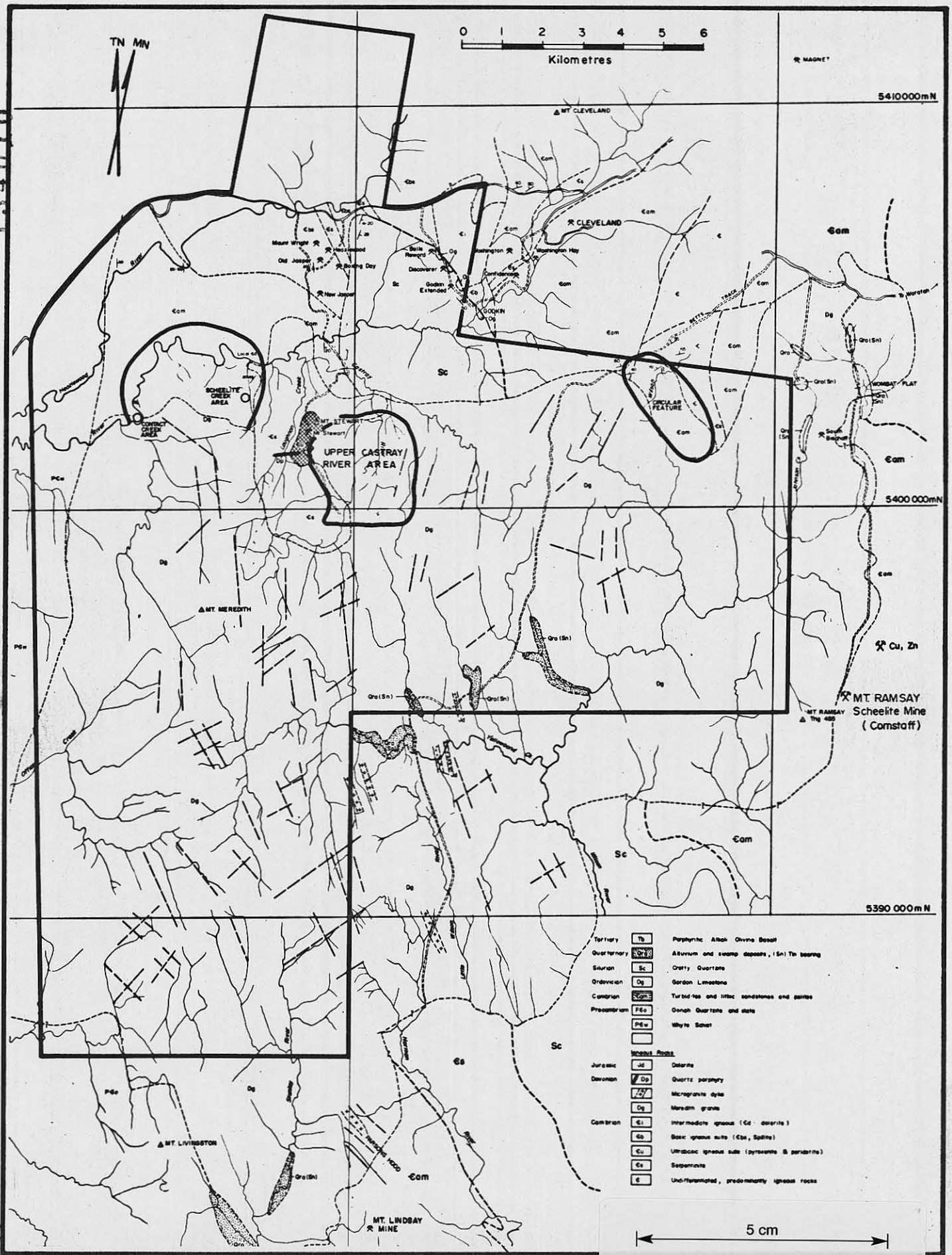
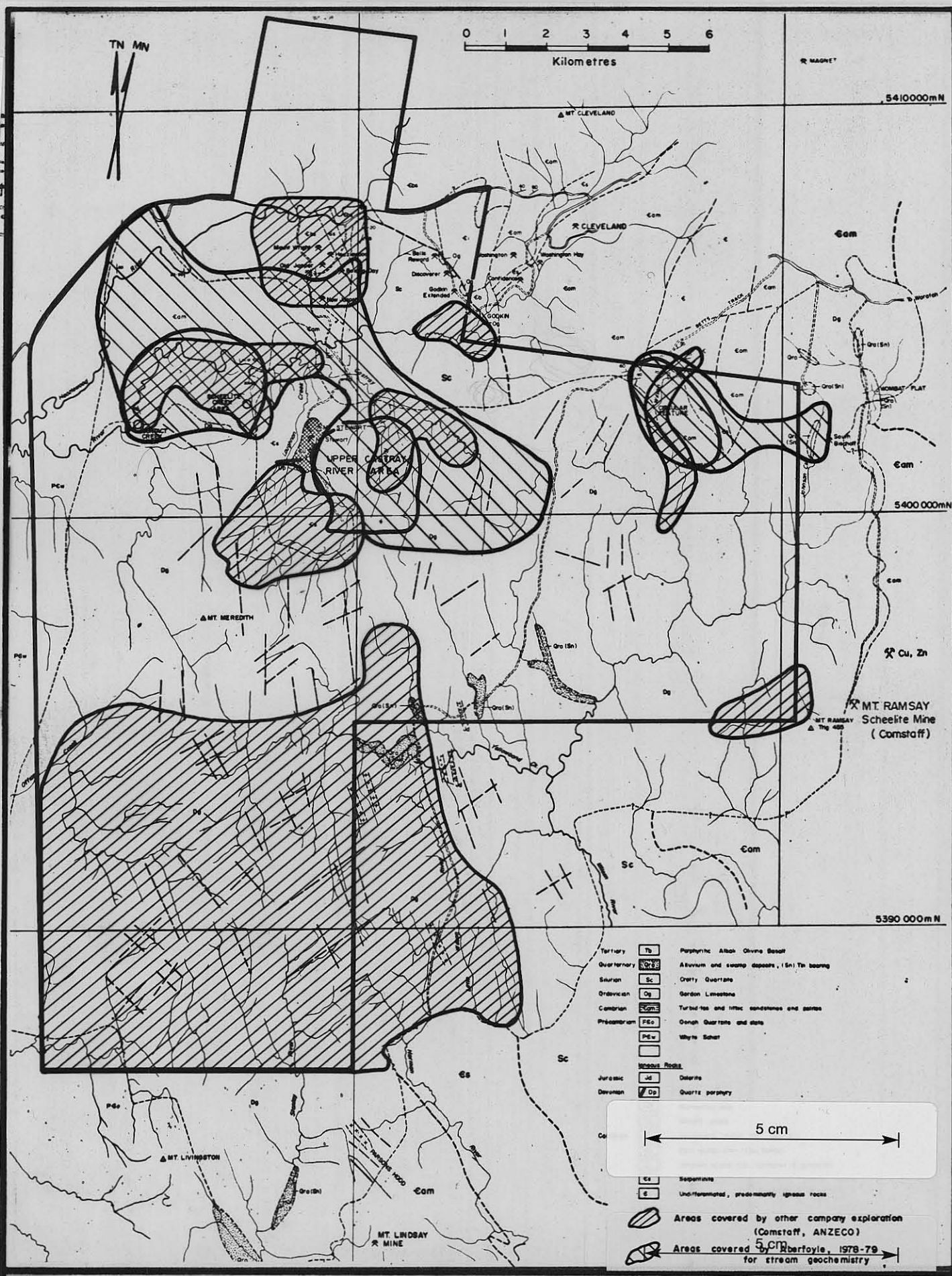


Aberfoyle Exploration Pty Ltd

Drawn: after D.I. Groves, 1962-7	NORTH WEST TASMANIA	Location code:
Traced: R.J.E.	MEREDITH E.L. 16/78	Date: September, 1979
Checked:	Geological Summary Map	Scale: 1: 125,000
Revised by: Date:		Plate No Mer. 11



Aberfoyle Exploration Pty Ltd

Drawn: after D.I. Groves, 1962-7	NORTH WEST TASMANIA	Location Code:
Traced: R.J.E.	MEREDITH Area Covered by ABERFOYLE EXP'N	Date: September, 1979
Checked:	Areas Covered by Aberfoyle 1978	Scale: 1: 125,000
Revised by: Date:	Geological Summary Map & other Company Exploration	Plate No Mer. 11

The -80# fraction of the initial batch of 82 samples were analysed by ACS Laboratories Pty. Ltd. by XRF for Sn, WO_3, Mo and As and by the Aberfoyle Exploration Laboratory by AAS for Cu, Pb and Zn. All subsequent samples were analysed by AMDEL by XRF for Sn and W and by Aberfoyle for Cu, Pb and Zn by AAS. All stream sediment geochemical data is presented on Plate MER 9 at 1:10,000 scale.

RESULTS

Three distinct areas with potential for Sn/W mineralisation were outlined by the integrated geological and geochemical programme, these are shown on Plate MER 11.

CONTACT CREEK - SCHEELITE CREEK AREA

Stream sediment values for Sn are not uniformly high, nevertheless anomalous values (>50 ppm) outline an area of approximately 6 km^2 where there are metasomatised tuffaceous greywackes and bedded siltstones identical to the rocks at Mt. Lindsay and the Dreadnought Member, Crimson Creek Formation as exposed at Renison Bell.

A Sn value of 1100 ppm was recorded at a location south-east of the access track, bulldozed during the 1978 summer season, at the junction of a small south flowing creek and the Whyte River. Follow-up by detailed sampling delineated Sn values of up to 1350 ppm confirming the original sample. Float of chert and greywacke were mapped in this area.

Altered finely laminated turbidite-like siltstones mapped in the bed of the Whyte River near the junction with Contact Creek (Plate MER 13) and also in the so called Scheelite Creek, are petrologically identical to rocks at Mt. Lindsay which lie adjacent to Sn bearing carbonate horizons. The likelihood of similar carbonate horizons to occur in the above area is considered excellent.

The creek called Scheelite Creek (MER 13) was outlined by previous work of ANZECO who collected heavy mineral concentrates and by assay and grain count, identified scheelite from 7 separate sites. Follow-up by Aberfoyle using -80# sediment delineated anomalous Sn values at 2 sites but did not detect anomalous W values (>100 ppm). Further evaluation of this area will include the collection of heavy mineral concentrates.

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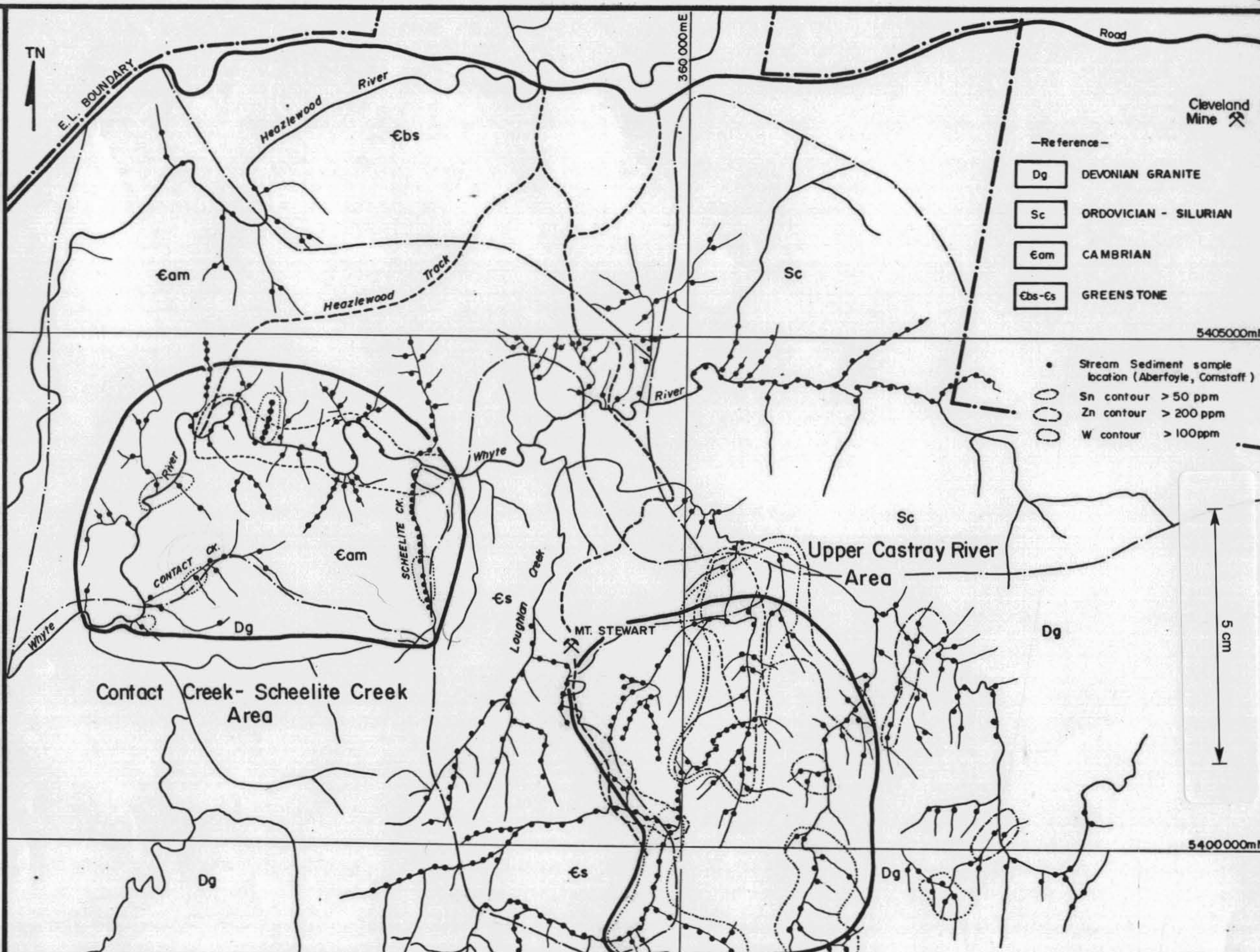

Aberfoyle Exploration Pty Ltd

NORTH WEST TASMANIA
MEREDITH E.L.16/78
Summary of Stream Sediment Geochemistry

Drawn: R.J.E.
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Revised by: Date:

Location code:
Date: September, 1979
Scale: 1 : 50, 000
Plate Nº Mer 13

On the Whyte River about 1.0 km north of the Contact Creek junction is an alluvial flat of about 0.5 sq. km. As this area is situated downstream from the Cleveland Tin Mine, assessment for alluvial Sn potential is warranted.

THE UPPER CASTRAY RIVER AREA

Along the northern contact of the Meredith Granite, near Mt. Stewart a lobate area of the granite of about 7 km^2 is defined by highly anomalous stream sediment values of up to 1300 ppm for Sn and up to 800 ppm for W. This area stands alone as the most geochemically anomalous part of the whole granite mass (Plate MER 13).

Late stage activity of the granite is illustrated by the presence of granite dykes in the adjoining Mt. Stewart area. The granite dykes are weakly greisenised with common tourmaline and muscovite and partial sericite replacement of feldspars. Reconnaissance mapping in the Mt. Ramsay area has shown the normal porphyritic biotite granite can grade rapidly into an altered pinite rich greisenised granite. This type of late stage activity with the development of greisen and breccia pipe mineralisation may well have occurred in the Castray River area where only float of greisenised granite has been found, but where exposure is minimal due to a dense cover of horizontal.

BETTS TRACK - CIRCULAR FEATURE

A distinctly circular air photo feature with a diameter of approximately 600 m occurs in an area of hornfelsed Cambrian conglomerates and basic volcanics of about 2 km^2, adjacent to the granite margin (Plate MER 14). To date, only limited evaluation of this area has been achieved. Stream sediment values anomalous for Sn (up to 480 ppm) and highly anomalous for Zn (up to 1700 ppm) are most encouraging and indicate an environment similar to the sphalerite zoned areas at Cleveland.

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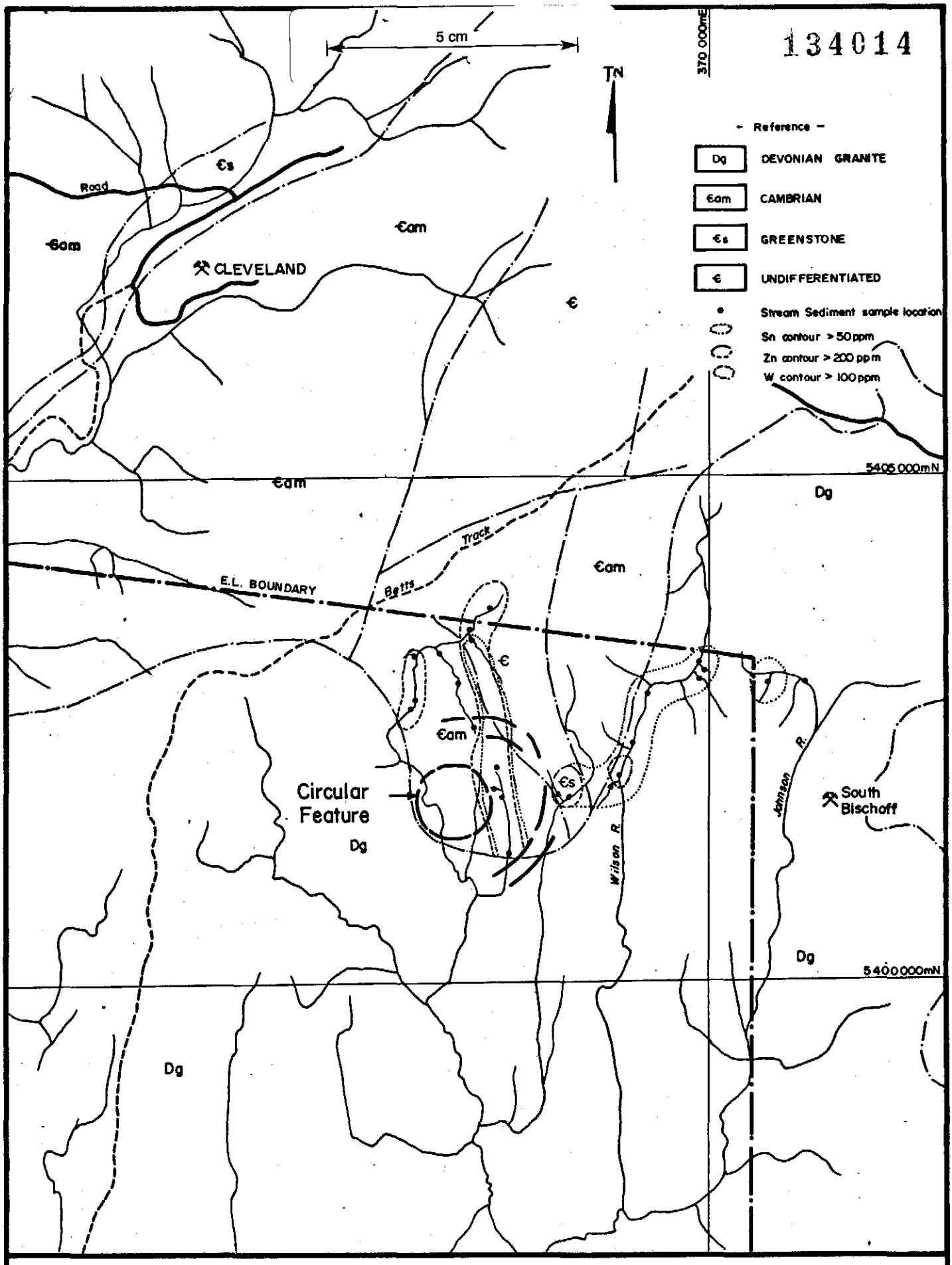

Aberfoyle Exploration Pty Ltd

Drawn: R.J.E.	NORTH WEST TASMANIA MEREDITH E.L. 16/78 Summary of Sfream Sediment Geochemistry in Vicinity of Circular Feature	Location code:
Traced:		Date: September, 1979
Checked:		Scale: 1 : 50,000
Revised by: Date:		Plate No Mer 14

WORK PROPOSED

Further evaluation of three areas is proposed:

In the Contact Creek-Scheelite Creek area base of slope soil sampling and heavy mineral concentrate sampling is required to further delineate anomalous zones. The area is as yet poorly explored principally due to poor exposure. A bulldozer track between Contact Creek and Scheelite Creek will provide access and exposure for geological mapping and rock chip sampling, prior to initial prospect definition by detailed mapping, soil geochemistry and ground magnetics.

In the Castray River area, where exposure is also minimal, it is difficult to improve geological coverage without new exposure provided by bulldozer. Initially it is proposed to conduct base of slope soil sampling in an attempt to more clearly define anomalous zones.

In the area of the Circular feature, further stream sediment sampling and geological mapping is required prior to base of slope soil sampling and initial prospect definition.

Both the Contact Creek-Scheelite Creek and Betts Track-Circular Feature areas are amenable to target definition by DIGEM helicopter EM technique. The DIGEM system is carried by a powerful helicopter (LAMA) and should be able to achieve adequate terrain clearance in Tasmanian conditions. A total of 160 line kilometres would be required to survey prospect areas with lines spaced 250 m apart.

FINANCE

Expenditure for the six months ending October 20, 1979.

Geology	7,892
Geophysics	50
Geochemistry	7,803
Tenure	62
Sundries	783
Contract	3,417
	$20,007

REFERENCES

Young, C.H.	1978	Property Generation Report for the Meredith Granite Area.
White, J., Taylor, J.R., Young, C.H.	1979	Meredith Granite Project 1978/79 Summer Exploration programme for the six months ending April 20, 1979.

SIGNED: C.H. Young.

C.H. Young,
Project Geologist, Tasmania.

ENDORSED: K.R. Yates.

K.R. Yates,
Manager - Outside Exploration.

APPENDIX A

PETROLOGICAL DESCRIPTIONS

By H.W. Fander, M.Sc.

REPORTS CMS 79/4/10 79/4/26

CENTRAL MINERALOGICAL SERVICES

Sample locations are given on the accompanying ledger sheets.

REPORT CMS 79/4/10

201 110 (T.S. 27321) K-stain weakly positive.
This rock is a moderately altered porphyritic basalt verging on a trachybasalt.

Phenocrysts are evenly disseminated, sized to 750 μ, and comprise altered pyroxene (enstatite, extensively pseudomorphed by montmorillonite and serpentine) with subordinate olivine (pseudomorphed by serpentine) and calcic feldspar. These are embedded in a groundmass of random, semi-felted plagioclase laths (mean 30 μ) with interstitial granular to incipiently ophitic augite and a more or less pervasive subvitric mesostasis with localised patches of alkali feldspar (K-spar in part).

Feldspar laths are moderately saussurite-stained and albitised, but recognisable as a calcic labradorite (near bytownite). Clinopyroxene is essentially fresh despite the virtually complete alteration of pyroxene and olivine phenocrysts. Sporadic veinlets of prehnite and adularia are present. Alteration appears to be largely deuteric, although with some influence of incipient metamorphism. There are no sulphides and the rock lacks primary opaques. Textural relationships are consistent with, say, the core zone of a flow.

201 111 (T.S. 27322) K-stain negative.
This is a thoroughly silicified breccia, consisting essentially of poorly sorted, angular to rounded clasts (< 1 mm to 1 cm +) cemented by sericite-stained cherty quartz with sporadic late cavity fillings of coarser-grained clear quartz. Clasts, in general, are poorly resolved due to pervasive silicification, but are typically fine-grained sediments (impure chert, silty to sandy argillite). Some of these appear to be weakly tuffaceous with sporadic clastic quartz grains of volcanic character, and finer splintery quartz particles which may represent silicified shards. Fine silt-sized detrital white mica flakes are thinly disseminated throughout.

Sparse fragments of stressed vein-type quartz indicate an earlier phase (pre-brecciation) of veining, and carry accessory muscovite. Individual silicified pelite fragments and, locally, the matrix are stained with limonite after fine-grained pyrite. This was introduced with quartz and sericite. Possibly minor traces of chalcopyrite were present, but there are no well defined boxworks.

201 113 (T.S. 27323) K-stain positive.
This specimen comprises an extensively tourmalinised granite in contact with a quartz tourmaline vein. The contact comprises a 2-3 mm wide zone of virtually massive fine-grained green schorl.

The granite consists of granitic-textured quartz and variably to completely tourmalinised feldspar in roughly equal proportions. Relict feldspar is orthoclase with accessory poorly twinned albite (alkali granite). Accessory biotite is represented by iron- and leucoxene-stained sericitic pseudomorphs. Mean grainsize is about 1 mm.

The vein consists largely of an- to subhedral quartz with disseminated tourmaline aggregates, accessory sericite, and minor traces of zircon and leucoxenised rutile. Thinly disseminated patches of limonite possibly represent oxidised fine-grained chalcopyrite, but, as in 201 111, there are no definite boxworks. The sectioned area includes a single 750 μ diameter aggregate of scorodite, which is pseudomorphous after a cluster of arsenopyrite crystals.

This rock, as a whole, has been weakly stressed. Late limonite-healed fractures occur sporadically. Tourmaline is locally partly degraded and iron-stained. Assay for tin would be warranted.

201 114 (T.S. 27324) K-stain negative.
This is a stressed, locally granulated and elsewhere crudely schistose quartz-tourmaline rock. The tourmaline is a fine-grained green schorl similar to that in 201 113, and textural relationships indicate the rock represents a deformed quartz-tourmaline vein. There are no relict granitic features.

More strongly deformed areas are represented by semi-continuous foliae of fine-grained quartz and tourmaline. Elsewhere, quartz, which was originally quite coarse-grained, is stressed and partly recrystallized or variably granulated.

The rock carries accessory traces of zircon and cloudy rutile, and these provide a link with the vein in 201 113.

201 127 (T.S. 27325) K-stain positive.
This rock is an incipiently stressed and weaklyaltered porphyritic biotite microgranite. It appears closely related to the tourmalinised granite in 201 113 and there are similarities with, for example, the Pine Hill Porphyry.

Phenocrysts are sized to 7.5 mm and consist of quartz and perthite in roughly equal proportions, with subordinate titaniferous biotite. These features are embedded in an even-grained granitic-textured groundmass (mean 350 μ) of quartz and orthoclase, with subordinate weakly zoned/poorly twinned albite and biotite. Accessories include zircon and rare xenotime as inclusions with pleochroic haloes in

biotite, occasional poikilitic anhedra of blue tourmaline, and extremely rare microscopic particles of topaz.

Quartz phenocrysts are partly recrystallized. Incipient stress is reflected in strained extinctions. Albite is incipiently sericite-stained.

In contrast to 201 113, tourmaline is of late-magmatic character. This phase (+ topaz, xenotime, fluorite and primary cassiterite) characterises some of the mineralising porphyries related to the Heemskirk Granite. Assay for tin would bewarranted.

201 125 (T.S. 27326) K-stain weakly positive.
This specimen is representative of a vein or segregation (conceivably a breccia cement) in what appears to be a thoroughly altered basalt.

Portion of the sectioned area represents the host rock, which is thoroughly stained with manganese oxide. The relict fabric is basaltic (with some similarities to 201 110) and the alteration assemblage comprises quartz and saussuritic material (prehnite, sericite), grading into quartz and ankeritic carbonate (partly oxidised).

The "vein" shows an irregular crustiform-like zoning with marginal zones of quartz and Mn-stained rhodocrosite. These "grade" into semi-massive granular quartz with inclusions and intergranular aggregates of a sulphosalt (probably jamesonite). Red sphalerite is common throughout in single grains, and locally more or less massive aggregates of millimetric proportions. There are occasional films of pyrite andacoarse central infilled vug of earthy Mn-oxide (degraded carbonate in part). Accessories include traces of ?galena and K-feldspar (?adularia).

There are some similarities with Zeehan-type veins. Assay for Sn and Ag would be warranted (in addition to Cu, Pb, Zn).

201 126 (T.S. 27327) K-stain negative.
This is an altered basalt breccia and can be compared with similar rocks in the Magnet and Heazlewood Creek complexes.

The rock consists essentially of poorly sorted angular clasts (< 1 mm to 2 cm), cemented by weakly Fe-pigmented aggregates of charty microcrystalline quartz with accessory albite, carbonate and chlorite. Some clasts exhibit thin subvitric selvedges or evidence of chilling. The rock, as a whole, probably represents a subaqueous flow breccia.

Clasts are fairly homogeneous and consist typically of random, variably felted albite microlaths and a pervasive chlorite mesostasis. Some are weakly amygdaloidal with angular chlorite- or subspherical quartz-filled vesicles, and a few are cognate xenolithic. Relatively chilled types show a microcrystalline quartzofeldspathic mesostasis (?devitrified glass). Ankeritic carbonate is disseminated throughout in small clots and thin films. Traces of ?authigenic cloudy anatase are present in the matrix.

Albitised basalts with virtually identical textures at Heazlewood Creek are anomalous in Cu.

201 117 (T.S. 27328) K-stain virtually negative.
This is a porphyritic basalt and is virtually unaltered apart from partial infilling of occasional vesicles. As such, it can be contrasted with the Cambrian basalts at Cleveland and may be younger (?Tertiary).

Moderately orientated phenocrysts of olivine (to 2 mm, forsterite) are evenly disseminated throughout and are accompanied by sparse microphenocryst l laths of labradorite. Also present are frequent clots of very fine augite. These show glassy selvedges, range up to 1.5 mm diameter, and rarely show a relict microstructure (e.g. trains of opaques) suggestive of magmatically altered ?xenocrystal pyroxene (?hypersthene).

The groundmass consists of random labradorite microlaths (mean 15 μ) and finer granular to euhedral weakly titaniferous augite grains (mean 10 μ) embedded in a pale pinkish-brown glass. Accessory fine-grained magnetite is common.

Sporadic vesicles (to 1.3 mm) are partly to completely infilled with ankeritic carbonate and montmorillonite. Alteration is incipient to the extent that olivine is completely fresh and groundmass glass shows no signs of devitrification.

201 119 (T.S. 27329) K-stain negative.
This is a fine-grained tremolite rock and represents an altered, poorly sorted, labile clastic sediment, probably a basic tuffaceous greywacke (or subaqueous ?tuff). Few primary features persist, although the rock clearly consisted largely of angular to subround rock fragments with a lesser "crystal" component including rare biotite flakes. Bedding is poorly preserved, but a contact between a pebbly to gritty, poorly sorted band and a moderately sorted, fine- to medium-grained band is evident in the sectioned area.

The amphibole is a mid-green variety (tremolite-actinolite) with subordinate clear tremolite. Accessory alteration phases include traces

of talc, saussuritic material, ankeritic carbonate, and rare albite. Fine-grained opaques (magnetite, ?ilmenite) are abundant throughout, but are of primary origin, either included in the altered rock fragments or more typically as discrete clastic particles. The sectioned area includes sporadic clots of pyrite, representing degraded pyrrhotite and locally oxidised.

Individual altered rock fragments may show vague relict doleritic, basaltic or andesitic textures. This rock appears fairly typical of the Deep Creek "tuffs". There are similarities with altered tuffaceous greywackes in the Crimson Creek Formation.

201 296 (T.S. 27330) K-stain weakly positive (clays).
This is a pervasively altered, mildly sheared and somewhat weathered lithic Tuff of basic affinities.

Individual clasts are highly angular, but have been flattened by consolidation and the weak shearing into crude lenses. The rock appears to have been a lapilli tuff, but very poorly sorted and essentially unbedded. Clasts are closely packed and somewhat moulded onto one another with a generally sparse matrix of sericite with accessory quartz and adularia in fine-grained aggregates.

Relict textures are generally basaltic, but widely variable, ranging from coarsely feldspar porphyritic through microcrystalline and glassy types to scoriaceous. Some clasts include corroded relics of augite phenocrysts, microphenocrysts and microlites. Many are pervasively iron-stained with ultrafine degraded hematite. Oxidation appears to have been a primary feature and, together with the close packing, partial moulding and lack of stratification, suggests subaerial deposition.

Clasts are pervasively altered to clays, in part recognisable as degraded chlorite, saussuritic material and ?talc. Probably much of this developed by breakdown of tremolite and saussuritic feldspar alteration products. Completely altered feldspar and corroded clinopyroxene crystals represent an accessory clastic component.

In places, this rock is stained with cryptocrystalline clots and crude vein-like films of a yellowish indeterminate phase. This may be partly degraded beudantite (a Pb-Fe arsenosulphate) or a related species and base metal geochemistry may be warranted.

201 289 (T.S. 27331) K-stain negative.
This rock is a partly weathered, poorly sorted, weakly bedded silty, fine-grained sandstone.

The framework consists largely of splintery to subrounded quartz and sub- to rounded sericitic clay pellets, the bulk of which probably represent degraded clastic feldspar. White mica flakes are a subordinate, but pervasive, clastic component, and accessoies include pelitic rock fragments (chery argillite/argillaceous chert, silty shale) and a fairly prominent heavy mineral assemblage of opaques, leucoxenic semi-opaques, subordinate zircon and tourmaline (mainly dravite). The sparse matrix consists of argillaceous material and is pervasively Fe-stained due to oxidation of the clastic opaques.

This rock appears to be weakly volcanomict (containing sparse abraded "volcanic" quartz grains), but is not distinctly tuffaceous. It is best classified as a lithic sandstone (or subgreywacke) and cannot be correlated with the associated basalts and tuffs. There are several similarities with the Mica Sandstone Unit of the Cleveland mine sequence, as described in the literature.

201 290 (T.S. 27332) K-stain weakly positive.
This rock is a weakly bedded, silty, fine- to medium-grained arkose. It is volcanomict and can be contrasted with 201 289.

Bedding is reflected in a dimensional orientation of clastic particles and subtle variations in grainsize. The framework is angular to subangular and consists largely of weakly sericite-stained alkali feldspar (albite, accessory sanidine-anorthoclase) with slightly subordinate quartz and accessory rhyolite and chert fragments. Accessories include variably chloritised, titaniferous biotite flakes, graphite flakes, abundant leucoxenic semi-opaques, sparse apatite and minor traces of zircon and detrital garnet (grossular). The sparse matrix/cement of microcrystalline authigenic quartzofeldspathic material, accessory chlorite and, locally, fine-grained dolomite.

The rock is weakly stained with small clots of pyrite. The angular nature of the clasts indicates a fairly local source of acid volcanics.

201 300 (T.S. 27333) K-stain negative.
This is a silty, fine- to medium-grained volcanomict lithic sandstone.

The weakly bedded framework consists largely of partly degraded, felsic-intermediate to acid-microcrystalline lava clasts (often felsitic, devitrified, trachytic to rhyolitic) with slightly subordinate quartz. Grain-shapes are angular to rounded. Accessories include albite, thinly disseminated mica flakes (muscovite, degraded biotite), chert fragments, rare grainsof zircon and oxyhornblende, and abundant oxidised and leucoxenised clastic opaques. The matrix consists of chlorite with accessory quartz as overgrowths on detrital grains.

Clastic lava clasts are variably sericitised and chloritised, and the rock as a whole is partly weathered and iron-stained. Of previous specimens, it appears most closely related to 201 289, but is relatively strongly volcanomict and less micaceous.

201 297 (T.S. 27334) K-stain negative.
This rock is an extensively altered bronzitite. Some areas are quite fresh and consist entirely of granular orthopyroxene with grainsize varying in the 150 μ to 3 mm range. This phase shows a typical fine-scale prismatic parting and is weakly stained with very fine-grained magnetite inclusions.

Elsewhere, the bronzite is progressively replaced pseudomorphously by aggregates of uralitic amphibole with subordinate Fe-Mg chlorite interleaved along the relict parting planes. Fine magnetite is inherited into these pseudomorphs. Late crosscutting veinlets of chlorite and ultrafine tremolite occur sporadically. There are no detectable sulphides.

201 294 (T.S. 27335) K-stain negative.
This is an extensively altered hornblende microgabbro and probably a minor intrusive phase. Alternately, but less likely, it could represent the relatively slowly cooled core zone of a thick flow.

The rock is weakly porphyritic with sparse phenocrysts of altered plagioclase and pyroxene (?orthopyroxene, pseudomorphed by chlorite), sized up to 1 mm diameter. The remainder of the rock comprises random feldspar laths (mean 150 μ)with subordinate lath-like to weakly ophitic pigeonitic pyroxene, marginally mantled by accessory oxyhornblende. Accessory, partly leucoxenised opaques are present and traces of quartz occur in a sparse chloritic mesostasis.

Clinopyroxene is partly degraded in response to weathering, but otherwise unaltered. In contrast, the primary plagioclase is pervasively albitised and heavily stained with saussuritic material (mainly prehnite, sericite). Oxyhornblende is locally degraded to Fe-stained clays. Sparse discontinuous albite veinlets are present, and fine-grained pyrrhotite is thinly disseminated throughout.

201 977 (T.S. 27336) K-stain negative.
This is a chlorite rock with disseminated clusters of quartz crystals and patchy carbonate. Single and clustered sphalerite crystals (to 2.5 mm) are associated with the quartz and may be zoned with relatively pale cores and dark selvedge zones. Traces of chalcopyrite, galena and xenotime are sparsely disseminated throughout, and the sectioned area includes a single loose cluster of 20-200 μ diameter cloudy cassiterite particles. Talc, leucoxenic rutile and apatite appear as minor trace constituents.

Chlorite is fairly coarse-grained and has developed by pseudomorphous replacement of a weakly titaniferous mica, probably phlogopite. The rock represents an altered mineralised "granitic" quartz mica vein. The accessory phases suggest a relationship with 201 113 and 201 127.

201 978 (T.S. 27337) K-stain negative.
This is a sideritic, carbonate-stained chlorite rock of identical paragenesis to 201 977, to which it is closely related. Accessory quartz occurs in sporadic anhedra and crude films. Trace constituents include apatite, talc, sphalerite, cloudy leucoxenic material (rutile in part), very rare xenotime and extremely rare cassiterite, as subskeletal particles (to 200 μ) embedded in chlorite or locally enclosed in carbonate.

As previously, chlorite pseudomorphs ?phlogopite with the carbonate often distributed along cleavage planes. Sphalerite is optically similar to that in 201 977, but relatively quite fine-grained and rare in comparison. Chalcopyrite and galena are absent, at least from the area sectioned.

201 979 (T.S. 27338) K-stain negative.
This rock is a pervasively altered biotite "granite" with similarities to 201 127, but more even-grained (thus not unlike 201 113 in terms of relict fabric).

The rock was a two feldspar phase (adamellite or sodi-potassic alkali granite) with K-feldspar slightly dominant over plagioclase. These are completely replaced by fine-grained chlorite-quartz aggregates and sericite respectively. The K-spar occurred partly as phenocrystal masses with included plagioclase. Mean primary grainsize was about 1 mm.

Biotite is represented by strongly leucoxene-stained sericitic pseudomorphs (mean 350 μ). The relict granitic-textured quartz is essentially unstressed.

Minor accessories include traces of apatite, partly metamict zircon and extremely rare sphalerite particles. Assay for Sn would be warranted.

D. Cowan, B. Sc.

REPORT CMS 79/4/26

Petrological Descriptions

230 101 (T.S. 27417) K-stain negative.
This rock has the meso- and microscopic appearance of a brecciated and quartz-cemented chert, but can be recognised as a thoroughly silicified serpentinite.

The rock consists of poorly sorted angular clasts of cherty, microcrystalline silica cemented by cherty and microgranular quartz. Clasts tend to be clouded with argillic material and several include segmented (i.e. pre-breccia) veins of chalcedony. A few show vague relict serpentine-like structures. These are confirmed as such by stereobinocular examination of the thin-section, which reveals sporadic accessory relict grains (to 750 μ) of characteristic "ultramafic" spinel (chromite with selvedges of magnetite).

Rocks of this type are not uncommon as residual silicified caps in arid areas (e.g. Western Australia - greenstone belts). They are rare, but not unknownabout the N.W. Tasmanian ultramafic complexes, where the silicification appears to be a low temperature hydrothermal phenomenon associated with faulting. This rock is devoid of relict features such as would define the original ultramafic silicate assemblage.

230 107 (T.S. 27418) K-stain negative.
This rock could be termed, albeit a little loosely, an amphibolite. It is considered as a thoroughly uralitised, stressed and partly recrystallized microgabbro, although the evidence is partly negative.

The rock consists largely of medium-grained, green-brown actinolitic amphibole (trend hastingsite), showing a quite marked preferred orientation. The remainder comprises microcrystalline/faintly directed albite aggregates, weakly but pervasively stained with ultrafine saussuritic material and representingaltered plagioclase with faint relict lath-like shapes and twin-structures persisting in places. Fine-grained opaques are sparsely but more or less evenly disseminated throughout.

Pretectonic discontinuous veinlets of microcrystalline albite and ultrafine amphibole occur sporadically and include accessory opaques (?magnetite).

The relict fabric, such as it persists, is of igneous character, particularly the lath-like shapes of the recognisable altered feldspar. There are no tangible detrital or clastic features.

230 109 (T.S. 27419) K-stain negative.
This rock is a thoroughly uralitised microgabbro and probably closely related to 230107. In comparison, it is mildly stressed, but unrecrystallized.

The relict fabric is distinctly doleritic and medium-grained. Main constituents comprise tremolite-actinolite pseudomorphs (mean 500 μ) of subhedral to ophitic pyroxene and variably tremolite-stained, saussuritic, albitised plagioclase laths. Ultrafine tremolite pervades a prominent mesostasis, and magnetite and partly leucoxenised accessory ilmenite are evenly disseminated throughout. Weakly sheared quartz-albite-tremolite veins occur sporadically and, as in 230107, include minor opaques. Alteration, overall, is of deuteric character.

The brownish colouration of amphibole in 230107 probably reflects low-grade metamorphism in keeping with the tectonic fabric. Both rocks were evidently pyroxene-rich varieties ("melagabbros").

230 122 (T.S. 274 20) K-stain negative.
This is a silicified serpentinite with similarities to 230101. It consists almost entirely of cherty, microcrystalline quartz with accessory, partly degraded clay. The fabric is vaguely "pelletal" or cellular, reflecting the former mesh-textured serpentinite. Most of the rock is bland, but there are a few poorly resolved olivine-derived structures, and rarely the clays are crudely bastite-like. Thus, the primary rock type appears to have been a peridotite with a fine- to medium-grained granular fabric.

There is a faint indication of banding. Sparse relict primary magnetite (?chromiferous, but unzoned) is present along with traces of oxidised ultrafine opaques "exsolved" during the initial serpentinisation phase of alteration. There is no evidence of sulphides.

230 123 (T.S. 27421) K-stain negative.
This is an extensively altered, laminated, turbidite-like labile pelite. Relict features indicate a silty to fine sandy shale, bedded on a submillimetric scale and weakly but variably graded. Bedding is planar to lenticular and locally transcurrent. Recognisable clastic components include feldspar grains and microcrystalline, intermediate lava clasts in addition to magnetite (recrystallized), and rare apatite. The pelitic component evidently comprised ultrafine feldspathic material, there being no evidence of mica. The rock is weakly but pervasively leucoxene-stained.

Extremely fine hastingsite is pervasive throughout. Veinlets are common both parallel to and crosscutting bedding. The assemblage is microcrystalline albite and hastingsite with patchy epidote and accessory pyrrhotite, secondary magnetite and phlogopite.

This rock is best considered as a tuffaceous greywacke, and the alteration as contact-metasomatic. There are close analogies with similar rocks from the Dreadnought Hill Member (Crimson Creek Formation).

230 131 (T.S. 27422) K-stain negative.
This is a diopside-tremolite-albite rock with accessory sphene. It is of identical paragenesis to 230 123, but represents a higher grade of contact metamorphism/metasomatism.

The rock is banded on a sub- to millimetric scale with a quite marked alternation of near-massive diopsidic, tremolitic and relatively thin albitic bands. In addition, a pervasive microscale lamination is reflected in the distribution of cloudy, microcrystalline sphene, representing altered clastic (and/or authigenic), titaniferous material. These relict bedding features are closely analogous to those in the previous rock.

Metasomatism is subtle to the extent that the intricate bedding laminations persist in bands now consisting virtually entirely of medium- to coarse-grained, an- to subhedral diopside. Alteration proceeded partly in irregular vein-like masses, but incipient graded bedding, scour and fill, transcurrent, lenticular and patchy slump-like structures are preserved. There are similarities with a previous suite of altered tuffaceous greywackes, submitted by C.H. Young (refer CMS 79/2/23).

D. Cowan, B. Sc.

	W	Sn	Cu	Pb	Zn	
3665005408200201110	NOT ASSAYED					Porphyritic basalt - Trachybasalt.
3623505409940201111	10	14	5	20	10	Thoroughly silicified Breccia.
3612805400040201113	15	410	280	65	15	Tourmalinised Granite
3638805409325201114	30	300	10	50	10	Quartz Tourmaline Rock.
3716505401050201117	10	4	50	5	55	Porphyritic Basalt.
3717505401550201119	<10	18	540	10	50	Basic tuffaceous Greywacke
3590505401875201125	10	940	1400	5·25%	26·0%	Vein in altered Basalt.
3590955401705201126	<10	8	100	260	3250	Altered Basalt Breccia
3592305400025201127	<10	8	5	40	90	Porphyritic biotite Microgranite
3585505405725201289	NOT ASSAYED					silty, fine grained sandstone
3555505406325201290	<10	<4	40	10	40	fine - medium grained Arkose.
3610005409150201294	10	4	10	5	40	Altered Hornblende - Microgabbro
3585505406050201296	<10	<4	10	5	10	Weathered lithic Tuff.
3561255406600201297	<10	<4	5	5	30	Extensively altered Bronzitite
3591755405025201300	NOT ASSAYED					Volcanomict lithic sandstone
3716755404650201977	35	1·22%	1300	1680	1·28%	Chlorite rock with Cassiterite
3716755404650201978	45	115	10	45	45	Carbonate stained chlorite rock
3716755404650201979	10	55	5	190	190	Altered biotite Granite.
3578005402600230101	<10	<4	5	10	20	Thoroughly silicified Serpentinite
3575905402840230107	15	<4	10	15	25	Uralitised, recrystallized Microgabbro
3575305402960230109	10	<4	380	10	15	Thoroughly Uralitized Microgabbro
3574805403260230122	<10	<4	35	10	25	Silicified Serpentinite
3574805403270230123	10	<4	55	10	15	Turbidite = like labile pelite
3574755403500230131	10	<4	20	15	10	Diopside - tremolite - Albite rock.

365000 E 366000 E 367000 E 368000 E 369000 E 370000 E 371000 E

5400000 N

9000 N

8000 N

7000 N

6000 N

5395000 N

201527/10,14,2,10,10
201524/15,12,5,10,15
201522/10,16,2,10,10
201523/15,20,5,10,10
201521/20,<4,<2,10,5
201514/20,22,2,10,10
201516/30,4,5,10,10
201516/15,12,2,10,10
201519/35,14,2,10,10
201520/10,<4,2,10,5
201515/25,16,5,15,15
201517/<10,10,2,10,10

E.L.16/78

5 cm

Sample location, number and assay results - W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m.

STATE G.N. MAN

11°18'

Magnetic north correct 1978 - annual change easterly by 04'

355/400	363/400	371/400
355/395	363/395	371/395
355/390	363/390	371/390

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79-1388

Aberfoyle Exploration Pty Ltd

Geology	
Drawn R.J.E.	
Traced	
Checked	
Revised by Date	

NORTH WEST TASMANIA 1379
DUNDAS TROUGH

MEREDITH E.L.16/78
STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS

Location code	
Date	August, 1979
Scale	1:10,000
Plate No.	MER 9/363/395

E.L. 1/63

E.L. 16/78

201812 / <10, 36, 10, 40, 400
201813 / 25, 30, 10, 50, 610
201811 / <10, 95, 10, 60, 1310
201838 / <10, 42, 15, 10, 75
201845 / <10, 4, 15, 30, 460
201839 / <10, 4, 5, 10, 45
201840 / <10, 65, 10, 30, 1420
201847 / 10, 10, 15, 30, 220
201846 / <10, 14, 10, 10, 35
201841 / 10, 4, 5, 10, 25
201842 / 15, 320, 10, 30, 1700
201843 / <10, 370, 10, 20, 660
201844 / <10, 480, 15, 30, 1080
201803 / 50, 310, <2, 25, 15
201801 / 10, 22, 475, 20, 15
201802 / 35, 42, 2, 15, 15
201804 / 10, 60, <2, 15, 10
201805 / 25, 75, <2, 15, 5
201810 / 10, 75, <2, 65, 370
201808 / 30, 60, <2, 35, 20
201806 / 130, 660, <2, 40, 10
201807 / 10, 80, <2, 10, 5
201600 / 30, 1250, <2, 10, 30
201589 / 20, 70, <2, 5, 25
201489 / 80, 16, 5, 25, 10
201488 / 190, 110, <2, 6600, 10
201487 / 40, 28, 5, 10, 5
201493 / 150, 100, <2, 40, 10
201492 / 10, 16, 5, 10, 10
201494 / <10, 6, <2, 10, 10
201485 / 10, 600, <2, 10, 5
201496 / 70, 42, 2, 10, 10
201497 / <10, 4, <2, 10, 5
201506 / 40, 36, <2, 15, 5
201528 / 30, 70, 2, 10, 15
201529 / 20, 24, 2, 10, 5
201501 / 50, 6, <2, 10, 10
201500 / 60, 16, 5, 15, 5
201502 / 80, 10, <2, 15, 5
201499 / 20, 8, 2, 10, 10
201505 / 10, 18, <2, 5, 5
201503 / 10, 20, <2, 10, 10
201498 / 50, 24, <2, 15, 15
201511 / 15, 28, <2, 10, 10
201504 / 15, 28, <2, 10, 5
201512 / <10, <4, <2, 10, 5
201513 / 15, 18, <2, 5, 10

Base sheet enlarged from 1:31,680 Tasmanian Lands Dept Topo.

Northern section enlarged from 1:50,000 Tasmanian Lands Dept Topo.

5 cm

Sample location, number and assay results, W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m.

STATE G.N. MN 11°18'

Magnetic north correct 1978 – annual change easterly by 04'

355/405	363/405	371/405
355/400	363/400	371/400
355/395	363/395	371/395

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Aberfoyle Exploration 134031

79-1388

Geology:	1377
Drawn: R.J.E.	NORTH WEST TASMANIA
Traced: J.J.B.	DUNDAS TROUGH
Checked:	MEREDITH E.L. 16/78
Revised by: Date:	STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS
Location code:	
Date: August, 1979	
Scale: 1:10,000	
Plate No:	MER 9/363/400

347000 E | 348000 E | 349000 E | 350000 E | 351000 E | 352000 E | 353000 E | 354000 E | 355000 E

5405000N | 4000 N | 3000 N | 2000 N | 1000 N | 5400000N

OPEN CUT MINE

Settling Pond

Settling Pond

Obsidian Ck

SAVAGE RIVER

SAVAGE RIVER

Big Duffer

Moon Ck

MEREDITH RIVER

WHITE RIVER

E.L. 16/78

201477/<20,<5,20,20,60(8,<10)

201479/<20,<5,20,20,55 (7,<10)

201480/25,10, 20,15,55 (<5,<10)

201481/<20,10,25,20,115 (6,10)

201482/<20,50,15,15,50 (<5,<10)

201456/<20,10,5,15,55 (<5,<10)

201457/ 20,5,25,20,80 (<5,10)

201455/25,<5,25,25,90 (<5, 14)

201454/<20,10 30,20,80 (<5,<10)

201458/55, 5,55,40,130 (<5,12)

201459/<20,30,25,20,50 (<5,52)

201460/220,60,5,20,10 (<5,26)

134032

5 cm

Sample location, number and assay results, W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m.

STATE GN MN

Magnetic north (current 1978 annual change westerly by 0°)

339/405	347/405	355/405
339/400	347/400	355/400
339/395	347/395	355/395

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Aberfoyle Exploration Pty Ltd

19-1388

Geology	
Drawn R.J.E.	
Traced	
Checked	
Revised by Date	

1378

NORTH WEST TASMANIA

DUNDAS TROUGH

MEREDITH E.L. 16/78

STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS

Location code	
Date	August, 1979
Scale	1:10,000
Plate No	MER 9/347/400

347000 E | 348000 E | 349000 E | 350000 E | 351000 E | 352000 E | 353000 E | 354000 E | 355000 E

5410000 N | 9000 N | 8000 N | 7000 N | 6000 N | 5405000 N

Creek
Fullfords
Creek
SPRUCE
ROAD
Creek
PIPELINE
Hull
River
Armstrong
Nineteen Mile
Creek
Jim Creek
Lower
Gravel Pit
to CORINNA
RIVER
Bridgewick
SAVAGE
RIVER
Little
SAVAGE
BURNT
SPUR
Atlards
Creek
OPEN
CUT
MINE
WC
TAILINGS
DAM
SAVAGE RIVER
MINE
HEAZLEWOOD

201749/<10,6,10,20,35
201750/15,6,10,15,10
201793/<10,8,35,19,85(<4,<2)
201751/410,8,5,15,5
201794/<10,6,20,11,60(<4,<2)
201754/<10,<4,10,5,0
201752/10,4,15,15,15
201755/<10,<4,10,20,25
201753/410,8,30,25,110
201797/<10,8,25,7,20(<4,<2)
201799/<10,<4,25,11,55(<4,<2)
201798/<10,8,15,11,55(<4,<2)
201756/<10,<4,5,20,0
201800/<10,<4,25,11,65(<4,2)
201864/<10,<4,25,11,70(<4,<2)

E.L. 16/78

5 cm

339/410	347/410	355/410
339/405	347/405	355/405
339/400	347/400	355/400

Sample location, number and assay results - W, Sn, Cu, Pb, Zn, (Mo, As) in p.p.m.

124033

79-1388

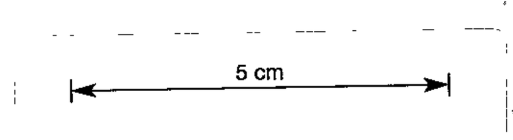
Aberfoyle Exploration Pty Ltd

Geology	
Drawn: R.J.E.	
Traced: JJB	
Checked	
Revised by Date	

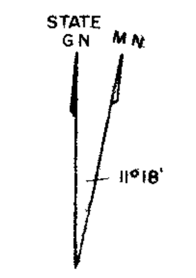
NORTH WEST TASMANIA 1376
DUNDAS TROUGH

MEREDITH E.L.16/78
STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS

Location code	
Date	August, 1979
Scale	1:10,000
Plate No	MER. 9/347/405



Sample location, number and assay results – W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m



Magnetic north correct 1978 - annual change easterly by 04'

347/400	355/400	363/400
347/395	**355/395**	363/395
347/390	355/390	363/390

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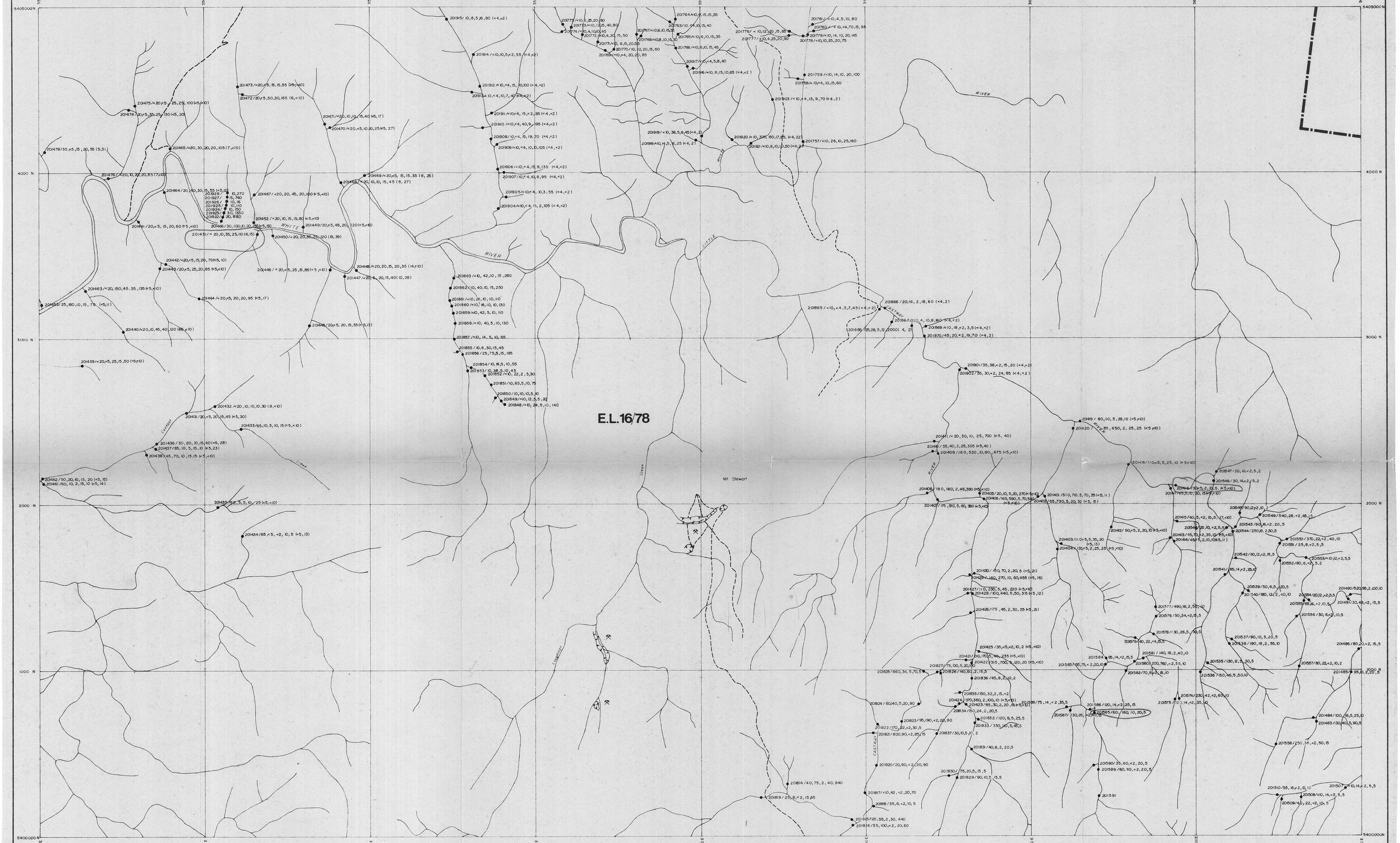
Aberfoyle Exploration

79-1388

Geology	NORTH WEST TASMANIA DUNDAS TROUGH 1380	Location code
Drawn R J E		Date August, 1979
Traced	MEREDITH E.L.16/78	Scale 1:10,000
Checked	STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS	Plate Nº MER 9/355/395
Revised by Date		



5 cm

Base sheet enlarged from 1:31,680 Tasmanian Lands Dept Topo

Northern section enlarged from 1:50,000 Tasmanian Lands Dept Topo

Sample location, number and assay results, W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m.

STATE GN. MN

Magnetic north correct 1978 annual change easterly by 0.4

347/405	355/405	363/405
347/400	355/400	363/400
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134035

Aberfoyle Exploration Pty Ltd

79-1368

Geology	
Drawn	R.J.E.
Traced	JJB
Checked	
Revised by	Date

NORTH WEST TASMANIA

DUNDAS TROUGH

MEREDITH E.L. 16/78

STREAM SEDIMENT SAMPLING LOCATIONS & ASSAY RESULTS

Location code 1381

Date August, 1979

Scale 1:10,000

Plate No MER 9/355/400

355000 E 356000 E 357000 E 358000 E 359000 E 360000 E 361000 E 362000 E 363000 E

5410000 N

9000 N

8000 N

7000 N

6000 N

5405000 N

Coudrys Hill

Pursells Plain

Gabbro Hill

Brassey Hill

Heazlewood Hill

Durfs Hill

Jasper Hill

Mt Bell

Windsor Mills Ck

McGinty Ck

Rocky Mills Ck

Nyrah Ck

Thirteen Mile Ck

Heazlewood Ck

Hickory Ck

Bells Rivulet Ck

Lower Ck

To Savage River

To Launc

Helipad

soak

Track

Heazlewood

201790/<10,4,10,11,120 (<4,<2)

201791/<10,<4,10,11,60 (<4,2)

201792/<10,10,35,18,130 (4,<2)

201738/<10,18,15,20,90

201737/<10,12,35,25,65

201748/<10,18,25,25,110

201747/<10,<4,10,15,30

201739/<10,8,15,15,65

201795/<10,<4,10,13,40 (<4,<2)

201796/<10,<4,5,9,30 (<4,<2)

201746/<10,<4,20,20,60

201745/<10,4,10,15,30

201742/<10,6,45,15,35

201740/<10,6,15,20,80

201741/10,4,15,15,50

201743/<10,10,10,15,40

201744/15,<4,10,15,40

201761/<10,10,5,25,100

201760/<10,14,<2,15,30

201762/10,4,2,15,120

201785/<10,65,<2,25,345

201784/<10,8,2,15,70

201788/<10,8,660,20,105

201786/<10,12,10,30,75

201783/<10,4,15,20,65

201789/<10,4,15,20,55

201782/10,4,2,10,65

E.L. 16/78

5 cm

Sample location, number and assay results - W, Sn, Cu, Pb, Zn (Mo, As) in p.p.m.

STATE G.N. M.N. 11°

Magnetic north correct 1978 - annual change easterly by 10'

347/410	355/410	363/410
347/405	355/405	363/405
347/400	355/400	363/400

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Aberfoyle Exploration

70-1388

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Geology	NORTH WEST TASMANIA	Location code	
Drawn R. J. E.	DUNDAS TROUGH	Date	August, 1979
Traced	MEREDITH E.L.16/78	Scale	1:10,000
Checked	STREAM SEDIMENT SAMPLING	Plate No	MER 9/355/405
Revised by Date	LOCATIONS & ASSAY RESULTS		

-80 ACS Lab XRF - SN, W, MO + As 79-1388 134037
AELab AAS - CU, PB, ZN Map 1376

Sample N°	W	SN	CU	PB	ZN	MO	As
201749	<10	6	10	20	35		
201750	15	6	10	15	10		
201751	-10	8	5	15	5		
201752	10	4	15	15	15		
201753	-10	8	30	25	110		
201754	-10	-4	10	15	10		
201755	-10	-4	10	20	25		
201756	-10	-4	5	20	10		
201793	-10	8	35	19	85	-4	-2
201794	-10	6	20	11	60	-4	2
201797	-10	8	25	17	70	-4	-2
201798	-10	8	15	11	55	-4	-2
201799	-10	-4	25	11	55	-4	-2
201800	-10	-4	25	11	65	-4	2
201864	-10	-4	25	11	70	-4	-2
			Map 1377				
x 201489	80	16	5	25	10		
201488	190	110	-2	8600	10		
201487	40	28	5	10	5		
201493	150	100	-2	40	10		
201492	10	16	5	10	10		
201494	-10	6	-2	10	10		
201495	10	600	-2	10	5		
201496	70	42	2	10	10		
201497	-10	4	-2	10	5		
201506	40	36	-2	15	5		
201528	30	70	2	10	15		
201529	20	24	2	10	5		
201498	50	24	-2	15	15		
201499	20	8	2	10	10		
201500	60	16	5	15	5		
201501	50	6	-2	10	10		
201502	80	10	-2	15	5		

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SampleNo	W	SN	CU	PB	ZN	MO	AS
201513	15	18	2	5	10		
201512	-10	-4	-2	10	15		
201511	15	28	-2	10	10		
201505	10	18	-2	5	5		
201503	10	20	-2	10	10		
201504	15	28	-2	10	5		
201846	-10	14	10	10	35		
201847	10	10	15	30	220		
201845	-10	4	15	30	460		
201838	-10	42	15	10	75		
201839	-10	4	5	10	45		
201840	-10	65	10	30	1420		
201841	10	4	5	10	25		
201842	15	320	10	30	1700		
201843	-10	370	10	20	660		
201844	-10	480	15	30	1080		
201810	10	75	-2	65	370		
201808	30	60	-2	35	20		
201807	10	80	-2	10	5		
201806	130	660	-2	40	10		
201805	25	75	-2	15	5		
201804	10	60	-2	15	10		
201803	50	310	-2	25	15		
201802	35	42	2	15	15		
201801	10	22	475	20	15		
201600	30	1250	-2	10	30		
201599	20	70	-2	5	25		
		Map 1378W					
201477	-20	-5	20	20	60	8	-10
201479	-20	-5	20	20	55	7	-10
201480	25	10	20	15	55	-5	-10
201481	-20	10	25	20	115	6	10
201482	-20	50	15	15	50	-5	-10

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Sample No	W	SN	CU	PB	ZN	MO	AS
201456	-20	10	15	15	55	-5	-10
201457	20	5	25	20	80	-5	-10
201455	25	-5	25	25	90	-5	14
201454	-20	10	30	20	80	-5	-10
201458	55	5	~~50~~ 55	60	130	-5	12
201459	-20	30	25	20	50	-5	52
201460	220	60	5	20	10	-5	26.
		Map	1379 W				
201527	10	14	2	10	10		
201524	15	12	5	10	15		
201522	-10	16	2	10	10		
201523	15	20	5	10	10		
201521	20	-4	-2	10	5		
201520	-10	-4	2	10	5		
201519	35	14	2	10	10		
201518	15	12	2	10	10		
201516	30	4	5	10	10		
201514	20	22	2	10	10		
201515	25	16	5	15	15		
201517	-10	10	2	10	10		
		Map	1380				
201569	100	860	-2	25	10		
201571	65	390	-2	25	5		
201570	30	24	5	20	15		
201567	35	95	2	10	5		
201568	440	660	2	110	10		
201565	20	95	-2	10	5		
201568	25	200	5	15	10		
201564	20	22	-2	10	5		
201563	20	900	-2	10	5		
201560	15	22	-2	5	5		
201561	10	200	-2	5	5		
201562	50	260	-2	5	5		

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Sample No	W	SN	CU	PB	ZN	MO	AS
201559	65	1300	-2	10	5		
201572	10	14	-2	10	5		
201573	50	30	-2	15	5		
201530	80	22	-2	20	5		
201531	-10	120	2	10	5		
201534	85	260	5	30	5		
201533	20	18	-2	15	5		
201532	15	70	-2	5	2		
201525	20	20	5	10	10		
201526	30	36	-2	10	15		
		Map	1381				
201478	35	-5	15	20	55	5	31
201476	-20	10	20	20	85	7	-10
201474	20	-5	35	25	130	-5	20
201475	-20	-5	25	25	100	-5	-10
201441	20	-5	15	20	60	-5	-10
201464	20	40	30	15	55	-5	12
201465	-20	30	20	20	105	7	-10
201466	30	1130	10	20	235	-5	19
201922	20	880					
201923	30	1350					
201924	10	150					
201925	10	110					
201926	10	16					
201927	15	740					
201928	10	270					
201452	-20	10	15	15	80	-5	-10
201467	-20	20	45	20	100	-5	-10
201472	20	-5	50	30	165	6	-10
201473	-20	-5	15	15	55	-5	-10
201450	-20	20	35	25	120	19	39
201449	20	-5	45	20	120	-5	-10
201446	-20	-5	25	15	85	-5	-10

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Sample No	W	SN	CU	PB	ZN	MO	AS
201445	20	-5	20	15	55	-5	13
201447	-20	5	20	15	40	10	28
201448	-20	20	15	20	35	14	-10
201468	-20	10	10	15	45	8	27
201470	-20	-5	10	10	25	-5	27
201471	-20	10	10	15	40	-5	17
201469	-20	-5	15	15	35	6	25
201453	25	180	10	15	75	-5	11
201463	-20	150	45	35	135	-5	-10
201442	-20	-5	15	20	70	-5	10
201443	20	-5	25	20	85	-5	-10
201444	-20	-5	20	20	95	-5	17
201440	-20	10	45	40	120	66	-10
201439	-20	-5	25	15	50	-5	-10
201462	50	20	10	15	20	-5	15
201461	60	10	2	15	10	-5	14
201438	45	70	10	15	15	-5	-10
201437	85	10	5	15	10	-5	23
201436	30	20	10	15	40	-5	28
201431	20	-5	20	15	45	-5	30
201432	-20	10	10	10	30	8	-10
201433	65	10	5	10	15	-5	-10
201435	65	5	5	10	25	-5	-10
201434	65	-5	-2	10	5	-5	13
201915	10	8	5	16	80	-4	-2
201914	-10	10	5	-2	55	-4	-2
201912	-10	-4	15	10	100	-4	-2
201913	-10	-4	10	7	40	-4	-2
201911	-10	-4	15	-2	85	-4	-2
201910	-10	-4	40	9	195	-4	-2
201908	10	-4	15	19	70	-4	-2
201909	-10	-4	10	10	105	-4	-2
201906	-10	-4	15	9	135	-4	-2

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Sample No	W	SN	CU	PB	ZN	MO	AS
201907	10	-4	10	8	95	-4	-2
201905	-10	-4	10	3	55	-4	-2
201904	-10	-4	15	2	105	-4	-2
201863	-10	42	10	15	280		
201862	10	40	10	15	250		
201861	-10	26	10	10	110		
201860	-10	16	10	10	130		
201859	-10	42	5	10	110		
201858	-10	40	5	10	130		
201857	-10	14	5	10	65		
201855	10	6	30	15	45		
201856	25	75	5	15	195		
201854	10	18	5	10	55		
201853	10	38	5	10	45		
201852	-10	22	2	5	30		
201851	10	85	5	10	75		
201850	10	10	10	5	10		
201849	-10	12	5	5	20		
201848	-10	24	5	10	140		
201775	-10	6	25	20	80		
201774	-10	4	10	10	45		
201773	-10	12	15	40	80		
201772	-10	4	20	15	50		
201771	-10	6	15	20	55		
201769	-10	-4	20	20	85		
201770	10	12	20	15	60		
201768	-10	8	10	15	30		
201767	-10	6	10	15	55		
201764	-10	4	15	15	55		
201763	10	-4	10	15	60		
201765	-10	6	10	15	35		
201766	-10	6	10	15	45		
201917	-10	-4	5	8	40		

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Sample NO	W	SN	CU	PB	ZN	MO	AS
201916	-10	8	15	10	65	-4	-2
201918	-10	36	5	6	45	-4	2
201919	-10	14	5	6	25	-4	2
201920	-10	370	150	17	85	-4	22
201921	-10	8	10	10	50	-4	2
201903	-10	-4	15	9	70	-4	2
201757	-10	26	10	25	160		
201758	-10	-4	10	15	60		
201759	-10	14	10	20	100		
201778	-10	10	25	20	75		
201777	-10	4	25	20	90		
201776	-10	*12	20	15	65		
201779	-10	14	10	20	145		
201780	-10	-4	70	15	95		
201781	-10	4	5	10	80		
201865	-10	-4	5	7	45	-4	-2
201866	20	16	2	18	60	-4	2
201867	-10	4	10	8	160	-4	-2
201868	25	28	5	12	2000	4	2
201869	-10	18	-2	3	5	-4	-2
201870	45	20	-2	19	70	-4	2
201901	35	38	-2	15	20	-4	-2
201902	55	30	-2	24	85	-4	-2
201411	-20	30	10	25	700	-5	40
201410	55	40	2	25	305	-5	40
201409	180	530	10	80	675	-5	-10
201408	180	160	2	45	380	-5	-10
201407	175	510	5	60	380	-5	-10
201405	20	10	5	20	270	-5	-10
201406	165	590	5	70	540	-5	-10
201430	150	70	2	20	5	-5	21
201429	140	270	10	60	455	-5	16
201427	110	230	5	45	220	-5	-10

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Sample No	W	Sn	Cu	Pb	Zn	Mo	As
201428	100	440	5	50	315	-5	12
201426	175	45	2	30	25	-5	21
201425	35	-5	-2	10	2	-5	-10
201421	100	170	5	40	235	-5	-10
201827	95	100	5	20	100		
201826	140	60	2	15	5		
201825	660	34	5	70	5		
201824	60	140	5	20	90		
201823	95	190	-2	20	80		
201822	170	22	-2	30	5		
201821	800	90	-2	85	15		
201820	20	90	-2	20	90		
201817	-10	42	-2	20	70		
201818	35	8	-2	10	5		
201815	20	55	2	30	440		
201816	55	100	-2	20	60		
201819	25	8	-2	15	65		
201814	40	75	2	40	840		
201422	315	700	5	120	20	-5	-10
201836	45	8	2	10	2		
201835	150	32	2	15	-2		
201424	370	360	2	100	10	-5	-10
201834	150	24	2	20	5		
201837	30	10	5	10	2		
201423	85	30	2	20	10	-5	-10
201832	120	8	5	25	5		
201833	330	110	5	45	5		
201831	40	6	2	20	5		
201830	75	20	5	15	5		
201829	90	10	5	15	5		
201419	80	110	5	35	10	-5	-10
201420	85	650	2	25	25	-5	-10
201401	310	710	5	70	35	-5	11

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Sample No	W	Sn	Cu	Pb	Zn	Mo	As
201402	65	730	5	20	30	-5	15
201403	110	-5	5	35	20	-5	13
201404	135	-5	2	25	25	-5	-10
201418	110	-5	5	25	10	-5	-10
201412	80	-5	2	20	10	-5	-10
201417	45	5	10	20	15	-5	-10
201415	40	5	-2	15	5	7	-10
~~201545~~	~~25~~	~~10~~	~~-2~~	~~5~~	~~5~~		
201413	45	70	-2	35	10	-5	-10
201414	45	-5	2	10	10	-5	11
201577	490	18	2	50	10		
201576	30	34	-2	15	5		
201578	130	26	5	30	5		
* 201579	40	22	-4	15	5		
201581	140	18	2	40	10		
201580	200	760	-2	55	10		
201582	70	8	-2	15	10		
201584	85	14	-2	15	5		
201583	55	75	-2	20	10		
201586	120	14	-2	25	15		
201587	230	26	-2	40	15		
201588	75	14	-2	35	5		
201590	35	60	-2	20	5		
201589	60	110	-2	20	5		
201591							
201574	230	42	-2	60	10		
201575	120	14	-2	35	10		
201547	20	10	-2	5	2		
201546	30	14	-2	5	2		
201545	25	10	-2	5	5		
201544	250	18	2	50	5		
201542	110	12	-2	15	5		
201541	85	14	-2	25	10		

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Sample No	W	SN	CU	PB	ZN	MO	AS
201535	130	12	5	30	5		
201536	150	46	5	50	10		
201539	50	6	5	20	5		
201540	180	12	2	40	10		
201537	90	10	5	20	5		
201538	190	18	2	55	10		
201543	60	16	-2	20	5		
201548	90	12	-2	10	2		
201549	540	28	-2	45	15		
201550	370	22	-2	40	10		
201551	25	8	-2	5	5		
201552	60	6	-2	5	2		
201553	-10	12	-2	5	5		
201554	20	12	-2	5	5		
201555	65	16	-2	10	5		
201556	30	6	-2	10	5		
201557	80	22	-2	10	2		
201490	520	95	2	100	10		
201491	30	48	-2	15	5		
201486	80	20	-2	15	5		
201485	95	10	2	20	5		
201484	100	18	5	25	10		
201558	250	36	-2	50	15		
201483	130	40	5	90	5		
201510	55	16	-2	10	10		
201509	40	22	-2	10	5		
201508	-10	14	-2	5	5		
201507	-10	14	-2	5	5		
			Map	1382↓			
201790	-10	4	10	11	120	-4	-2
201791	-10	-4	10	4	60	-4	2
201792	-10	10	35	18	130	4	-2
201795	-10	4	10	13	40	-4	-2

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Sample No	W	Sn	Cu	Pb	Zn	Mo	As
201796	-10	-4	5	9	30	-4	-2
201748	-10	18	25	25	110		
201747	-10	-4	10	15	30		
201746	-10	-4	20	20	40		
201745	-10	4	10	15	30		
201742	-10	6	45	15	35		
201743	-10	10	10	15	40		
201744	15	-4	10	15	40		
201739	-10	8	15	15	65		
201740	-10	6	15	20	80		
201741	10	4	15	15	50		
201737	-10	12	35	25	65		
201738	-10	18	15	20	90		
201788	-10	8	660	20	105		
201786	-10	12	10	30	75		
201789	-10	4	15	20	55		
201785	-10	65	-2	55	345		
201783	-10	-4	15	20	65		
201784	-10	8	2	15	70		
201762	10	4	2	15	120		
201760	-10	14	-2	15	30		
201761	-10	10	5	25	100		
201782	10	4	2	10	65		

(11)