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HEAZLEWOOD PROSPECTS
NORTH WEST TASMANIA

E.L. 21/85

ANNUAL REPORT FOR THE PERIOD ENDING 1.12.89

YEAR 4 (2.12.88 - 1.12.89)

VOLUME 1 OF 2

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S.J. CARTHEW
NOVEMBER, 1989

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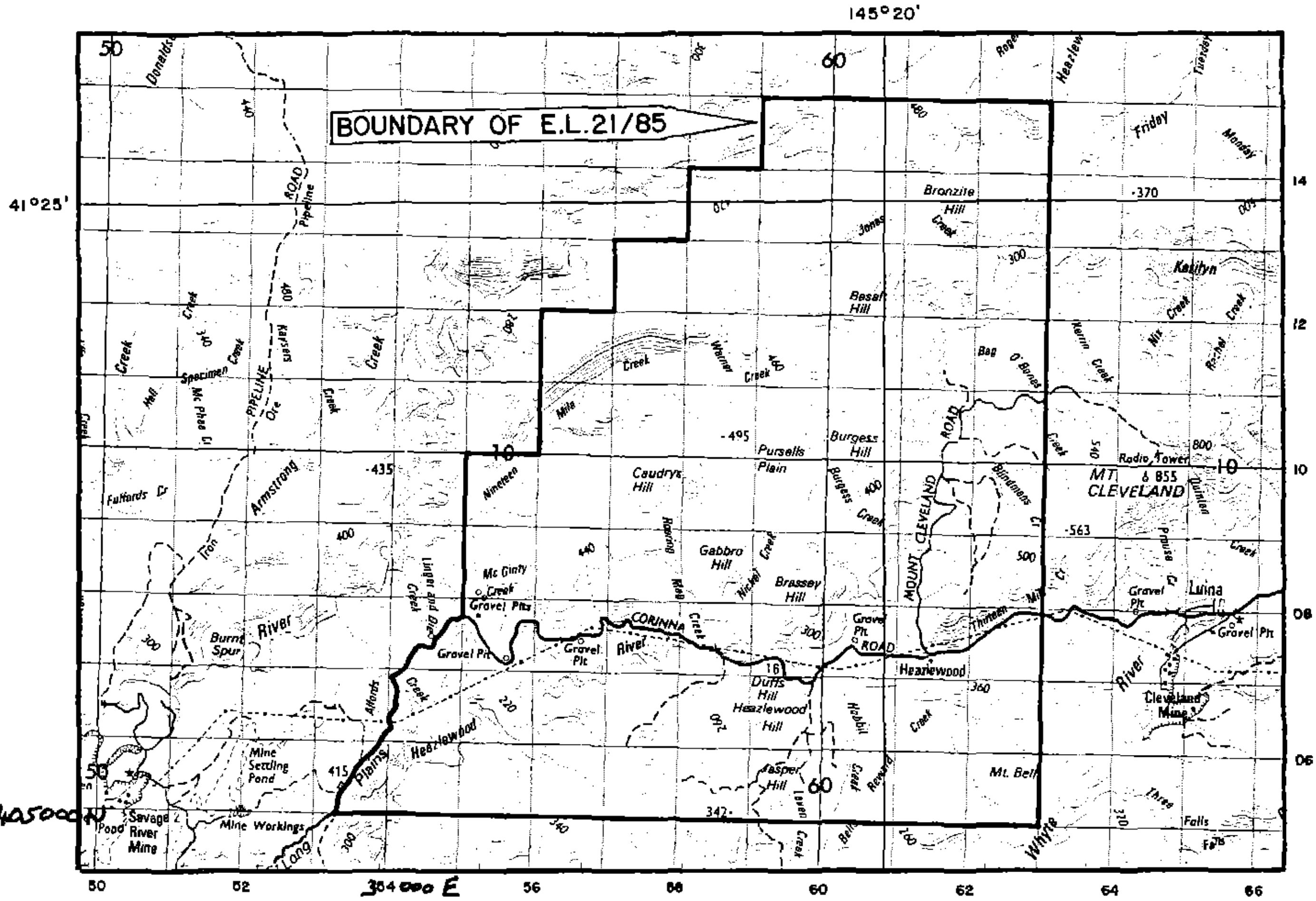
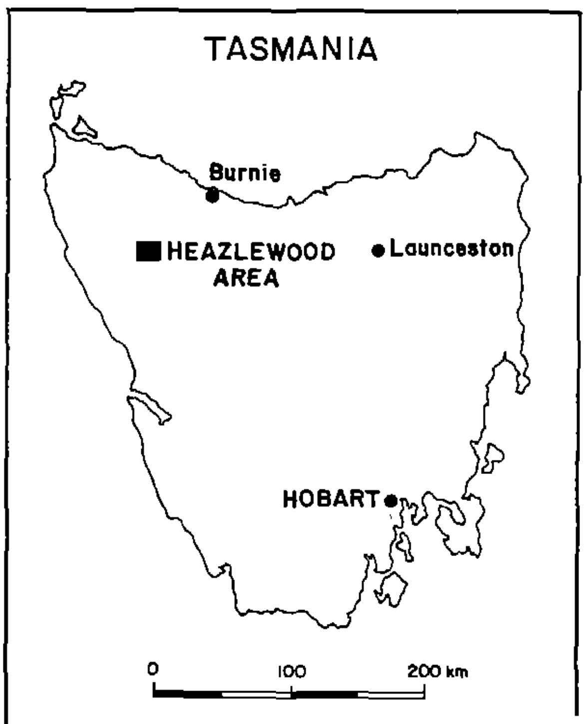
CONCLUSIONS OF 1988 - 1989 EXPLORATION

The Heazlewood Exploration Licence 21/85 has been vigorously explored for platinoid mineralization with the prime objective being to source lode platinoid deposits explaining the widespread alluvial osmiridium workings. Successive exploration programmes involving regional mapping, pan concentrate surveys, trenching (5km), rock chip and channel geochemistry, lead to percussion and R.C. drilling at Brassey, North Brassey, Purcells, Caudrys, and Fentons, with disappointing results. Alluvial platinoid potential in both 19 Mile Creek and Mt. Stewart is discounted on account of the immature drainage. Regional mapping has revealed that layer cake stratigraphy exists in the Heazlewood River Complex, and that at least three phases of magma influx took place before evolving to basaltic and boninitic lavas. Each phase shows classic dunite - pyroxenite - plagioclase peridotite - troctolite assemblage with cyclic repetition within layers, similar to the Stillwater and Muskox intrusions. The intermixed lithological zone at the dunite / pyroxenite phase boundaries is considered particularly prospective for platinoid minerals.

Since 1988, exploration has been directed towards evaluating the precious metal and base metal potential. At Old Jasper - New Jasper mines, stringer style Cu - Au mineralization along a complex fault zone hosted in altered and silicified andesites, is recognized. An orientation sirotem survey found four conductors on three lines and drilling a shallow conductor found essentially chalcopyrite that returned 2m at 2% Cu and 0.5g/t Au. This encouragement has led to repegging the grid to A.M.G. co-ordinates, undertaking geological mapping and a ground magnetic survey, the data of which is presented at 1:1,000 scale.





METALS EXPLORATION LTD.

HEAZLEWOOD PROSPECT
N.W. TASMANIA
E.L.21/85

LOCATION MAP

Scale 1:100,000

0 2 4 6km

Drg.No 02/HZ/2/01	Figure 1

AMG REFERENCE POINTS ADDED

1. TENEMENT INFORMATION

EL 21/85 of 123 square kilometers is centred approximately 8km NE of the Savage River iron ore mine and 6km NW of the Cleveland tin mine, NW Tasmania (figure 1). Granted on 1.12.85, it is 100% owned by Metals Exploration Limited.

2. SUMMARY OF PREVIOUS EXPLORATION

Alluvial osmiridium workings existed in the tributaries of and in Nineteen Mile Creek west of Bald Hill with patchy high grade (60g/t to 2024g/t P.G.E.) values being found at Caudry's workings. Nickel was won from the Lord Brassey mine and copper-gold from the Jasper Mine, though numerous shallow workings have been found elsewhere (Russell's Adit, Duff's Hill, figure 3).

Metals Exploration are investigating the hard rock platinoid (PGE) source of known alluvial osmiridium workings and are evaluating the precious metal - base metal occurrences.

Mapping has found zones of highly depleted and refractory melt products in conjunction with plagioclase bearing mafic and ultramafic differentiates of a tholeiitic melt that may have facilitated the formation of PGE sulphides during the first and second phase magma mixing [T Summons and K. Morrison 1988].

Geochemically, two distinct regions occur which correlate with gross lithological associations within the Heazlewood complex.

Region A - Nineteen Mile Creek - Caudry's Hill - Gabbro Hill - Fentons - Warner's Creek area, covering the western and northern parts of the Complex, which is predominantly a chromite rich dunite with minor coarse grained pyroxenite.

Region B - Burgess Hill, Brassey Hill, covering the central portion of the Complex and consisting of mixed lithology peridotites, many of which are plagioclase-bearing.

Four very strong pan concentrate anomalies were encountered in the Nineteen Mile Creek - Warners Creek area. The maximum value recorded was 5.1ppm combined Os + Ir.

Four tentative anomalous PGE associations have been delineated:-

Region A, Group A1. Os, Ir, Ru, Pt. Probably associated with chromite-rich dunites, e.g. Fentons Grid 357,000 mE, 5,410,500 mN.

Group A2. Pt, Ru, Rh. Associated with interlayered dunite - peridotote - pyroxenite containing secondary magnetite and chromite-rich layers, e.g. Fentons Grid 357,600 mE, 5,410,400 mN.

Region B, Group B1. Primary Pt, Ru, Rh in chromitites (North Brassey; Chromite Ridge)

Group B2. NiS, Pt, Au, + Pd epigenetic mineralization cross cut by later low temperature events eg Brassey.

Gridding and mapping at Burgess and Brassey delineated the presence of chromitite rich zones hosted in both serpentinised dunite and coarse grained orthopyroxenite while the initial mapping at Fentons grid revealed NS trending chromitite bodies associated with coarse grained pyroxenite pods that contain elevated platinum values (0.89g/t).

Channel sampling and percussion drilling of the mineralized shear at Caudrys failed to intersect economic mineralization while auger drilling at Purcells returned four anomalous (>1ppm) values. Follow up trench sampling with support percussion drilling at Brassey, North Brassey, and Purcells failed to intersect economic platinoid/basemetal mineralization.

Trenching with 3m and 1m composite channel samples and support 2m radius rock chip samples at Fentons Grid established platinum anomalies in a magnetite rich interlayered (dunite/harzburgite/pyroxenite) sequence. Diamond drilling of nickel sulphide breccia and associated chromite at Fentons Knob failed to intersect economic mineralization.

3. SUMMARY OF EXPLORATION - YEAR 4

During the current year:

a) a review of regional studies for geology, stream sediment, aeromagnetic, and didgem II anomalies together with known workings was undertaken. (appendix 1)
a) check 1m trench sampling at Fentons platinum geochemical anomaly. (appendix 2)
b) continued geological mapping at Fentons, North Brassey, and Burgess Prospects. (enclosures 4,5,6,7,8,9,10,11,12, and 13.)
c) reconaissance 2m radius rock chip sampling traverses of the 19 Mile Creek Formation and at Burgess Grid. (appendix 2)
d) Gridding, magnetometer survey, and geological mapping undertaken at Jasper Project. (enclosures 13 and 14)
e) reverse circulation drilling (3 holes) at Fentons Prospect.
f) progressive rehabilitation of inactive areas for exploration.

Exploration potential remains for lode platinoid deposits in the ultramafic complexes, for precious metal/basemetal volcanogenic style mineralization in the overlying andesites and basalts, for replacement tin deposits of the Mt. Bischoff - Cleveland type, for contact tin and tungsten skarn mineralization of the Mt. Lindsay - Mt. Ramsay style and for greissen/breccia pipe tin mineralization in the granite itself.

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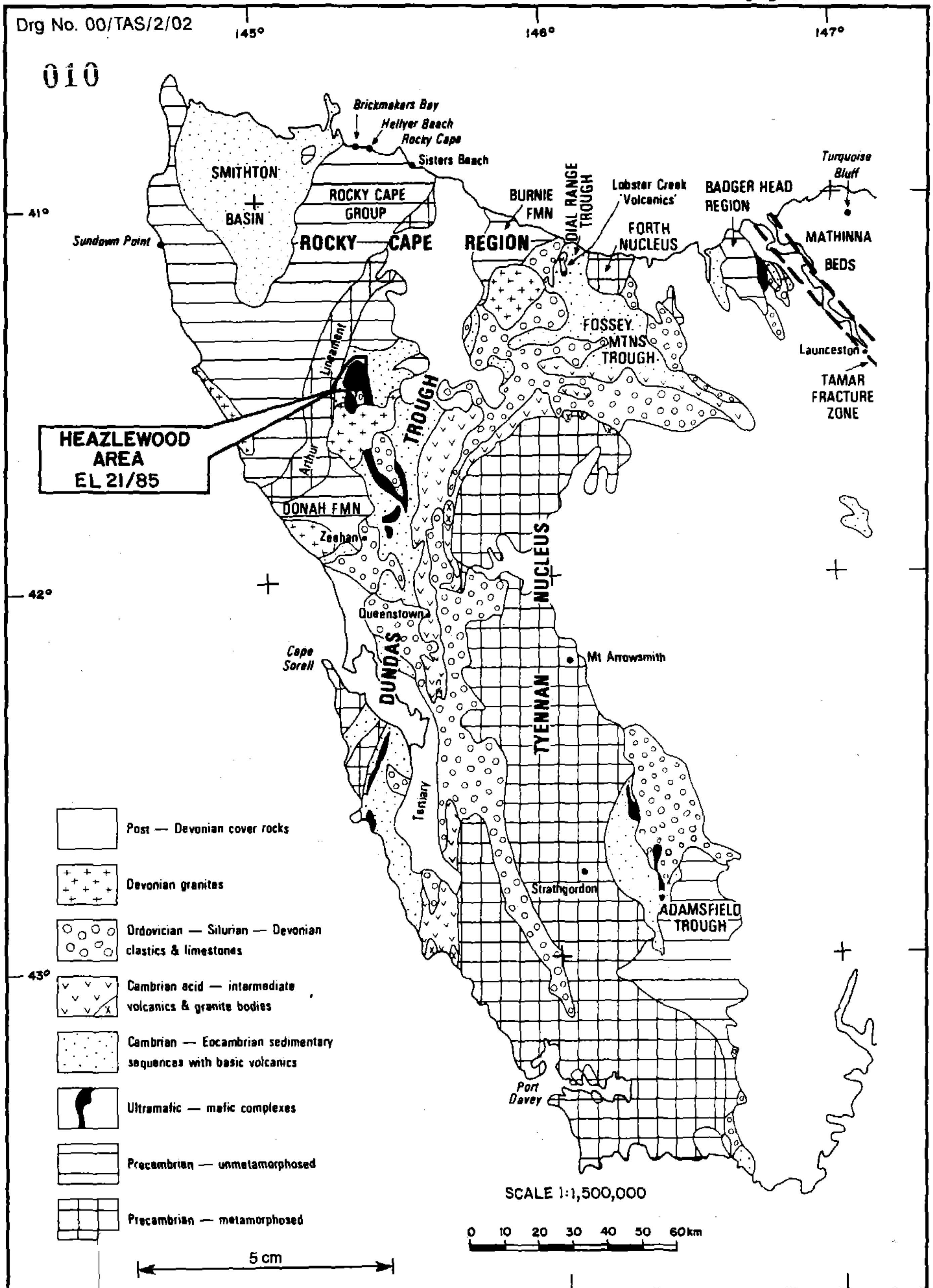

Geological map copied from paper by C.J. Adams and others, Aust. Journal Earth Service, Vol. 32 No. 1, 1985.

METALS EXPLORATION LIMITED

STRUCTURAL MAP SHOWING TECTONIC SETTING OF ULTRAMAFIC COMPLEXES AND LOCATION OF HEAZLEWOOD EL 21/85

Fig No. 2

4.REGIONAL GEOLOGY

The fault-bounded Heazlewood River Complex (HRC) of 50 square kilometers is the largest of several allochthonous layered mafic and ultramafic complexes occurring in the Dundas Trough, a narrow circulate basin that developed between the Pre-Cambrian Tyennan and Rocky Cape cratons in northwest Tasmania [Solomon et al 1965] (figure 2). Eocambrian - Cambrian volcanics and sediments were deposited in elongate rift grabens of the broader Dundas Trough within and between regions of polydeformed Precambrian siltstone, orthoquartzite, and minor volcanic rocks. The Eocambrian deposits (the Success Creek Group) consist of 1000m of shallow water to fluviatile sedimentary rocks passing conformably into basic volcaniclastic sedimentary rocks with olivine and quartz-rich tholeiitic lavas of the Crimson Creek Formation [Brown et al 1988].

Magmatic cumulates formed at high temperatures/low pressure in crustal magma chambers that evolved to, and extruded magnesium rich andesite volcanics [Brown 1986].

During early Middle Cambrian, the tectonic regime changed from tensional to compressive causing thrusting of the ultramafic complexes onto sediments. Volcanic activity produced fine grained tholeiitic basalts, boninites, spilitic rocks and dolerites. Middle Cambrian quartz diorite/gabbro stocks intruded the ultramafic rocks [Brown 1986]

During early Devonian times, folding extensively deformed the rocks, producing open fold structures with steep axial planes that led to faulting and later intrusion of granite batholiths into the basement and trough sequences.

Tertiary flood basalts occur on the peneplained surface.

5. LOCAL GEOLOGY

A compilation of available geological mapping includes work by Rubenach (1973), Brown (1986), Creenaune (1980), Peck (in progress), and Metals Exploration is presented at various scales. (enclosures 1, 2,3,4,5,6, and figure 3)

The established stratigraphic section after the Tasmanian Mines Department comprises:-

Tertiary	basalts
Devonian	granite (adamelite)
Siluro-Devonian	sediments
Cambrian	tonalite
Cambrian	Heazlewood River Complex and Mt. Stewart Complex of ultramafics and gabbro intrusives with overlying boninites and basalts.
?Eocambrian	volcaniclastic lithicwacke, siltstone, and tholeiitic basalt (? Crimson Creek Fm)
Eocambrian	quartzwacke and minor mudstone (? Success Creek Group)
Precambrian	undifferentiated sediments

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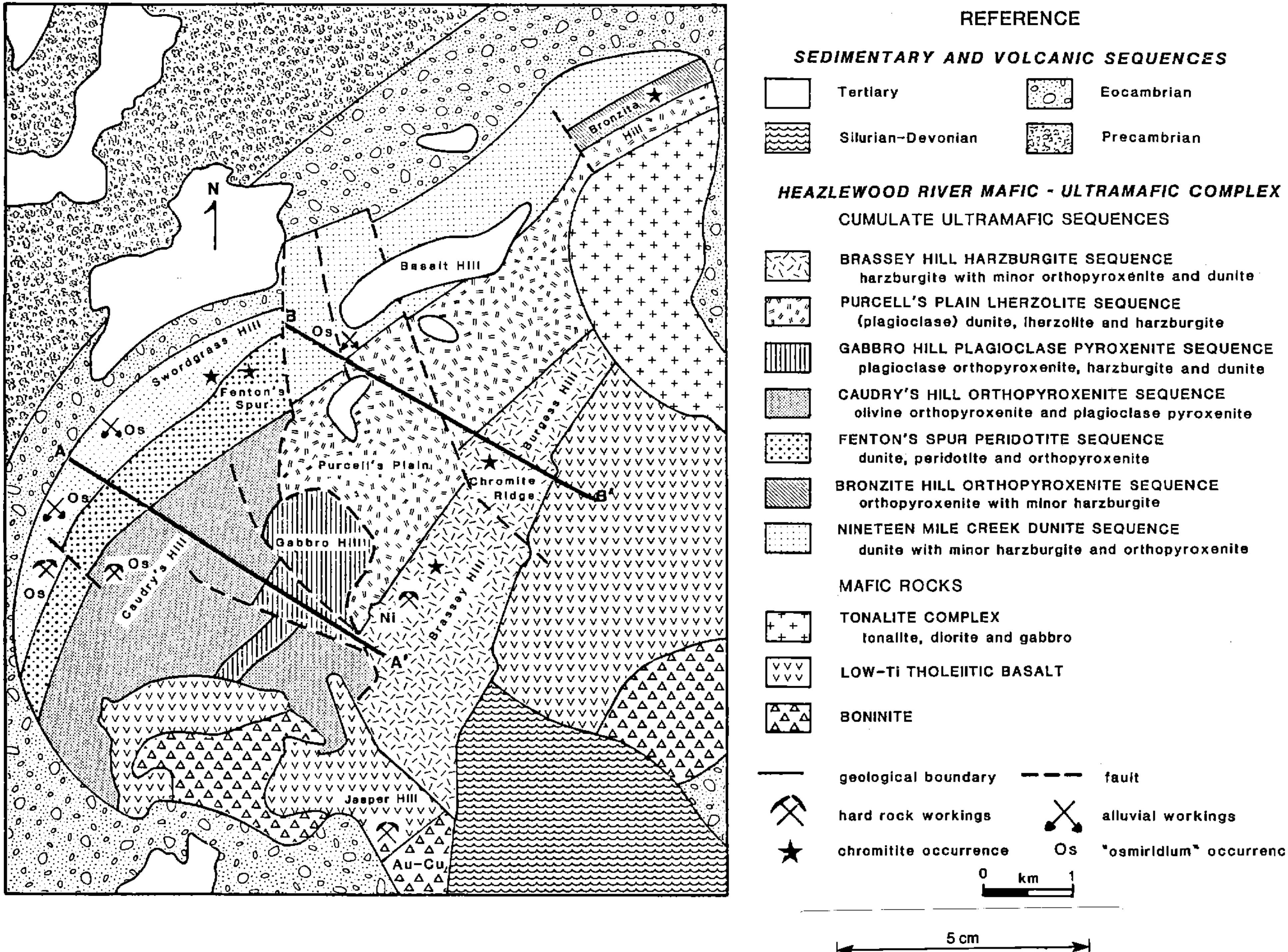

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Figure 3

This work suggests that the HRC (figure 3, enclosures 1 and 2) is an allochthonous body, consisting of ultramafics, gabbro and tonalite intrusives and basic volcanic rocks. It is fault bounded with an eastern melange zone, whilst in the Jasper Hill area south of the HRC, overlying calc alkaline dacites and andesites are part of the sedimentary - volcaniclastic sequence [Berry and Crawford 1988].

Within the ultramafic complex, six layered sequences of one or more cumulate rock types occur which have gradational contacts. Numerous small shears and faults cut the HRC in a variety of orientations.

The contact between the ultramafics and extrusive low - Ti tholeiites (dolerites) and boninites is generally conformable (from mapping and petrological evidence - D. Peck, personal comment). Evidence of shearing led P. Creenaune to infer faulting for this contact.

In addition, there is a zone of abundant dolerite dykes and sills on the eastern margin of the ultramafic sequences which may be feeders for the overlying mafic lavas. The HRC is in faulted contact with Devonian sedimentary sequences, suggesting that the last episode of tectonic re-emplacement was syn- to post- Devonian, and probably related to waning events of the Tabberabberan orogeny.

Facing criteria from cross-bedding and fining upwards in the layered ultramafic sequence, and the trend to more evolved rock types, show younging to the southeast. The layered ultramafic sequence is up to 6km thick and the overlying volcanics have a maximum exposure of 3km, making the HRC comparable to the Stillwater Complex of Wyoming and the Munni Munni Complex of Western Australia. However, the presence of boninitic volcanic rocks indicates that the HRC probably formed at a convergant plate margin in a fore-arc environment of a tectonically active environment [Berry and Crawford 1988]. This model will explain the disrupted layers, faulted peripheral contacts and abundant internal faults and shears, and the unusual distribution of volcanic rocks in the complex. A description for the HRC succession follows.

NINETEEN MILE CREEK DUNITE SEQUENCE:

This is the basal unit of the ultramafic sequence and extends across the western and northern margins of the HRC in faulted contact with Cambrian sedimentary rocks. The Nineteen Mile Creek Dunite sequence comprises dunite with minor discontinuous layers of orthopyroxenite. Layering is poorly defined and the dunite is comprised of 50% to 90% serpentine after cumulus olivine, cumulus chromite, and up to 50% relict olivine grains occurring as kernels surrounded by serpentine-group minerals. Chromite occurs as fine to medium-grained euhedral crystals included in later serpentinized olivine grains, disseminations(<1mm to several centimeters thick) and schlieren. Orthopyroxenites occur as several centimeter-thick disrupted layers often mantled by sheared serpentinized dunite and having a nodular appearance. Orthopyroxene occurs as medium to coarse-grained cumulus crystals commonly displaying partial steatization and containing inclusions of earlier-formed chromite and rare relict olivine. (figure 3, enclosures 1 and 4)

FENTON'S SPUR SEQUENCE:

The Fenton's Spur sequence is transition from the underlying Nineteen Mile Creek Dunite sequence. It consists of interlayered dunite, harzburgite, wehrlite and coarse- grained orthopyroxenite or olivine - orthopyroxenite and websterite occurring as well defined centimeter to meter - thick cumulate layers. Orthopyroxene increases steadily from the base to the top of the sequence, which is extensively serpentinized and has widespread magnetite + chromitite schlieren. (figure 3, enclosures 1 and 4)

CAUDRY'S HILL SEQUENCE:

This sequence of orthopyroxenite and olivine orthopyroxenite [Rubenach 1973] also contains minor serpentinized dunite and harzburgite layers. It extends from the Heazlewood River in the south to the northern end of Caudry's Hill. (enclosures 1 and 6) On Caudry's Hill medium to coarse - grained orthopyroxenite is interlayered with an approximately equal volume of olivine - rich orthopyroxenite, and lesser harzburgite and dunite. Chromite occurs as isolated, fine - grained cumulus crystals included in orthopyroxene and serpentinized olivine. Plagioclase is first recognised in the upper half of the Caudry's Hill sequence, occurring as an intercumulus phase in medium - grained plagioclase pyroxenite. The southeastern margin of the sequence contains abundant clinopyroxene - bearing plagioclase pyroxenites grading upward into fine - grained plagioclase websterite which may represent a chilled margin phase.

The appearance of plagioclase is coincidental with gabbroic segregations and auto-intrusions. The coarse-grained to pegmatitic gabbroic rocks consist of varying proportions of orthopyroxene, clinopyroxene and plagioclase producing a range of lithologies including norite, gabbronorite and leucogabbro. They vary from several centimetres to several metres wide and up to several tens of metres in length. The larger bodies are dykes, and have tabular forms which commonly trend (110' - 160') normal to the cumulate layering. However, the smaller gabbroic members occur as rootless veins which are often slightly oblique to layering.

GABBRO HILL SEQUENCE:

This unit is recognized by the presence of abundant pegmatoidal ultramafic rocks, including poikilitic harzburgite, serpentinized dunite and orthopyroxenite. The Gabbro Hill sequence is truncated on the northeastern side of Gabbro Hill by the fault Main Break. (enclosure 1 and 2) It contains a large number of intrusive gabbroic bodies.

The ultramafic rocks commonly occur as metre-thick cumulate layers. Orthopyroxene occurs as both cumulus (orthopyroxenites) and intercumulus (poikilitic harzburgites) grains that can exceed 10cm in length. Relict olivine crystals are observed in most harzburgite and dunite samples occurring as coarse-grained equant cumulus grains. Chromite occurs as medium to coarse-grained cumulus inclusions in both orthopyroxene and olivine. Intercumulus plagioclase and rare intercumulus clinopyroxene are locally present. The ultramafics are succeeded to the south by an extensive zone of fine-grained plagioclase pyroxenite/dolerite.

Layered plagioclase pyroxenite occurs on the southern slope of Gabbro Hill (enclosure 2), which was apparently fed by a zone of leucogabbro, gabbronorite and rare clinopyroxenite dykes which extend from the top of the Caudry's Hill sequence adjacent to Roaring Meg Creek (GR 583080) and across the western side of Gabbro Hill to the sill. The 'feeder' dykes outcrop over a width of 100m and form a semi-continuous zone south-easterly for 500m. Numerous pyroxenite and gabbroic dykes, veins and pods intrude the Gabbro Hill sequence.

PURCELL'S PLAIN SEQUENCE:

This extensive cumulate sequence on the eastern side of the Main Break (enclosures 1,2, 6 and 13) directly abuts the Nineteen Mile Creek Dunite sequence. Poor exposure and overlying Tertiary basalt hinder the contact mapping. The Purcell's Plain sequence comprises (plagioclase) dunite, harzburgite and plagioclase (herzolite) which display excellent m-scale modal layering.

The gabbroic dykes cutting the Purcell's Plain sequence are often coarse-grained or pegmatitic, and range in composition from plagioclase websterite and gabbronite to gabbro, leucogabbro and anorthosite.

BRASSEY HILL SEQUENCE:

The Brassey Hill harzburgite sequence is the uppermost member of the layered ultramafic series. It extends approximately 5km in a northeasterly direction from the southeastern corner of the HRC until it is truncated by a zone of mafic to felsic intrusions. It comprises a series of massive to poorly layered poikilitic harzburgite (+/- plagioclase), interlayered dunite (+/- plagioclase), troctolite and orthopyroxenite. The upper part of the sequence contains abundant dolerite dykes and sills, and is overlain by low-Ti tholeiitic basalt. The harzburgites are serpentinized and contain 10-40% poikilitic orthopyroxene displaying medium-grained to pegmatitic textures [Brown 1986]. Plagioclase occurs primarily as an intercumulus phase, and minor fine-grained disseminated cumulus chromite occur in the rocks. A relatively thin NW trending belt of serpentinite cuts the pyroxenite 1km east of Heazlewood River bridge. It is schistose with intense development of slickensides [Groves 1965].

There is a gradual increase in plagioclase content in the Brassey Hill sequence from the base to the top and it is intruded by an abundant leucogabbronorite and anorthosite dykes. These dykes have locally spread out laterally and interacted with ultramafic liquids to form hybrid rocks, including chromitite. (figure 3, enclosures 2,5,12 and

VOLCANIC AND RELATED ROCKS:

The mafic lavas overlying the ultramafic rocks along the southern and eastern margins of the HRC are low-Ti tholeiitic basalts and boninities related to the ultramafics. The basalts are characterized by fine-grained to aphanitic textures and contain rare relict quartz-carbonate amygdales. They display lower-greenschist facies metamorphic mineral assemblages and locally contain abundant secondary sulphides (pyrrhotite, pyrite and chalcopyrite) [Creenaune 1980].

Two small intensely folded exposures of "baked" red brown mudstone occur within pyroxenite near Old Jasper Mine which may be rafted remnants of roof sediments. Nearby, altered basalts, containing large ovoid amygdales of quartz with minor carbonate in a groundmass of fine interlocking needles of actinolite and interstitial quartz. (Enclosures 1,2 and 5, and figure 3)

In the southern portion of the licence, the Mount Stewart Ultramafic Complex is composed of thick dunite layers with thin interlayered pyroxene rich dunite. Faulted against the northeast contact are andesitic flows with bodies of basaltic pyroxenite. Regional magnetics suggest that the ultramafics are contiguous between the two ultramafic complexes under a thin veneer of sediments. (appendix 1)

These sediments are a monotonous sequence of massive purple brown grey and greenish volcanilithic sandstones, siltstones, and local pebbly tuffs or cherts. Sedimentary features point towards a sub-aqueous environ with recurring turbidity currents adjacent to a basic to intermediate volcanic source (mainly lavas).

As the Meredith Granite contact is approached, the sediments have been progressively hornfelsed and local strong contact metamorphism and Ca-Mg metasomatism has resulted in magnetic rich skarn development.

6. SPECIFIC SURVEYS

North of the Savage River to the Waratah bitumen road, geological mapping with Mr. D. Peck was revised (enclosures 1 and 2), and south of the road to Mt. Stewart mapping commenced .(enclosure 3) Mr. H. Rutter of Geophysical Exploration Consultants reviewed the regional geology, stream sediment and aeromagnetic results already conducted on the licence (appendix 1.)

Within the licence, three prospect areas, Fentons (GR 7915-357454112) Burgess (GR 360454104) and Jasper (GR 359254055) were examined. An account of activities conducted follows.

a) Fentons Area GR 7915 - 357454112
Creeks with alluvial workings drain either the Fentons Spur Sequence, 19 Mile Creek Dunite and the base of the Purcell's Plain Sequence along the tectonised western margin of the Heazlewood River Complex (HRC).

At Fentons, the grid geology presented on sheets 1,2, and 3 (enclosures 7,8, and 9) have been substantially revised. South of the fault, the Main Break, the Nineteen Mile Creek Dunite sequence and Fentons Spur interlayered sequences consistently dips westwards. Local brecciation and serpentinization is found on the thrust contact in 19 Mile Creek.

The Main Break is a fault corridor and corresponds to zone E of the interpretation of the ground magnetics by H. Rutter (appendix 1). This zone of higher remnant magnetism corresponds to bleached pyroxene rich dunite. North of the Main Break, dunite with local pyroxene - dunite and pyroxenite occur. Warner's Creek is locally controlled by intense serpentinization of the dunite, and the presence of intense jointing and local faulting. The pyroxene dunite has a tan weathering, is often foliated, and contains widespread (1-5%) disseminated euhedral 1mm chromite grains. This very sheared dunite was initially an interlayered Opx-dunite and Ol-dunite. Minor medium grained pyroxenite lenses occur. The tectonic shearing was intense, during a semi-fluid state, that resulted in flattening the Opx crystals and causing pull apart textures in the spinels. During this tectonic event and probably associated with it serpentinization of the dunite produced magnetite schlieren parallel to the general foliation.

Revised mapping of sheets 1 to 4 at 1:1,000 scale (enclosures 7,8,9 and 10) has established a west dipping tectonised layer cake sequence of
- dunite, massive + thin pyroxene layers on Swordgrass Hill interpreted to represent the 19 Mile Creek Dunite Sequence.
- intermixed zone of dunite, harzburgite, pyroxenite, and disseminated magnetite interpreted to be part of the Fentons Spur Sequence.

The 19 Mile Creek Dunite is recognised by its dusky brown weathering, splintery fracture and its dark green to black fresh surface colouration. This dunite contains widespread euhedral grains of disseminated chromite up to 3-5% and also chromite schlieren that are often 2-5mm thick, but can be traced up to 10 - 15m. Microprobe analyses recognise high Cr spinels. No exploration focus has yet been found in the 19 Mile Creek Dunite despite widespread sampling. (enclosure 11)

The Fentons Spur Sequence is a foliated and interlayered sequence of harzburgite, dunite, pyroxenite (Opx) and peridotite. Unusually high (<20%) magnetite content is found in a white weathering altered foliated ultramafic that grades into bluey-grey weathered dunite - harzburgite pyroxenite + peridotite unit.

This distinctive sequence is found between 10,000N (southern most grid line, enclosure 7), to 2350N (enclosure 8) along the eastern margin of the grid and on the hilltop.

Observations from this intermixed zone, allows facing criteria to be made based on cross-bedding, or fining upwards of cumulate layers. Very minor disruption is caused by faulting.

It is layer cake stratigraphy. The magnetite is of two generations. The first phase defines the foliation fabric which is generally north east trending and nearly parallel to the intercumulus layers, and a second phase of crosscutting veins that are often north west trending. The degree of preservation of primary silicates and chromite progressively decreases from the brown weathered unit to the white weathered unit. The brown weathered dunite commonly contains < 10% disseminated chromite and locally 15 - 20m long chromite schlieren of between 2mm to 3cm individual thickness. These schlieren commonly occur in zones up to 5m thick containing several trains of chromite and are mappable for 30 - 40m along strike. The largest zone is 50m wide and is continuous for 400m just south of Swordgrass Creek (1750N 1700E to 1350N 1750E) at the base of the Fentons Spur Sequence. It is interpreted that deformation took place during semi fluid cooling. D. Peck has found chromitite with Pt arsenides (sperrylite) 10um size along the chromite laminae.

The highest P.G.M. values from trench sampling and 2m radius rock chip sampling corresponds to the general expression of greatest magnetite + chromite concentration in this intermixed zone about trench 5 on sheet 2. (enclosure 8, figures 4,5,6,7 and 8)

Initially trench 3m rock chip channel samples returned anomalous P.G.E. results, the best result being 6m @ 6.7g/t P.G.E. (1.4 g/t Pt, Pd? 12 gt Pt) Pd? in the interval 390 - 396m trenches. The anomalous zones accepting 0.1 g/t P.G.E. as threshold have been re-sampled at 1m intervals. A summary table of all anomalous zones in trenches 5 and 6 from the resampling programme is presented.

See 88-2876 (App 1D)

Trench	Anomalous 3m (PGE) Samples g/t	Interval	Anomalous 1m (Pt) Samples g/t	Interval m
FT5	33m @ 0.13	129-162	4m @ 0.14	132-135
			1m @ 0.22	138-139
			1m @ 0.1	141-142
			1m @ 0.13	143-144
			3m @ 0.13	147-149
			1m @ 0.1	154-155
			6m @ 0.12	156-162
	18m @ 0.14	240-258	15m @ 0.09	240-255
	18m @ 0.17	282-300	2m @ 0.12	300-302
	3m @ 0.2	363-366	4m @ 0.13	357-361
			1m @ 0.11	366-367
	3m @ 0.11	372-375	6m @ 0.12	369-375
	x 6m @ 6.7	389-392	not repeated	
	3m @ 0.4	392-395	not repeated	
FT6	3m @ 0.13	42-45		
	3m @ 0.11	123-126		
	3m @ 0.1	135-138		
			2m @ 0.15	346-348

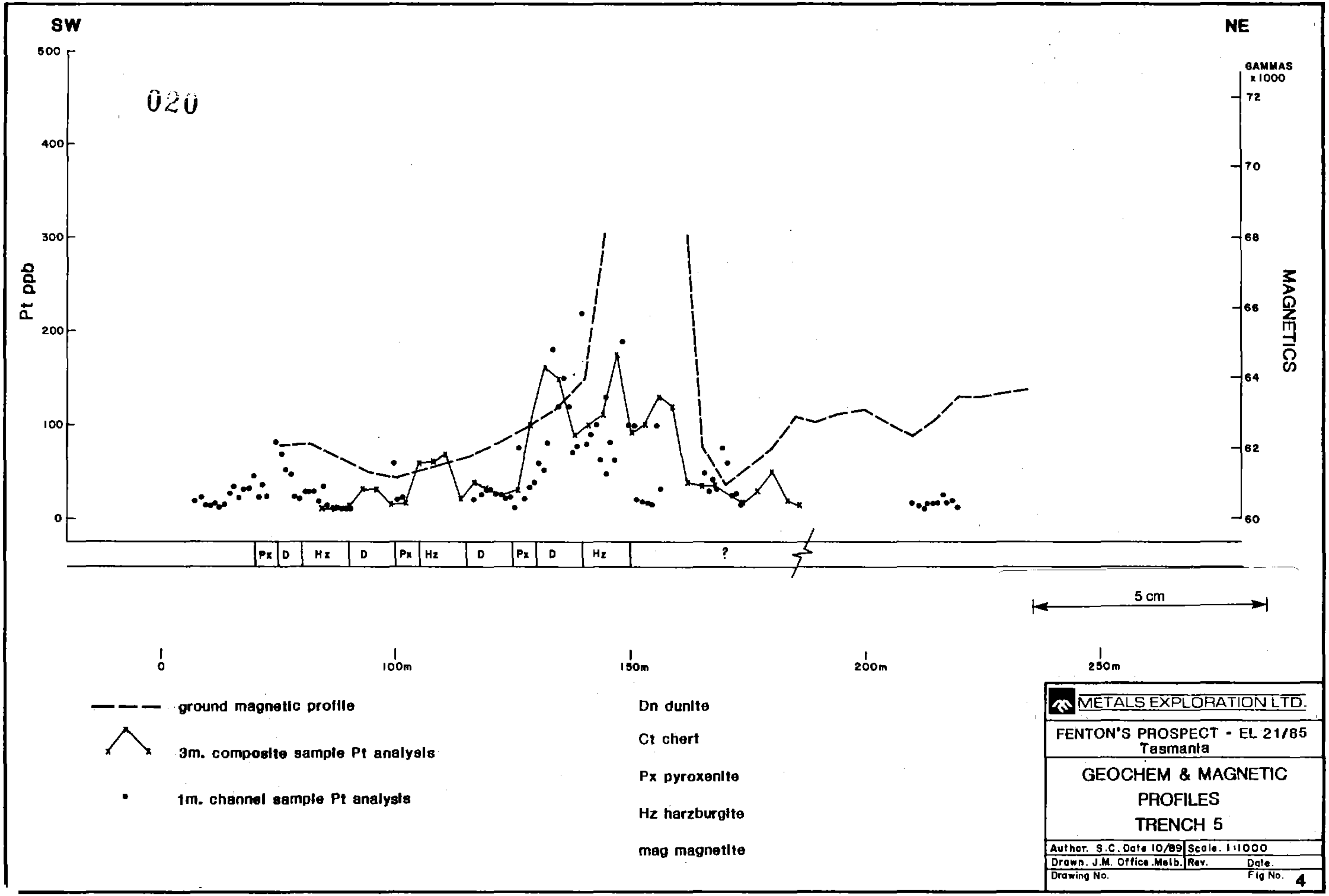
Figures 5,6,7, and 8 shows this data together with the geology and magnetics diagramatically. These samples were collected in the lower portions of the trench in fresh rock to avoid Pt nuggeting effect in the near surface scavenging environment. Overlap of 1m channel samples have now been sent from trench 5 to Analytical Services Perth, Comlabs Adelaide, and Rapley Wilkinson Laboratories Perth, and results returned are in general agreement.

In trench 5 the 6m zone @ 6 g/t Pt between 389m and 395m was specifically targeted. 1m channel samples assayed by A.L.S. Perth returned a maximum value of 75 ppb (392 - 393m), and those sent to Comlabs Adelaide returned maximum value of 50 ppb (391 - 392m). In addition every metre between 389m and 395m of wall-floor-wall was sampled and returned a maximum value of 60ppb (393m). (appendix 2)

It is suggested that the above 6m @ 6 g/t between 389m and 395m is due to surface nuggeting effects by the weathering cycle.

Comparative assay data from duplicate 2m radius rock chip and channel samples between Comlabs Adelaide and Rapley Wilkinson Laboratories Perth are as follows:-

020



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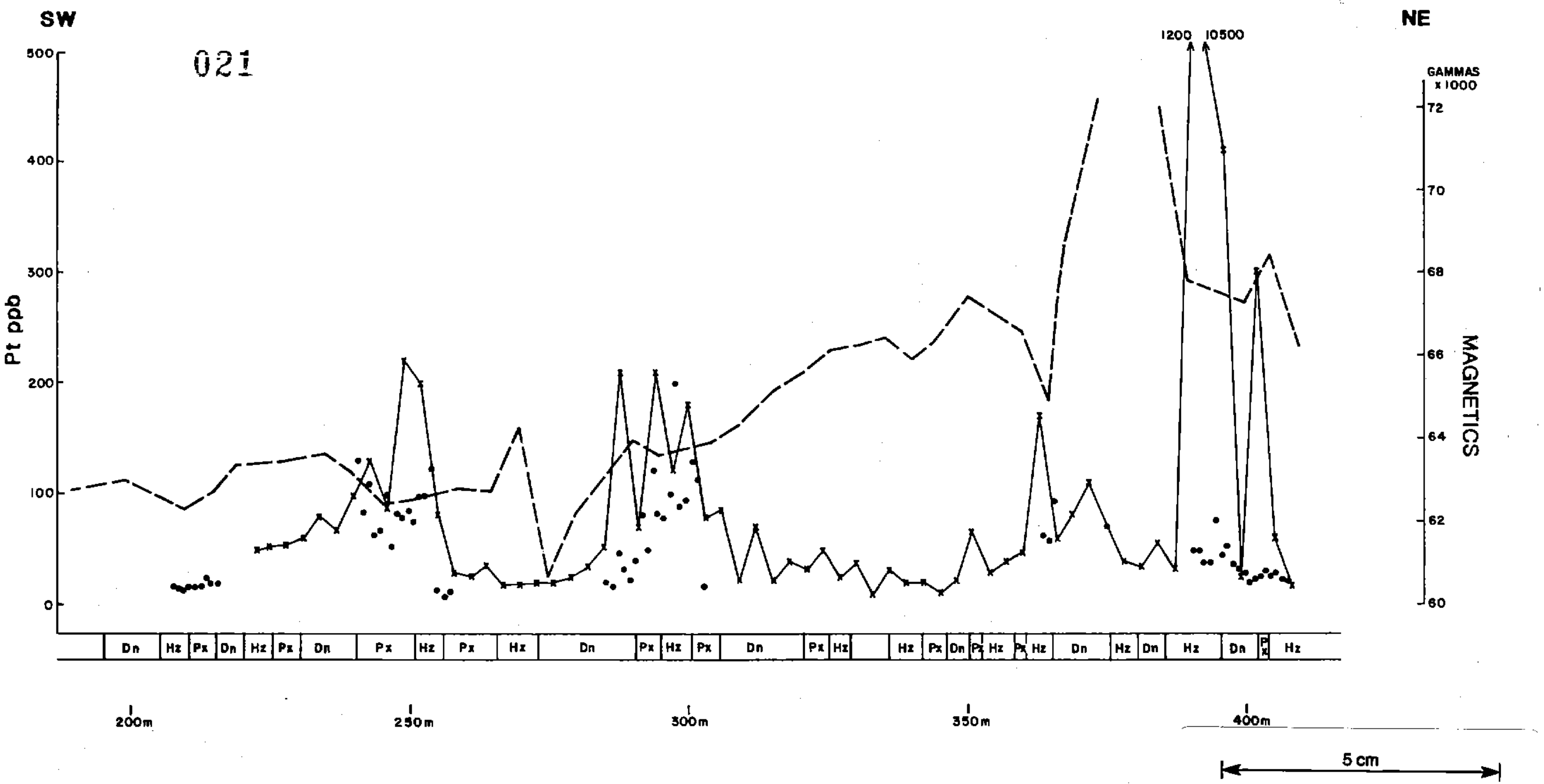
FENTON'S PROSPECT - EL 21/85
Tasmania

GEOCHEM & MAGNETIC PROFILES TRENCH 5

Author. S.C. Date 10/89	Scale. 1:1000
Drawn. J.M. Office Melb.	Rev. Date.
Drawing No.	Fig No. 4

55021

021



ground magnetic profile

3m. composite sample Pt analysis

1m. channel sample Pt analysis

Dn dunite

Ct chert

Px pyroxenite

Hz harzburgite

mag magnetite

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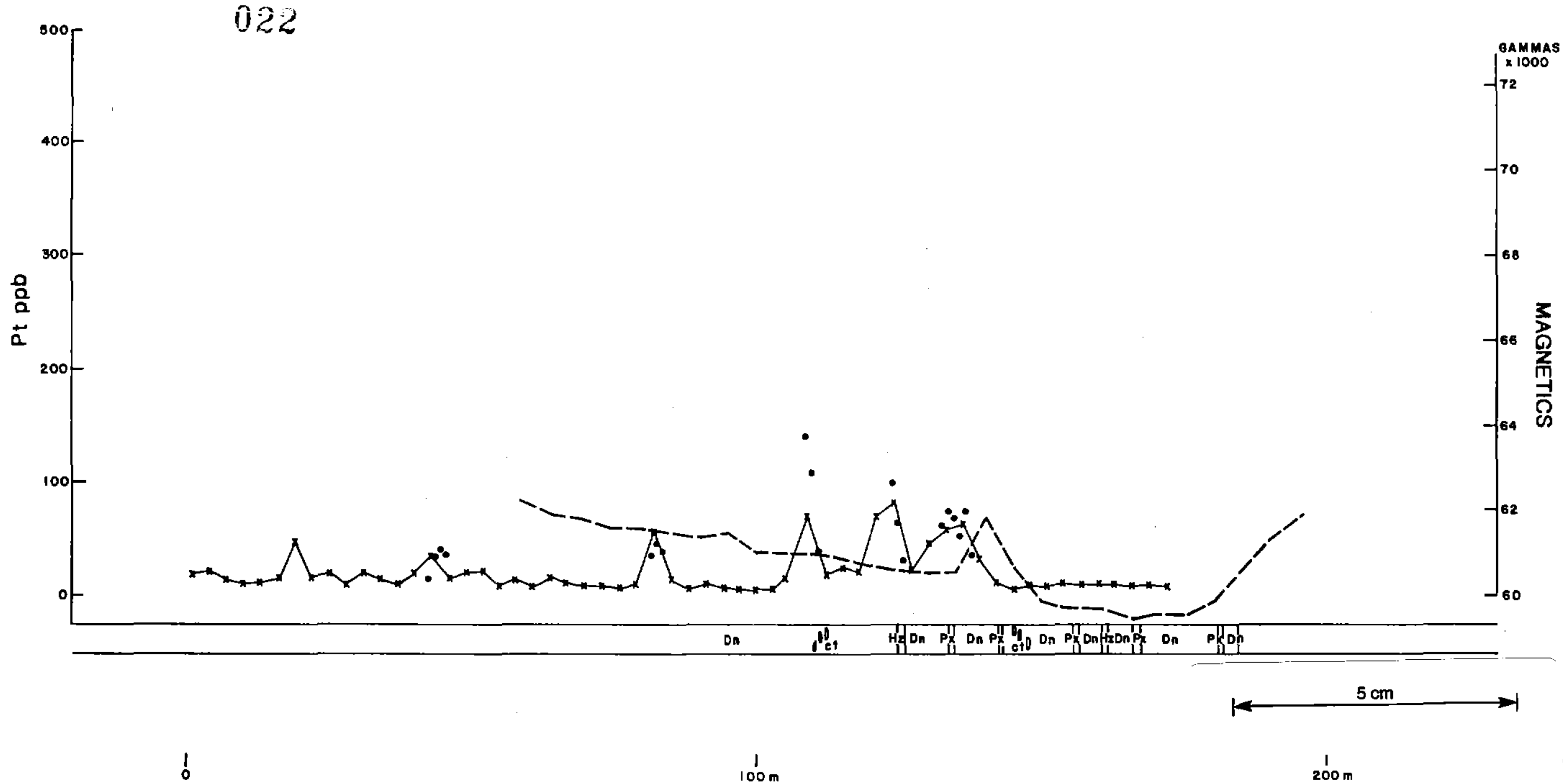
FENTON'S PROSPECT - EL 21/85
Tasmania

GEOCHEM & MAGNETIC PROFILES
TRENCH 5 (cont'd)

Author. S.C. Date 10/89	Scale. 1:1000
Drawn. J.M. Office. Melb	Rev. Date.
Drawing No.	Fig No. 5

55022



ground magnetic profile

3m. composite sample Pt analysis

1m. channel sample Pt analysis

Dn dunite

Ct chert

Px pyroxenite

Hz harzburgite

mag magnetite

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FENTON'S PROSPECT - EL 21/85
Tasmania

GEOCHEM & MAGNETIC PROFILES TRENCH 6

Author . S.C. Date. 10/89	Scale. 1:1000
Drawn . J.M. Office. Melb	Rev. Date.
Drawing No.	Fig No. 6

55023

023

GAMMAS (x1000)	MAGNETIC PROFILE	METRES	LITH.	STRUCTURE ARBITRARY ↑ MN	% CHROME
	magnetic traverse not undertaken	300 – 359	S Dn, D U, D U, D U D U, S Px, S Dn, Px, Dn Px, Px, S Dn, Px Dn Px Dn, Crs Px		

Metres: 300, 310, 320, 330, 340, 350, 359

DESCRIPTION	Au	Pt	Pb (Pd?)	Ru	Rh	Ir	Os	Ni	Cr	1m SAMPLING
	←	ppb					→	%	%	
serpentinised f.g. Dn with 7% mag. laminae and along fractures	<2	18	4	6·5	4	1·5	2	0·35	0·02	
	<2	13	4·5	2	2·5	8	4	0·19	0·05	
road	<2	14	3·5	1·5	2	<0·5	<2	0·16	0·02	
ditto with 5–7% mag.	<2	16	5	3·5	2·5	<0·5	2	0·16	0·01	
	<2	23	5·5	4·5	4·5	1	<2	0·19	0·01	
hard bar	<2	21	4·5	4	3	1	<2	0·20	0·01	
	2	20	6	5·5	3	1	<2	0·19	0·02	
hard bar	<2	25	4·5	3	3·5	0·5	<2	0·19	0·02	
	<2	58	5	5·5	5·5	0·5	<2	0·14	0·06	
	<2	43	5·5	4	4·5	1	<2	0·12	0·06	
hard bar	<2	65	3	4	5	1·5	<2	0·06	0·04	
hard bar	<2	61	5	8·5	4·5	2	4	0·06	0·04	
S. m.g. Dn with 5% mag. Px m.g – c.g. light grey green	<2	45	3·5	2·5	4	1	<2	0·06	0·06	
S. f.g. Dn weakly folicated mod. mag. m.g – c.g. light grey green Px	2	140	9	4	9·5	1·5	4	0·06	0·05	
non mag.	2	94	5·5	4	6	1·5	2	0·08	0·04	
highly mag. f.g. Dn and interlayered m.g. Px	4	59	4·5	4	4	0·5	<2	0·06	0·04	
	<2	56	7·5	3	5	1	<2	0·06	0·04	
m.g. – c.g. pale grey green Px - 5% thin mag. rich Dn	<2	75	4	4·5	6	2	<2	0·08	0·06	
	<2	98	2·5	3·5	7	1·5	2	0·06	0·04	
S. f.g. Dn mod. mag.	<2	23	4·5	3	3	1	<2	0·12	0·04	
50% m.g. Px and 50% f.g. Dn, mod to strong mag.	2	34	3	3	3	1	<2	0·08	0·04	
	<2	30	3·5	5	3	1	2	0·08	0·03	
c.g. Px crystalline f.g. mag. rich Dn	<2	27	3·5	3	3	0·5	<2	0·10	0·03	
c.g. Px crystalline	<2	15	8	3	2	0·5	<2	0·10	0·01	

LITHOLOGY LEGEND

S	Serpentinite	f.g. fine grained
Dn	**Dunite**	m.g. medium grained
D	Down	c.g. coarse grained
U	Up	
Px	**Pyroxenite**	
Crs	Coarse	
Mag	Magnetite	

5 cm

METALS EXPLORATION LTD.

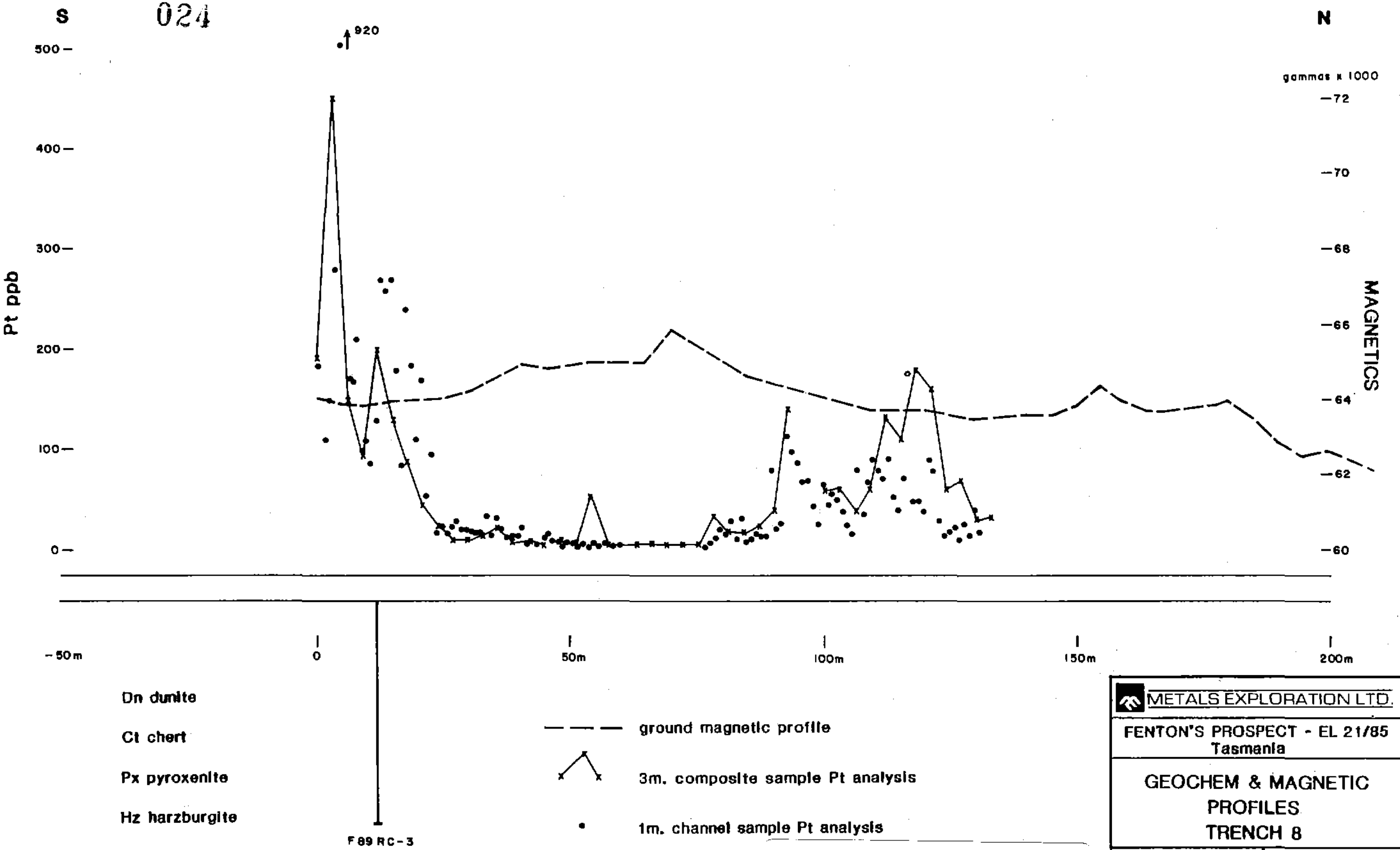
Project HEAZLEWOOD EL21/85 Tasmania

Title

FENTON'S TRENCH 6 (cont'd)

Author	Date 10/88	Scale 1:500	
Drawn J.M.	Office MELB.	Revised	Date
Drawing No.			Fig. No. 7

024



Dn dunite

Ct chert

Px pyroxenite

Hz harzburgite

mag magnetite

— — — ground magnetic profile

x—x 3m. composite sample Pt analysis

• 1m. channel sample Pt analysis

5 cm

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FENTON'S PROSPECT - EL 21/85
Tasmania

GEOCHEM & MAGNETIC PROFILES
TRENCH 8

Author. S.C. Date. 10/89	Scale. 1: 1000
Drawn. J.M. Office. Melb.	Rev. Date.
Drawing No.	Fig. No. 8

55025

Sample Number	Comlabs Assay Pt ppb	Rapley Wilkinson Pt	Pd ppb
730326	<5	<5	6
730327	<5	<5	6
730328	<5	<5	<5
728211	100	102	5
728212	120	120	1
728213	120	150	3
728214	120	114	2
728215	100	120	1
728216	150	114	2
	6m @ 0.12g/t Pt	6m @ 0.12g/t Pt	

This table shows that Pt results are in general agreement and averaging the 6m anomalous channel samples, both laboratories returned 6m @ 0.12g/t Pt in trench 5. 2m radius rock chip samples at 25m intervals were taken across dunite with disseminated chromite on lines 1500N between 1550E to 1725E but results failed to return a platinum anomaly. This chromite rich zone is some 500m long and up to 20m wide with 1-5% disseminated euhedral grains of chromite throughout. (appendix 2)

The pyroxene dunite has disseminated euhedral 1-5% chromite grains throughout and two traverses (line 2650N 1200E - 1450E and line 3000N 1500E to 1800E) failed to produce a platinum response. (appendix 2, enclosure 11) Numerous streams draining this lithology have been worked for P.G.M. alluvials.

2m radius rock chip samples on line 3300N, between 1600E and 1950E across alluvial workings and lateritized soil along Warner's Creek failed to return a platinum response, (appendix 2) whilst a single point Cr response of 1.32% was obtained against a background of 100ppm. The samples collected were chromite rich dunite, pyroxene dunite + harzburgite and lateritized soils.

In the 19 Mile Creek dunite sequence, additional mapping and 2m radius rock chip sample traverses took place at Bronzite Hill (GR 7915 -617136), Jones Creek (603130), and McGinty's Creek (553084). (appendix 2)

On Bronzite Hill, a local occurrence of chromite was found hosted in dunite, harzburgite and pegmatoidal pyroxenite, 50m northeast of the helipad. The chromite rimmed by magnetite occurs as stringers and as disseminations. Twelve 2m radius rock chip samples failed to return a platinum response (<5 to 5ppb Pt max 1080 ppm Cr). (appendix 2)

Chromite rich dunite samples in the Jones Creek area also failed to generate a platinum response. A road traverse at the head of McGinty's Creek collected - 2m radius rock chip samples 50m apart (across a magnetic anomaly: GR 548409). Here, the interlayered sequence of harzburgite - coarse grained pyroxenite has magnetite schlieren parallel to the foliation and layering and second generation cross-cutting magnetite similar to that found at Fentons. Assay results failed to return a platinum response. (appendix 2)

At Fentons Prospect, three drill holes totalling 157m was completed with the following results:-

F 89 RC-1

2204N	2184E	-60° grid E
Target:	platinum geochem anomaly/magnetic in trench 5 and 6 at top of the hill.	
0- 9	Interlayered harzburgite and dunite with magnetite schlieren and crosscutting veins	
9-27	Dunite with disseminated magnetite	
27-31	Harzburgite with magnetite schlieren and veins	
34-36	Interlayered harzburgite and dunite	
53-57	Dunite	
	E of H	

F 89 RC-2

2007E	2115N	-60° grid E
0- 6	Dunite	
6-13	Interlayered dunite and harzburgite ± pyroxenite	
13-18	Pyroxene dunite, dunite	
18-19	Quartz - fault	
19-23	Interlayered harzburgite, px. dunite	
23-26	Dunite serpentinized dunite	
26-38	Interlayered dunite harzburgite ± pyroxenite	
38-49	harzburgite pyroxenite	
	E of H	

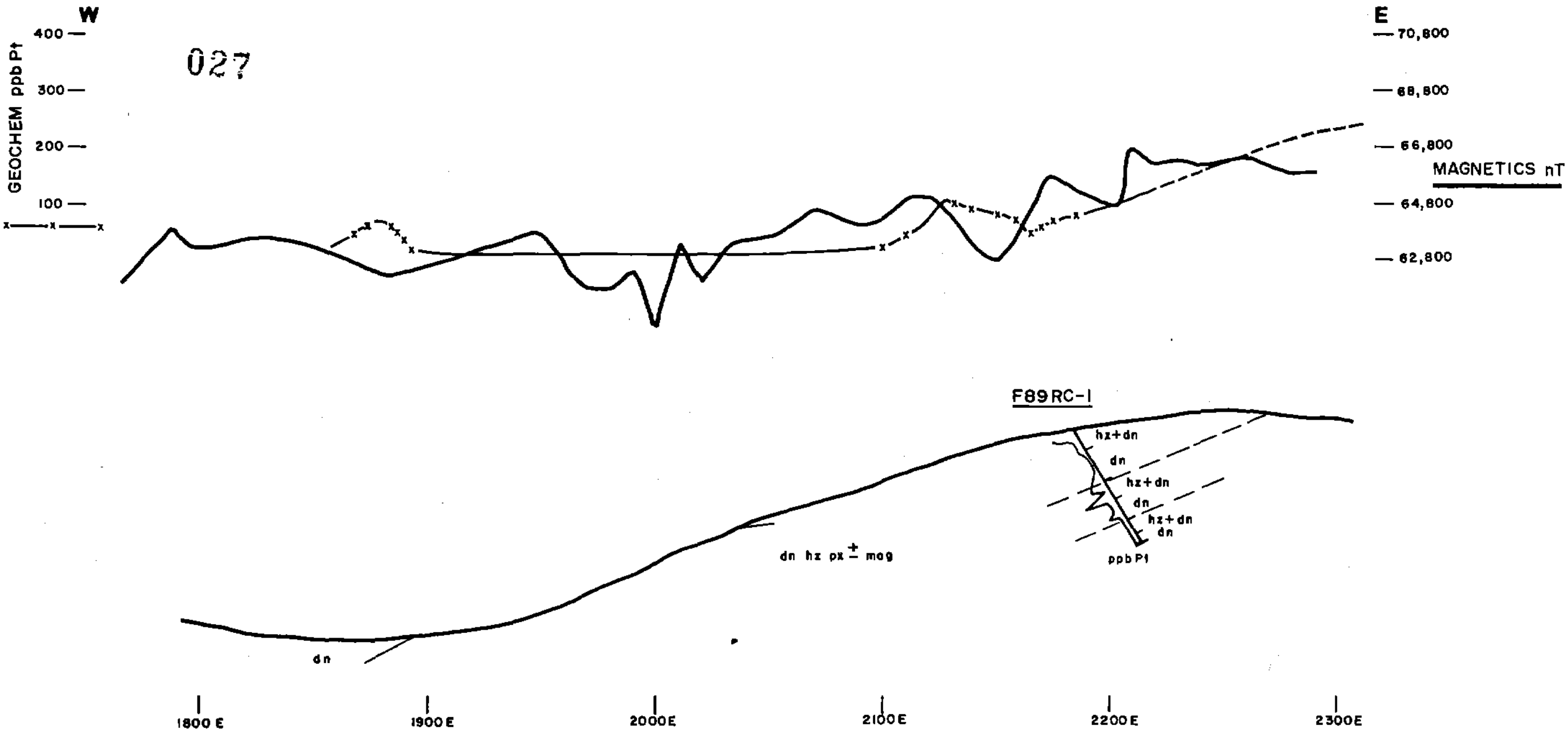
F 89 RC-3

1830E	2304W	-60° grid E
0- 7	Dunite	
7-31	Harzburgite ± pyroxene dunite	
31-35	Dunite pyroxene dunite	
35-51	Interlayered harzburgite dunite ± pyroxenite	
	E of H	

Pt assay data of 34 composite samples from the three drill holes at Fentons maximum value returned is 55 ppb Pt recorded in F89 RC-1 33 to 36m and F89 RC-2 6-9m. In RC-1 the anomalous harzburgite pyroxenite interlayer horizon has up to 7% magnetite with trace chalcedony. In this hole the 0-3m section returned 40 ppb Pt and may reflect partial secondary iron enrichment.

In RC-2 the section 3-9m returned elevated platinum values of 45 and 55 ppb above a general background of 10 ppb. This section is moderately serpentinised, sheared with chalcedony and trace serpentite veins. The background of the remainder of the hole is 5-10 ppb Pt.

In RC-3, two intervals, 6-9m and 18-21m returned 40 ppb against a general background of 10 ppb Pt. The first interval has interlayered dunite - harzburgite somewhat sheared and serpentinised with oxidation along the joints. The second interval is a harzburgite - pyroxenite sequence with serpentinite veining.



dn	dunite.
hz	harzburgite
pxdn	pyroxene rich dunite
mag	magnetite

5 cm

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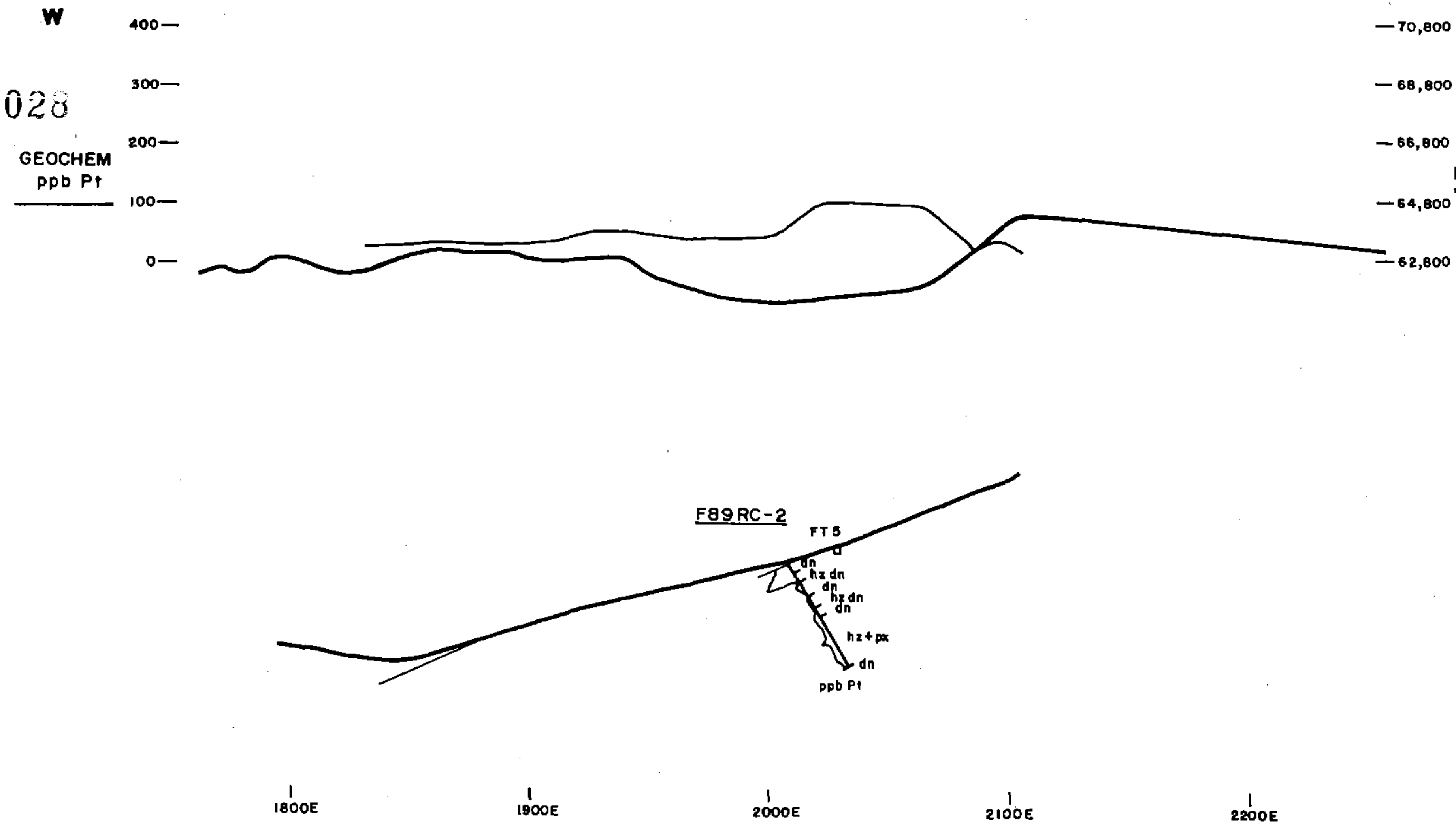
HEAZLEWOOD - EL 21/85
Tasmania

FENTON'S PROSPECT
SECTION 2200 N

Author. S.C.	Date. 10/89	Scale. 1: 2500	
Drawn. J.M.	Office. Melb.	Rev.	Date.
Drawing No.			Fig. No. 9

55028

028



dn	dunite
hz	harzburgite
pxdn	pyroxene rich dunite
mag	magnetite

5 cm

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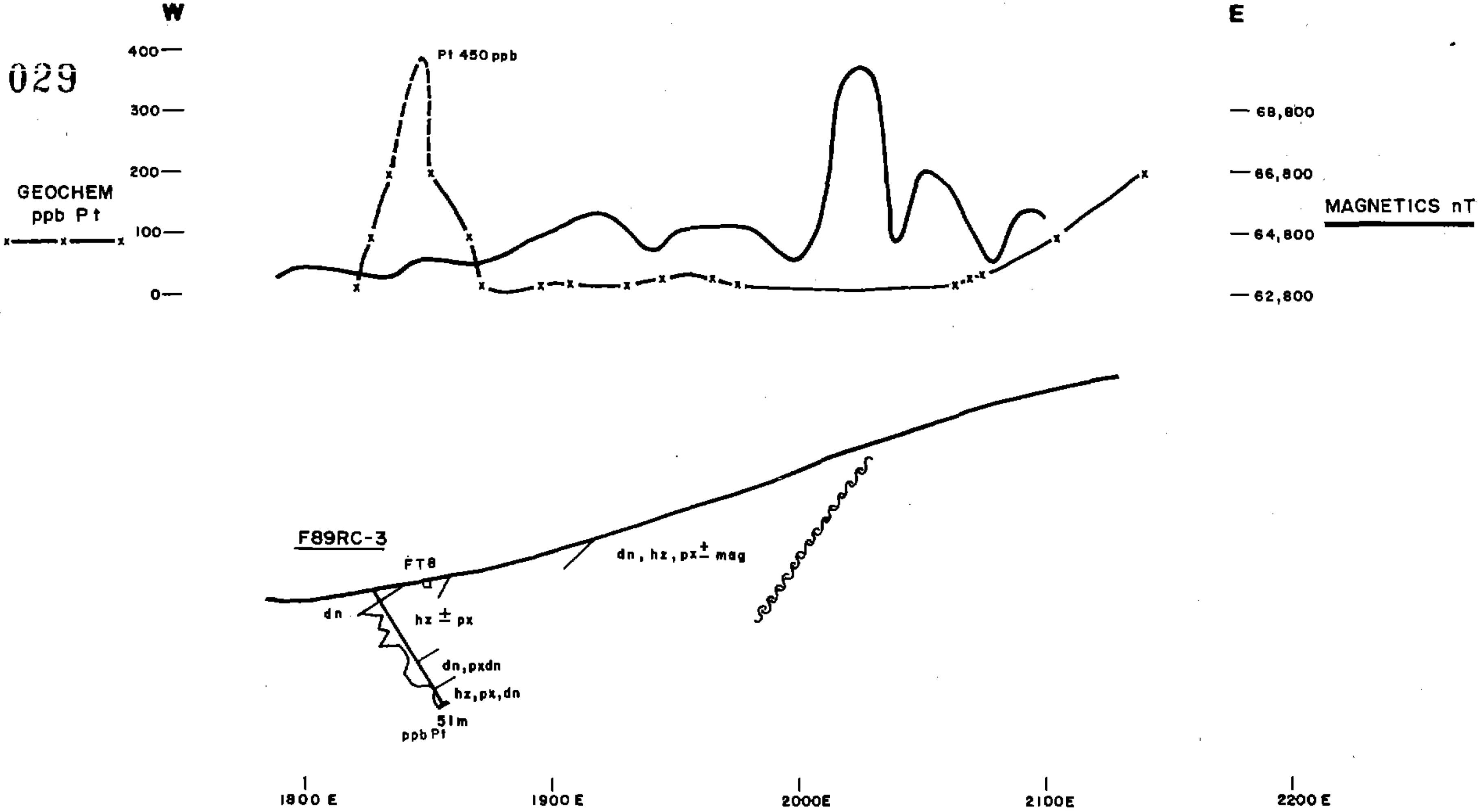
HEAZLEWOOD - EL 21/85
Tasmania

FENTON'S PROSPECT
SECTION 2100 N

Author. S.C.	Date. 10/89	Scale. 1:2 500
Drawn. J.M.	Office. Melb.	Rev. Date.
Drawing No.		Fig No. 10

55029

029



dn	dunite
hz	harzburgite
pxdn	pyroxene rich dunite
mag	magnetite

5 cm

METALS EXPLORATION LTD.

HEAZLEWOOD - EL.21/85
Tasmania

FENTON'S PROSPECT
SECTION 2300 N

Author. S.C. Date. 10/89	Scale. 1:2500	
Drawn. J.M. Office. Melb.	Rev.	Date.
Drawing No.		Fig.No. 11

00030

b) Brassey and Burgess Projects

Additional field information has been collected for the Brassey and Burgess Projects and is presented on enclosures 12 and 13. The geology presented in the 1988 annual report remains unchanged.

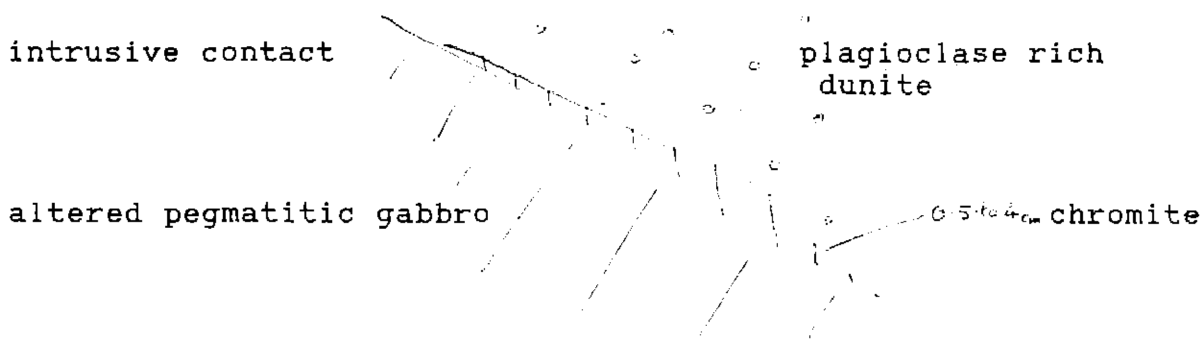
Brassey and Burgess Chromitite Horizon

The chromites at Brassey and Burgess Prospects are found in a similar stratigraphic position over a 3km strike length at a major change in magmatic activity from feldspar and clinopyroxene - rich cumulate sequences (Purcell's Plain Sequence) to olivine- orthopyroxene rich cumulate sequences (Brassey Hill Sequence). Two chromitite horizons separated by a pyroxenite zone are hosted in plagioclase poikilitic harzburgite in this transition zone of interlayered plagioclase dunite, troctolite and plagioclase harzburgite with local interbands of dunite and pyroxenite. This transition zone is approximately 350m thick and within it the chromitite rich units vary between 5 and 15m thickness and can be mapped along strike for 300m. The chromitite rich units pinch and swell, and have variable chromite contents.

At the Burgess Prospect, the chromitite zones contain irregular bands and pods of medium grained gabbronorite, blocks and clasts of poikilitic harzburgite and layers of pegmatoidal plagioclase harzburgite.

Two styles of chromitite are recognized:-

1. The Intrusive Contact Chromite

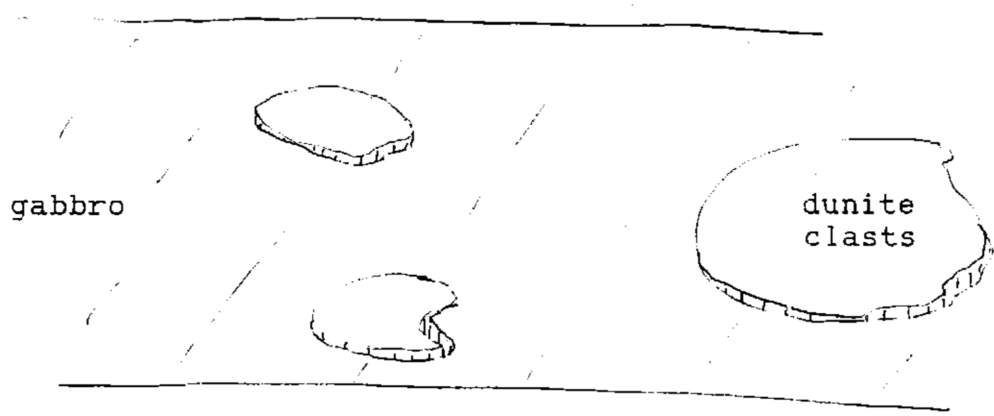


The contact chromite can be massive and occurs at the edge of cross-cutting gabbro bodies or adjacent to the contact with very large dunite clasts. These contacts can represent breccia zones with blocks of poikilitic harzburgite sitting within or against the gabbro. Chromitite can entirely rim smaller clasts, and where brecciation is less intense, the chromite develops bands up to 30 cms thickness parallel to the contact and can be traced for up to 50m along strike.

2. The Matrix Chromite

The matrix chromite occurs in the pegmatoidal unit as a massive interstitial component up to 10cm thick, but is often approximately 1cm thick. Often the chromite is intergrown with plagioclase in the matrix. The gabbro contains brown inclusions often about 1cm wide of weathered olivenes that are the same size as the minerals in the enclosing gabbro. This indicates that the gabbro has interacted and near totally consumed the dunites.

The chromitite zones are composite in nature and consists of a plum pudding arrangement of one or more thin chromitite bands (contact type) or chromite rich pegmatoids (matrix type). At 1500N a significant 160 degree trending dextral fault has displaced the stratigraphy eastwards, and thus far significant chromitite zones north of this fault have not been found.



At North Brassey the chromitite occurs in lenses or pods < 15m x < 3m in area, spatially associated with discordant (120 degrees) leuco gabbro/anorthosite dykes.

Field observations suggest the chromitite occurrences at Brassey and Burgess are contemporaneous at a major magmatic change reflected in the stratigraphy. Chromitite development reflects mixing between intruding gabbroic solutions and evolved resident semi fluid cumulates.

Three lines of 2m radius rock chip samples taken across the Burgess chromitites and channel rock chip samples from Brassey failed to generate a platinum response, and results suggest P.G.E. values are confined to selected chromitite hand specimens. (appendix 2, enclosures 12 and 13)

Mapping to the north of the Burgess Grid, has shown that the chromitite horizon in the plagioclase harzburgite - dunite- troctolite interlayered zone (post cumulus phase), where gabbro dykes intrude, dramatically thins and is poorly developed. In summation, the Brassey - Burgess chromitite rich zones are a useful marker horizon in a 3-5 km wide zone bound by two northwest trending faults, the southern boundary being to Main Break.

Gabbro Hill

At Gabbro Hill a layered intrusion of pyroxenite (with plagioclase locally) intrudes a dunite harzburgite suite. During mapping, chromitite associated with gabbro dykes, trending 120', have been found. The fault, "Main Break" passes through Gabbro Hill, has a sinistral displacement and is recognised by the abrupt change in lithologies. Hugh Rutter shows th Main Break to be a broad magnetic low and interprets it as a fault corridor. (appendix 1)

The intrusive pyroxenites are coarse - grained and locally have a pegmatoidal texture and probably relates to the finer - grained plagioclase pyroxenites found at the Nickel Creek - Roaring Meg Creek junction.

Of the samples analysed, no P.G.E. anomaly has been established though very local occurrence of chromite adjacent to gabbro dykes are known.

Old Jasper - New Jasper (GR 7915 - 593056)

During last years programme, an orientation sirotem survey found four steeply dipping conductors on three grid lines. Drilling the most shallow conductor, chalcopyrite was found to be the dominant sulphide and a 2m section returned 2% Cu and 0.5g/t Au. Encouraged by this result, this year's programme at Jasper has involved :-

- 9.5 km of gridding to A.M.G. co-ordinates
- 8.6 km of ground magnetics (enclosure 15)
- 9.5 km of grid geological mapping (enclosure 14)

Exposure on the grid is poor being about 5 - 10% and largely reflects deeply weathered basalt. The grid is well advanced covering the New Jasper Cu-Au, Old Jasper Cu-Au, Mt. Wright Cu-Ag-Pb and Heazlewood Cu-Ag-Pb workings. The alluvial gold workings in Levine Creek is sourced from these workings.

A strong magnetic response corresponds with the serpentinized pyroxenite with magnetite, the siltstones and basalt provides a flat response and mineralized shear zone a subtle response. Chalcopyrite, bornite + pyrite are located as stringers or in vugs of amygdaloidal basalt and sheared pyroxenite that trends generally north - south. Jasper with magnetite and quartz veining (minor) can be slumped with laminated siltstone and exhibit features of soft sediment deformation. Found in the northern portion of the grid, the jasper has a very restricted distribution and speaks of a minor volcanopause where stratiform (stratabound) sulphides can accumulate. Hence the style of mineralilzation can be expected to be dominantly of the stringer type associated with sheared and brecciated mafic volcanic or high level intrusive lithologies. Mineralized dump material supports this view. This work has been undertaken in preparation of conducting a systematic E.M. survey over the properties and drilling the better conductors.

Mt. Stewart (Ag Pb Zn) Mine G.R. 7914-592020

At Mt. Stewart Mine, pyrite- galena- sphalerite- chalcopyrite + pyrrhotite is found in sheared quartz carbonate lithologies along a north-south fracture in siltstone country rock. A three chamber vertical shaft with railway track, numerous air vent shafts and shallow pits existed. Dump material shows the mineralized horizon to be a banded massive sulphide with individual sulphide layers up to 10cm thick and stringer quartz vein type mineralization. Two generations of quartz veining are noted; the latter one is often associated with sulphides. There are two sulphide generations, the first sulphide phase being brecciated. The strike length of the former workings is approximately 300m. A literature review of past work conducted at Mt. Stewart is warranted, and Aberfoyle's orientation survey has established the presence of steep west dipping conductors. (figures 12,13 and 14)

Pan Concentrate Survey - Mt. Stewart Section (~~enclosure~~ ~~15~~) Fig 15 ? ?

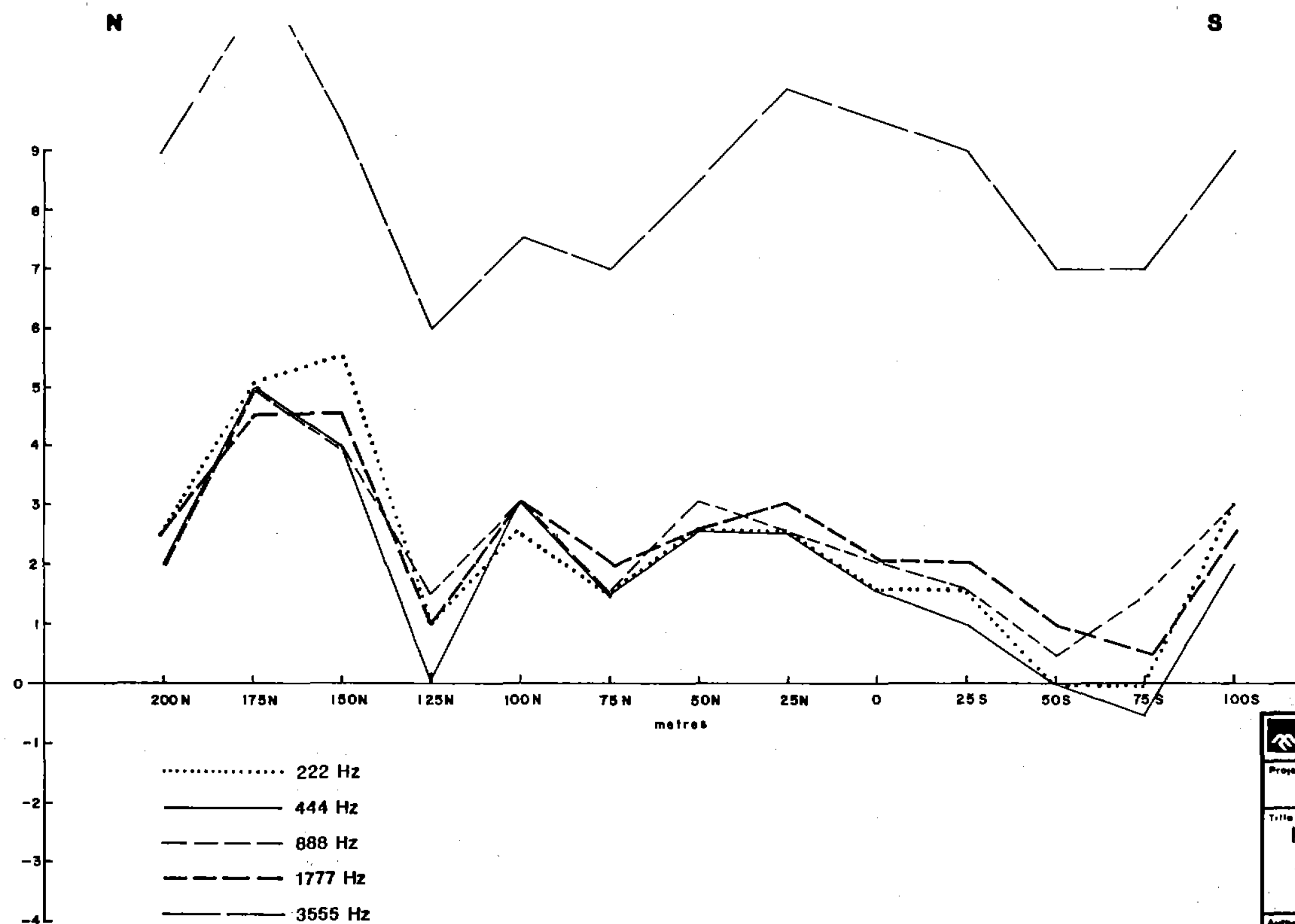
Twenty-seven pan concentrate samples were collected between Jasper Hill (GR 7915-593056) and the Castray River (GR 7914-590990). Samples were dished at the locations selected, and the heavy concentrate fraction approximately 5 grams was forwarded to Comlabs Adelaide for assay.

The following elements were assayed by XRF methods: Au, Ag, Cu, Pb, Zn, Sn, As, Ni, Cr, and by atomic absorption on a nickel lead button Pt, and Pd (appendix 2). Those samples collected in the Whyte River have multi element contamination from the Cleaveland tin mine. Excluding these samples, assay results range from Au <0.02 - 0.08g/t, Ag <1 - 1g/t, Cu <2 - 230ppm, Pb <2 - 28ppm, Zn <2 -1360ppm, Sn 4 - 990ppm, As 4 - 66ppm, Ni <4 - 1460 ppm, Cr 98ppm - 29%, Pt <5 - 35ppb, and Pd <1-1ppb. A cumulative frequency plot of the results established preliminary thresholds for Cu at 25ppm, Zn at 180ppm, As at 10ppm, and Sn at 35ppm, whilst the other elements have one population. (figure 15) Using this criteria, follow up of streams with elevated geochemistry and mapping/prospecting their headwaters is warranted.

Melbourne University Research

Metals Exploration has supported PhD student Mr. D. Peck in his geochemical investigations of the Heazlewood Complex. Whilst his thesis is still in progress, a summary of analytical data is presented in appendix 4 and sample locations presented on enclosure 17.

also App. 4 ?! ? not present



550035

METALS EXPLORATION LTD.

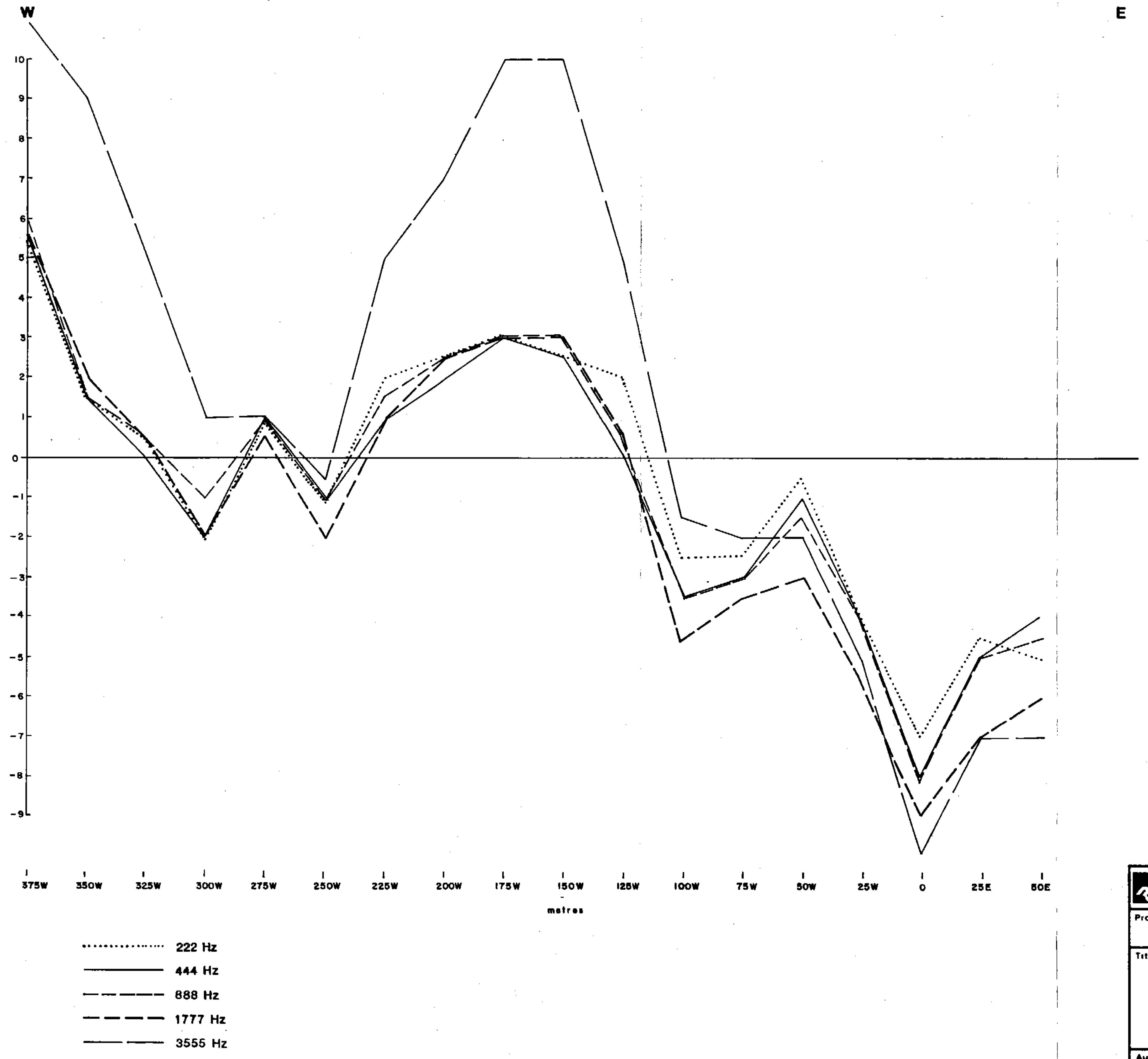
Project: MT.STEWART EL 21/85
Tasmania

Title: MT.STEWART (Ag Pb) MINE
MAX-MIN TRAVERSE No.1
(along road)
after Aberfoyle Resources

Author	S.C.	Date	10/88	Scale	
Drawn	J.M.	Office	Melb	Revised	Date
Drawing No.				Fig. No	12

035

556036



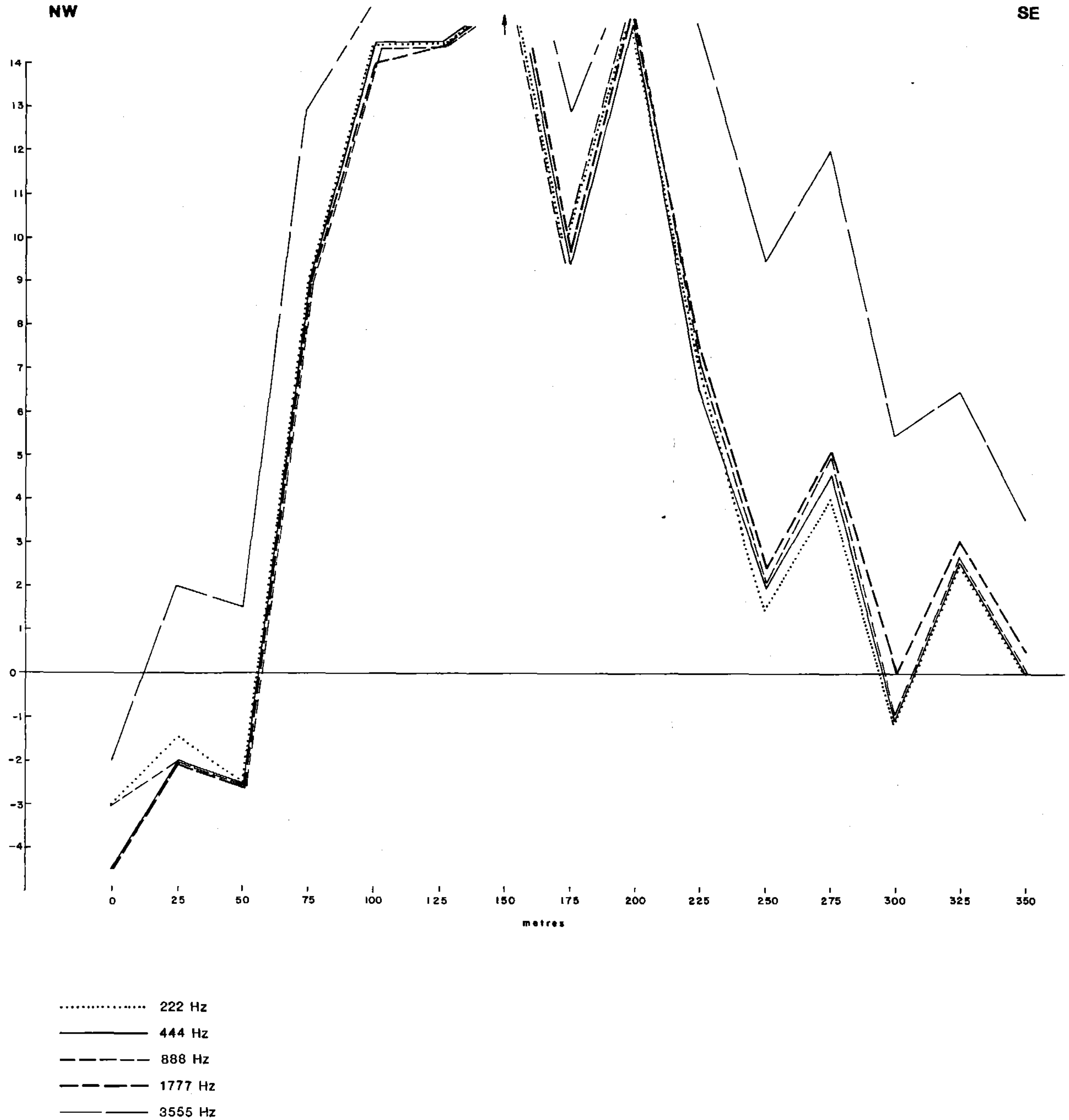
METALS EXPLORATION LTD.

Project	MT.STEWART EL 21/85 Tasmania
Title	MT.STEWART (Ag Pb) MINE MAX-MIN TRAVERSE No.2 (vicinity of air shaft) after Aberfoyle Resources

Author S.C.	Date 10/88	Scale	
Drawn J.M.	Office Melb	Revised	Date
Drawing No.		Fig No. 13	

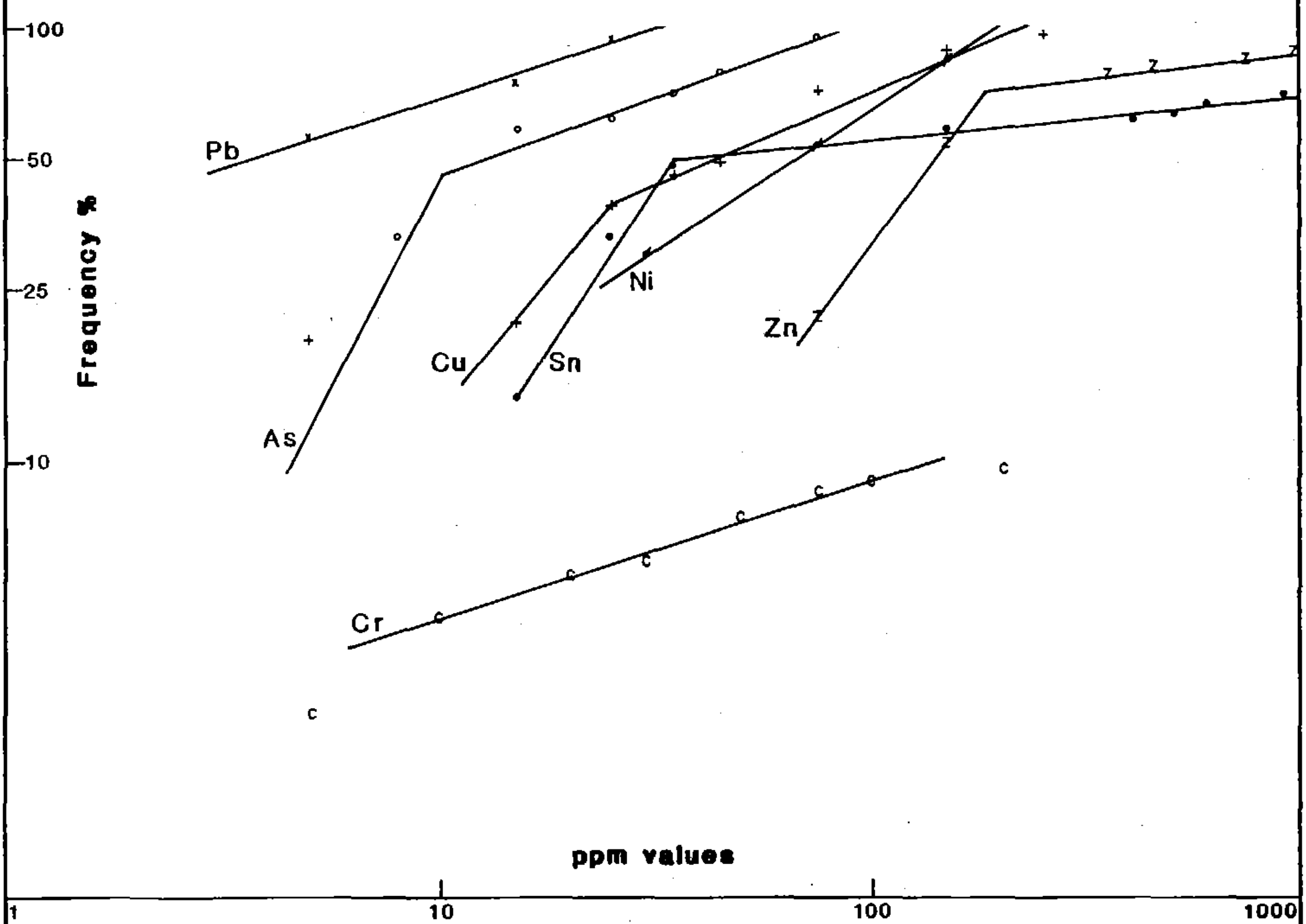
036

556037



METALS EXPLORATION LTD.

Project	MT.STEWART EL 21/85 Tasmania
Title	MT.STEWART (Ag Pb) MINE MAX-MIN TRAVERSE No.3 (south-west of No.2 Adit) after Aberfoyle Resources
Author S.C.	Date 10/88	Scale
Drawn J.M.	Office Melb.	Revised	Date
Drawing No	Fig. No 14



Threshold
Populations-

Cu	25 ppm
Pb	–
Zn	180 ppm
As	10 ppm
Ni	–
Cr	–
Sn	35 ppm

METALS EXPLORATION LTD.

MT.STEWART EL21/85
Tasmania

CUMULATIVE FREQUENCY DIAGRAM FOR PAN CONCENTRATE STREAM SEDIMENT RESULTS

Author. S.C.	Date. 10/89	Scale.	
Drawn. J.M.	Office. Melb.	Rev.	Date.
Drawing No.			Fig.No. 15

7. REHABILITATION

Trenches exposed at Brassey, Burgess, and many of those at Fentons have been backfilled, the surface returned to the original slope and natural processes allowed to revegetate. Drill site preparation at Fentons was minimized using a track mounted Gemco multipurpose drill rig. Access roads to prospects have been maintained.

8. CONTINUING PROGRAMME

a) REGIONAL

Follow up of stream pan concentrate anomalies with continued mapping in the Mt. Stewart area.

b) PROJECTS

JASPER
- extend the grid with support ground magnetics, mapping over all known centres of mineralization in the Jasper area.

- conduct a systematic EM survey to define conductors.

- drill the best conductors.

- follow up and define economic intersections.

MT. STEWART

- trial EM survey across old mine workings to determine if the method is satisfactory.

- if satisfactory, follow up in a similar procedure to Jasper.

REHABILITATION

- infill remaining trenches and return to compatible slope surface at Fentons.

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APPENDIX 1

1. A Report on Geophysical Surveys at Heazlewood, Tasmania by Geophysical Exploration

041

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A REPORT ON GEOPHYSICAL SURVEYS AT HEAZLEWOOD, TASMANIA

FOR

BIG RESOURCES LTD.

Hugh Rutter
November 1988

C O N T E N T S

* * *

MAPS

1	Fentons Prospect:	Ground Magnetic Survey
2	Fentons Prospect:	Interpretation of Ground Magnetic Data (MISSING)
3	Fentons Prospect:	Geochemistry-Pt
4	Brassey Prospect:	Interpretation of Ground Magnetic Data
5	Burgess Prospect:	Interpretation of Ground Magnetic Data
6	Weld River :	Interpretation of Ground Magnetic Data (2 PARTS)
7	Heazlewood :	Total Magnetic Intensity Data (MISSING)
8	Heazlewood :	Interpretation of Total Magnetic Intensity Data. (MISSING)

1. INTRODUCTION

The Heazlewood exploration licence is in north west Tasmania between the mining towns of Luina and Savage River. The geology consists of serpentinites, dunites, peridotites, pyroxenites and some dolerites in an area of severe topographic relief. The objective of this study is to relate the geophysical data, predominantly magnetics with some electromagnetics, on both detailed and regional scales, to the known geology and mineralisation. The geophysical data will be used to update the geological mapping and locate untested targets for economic mineralisation.

Platinum and related elements are very anomalous; nickel, chromite, gold, sphalerite and galena are also present in variable proportions throughout the licence.

2. INTERPRETATION

2.1 Detailed Prospect Surveys

A number of prospects have been defined from the DIGHEM electromagnetic and magnetic survey; ground magnetic data is available on the grids associated with these prospects.

2.1.1 Fentons

The Fentons Prospect covers a series of twelve electromagnetic anomalies which were identified from eight flight lines. They include the groups previously referred to as 14A, 15C, 17C and 21G. The Dighem data also indicates that this group of EM anomalies is in an area of low ground resistivity and low magnetic amplitude. When the positions of the anomalies are transferred to the 1:2,500 topographic plan there appears to be a close relationship between anomaly and creek. For example, 21G relates to Fentons Creek; 17C relates to Swordgrass Creek and the others relate to smaller tributaries. The report by Trussell recommends gridding the ground covering these anomalies and conducting a ground EM survey (GENIE). The grid is now present, and magnetic data has been collected but there appears to be no EM except at 21G where Max-Min EM data was collected. The data was not available.

The ground magnetic data at Fentons has been recompiled and contoured at a scale of 1:2,500; the contour interval is 100nT. The final picture is extremely complicated. In the broad picture, five zones have been identified, each has a distinctive magnetic character.

Zone A is in the south west (grid) and shows very little magnetic variation relative to the other zones (the magnetic changes are still in the hundreds of nanoTeslas).

It reflects a change in the composition of the dunite, which is an observable feature.

Zone B is also an area of reduced magnetic character with some evidence of a higher proportion of remanent magnetism. The geological mapping indicates rocks with a similar petrology to those in Zone A.

Zone A and B both have anomalous platinum values up to 70ppb; but there is one extremely anomalous sample in Zone A which is in excess of 400ppb. This highly anomalous value is unrelated to a magnetic anomaly or to any structure visible in the magnetic data. A check at this location (1400N, 1775E) and a reassay and recommended.

Zone C is in the north. It shows a moderate degree of magnetic activity with a few isolated anomalies of 2000nT or more. The dunite is interleaved with Leopard Rock which contains serpentinite. This, and the increased amount of pyroxenite probably account for the greater magnetic character. Samples have not been collected for platinum assay and therefore there is no established relationship between platinum occurrence and magnetic activity here.

Zone D is the most active, magnetically. Single point anomalies are in excess of 14000nT particularly in the east (2000N, 2200E) where these extreme anomalies stretch over greater distances. The geological mapping shows a much higher incidence of pyroxenite which undoubtably contains the magnetite causing the extreme magnetic amplitudes. The platinum values are also higher in this zone rising in excess of 400ppb at 2200N 2220E, but remaining anomalous over much of the zone.

Zone E is an area of high remanent magnetism in the central part of Zone D. It indicates a period of magnetite crystallisation different to that of the surrounding rocks. Platinum values are also high. The geology and mineralisation suggest that Zone E is a variant of Zone D.

The magnetics show an intense degree of faulting in a direction SW-NE in relationship to the grid: this is a direction almost E-W relative to true north. The main zonation of the magnetics is N-S at the southern end of the grid but swings to NW-SE at the northern end. The mapped geology shows a similar change but there is less of a swing to the south at the southern end.

The greater concentration of high platinum values is in the central eastern part of the grid which is Zones D and E; it is here that the magnetics are most intense. In many instances there is also a close relationship between a very magnetic unit and a high platinum assay - this can be seen in a number of the costeans. In some locations, where a high platinum value relates to a magnetic low, it may be because the magnetic unit is narrow and has not been identified in the more widely spaced magnetic sampling.

In intrusions of this type, platinum is usually concentrated in a particular horizon, although it can be remobilised and eventually, have a distribution related to structure. At Fenton's a very magnetic unit has been identified and correlated across the structure; it has been designated D1. This is an attempt to define the sequence of layering. But because of the intense variation of the magnetic data and the reliance on single point anomalies, geological support is essential before this relationship can be safely used as a guide.

The conclusion that can be drawn from the broader aspects of the magnetics and geochemistry at Fentons is that the areas of higher magnetic activity correlate with higher platinum values, and that the most anomalous part extends eastwards out of the gridded area. Easterly extensions between 1600N and 2600N are recommended.

2.1.2 Warners Creek

The Warners Creek grid is the northern extension of Fentons. There are only a few magnetic profiles. They confirm the relationship of the grid to the airborne magnetic data but are insufficient to provide any positive indications of platinum mineralisation. The higher magnetic values in the east are part of the very magnetic feature seen in the airborne survey which is recommended for further work as part of the east Fentons programme.

2.1.3 Brassey

The Brassey grid covers a number of nickel and chromite occurrences; sulphides are recorded at a number of locations.

The magnetic map is deceptive in its simplicity. At Fentons the contour interval was 100nT and a map of visual complexity resulted; at Brassey the contour interval is 1000nT which gives an impression of simplicity, and does not fully utilise the data.

The grid is on the south-eastern side of the major magnetic complex seen on the airborne magnetic map. The general relationship between the two data sets can be seen, with the higher values in the north west of the grid relating to the SW "bulge" of contours in the airborne data. A similar relationship extends to the south of the grid.

The ground magnetic data has produced greater definition of the magnetic rock units, and these have been identified and marked on the interpretation plan. Faulting is in a NW-SE direction on the grid which translates to N-S relative to true north.

There is no clear relationship between mineral occurrence and magnetics except that in the south, the old nickel mines are close to faulting which is definable by the magnetic data.

It is recommended that the data is recontoured with an interval of 100nT to produce greater detail; from this data, the relationship between magnetics and mineralisation may be established and further targets indicated.

2.1.4 Burgess

The grid covers 5 Dighem anomalies with grades between 1 and 6. No references is made in the previous reports of ground EM being used as a follow-up technique but it would be surprising if it had not.

The geological mapping indicates a complex multilithology consisting of pyroxenite, harzburgite and dunite. This is reflected in the ground magnetics with a number of intense magnetic anomalies probably reflecting the pyroxenite. Faulting is NW-SE on the grid which translates to N-S on the ground.

The platinum values are not outstanding but are anomalous value of 19ppb is close to very intense magnetic anomalies and faulting. The location is between 1600N, 1850N 1150E and 1400E; if this area has not been sampled in detail or costeaned, then it is recommended that work of this type is carried out.

The available data does not indicate a source for the airborne EM anomalies which therefore, remain unresolved.

2.1.4 Dighem Anomaly 19K

This particular EM anomaly was originally selected in the top seven and recommended for follow up. At the time it was outside the exploration licence and no work could be done. It is a grade 3 anomaly interpreted as a bedrock conductor with a conductance of 5 seimens, dipping to the north west. The depth to the top is stated as 10m and because of its location at the end of a line, the strike extent is unknown. It lies in Nickel Creek where a tributary joins the main stream; there may be a component in the conductivity value that is derived from more conductive stream sediments and not just bedrock.

It is far enough away from the Brassey Prospect, and the drill hole H1 (750m away) to remain unexplained in terms of known geology and mineralisation. A small survey of transient EM (Sirotem), perhaps 5 lines from one transmitting loop, is recommended. This will locate and evaluate the anomaly.

2.1.5 Weld River

The Weld River data consists of ground magnetics and a geological plan. The Weld River itself is undoubtably fault guided at this location as can be seen from both geological and magnetic observations. North of the river the magnetics are relatively featureless, although the silicified unit can be recognized as slightly magnetic. The contour interval is 1000nT and the data set would benefit from smoothing and recontouring with a 100nT interval.

South of the river there are a series of linear magnetic anomalies that extend to the southern boundary of the grid. The magnetic beds are shallow between 34400N and 33800N, and must be very close to outcropping. Basic dykes and Dolarite dykes are mapped in the Weld River, in coincidence with the magnetic anomalies. South of 33800N the magnetic units become deeper and spread laterally.

If the mapped geology is correct, and there is no reason to doubt this, the magnetic anomalies are explained and there is no incentive for further exploration.

2.2 Regional Surveys

There are two regional airborne geophysical surveys that cover the exploration licence. Firstly the Dighem electromagnetic survey and secondly the magnetic survey completed by the Tasmanian Mines Department.

2.2.1 The Dighem Survey

The survey covers an area greater than that of the current exploration licence, and only the data on sheet 1 of four sheets is relevant. The prime purpose of the survey is to collect electromagnetic data that can be used to locate massive sulphide deposits in bedrock. The magnetic data and the two derived data sets, enhanced magnetics and resistivity, are all of secondary importance.

The interpretation provided by Z. Dvorak for the contractor Dighem Limited is considered to be perfectly adequate, (and in the absence of field data has to be accepted). With the exception of anomaly 19K all the anomalies recommended by Dvorak have been examined in the field, and the data does not suggest that lower grade anomalies should be investigated. Therefore only 19K remains, and recommendations have been made for ground EM at this location.

The resistivity map which is derived from the EM data shows a coincidence between areas of low resistivity and EM anomaly in most instances. (Even with 19K). There is a strong possibility that the EM anomalies in these situations have a high surficial component in their make up and may not represent bedrock conductors.

The magnetic data shows a close similarity to that obtained later by the Tasmanian Mines Department. Small variations will be due to the relative position of the magnetic sensor, horizontally and vertically, during the data acquisition stage.

The enhanced magnetics are a form of downward continuation and are often useful when the finer detail of weak anomalies is required. In this case the algorithm has produced a strong lineation normal to the flight lines which may not be truly representative of the geology.

2.2.2 The Regional Magnetics

The regional magnetic data was obtained from the Tasmanian Mines Department in digital form. It was re-gridded with a 100m by 100m mesh and recontoured with a contour interval of 25nT at a scale of 1:25,000.

The data was interpreted in conjunction with the Dighem magnetics which covers the northern part of the main magnetic complex. The major discovery was the apparent lack of similarity to the mapped geology. It is assumed that the geology has been mapped on a regional scale with regard to major rock types rather than in detail with attention being paid to variation of magnetite content in the rock. The interpretation does not attempt to relate magnetic unit to rock type at this stage; this could be achieved with a minimum amount of field work if required. But the main units have been identified by a letter and a number.

The most magnetic unit, M1 may be a gabbro, although pyroxenites can be similarly magnetic. The surrounding unit, M2, is moderately magnetic and marks the edge of the complex. The unit M3 consists of weakly magnetic rocks within the complex. South of the major ENE-WSW linear (which extends much further across this part of Tasmania) the unit M2 is very shallow dipping or flat lying.

There are a number of units outside the complex that are generally weakly magnetic, i.e. M1-M3. They may represent dolerites peripheral to the complex, or in some cases, ultramafics or gabbro at depth.

The Meridith Granite is non magnetic but is surrounded by a magnetic aureole; the magnetite may be either in the granite ruin or in the rock surrounding the granite. One anomaly at 5401N, 359E is more strongly magnetic and may represent skarn material.

The anomaly associated with Cleveland Mine is quite apparent, as is the similar anomaly four kilometres to the SSW; it is assumed that this latter anomaly has been followed up on the ground - if not, it should be.

The general north-south trend in the faulting which was seen in the prospect data is quite apparent. The fault zones marked on the plan are where there has been considerable magnetite depletion.

3. CONCLUSION

From the regional approach it appears that little use has been made of the magnetic data; the mapped geology is far too simple to adequately correlate with the magnetics. It is recommended that the prospect is remapped regionally using the magnetics as a base, and the major prospects, Fentons, Burgess, Brassey, Jasper etc. are related geologically. The relationship between magnetics, lithology and faulting, when seen on the ground is quite likely to produce new prospects for further exploration. At this stage the total complex is probably not adequately understood.

The airborne EM anomalies appear to relate to conductive material in stream beds, but unfortunately this apparent correlation cannot be used to rule them out. However, only one remains untested, which is 19K and a ground EM survey is recommended here.

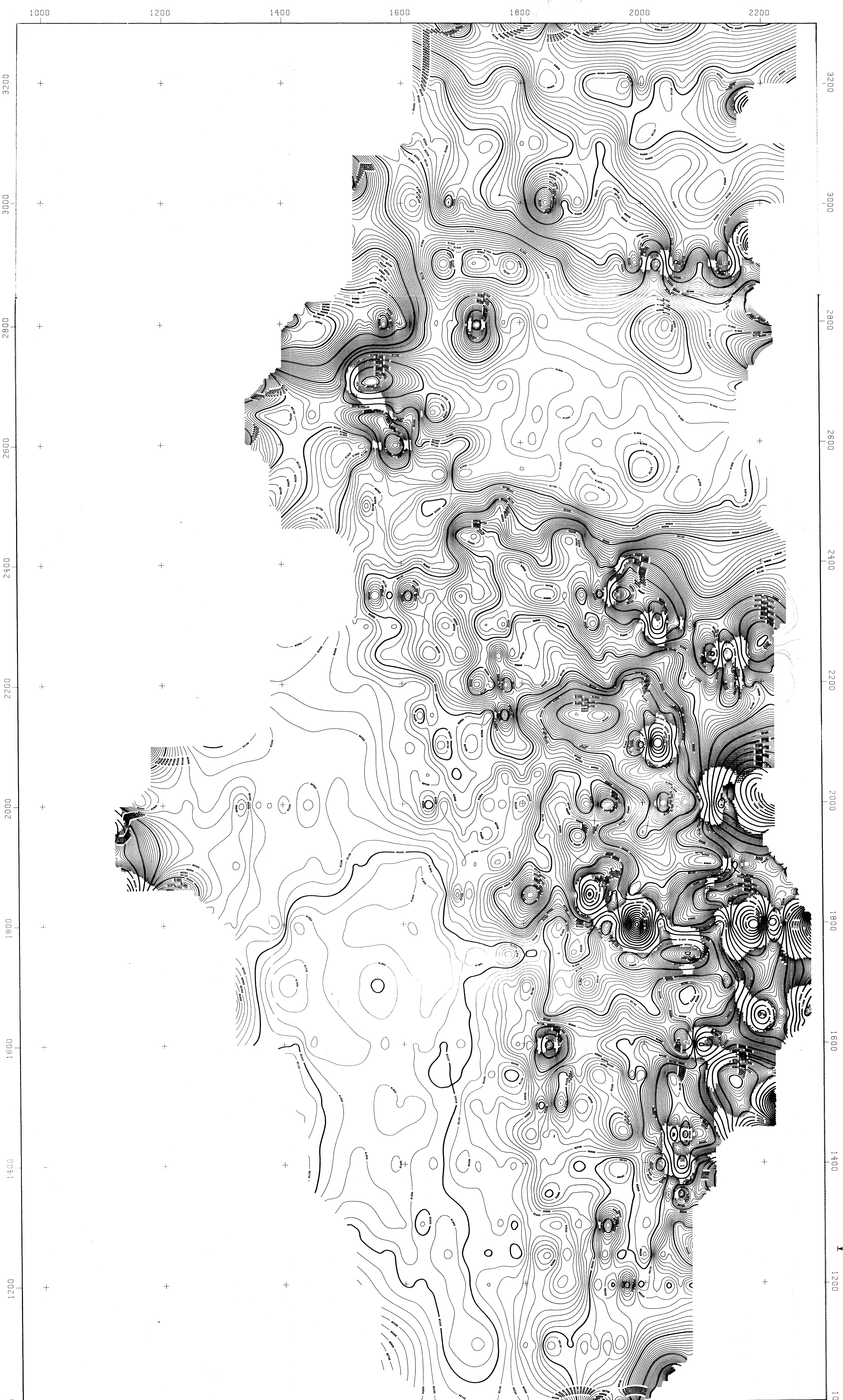
The prospect data is variable and only Fentons offers potential. The platinum assays are highly anomalous and definitely require further exploration. Firstly, the magnetics should be extended to the south-east (grid east) to gain further insight into the lithology and structure associated with the anomalous platinum. The platinum is clearly associated with a more magnetic unit but the actual horizon which is platiniferous is not yet clearly defined. Ground mapping and magnetics should clarify this situation and guide further sampling for assaying.

The complex does not appear to have been fully explored and a very high potential for platinum, nickel, chromite and copper still remains. Further detailed exploration is strongly recommended.

Hugh Rutter

Hugh Rutter
Consultant Geophysicist

9054



grid north

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9054

Data processing by CAD-MAP PTY LTD

- Search Limit Radius = 200m
- Grid Size = 10m X 10m
- Contour Interval = 10nT

556159

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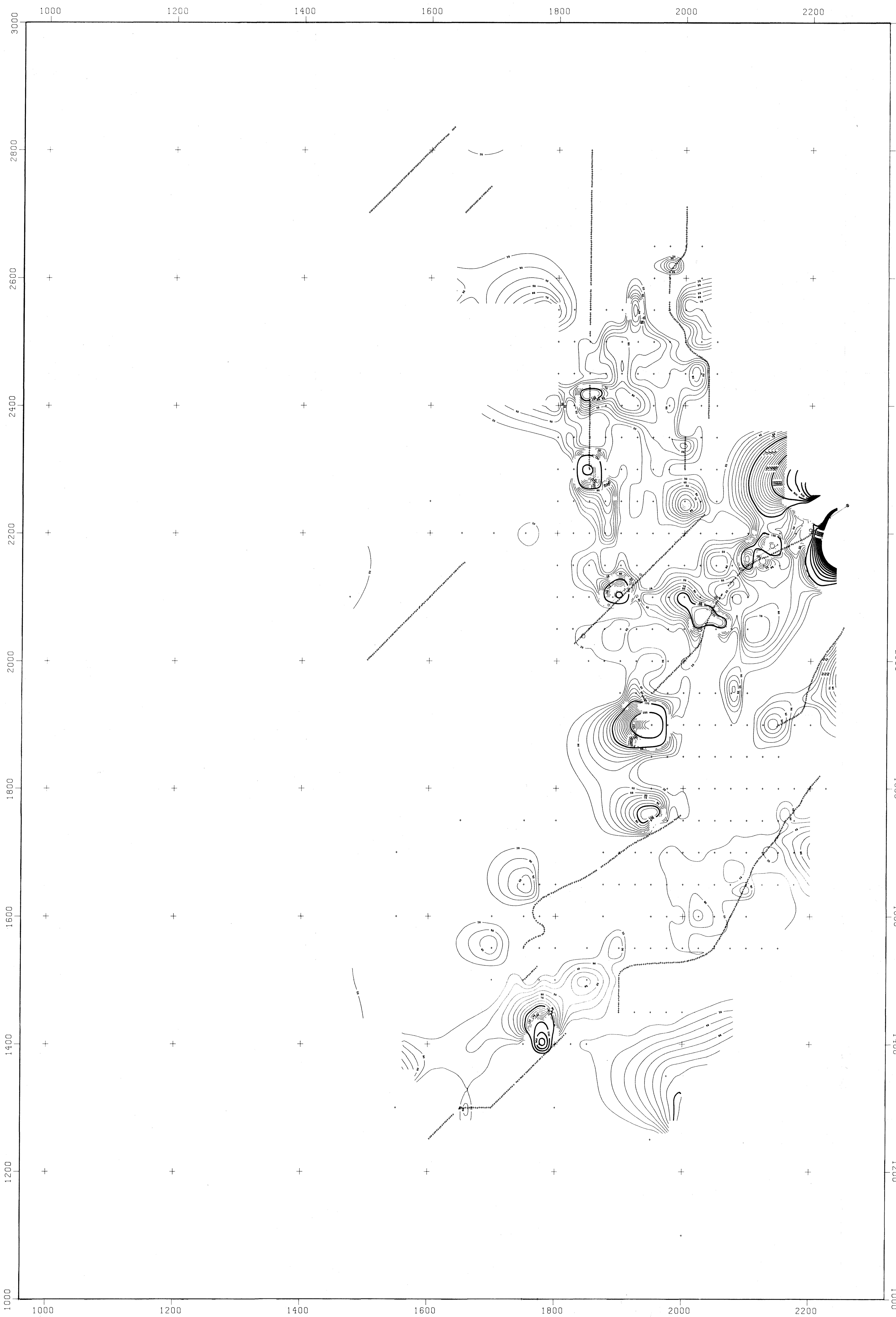
0 50 100 150 200 250

BIG RESOURCES LTD	
FENTON'S PROSPECT	
GROUND MAGNETIC SURVEY GEOPHYSICAL EXPLORATION CONSULTANTS PTY LTD	
Hugh Rutter	SEPT 1988

9055



556160

north

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90.55

Data processing by CAD-MAP PTY LTD

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* Grid Size = 20m X 20m
* Contour In erval = 10

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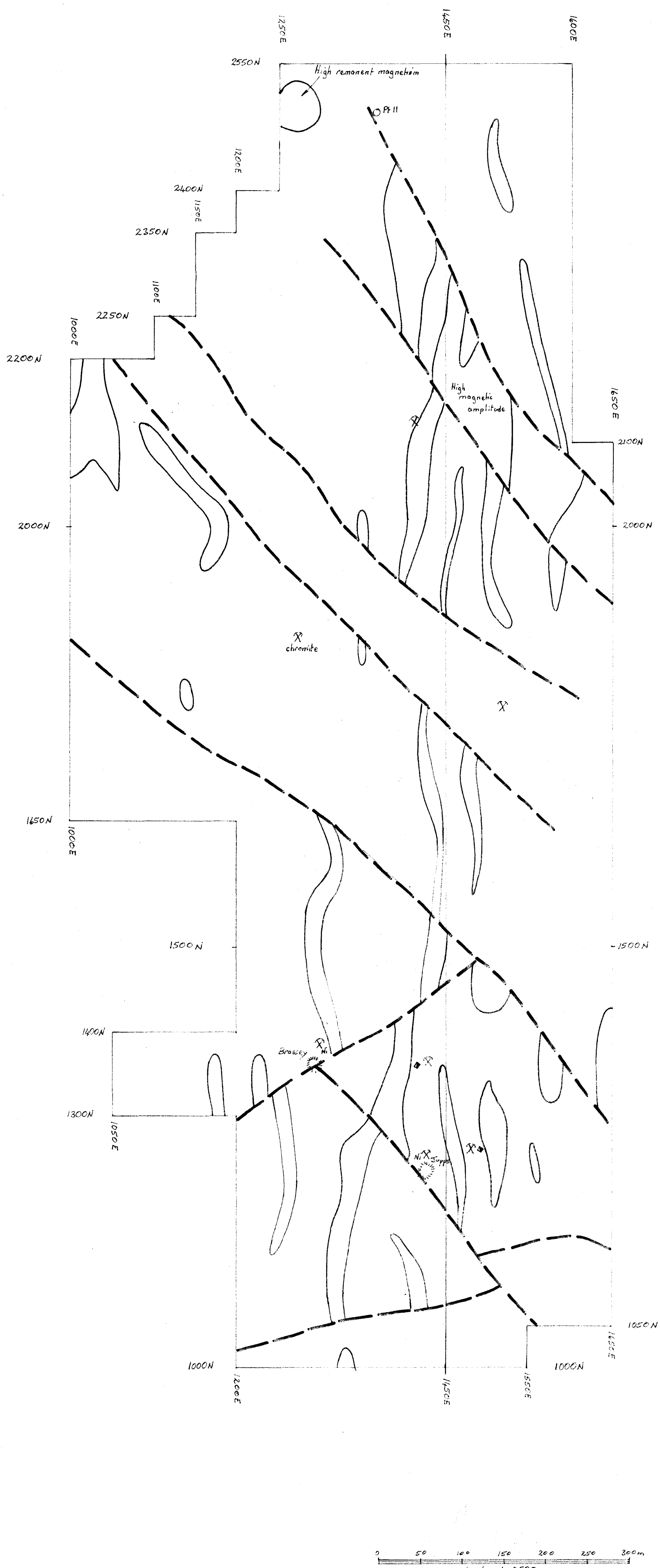
METALS EXPLORATION LTD

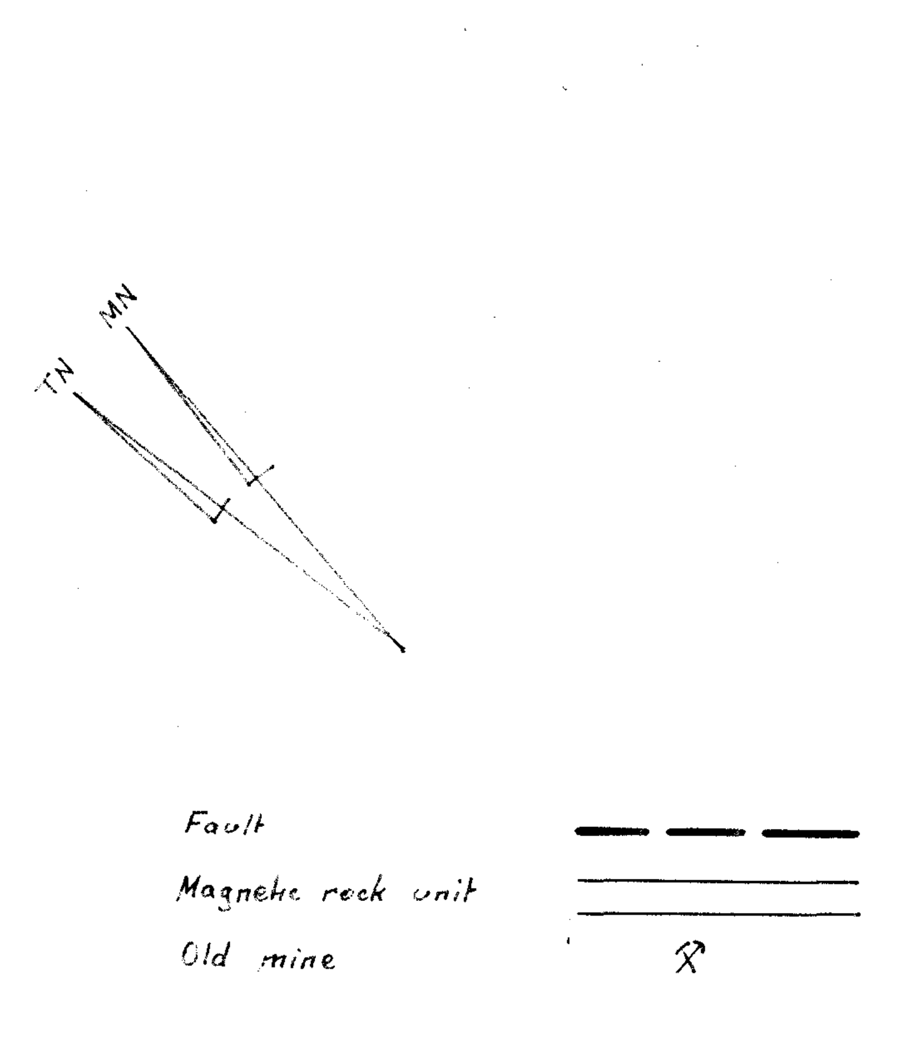
FENTON'S PROSPECT
GEOCHEMISTRY - PT

GEOPHYSICAL EXPLORATION CONSULTANTS PTY LTD

Hugh Rutter	SEPT 1988

9058





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556157

BIG RESOURCES MANAGEMENT LTD

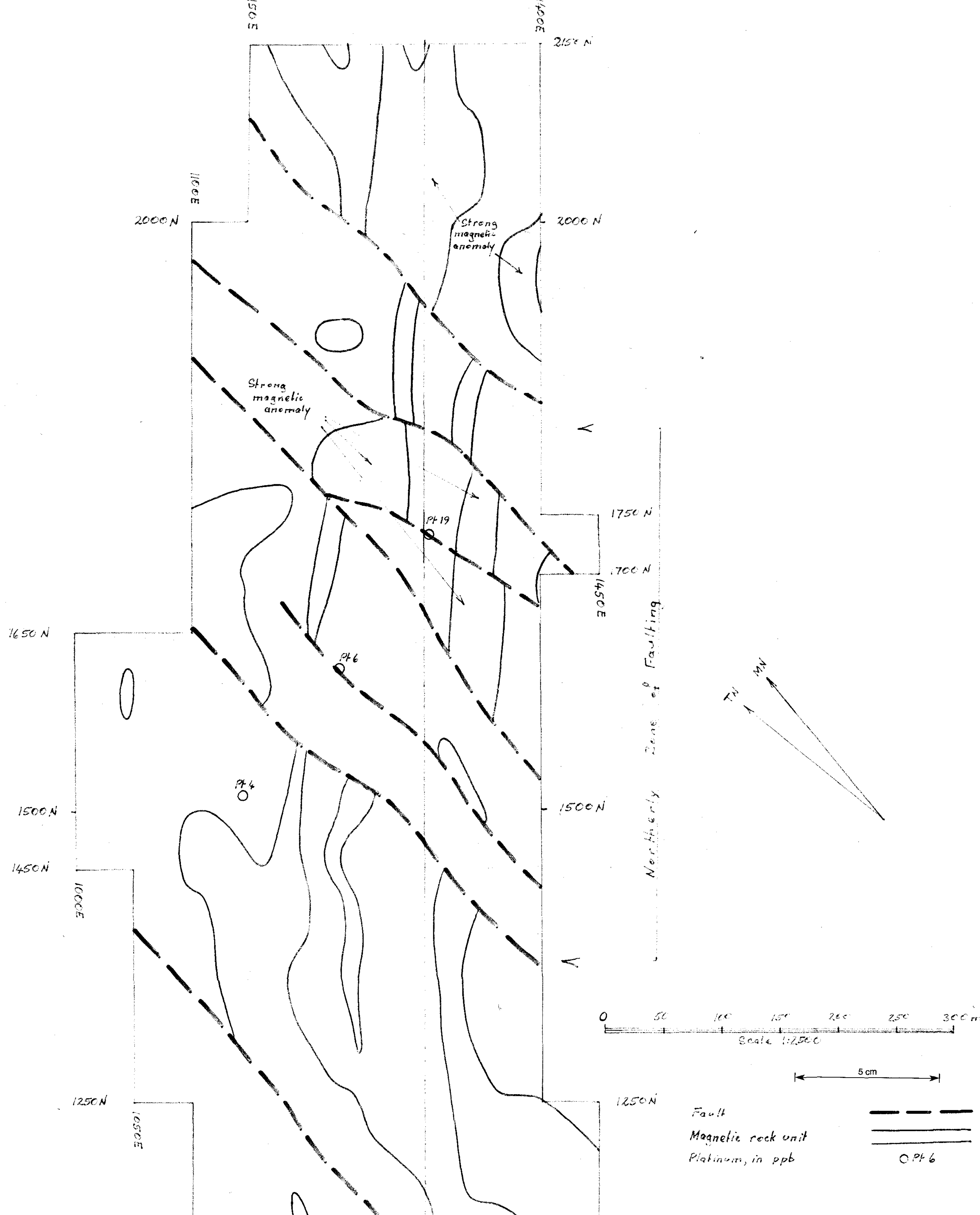
HEAZLEWOOD EL 21/85
TASMANIA

BRASSEY PROSPECT

INTERPRETATION OF GROUND MAGNETIC DATA

Hugh Rutter, Geophysical Exploration Consultants Pty. Ltd. Oct '88

9057



556158

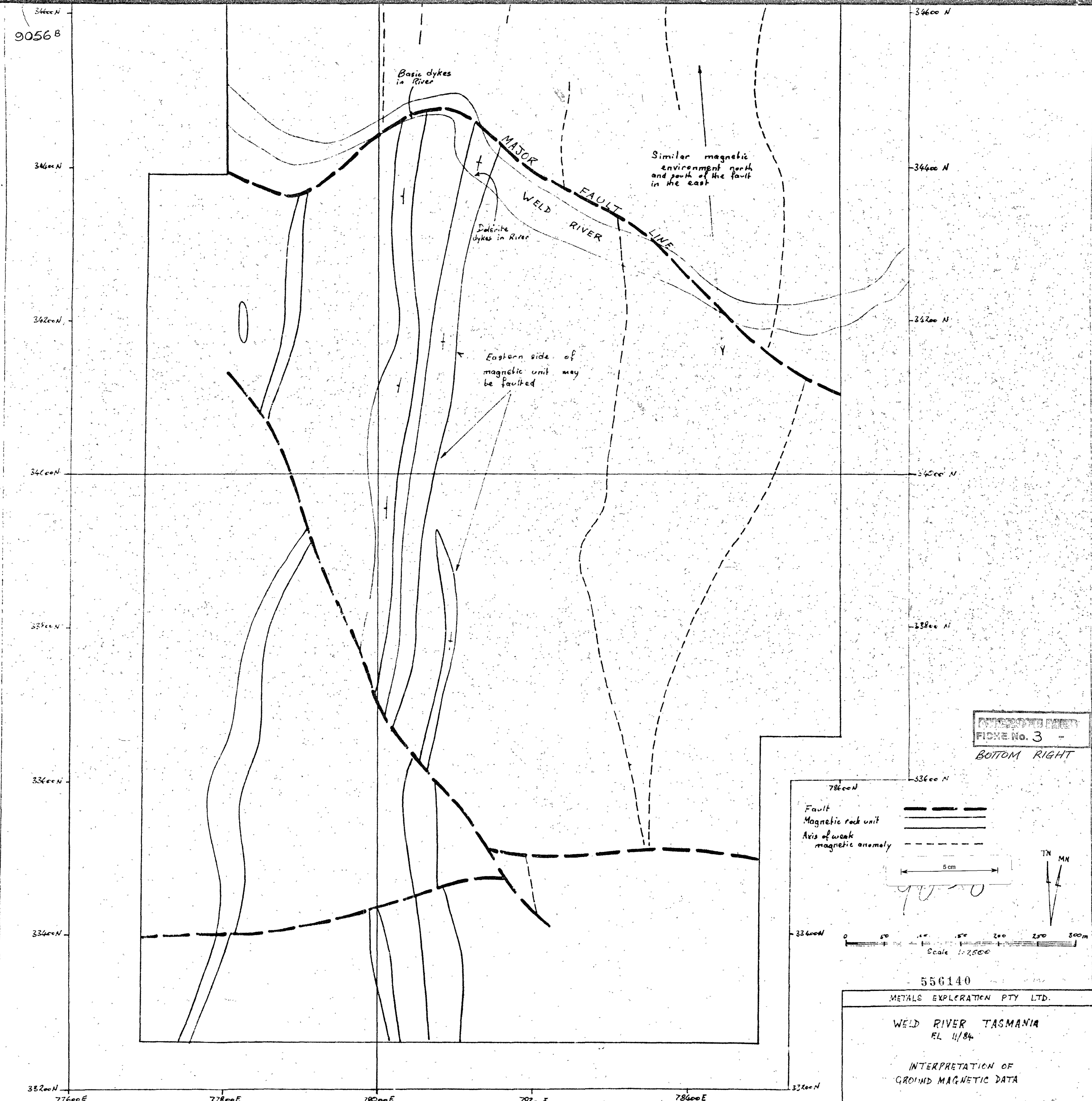
BIG RESOURCES MANAGEMENT LTD

HEAZLEWOOD EL 21/85
TASMANIA
BURGESS PROSPECT

INTERPRETATION OF GROUND MAGNETIC DATA

Hugh Rutter. G.E.C. P/L Oct. 1988

9056 B



556140

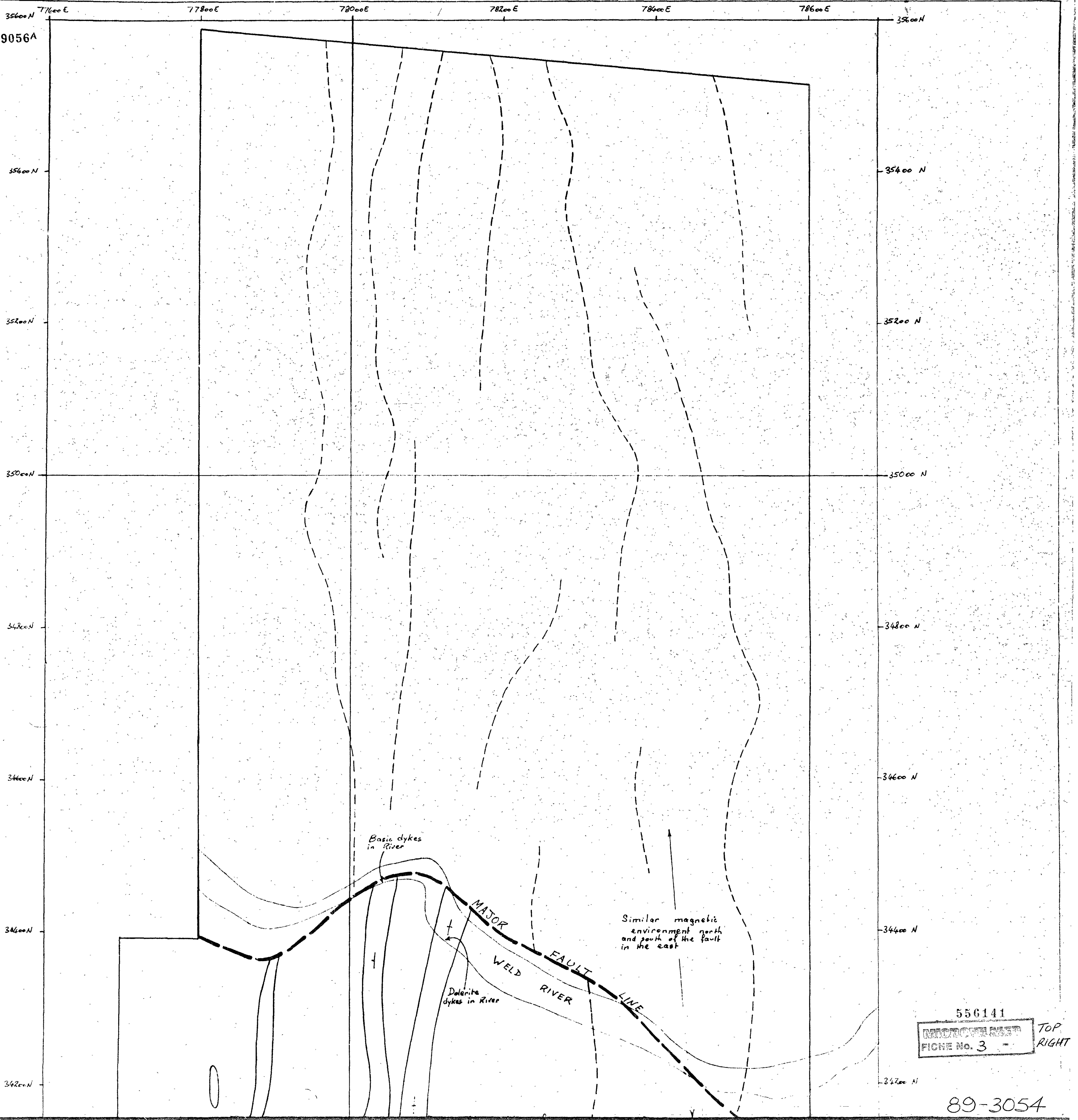
METALS EXPLORATION PTY LTD.

WELD RIVER TASMANIA
EL 11/84

INTERPRETATION OF
GROUND MAGNETIC DATA

89-3054

9056A



89-3054

APPENDIX 2

2. Geochemical Results

(a) Fentons

(b) Brassey and Burgess

(c) Pan Concentrate Assays

MEL Drg No 82-081

[redacted] SA[redacted] LOC[redacted]N DE[redacted]S AR[redacted]HLY [redacted]DEN[redacted] — T[redacted]ORM[redacted] FOR[redacted]PLE[redacted]NG T[redacted]L. L[redacted]ATOR[redacted]

FIELD E...

057

0017

METALS EXPLORATION LIMITED

HEAD OFFICE COPY

LINE	CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE: ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT: Pt							
1	393		FT5	cross	728230	60	x						
2	393	394	"	channel	31	40							
3	394		"	cross	32	45							
4	394	395	"	channel	33	50	x						
5	395		"	cross	34	40							
6	399	400	"	channel	35	35							
7	400	401	"	"	36	25							
8	401	402	"	"	37	20							
9	345	346	FT6	"	38	45							
10	346	347	"	"	39	100	x						
11	347	348	"	"	40	210	x						
12	348	349	"	"	41	15							
13	349	350	"	"	42	25							
14	350	351	"	"	43	20							
15	351	352	"	"	44	30							
16	352	353	"	"	45	30							
17	353	354	"	"	46	55	x						
18	354	355	"	"	47	25							
19	355	356	"	"	48	20							
20	356	357	"	"	49	20							
21	357	358	"	"	50	15							
22	358	359	"	"	51	15							
23	GR3569[illegible] 5410311			Swordgrass Creek Cr dissem in dunite	730374	<5							
24	GR3567140 5410310			Swordgrass Creek Cr dissem in dunite	375	<5							
25	GR3569505 5410380			Swordgrass Creek Cr dissem in dunite	376	<5					Pt		
26	355150E 408060N			2m radius rock chip 50m apart McGintys Ck on	730381	<5			730386		5		
27	355200E 408050N			Caudry's track by road metal scrapes	382	<5			Caudry's tk 387		<5		
28	355250E 408040N			"	383	<5			388		<5		
29	355300E 408030N			"	384	<5			Caudry's tk 389		<5		
30	355350E 408020N			"	385	10							

MAP, AIR PHOTO OR DRAWING No.: Resample of 1m intervals over anomalous zones

LOGGED BY:

MACHINE: | INCLINATION AT COLLAR: | BEARING AT COLLAR: | MAG./GRID

CHECK SAMPLE: ppb

SAMPLE TYPE: trench channel samp | FIELD ENTRY BY: M Wilson | DATE: 12/2/8?

LAB. NOTES: | CHEMIST: | DATE: /

PROSPECT OR PROJECT: Fentons EL 21/85 | AREA OR GRID NAME: trenches 5 & 6

LINE No.: | LOCATION ON LINE OR HOLE NUMBER: | LOG PAGE 2 OF 2

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV. GEOL. DESCRIPTION. This form is not to be used for a detailed DDH log.
② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

MAXIMUM 1 SAMPLE/LINE. DESCRIPTION CAN BE ...

XAMPLES

MEL Drg No 82-081

[redacted]PLE [redacted]TION[redacted]AILS[redacted]HIGH[redacted]NFID[redacted]AL – [redacted]S FO[redacted]NLY [redacted]SAMP[redacted]GOIN[redacted]M.E.L[redacted]BORA[redacted]

058

METALS EXPLORATION LIMITED

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EXAMPLES: ① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV.GEOL. DESCRIPTION. This form is not to be used for a detailed DDH log. ② Soil sampling along grid lines, use LINE No, CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc ③ Rotary air blast drilling, use HOLE NUMBER, blank box for collar co-ords, FROM/TO, INTERVAL, GEOLOGICAL DESCRIPTION OF SAMPLE

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE >1 LINE, 1 PREFERRED

LINE	CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE: ABBREV. GEOL. DESCRIPTION	ASSAY SUMMARY	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X= BELOW DETECTION LI: Pt		Pt ppb	Pd ppb
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2	356	357	"	"		01	55			
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4	358	359	"	"		03	120	x		
5	359	360	"	"		04	170	x		
6	360	361	"	"		05	100	x		
7	361	362	"	"		06	80			
8	362	363	"	"		07	80			
9	366	367	"	"		08	110	x		
10	367	368	"	"		09	75			
11	368	369	"	"		10	55			
12	369	370	"	"		11	100	x	102	5
13	370	371	"	"		12	120	x	120	1
14	371	372	"	"		13	120	x	150	3
15	372	373	"	"		14	120	x	114	2
16	373	374	"	"		15	100	x	120	1
17	374	375	"	"		16	150	x	114	2
18	384	385	"	"		17	65			
19	385	386	"	"		18	70			
20	386	387	"	"		19	55			
21	387	388	"	"		20	40			
22	388	389	"	"		21	65			
23	389		"	cross trench		22	40			
24	389	390	"	channel		23	25			
25	390		"	cross		24	35			
26	390	391	"	channel		25	30			
27	391		"	cross		26	35			
28	391	392	"	channel		27	50			
29	392		"	cross		28	30			
30	392	393	"	channel		29	30			

MAP, AIR PHOTO OR DRAWING No.: Resamp of 1m intervals over anomolous zones.

CHECK SAMPLE: Comlabs ppb — Rapley Wilkinson

LOGGED BY: MACHINE: INCLINATION AT COLLAR: BEARING AT COLLAR: MAG./GRID

SAMPLE TYPE: trench channel samp. FIELD ENTRY BY: DATE 12/2/89

LAB. NOTES: CHEMIST: DATE:

PROSPECT OR PROJECT: Fentons, EL 21/85 AREA OR GRID NAME: trenches 5 & 6

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE 1 OF 2

LOG & ANALYTICAL REPORT Sheet No. ..... of A/c

[redacted] SA[redacted] LOC[redacted]N DE[redacted] ARE[redacted]ILY C[redacted]DENT[redacted]— T[redacted]ORM[redacted] FOR[redacted]PLES[redacted]G TO[redacted]L. LA[redacted]ATOR[redacted] FIELD EN

XAMPLES

059

METALS EXPLORATION LIMITED

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RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT

LINE	CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	Pt ppb	Cr							
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3		1600E			286	<5	60							
4		1625E			287	<5	40							
5		1650E			288	<5	64							
6		1675E			289	<5	125	x						
7		1700E			290	<5	72							
8		1725E			291	15	350	xx						
9	2650N	1450E			292	<5	145	x						
10		1425E			293	<5	150	x						
11		1400E			294	<5	140	x						
12		1375E			295	<5	115	x						
13		1350E			296	<5	410	xx						
14		1200E			297	<5	96							
15		1225E			298	<5	42							
16	2650N	1250E			299	<5	62							
17		1275E			300	<5	58							
18	2650N	1300E			301	<5	80							
19	3000N	1800E			302	<5	115	x						
20		1775E			303	<5	160	x						
21		1750E			304	<5	175	x						
22		1725E			305	<5	190	x						
23		1700E			306	<5	175	x						
24		1675E			307	<5	130	x						
25		1650E			308	<5	145	x						
26		1625E			309	<5	170	x						
27		1600E			310	<5	120	x						
28		1575E			311	<5	230	xx						
29	3000N	1550E			312	<5	350	xx						
30														

55060

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: MACHINE: INCLINATION AT COLLAR: BEARING AT COLLAR: MAG./GRID

SAMPLE TYPE: 2m RADIUS ROCK CHIP FIELD ENTRY BY: DATE: / /

CHECK SAMPLE

LAB. NOTES: CHEMIST: DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD AREA OR GRID NAME: FENTONS

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE OF

LOG & ANALYTICAL REPORT Sheet No. ...... of A/O

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV GEOL DESCRIPTION. This form is not to be used for a detailed DDH log.
② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE

MEL Drg No 82-081

[redacted] SAM[redacted] LOC[redacted] DE[redacted] ARE[redacted]LY C[redacted]DENT[redacted] — T[redacted]ORM [redacted] FOR[redacted]PLES[redacted]G TO[redacted]L. LA[redacted]TORY[redacted]

FIELD EN

060

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THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

EXAMPLES: ① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV. GEOL. DESCRIPTION. This form is not to be used for a detailed D.D.H log. ② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE — ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT — Pt
0	2	Hz + Dn	Dk gy gr, Ol, 10% px in Hz 5% mag, f gs anh-subh, granular, even, 5% serp=	730390	40
2	3	Hz + Dn	Dk gy gr, Ol 10% px in Hz 5% mag, f-m even gs; anh-subh, mass, granular, 5% serp= poorly jointed, 1% white vn qtz.		
3	4	Hz + Dn	Gr gy, Ol, 15% px in Hz 5% mag as schlieren f gs anh-subh interlayered granular poorly jointed.	730391	15
4	5	Hz + Dn	gr gy, Ol 10% px in Hz, 4% mag, f-f m even gs, subh-anh interlayered granular minor mag schlieren.		
5	6	Hz + Dn	gr gy Ol, 12% px in Hz, 5% mag f-fm even gs. subh-anh interlayered granular mass 5% serp= poorly jointed.		
6	7	Hz + Dn-P	gr gy Ol. 25% px 3% mag, f-m g, subh anh, mass granular 3% white vn qtz px med-c gs. subh-euh, poorly fractured & hairlike mag veining.	730392	10
7	8	Hz - Dn	gr gy Ol, 12% px in Hz 3% mag, f even gr subh-anh mass granular 3% chal. 3% serp= interlayered.		
8	9	Hz - Dn	gr gy Ol 10% px in Hz, trace white v qtz= fine even grained subh anh mass, poorly jointed minor serp=		
9	10	Dn	ol gr, Ol. f-m even grained, subh, granular, & poorly jointed, mass, 5% serp= 3% mag, schlieren	730393	10
10	11	Dn	dk gy gr, m even gs, subhedral foliated, 3% mag. friable.		
11	12	Dn	dk gy gr, m even gs, subhedral foliated, 3% mag friable.		
12	13	Dn	dk gy gr, ol, 2% mag m even gs subh, foliated, friable 2% serp veining	730394	5
13	14	Dn	dk gy gr, ol 3% mag m even gs. subh, foliated 1% serp veinings		
14	15	Dn	dk gy gr, Ol, 5% mag, m even gs subh, foliated		
15	16	Dn	dk gy gr, ol 5% mag, m even gs subh foliated	730395	5
16	17	Dn	lt gl gr, Ol 2% mag, m even gs subh foliated.		
17	18	Dn	lt gl gr, Ol 3% mag, m even gs subh foliated.		
18	19	Dn	lt gl gr, Ol 2% mag, m even gs subh foliated. elongate grains	730396	5
19	20	Dn	lt gl gr, Ol 2% mag, m even gs subh elongate foliated friable		
20	21	Dn	med gl gr, Ol tr mag, f-m even gs. subh elongate foliated		
21	22	Dn	med gl gr Ol 2% mag, f-m even gs. friable subh	730397	10
22	23	Dn	med gl gr, Ol trace mag, f-m even gs. elongate subh foliated.		

5606

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: S. CARTHEW | MACHINE: GEMCO HC13 truck | INCLINATION AT COLLAR: -60 | BEARING AT COLLAR: 114 | MAG./GRID

SAMPLE TYPE: ROCK CHIP | FIELD ENTRY BY: | DATE: 5/6/84

CHECK SAMPLE

LAB. NOTES: | CHEMIST: C-ML LABS | DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD EL | AREA OR GRID NAME: FENTONS

LINE No: 2184 E 2204 N | LOCATION ON LINE OR HOLE NUMBER: F89 RC-1 | LOG PAGE 1 OF 3

MAXIMUM 1 SAMPLE/LINE. DESCRIPTION CAN BE RECORDED

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

MEL Drg No 82-081

SAMPLE LOCATION DETAILS ARE HIGHLY CONFIDENTIAL — THIS FORM ONLY FOR SAMPLES GOING TO M.E.L. LABORATORY

FIELD ENTRY

061

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(1) Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV.GEOL DESCRIPTION. This form is not to be used for a detailed DDH log.

CO-ORDINATE FROM	TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.M UNLESS OTHERWISE STATED; X= BELOW DETECTION LIMIT
23	24	Dn	med dgr, Ol 3% mag, f-m even grained friable subh 3% serp vein.		
24	25	Dn	med dgr, Ol 2% mag f-m even grained, friable, subh-anh.	730398	20
25	26	Dn	med dgr, Ol 1% mag, f-m even grained, subh elongate, friable, 2% serp white veining		
26	27	Dn (Hz)	med dgr Ol 1% mag f-m even grained, friable 7% narrow <5cm bands of Hz dk gy vfgs + minor serp		
27	28	Hz 7 : D 3	lt dgy Ol, 10% px in Hz f even grained, hard massive. The dunite is f-m even gs foliated, 5% mag.	730399	30
28	29	Hz 4 : Dn 6	lt dgy Ol 10% px in Hz, subh f even gs subh Dn is fgs friable. mag 3%		
29	30	Hz 4 : Dn 6	lt dgy Ol 10% px in Hz, subh, f even gs hard mass. Dn is med dgy fg fol 5% mag. Minor Px bands m-cgs euhedral gs		
30	31	Hz 4 : Dn	lt dgy ol 10% px in Hz subh fine even gs hard mass Dn fol dgr	730200	10
31	32	Dn	lt dgy ol 2% mag f even gs foliated.		
32	33	Dn	med dgy fgs fol 3% mag schlieren.		
33	34	Dn	lt dgy ol tr mag f-m even gs foliated.	730201	55
34	35	Hz Px D.	med dgy ol/px ... f-m gs Px m-cgs px phenocrysts in fg matrix 7% mag tr chalcedony interlayered.		
35	36	Hz Px Dn	med dgy ol 60% px 40% f-m gs Px m-cgs px phenocrysts in fg matrix 4% mag tr chalcedony interlayered.		
36	37	Dn 7 Px 3	med dgy ol 75% px 23% f even gs subh fol poorly jointed 2% mag	730202	15
37	38	Dn 3 Hz 2	med dgy ol 65 px 31% mag 4% f even gs subh fol mass poorly jointed		
38	39	Dn 3 Hz 1	med dgy ol 85 px 15% f even gs subh fol.		
39	40	Dn : Dn	dk dgy ol 2% mag f even gs fol subh	730203	15
40	41	Dn s D.	lt dgy ol 2% mag f even gs fol subh soft pliable		
41	42	Dn s D.	lt dgy ol 2% mag f even gs subh fol soft pliable		
42	43	Dn s D.	lt dgy ol tr mag f even grained, subh fol sheared 2% serp veining poorly jointed.	730204	25
43	44	Dn s D 60% Hz Px 40%	lt dgy, ol 20% px in Hz; px is 1mm in gs fg. Trace iron oxides mass layered mod serp 4% mag		

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: S. CARTHEW

MACHINE: GEMCO HC13 Truck

INCLINATION AT COLLAR: -60

BEARING AT COLLAR: 114 MAG./GRID

SAMPLE TYPE: ROCK CHIP

FIELD ENTRY BY:

DATE: 5/1/89

CHECK SAMPLE

LAB NOTES:

CHEMIST: COMLABS

DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD EL.

AREA OR GRID NAME: FENTONS

LINE No: 2184E 2204N

LOCATION ON LINE OR HOLE NUMBER: F89 RC-1

LOG PAGE 2 OF 3

LOG & ANALYTICAL REPORT Sheet No. of A/O

55062

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE

MEL Drg No 82-081

SA[redacted]E LOC[redacted]N DE[redacted]S AR[redacted]IGHLY [redacted]IDEN[redacted] — [redacted]FORM[redacted]Y FO[redacted]PLE[redacted]NG T[redacted]L. L[redacted]ATOR[redacted]

062

METALS EXPLORATION LIMITED

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CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	Pt (RESULTS IN PPb UNLESS OTHERWISE STATED, X=BELOW DETECTION LIMIT)
44	45	Hz:Dn 3:2	lt dgy ol 20% px in Hz fine evngs. subh anh. blocky fracture interlayered.		
45	46	Hz:Dn 7:3	ltgy ol 15% px in Hz, 5% mag fine evngs. subh-anh layered granular mod serp	730 205	5
46	47	Hz:Dn 1:1	lt dgy ol 15% px in Hz, 5-7% mag f-evengs. subh anh, trace iron oxide mag schlieren + veining to white serp veining		
47	48	Hz:Dn 1:1	lt dgy ol 15% px in Hz, 4% mag trace iron oxides, subh-anh layered. mod serp, to serp veining slight oxid on joints		
48	49	Dn:Hz 4:1	lt gy-grgy, ol 12% px in Hz, 3% mag, subh anh, f-evengs granular	730206	<5
49	50	Dn:Dn Hz 5:1	med gy-grgy ol 10% px in Hz, 5% mag, subh anh, f.g.s, layered, 2% serp veining mag schlieren and 2ndary veining.		
50	51.	Hz:Dn 50.	lt dgy, ol 4% px in Hz, 3% mag, subh-anh, mass, poorly jointed 3% serp veining.		
51	52	Hz:Dn 50.	lt dgy, ol 10% px in Hz 3% mag subh anh mass poorly jointed	730207	5
52	53	Hz:Dn 50	lt d gy ol 10% px in Hz 2% mag, subh-anh, mass, sheared 2% serp vn		
53	54	Dn 5 Dn 5Hz	lt d gy. ol 10% px in Hz, trace mag, f.g sheared, slickensides mass. 3% serp veining		
54	55	Dn 5Dn	lt dgy ol, 2% mag f.g sheared, fractured, poorly jointed, subh anh mass	730208	5
55	56	Dn 5Dn	lt d gy ol 2% mag 1% serp veining f.g sheared mass subh poorly jointed.		
56	57	Dn 5Dn	lt dgy-bl gy. ol 2% mag 5% px in Dn; subh, mass granular, v.f.g.s.		
			END OF DRILLHOLE.		

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: S. CARTHEW | MACHINE: GEMCO HC 135 (mod) | INCLINATION AT COLLAR: -60° | BEARING AT COLLAR: 114 MAG./GRID

SAMPLE TYPE: ROCK CHIP. | FIELD ENTRY BY: | DATE: 5/6/89

CHECK SAMPLE

LAB NOTES: | CHEMIST: COMLABS | DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD | AREA OR GRID NAME: FENTONS

LINE No: 21?+E 2204N | LOCATION ON LINE OR HOLE NUMBER: F89 RC-1 | LOG PAGE 3 OF 3

LOG & ANALYTICAL REPORT Sheet No. of A/O

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV GEOL DESCRIPTION. This form is not to be used for a detailed DDH log.
② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.
③ Rotary air blast drilling, use HOLE NUMBER, blank box for collar co-ords, FROM/TO INTERVAL, GEOLOGICAL DESCRIPTION OF SAMPLE

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE ... LINE ...

556063

MEL Drg No 82-081

SA[redacted]LE LOC[redacted]N DE[redacted]S AR[redacted]HLY [redacted]IDEN[redacted] — T[redacted]FORM[redacted] FOR[redacted]PLES[redacted]NG T[redacted]L. LA[redacted]ATOR[redacted]

FIELD

063

METALS EXPLORATION LIMITED

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THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

EXAMPLES: ① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV. GEOL. DESCRIPTION. This form is not to be used for a detailed D.D.H log. ② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc. ③ Rotary air blast drilling, use HOLE NUMBER, blank box for collar co-ords, FROM/TO INTERVAL, GEOLOGICAL DESCRIPTION OF SAMPLE

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT: Pt.
0	2	Dr, sDr	med gy-gy. ol. f-m gs. elongated foliated weathered	730209	25
2	3	Dr sDr	med gy. ol. 7% mag, f gs. pliable mod serp= weathered.		
3	4	Dr sDr	med gy bl ol 7% mag. f gs. strongly serp= subh. and granular prob mass. partly weathered.	730210	45
4	5	Dr sDr : Hz	4:1 bl gy-gr, ol 6% mag, f gs. subh and 30% px in Hz. layered granular strong serp=		
5	6	Dr sDr : Hz	1:4 dk gr gy bl f-m gs. subh-anh, 20% px in Hz, mod serp= 2% serp veining. tr chal 2% vn qtz, minor weathering on joint faces, mass 3% mag		
6	7	Hz : Dr : Px	80:5:15% gy bl. f gs, subh, mass, blocky fracture granular, slight to mod serp= 4% mag slight oxidation on joints. layered.	730211	55
7	8	Hz Px Dr	70:25:5% gy bl, f-m gs. subh and, blocky fracture, granular, minor oxides on joints, mass, layered. 20% px in Hz, 2% chal.		
8	9	Hz : Px 1:1	dk gy, f gs. 20% px in Hz, tr iron oxides on joints, granular, 1% chal, blocky fracture. subh, anh, slight serp=		
9	10	sDr-Dr-Hz	7:3, gr gy ol, 10% px in Hz, 5% mag. subh, anh, blocky fracture mass minor oxid= on joints weakly serp= mag schlieren.	730212	5
10	11	sDr-Dr-Hz	4:1, gr gy ol, 15% px in Hz, subh anh, blocky uneven fracture, mod serp= minor oxid= on joints 3% mag, tr serp veining		
11	12	sDr-Dr-Hz	3:7 ol gr 10% px in Hz 4% mag f-m gs, foliated subh-anh minor oxidation on joints.		
12	13	Hz Dr sDr	7:3. bl gy gr, 12% px in Hz 4% mag, f-m gs. subh anh, minor oxidation on joints mod serp, tr serp veining	730213	10
13	14	Hz Dr 1:3	bl gy gr f-m gs. subh anh, 5-10% px in px Dr, 5% mag fol. uneven fract probably mass.		
14	15	px Dr Dr	bl gy gr ol 5-10% px in Dr, 4% mag, subh anh fol uneven fract prob mass.		
15	16	px Dr Dr	bl gy gr ol, 5-10% px in Dr, 4% mag, fol. subh anh, uneven fract prob mass.	730214	5
16	17	px Dr Hz	7:3, bl gy gr, ol, 12% px in Hz, f-m gs. subh anh, sheared poorly serp= 5% mag tr chal		
17	18	Qtz	Fault. white mass milky breccia. Hz px Dr 2% mag.		
18	19	Qtz	Fault white milky, mass 40% Hz px Dr 4% mag minor oxid on joints.	730215	5

MAP, AIR PHOTO OR DRAWING No.

CHECK SAMPLE

LOGGED BY: S. CARTHEW | MACHINE: GEMCO HC13 truck | INCLINATION AT COLLAR: -60 | BEARING AT COLLAR: 127 | MAG./GRID

SAMPLE TYPE: ROCK CHIP | FIELD ENTRY BY: | DATE: / /

LAB. NOTES: | CHEMIST: | DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD | AREA OR GRID NAME: FENTONS

LINE No: 2007E 2115N | LOCATION ON LINE OR HOLE NUMBER: F89 RC-2 | LOG PAGE 1 OF 3

MAXIMUM 1 SAMPLE/LINE. DESCRIPTION CAN BE ... LINE ... PREFERRED

55064

LOG & ANALYTICAL REPORT Sheet No. ...... of A/0

MEL Drg No 82 081

SAMPLE LOCATION DETAILS ARE HIGHLY CONFIDENTIAL — THIS FORM ONLY FOR SAMPLES GOING TO M.E.L. LABORATORY

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CO-ORDINATE FROM	TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.b UNLESS OTHERWISE STATED; X=BELOW DETECTION LIMIT: Pt
19	20	H2 px Dn 95% qtz 5%	bl gygr, f-mgs, subblock mass ol px 9% qtz 5% mag 2% mod serp = 11% serp vning.		
20	21	H2 px Dn	bl gygr ol 15% px in H2 5% px pi px Dn, subh-anh, fol uneven fract 4% mag.		
21	22	H2 Qtz 5%	dk gy bl ol 25% px in H2, 5% qtz vn, subh anh fgs mass blocky fract. 4% mag.	730216	5
22	23	Dn px Dn	bl gy gr ol 5% px in px Dn, 1-2% mag subh anh vf-fgs, mod serp, uneven fract, mass granular		
23	24	Dn s Dn	dk d gr, ol 1-2% mag 5% px Dn, subh f-mgs, lt-to mod serp, mass uneven fract granular.		
24	25	Dn s Dn	dk d gr ol 2-3% mag, subh f-mgs lt to mod serp uneven fract granular, foliated.	730217	5
25	26	Dn s Dn H2 20%	mod d gr ol 15% px in H2, qtz 3% f-mgs uneven fract, granular, weakly serp 2% serp vng.		
26	27	Dn s Dn H2 20%	dk d gr ol 15% px in H2 qtz-talc 5% fgs subh, fol mass.		
27	28	Dn H2 10%	dk d gr, ol 15% px in H2 qtz vn, 3% mag fgs subh, mass uneven fract, weakly serp = serp vning 10%.	730218	10
28	29	Dn 85% H2 5%	qtz serp vn 10% dk d gy bl gy, ol 15% px in H2 7% mag subh f-mgs layered sl-mod serp =		
29	30	H2 : Dn 4:1	bl gr gy ol 15% px in H2, 4% mag subh fgs light to mod serp =, tr serp vn, blocky fract, mass		
30	31	H2 px Dn 2:3	mod d gr, ol 5% px in px Dn, subh anh, granular, mass, layered, some oxid on joints. fgs	730219	10
31	32	H2 Dn 2:3	mod d gr ol 15% px in H2 5% mag fgs subh anh mag schlieren + 2% mag vning, layered qtz vning is brecciated, + pre serpen is crosscut by mag vning.		
32	33	Dn px Dn : H2 1:5	d gr gy, ol 15% px in H2 5% px in Dn, 1-2% mag, f-mgs minor oxid on joints, subh anh, tr serp vn, sl serp = uneven fract, sheared		
33	34	Dn px Dn : H2 2:3	mod d gr ol 15% px in H2 fgs, subh anh, mod serp = granular uneven fract, sl ox on joints, tr serp vning.	730220	10

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: S. CARTHEW | MACHINE: GEMCO HC13 truck | INCLINATION AT COLLAR: -60 | BEARING AT COLLAR: 127 MAG/GRID

SAMPLE TYPE: Rock Chip | FIELD ENTRY BY: | DATE: 1/6/89

CHECK SAMPLE

LAB NOTES: | CHEMIST: | DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD | AREA OR GRID NAME: FENTONS PROSPECT

LINE No: 2007E 2115N | LOCATION ON LINE OR HOLE NUMBER: F89 RC-2 | LOG PAGE 2 OF 3

LOG & ANALYTICAL REPORT Sheet No. ... of A/O

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.
(1) Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV GEOL DESCRIPTION. This form is not to be used for a detailed DDH log.
(2) Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.
MAXIMUM SAMPLE/LINE DESCRIPTION CAN BE

[redacted] SAM[redacted]LOC[redacted] DE[redacted] ARE[redacted]LY C[redacted]DENT[redacted] – TH[redacted]RM [redacted]FOR[redacted]LES[redacted]G TO[redacted]. LA[redacted]TORY[redacted]

FIELD EN

065

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EXAMPLES · ① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV GEOL DESCRIPTION. This form is not to be used for a detailed DDH log. ② Soil sampling along grid lines, use LINE No, CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE etc

THIS IS A MULTI-PURPOSE FORM. SOME COLUMN HEADINGS & BOXES WILL NOT BE REQUIRED FOR YOUR WORK. COLUMNS CAN BE ADDED.

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED, X= BELOW DETECTION LIMIT: Pt								
34	35.	Dn : H2 ; 2:3	med gr gy. Ol 20% px in H2, f gs. subh anh, foli layered uneven fract. 50% weath, sheared. mod serp ± 4% mag, 1-2% serp vn.										
35	36.	Dn H2 : 3:2	bn gr gy Ol 15% px in H2, f-m gs subh anh, 2% serp veining, 2% mag schlieren + vning, 50% weathered, uneven fract. sheared										
36	37	H2 : Dn 7:3	dk gy gr. ol 20% px in H2; f gs. subh anh mass layered 5% mag as and vning, blocky fract.	730221	20								
37	38	H2 8 Dn 1 : Px 1.	dk gy bl ol. 15% px in H2. px, f-c gs. subh euhedral, granular, uneven fract blocky, sl ox on joints 7% magnet schlieren and bn lay veinlets										
38	39.	H2 65/ Dn 10/ Px 20/	mag 5% bl gr gy. ol, 15% px in H2, px, subh-euh. f-c gs. mod serp = serp vning										
39	40	H2 57% Dn 10/ Px 30/	mag 3% bl gr gy, ol, 15% px in H2, px. subh euh, f-c gs, blocky uneven fract. tr chalcedony/serp on joints, partly sheared, 2% serp vning, sl serp =. Px is euh	730222	10								
40	41.	5Dn Dn 6: H2 1 : Px 1 1%	mag. bl gr gy. ol 18% px in H2, px, subh-euh, mod serp = layered minor oxid ± on joints. Px is euh.										
41	42.	H2 62% Px 25% Dn 10%	mag 3% ol gy bl. ol 25% px in H2, px, subh euh, f gs. uneven fract layered mass serp vning, tr white vn qtz, tr chalced ± / serpentine.										
42	43	H2 70% Px 27%	mag 3% ol gy bl, ol, 25% px in H2 px. f gs. subh-euh, uneven fract. mass tr serp vn tr chalcedony.	730223	10								
43	44.	H2 75% Px 2%	mag 4% ol gy bl / ol 20% px in H2 px f-m gs subh-euh, sl oxid on joints tr serp vning, granular, splinter fracture. Px c gs euh phenocrysts										
44	45.	H2 75% Px 2%	mag 1% ol gy bl. ol, 20% px in H2, px f-c gs subh-euh. 15% ox on joints fractured, sheared, granular, blocky uneven fract.										
45	46	H2 50% Px 47%	mag 3% 20% px in H2, ol px, f-m gs subh euh 10% oxid = on joints. fract sheared granular blocky uneven fract.	730224	5.								
46	47	H2 47% Px 50%	mag 3% ol, 20% px in H2 px, f-c gs. subh euh. slight serp ±, tr serp in granular, bn gy - gr gy. 30% oxide = on joints.										
47	48	Px 70% H2 29%	mag 1% bn gy, ol px f-c gs euh-subh, 50% oxid = on joints. strongly sheared serp =										
48	49	Dn Px H2	bn gy m-c gs ol px, 60% weathered. 2% serp/chal vn strong serp ± v. soft to soft to hammer. v poor return - shear.										

CHECK SAMPLE

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: S. CARTHEW

MACHINE: GEMCO RC 12 (Tandi)

INCLINATION AT COLLAR: -60

BEARING AT COLLAR: 127 MAG./GRID

SAMPLE TYPE: ROCK CHIP

FIELD ENTRY BY:

DATE: 1/89

LAB NOTES:

CHEMIST:

DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD

AREA OR GRID NAME: FENTONS

LINE No: 2007 E 2115 N

LOCATION ON LINE OR HOLE NUMBER: F89 RC-2

LOG PAGE 3 OF 3

LOG & ANALYTICAL REPORT Sheet No. ...... of A/0

56066

[redacted] SAM[redacted]LOC[redacted] DET[redacted] ARE[redacted]LY C[redacted]DENT[redacted] — TH[redacted]ORM[redacted] FOR[redacted]PLES[redacted]G TO[redacted]L. LA[redacted]TOR[redacted]

FIELD EN

066

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① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV.GEOL. DESCRIPTION. This form is not to be used for a detailed DDH log.
② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE are
EXAMPLES
MAXIMUM SAMPLE/LINE DESCRIPTION CAN BE

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.M. UNLESS OTHERWISE STATED, X= BELOW DETECTION LIMIT: Pt							
0	3	Dr.	lt ol gr, ol tr mag, f-m gs, subh anh, sl foliation, minor iron oxide on joints, tr mag (dissem).	730225	<5							
3	4	Dr.	lt ol gr ol, tr mag (dissem) subh anh, mass granular, f-m gs. minor iron oxides on joints, blocky, uneven fract.	730226	5							
4	5	Dr	lt ol gr ol tr-2% mag (dissem) f-m gs. subh anh, sl fol tr qtz mass blocky, uneven fract.									
5	6	Dr 20/Hz	lt ol gr, prd 3% mag f.g.s (even) subh anh, blocky, uneven fract. slight foliation.									
6	7	Hz & Dr	gy ol gr ol, 20% px in Hz 2% mag, subh anh, v f even gs. mass blocky uneven fract. mag is dissem, schlieren and 2ndry veinlets?	730227	40							
7	8	Hz 95/ Serp 5%	mod ol gr ol 20% px in Hz, tr qtz, fract, clay/kaolin on shears, blocky uneven fract sl oxid on joints.									
8	9.	Hz 9 Dr 1	lt ol gr, ol 20% px in Hz, tr qtz, 2% mag, f even gs subh anh, tr iron oxides on joints clay/kaolin on joints & fractures, blocky uneven fracture									
9	10	Hz	dk gry 25% px in Hz ol, serp 3% mag (dissem) f even gs. subh anh mod serp mass granular blocky uneven fracture.	730228	10							
10	11	Hz	dk gy gr 20% px in Hz mag 2% tr serp vn. f even gs granular, mod serp subh anh mass.									
11	12	Hz Px 5%	dk gy gr, 20% px in Hz px, ol tr serp vn, f even gs granular mod serpent subh anh, mass.									
12	13	Hz Px 5%	dk gy gr 20% px in Hz, px ol 5% mag (dissem schlieren 2ndry veinlets) f even gs for Hz c.g.s for Px, mass granular.	730229	25							
13	14	Hz	dk gy 20% px in Hz, ol f even gs anh subh, mass granular uneven fract, well jointed									
14	15.	Hz Dr 5%	dk gy 25% px in Hz, ol mag 3% f even gs. anh subh mod serp tr serp vns. layered.									
15	16	Hz	dk gy H 20% px in Hz ol 2% mag. f-m gs. anh-subh mass granular, blocky fract, sl-mod serp	730230	15							
16	17	Hz Px 10%	dk gr gy 25% px in Hz px ol mag 3% f gs. subh serp vn 5%, sl-mod serp layered.									

556097

MAP, AIR PHOTO OR DRAWING No.

CHECK SAMPLE

LOGGED BY: S. CARTHEW — MACHINE: GEMCO H13 truck — INCLINATION AT COLLAR: -60 — BEARING AT COLLAR: 120 — MAG./GRID

SAMPLE TYPE: ROCK CHIP — FIELD ENTRY BY: — DATE: 16/89

LAB NOTES: — CHEMIST: — DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD — AREA OR GRID NAME: FENTONS

LINE No: 1830E 2204N — LOCATION ON LINE OR HOLE NUMBER: F89 RC-3 — LOG PAGE 1 OF 4

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

SAMP[redacted]LOC[redacted]DET[redacted]ARE[redacted]LY C[redacted]DENT[redacted] — T[redacted]ORM [redacted]FOR[redacted]PLES[redacted]G TO[redacted]L. LA[redacted]TOR[redacted]

FIELD EN

067

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CO-ORDINATE FROM	TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE — ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	RESULTS IN PPB UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT: Pt								
17	18.	Hz	dk gy, 25% px in Hz. ol. serp vn 5% mag 4% f gs anh-subh mod serp= granular, fine even fracture, mass.										
18	19.	Hz Px5%	dk gy 25% px in Hz, ol. mag 2% f.g.s, anh subh sl-mod serp= tr serp vn granular, f even fract	730231	40								
19	20	Hz Px5%	dk gy 25% px in Hz ol, px mag 2% f gs. anh subh granular. sl-mod serp= mass tr serp vn fine fract.										
20	21	Hz	dk bl gy. 25% px in Hz ol px tr Px, 2% serp vn 2% mag. f g s subh anh, granular, fine fract mass.										
21	22.	Hz.	dk bl gy 25% px in Hz, ol mag 3% f gs subh anh granular, mass even fract, tr serp vn	730232	10								
22	23	Hz	dk bl gy gr. 25% px in Hz, ol, mag 4% serp vn 5% f gs. anh subh, mod serp= slight mag veining mass										
23	24	Hz	dk gy bl gy, 25% px in Hz ol mag 6% serp/chal vn 5% f even gs. subh anh blocky fract, sl oxid= 2 types of Hz one c 40% px, the other c 15% px										
24	25	Hz Px10%	dk bl gy 20% px in Hz ol, px, mag 7% f gs. subh anh mass magnetite schlieren and 2ndry veinlets poorly jointed	730233	10								
25	26	Hz Px10%	dk gr bl gy. 25% px in Hz ol, px mag 7% f gs. subh anh, blocky mag schlieren and 2ndry veinlets										
26	27	Hz Px30%	bl gr gy. 25% px in Hz ol. px mag 5% f-c gs. subh blocky even fract 5% serp veining. sl-mod serp, sl oxid= on joints										
27	28	Hz. Px10%	bl gr gy 20% px in Hz, px ol mag 4% f-m gs subh anh, layered, mag schlieren + 2ndry veinlets, tr serp veinlets	730234	10								
28	29	Hz px Dn 10%	f bl gy 20% px in Hz, f gs subh anh, mag 5% as schlieren + 2ndry veinlets, tr serp veinlets										
29	30	Hz px Dn 2:3	f bl gy. 20% px in Hz, 5% px in px Dn, mag 5% f-m gs, subh, uneven fract Fe oxides on joints.										
30	31	Hz px Dn 3:2	f bl gy 20% px in Hz, 5% px in px Dn mag 5% f gs. mass subh anh uneven fract, mag schlieren + veinlets.	730235	15								
31	32	px Dn : Dn 3:2	f bl gy 5% px in Dn, ol, mag 4% v f gs. subh, friable, poorly jointed even fract sing. splintery mag dissem + veinlets.										

MAP, AIR PHOTO OR DRAWING No.		CHECK SAMPLE	
LOGGED BY: S. CARTHEW	MACHINE: GEMCO HC13 Truck	INCLINATION AT COLLAR: -60	BEARING AT COLLAR: 120 MAG./~~GRID~~
SAMPLE TYPE: ROCK CHIP.	FIELD ENTRY BY:	DATE: 6/89	LAB NOTES: CHEMIST: DATE: /
PROSPECT OR PROJECT: HEAZLEWOOD	AREA OR GRID NAME: FENTONS		
LINE No: 1830E 2204N	LOCATION ON LINE OR HOLE NUMBER: F89 RC-3	LOG PAGE 2 OF 4	

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

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② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE ...

550608

SAMPLE LOCATION DETAILS ARE HIGHLY CONFIDENTIAL — THIS FORM ONLY FOR SAMPLES GOING TO M.E.L. LABORATORY

FIELD EN

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② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	RESULTS IN P.P.B UNLESS OTHERWISE STATED; X=BELOW DETECTION LIMIT: Pt
32	33	Dn pxDn 2:1	pbl gy, ol 5% px in pxDn, mag 4%, vf gs friable, uneven fract, fol?		
33	34	Dn 2:1/pxDn 50/Hz 20%	mag 4% p bl gy, ol 20%/px in Hz, 5% px in pxDn, vf-f gs, friable, uneven fract, foliated parting, subh	730236	30
34	35	Dn pxDn	pbl gy ol 5%/px in pxDn mag 2% f-m gs subh-anh, mass, blocky uneven fract, tr serp vn, sl serp		
35	36	Hz 75/pxDn 2	/mag 4% dk gr gy, Ol, 25%/px in Hz f gs subh anh, tr serp vn, sl serp splintery fract.		
36	37	Hz : pxDn 3:1	lt-med bl gy 5% px in pxDn, 20% px in Hz, Ol, mag 2% f gs subh mag schlieren and veinlets	730237	25
37	38	pxDn Dn	dk gy gr Ol 5% px in pxDn mag 1% f-m gs subh, poorly jointed uneven fract granular		
38	39	pxDn, Px 20%	dk gy gr! 5% px in pxDn, px, Ol mag 4% f-m gs subh poorly jointed some pyroxene layering, mod serp, tr serp veining		
39	40	pxDn Px 1%	med bl gr Ol 5% px in pxDn, px, Ol mag 2% m gs subh anh, mod serp, 3% serp veining.	730238	20
40	41	pxDn, Px 5%	lt bl gr 5% px in pxDn, px, Ol mag 4% subh anh, f m gs sl-mod serp tr serp vn mass granular, blocky fracture.		
41	42	pxDn Px 5%	lt bl gr, 5% px in pxDn, px Ol mag 4% subh anh, f-m gs sl-mod serp to serp vn blocky fract, granular mass.		
42	43	pxDn Px	lt bl gr, 5% px in pxDn px Ol, mag 1% f-c gs anh-subh, higher dgy mod serp, 1% serp vn, mass to layered.	730239	<5
43	44	px Dn 3:Hz 2	mod bl gr 5% px in pxDn, 25% px in Hz, Ol, mag 4% f gs subh, mod serp uneven fract, tr serp vn, prob layered, mag schlieren and 2ndry vnlets with Hz.		
45	46	Hz : Dn 1:1	mod bl gr 25% px in Hz, 5% px in pxDn mag 3% f gs mod serp subh anh mass, tr serp vn, prob layered		
46	47	Hz pxDn Px 6:2:2	lt bl gr, 25% px in Hz, 5% px in pxDn Ol, mag 4% f-m gs subh anh, sl to mod serp well jointed magnetite as schlieren & 2ndry vnlets c Hz prob layered.	730240	5
47	48	Hz : pxDn 4:1	lt bl gr, 25% px in Hz, 5% px in Dn, px, Ol mag 4% f-m gs sl to mod serp to serp vn subh anh well jointed prob layered.		

550069

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: S. CARTHEW | MACHINE: GEMCO H C 13 Truck | INCLINATION AT COLLAR: -60 | BEARING AT COLLAR: 120 | MAG./GRID

SAMPLE TYPE: ROCK CHIP | FIELD ENTRY BY: | DATE: 1/6/89

CHECK SAMPLE

LAB. NOTES: | CHEMIST: | DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD | AREA OR GRID NAME: FENTONS

LINE No: 1830E 2204N | LOCATION ON LINE OR HOLE NUMBER: F89 RC-3 | LOG PAGE 3 OF 4

MAXIMUM 1 SAMPLE / LINE. DESCRIPTION CAN BE 2 LINE - 1 PREFERRED

LOG & ANALYTICAL REPORT Sheet No. of A/O

SAMP[redacted]LOCA[redacted]DET[redacted]ARE[redacted]LY CO[redacted]DENT[redacted] — TH[redacted]ORM[redacted]FOR[redacted]LES[redacted]G TO[redacted]L. LA[redacted]TORY

065

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FIELD EN…

CO-ORDINATE FROM	TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE — ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	RESULTS IN P.P.b UNLESS OTHERWISE STATED; X= BELOW DETECTION LIMIT — Pt
48	49	Hz 7 : Du 3	lt bl gr 25% px in Hz, 7% px in px Du, ol px mag 3% f.g.s subh and gr... mod/serp magnetite schlieren and 2.day veinlets.	730241	10
49	50	Hz 3 : PxD 2	lt bl gr 25% px in Hz, 5% px in px Du, ol px mod serp granular f.g.s subh minor serp vn		
50	51	Hz 1 : PxD 1	lt bl gr gy. ol, 25% px in Hz, 5% px in px Du mag 2% f.g.s subh and, mod serp = ... serp vn coarse px in Hz.		
			END of HOLE.		

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② Soil sampling along grid lines use LINE No. CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE etc
MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE ...

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: S. CARTHEW — MACHINE: GEMCO HC 13 (rock) — INCLINATION AT COLLAR: -60 — BEARING AT COLLAR: 120 MAG./GRID

SAMPLE TYPE: ROCK CHIP — FIELD ENTRY BY: — DATE: 16/89

PROSPECT OR PROJECT: HEAZLEWOOD — AREA OR GRID NAME: FENTONS

LINE No: 1830E 2304N — LOCATION ON LINE OR HOLE NUMBER: F89 RC-3 — LOG PAGE 4 OF 4

CHECK SAMPLE

LAB. NOTES: — CHEMIST: — DATE: /

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

55070

[redacted] SAM [redacted] LOC [redacted] DE [redacted] ARE [redacted] LY [redacted] DEN [redacted] — T [redacted] ORM [redacted] FOR [redacted] PLES [redacted] G TO [redacted]. LA [redacted] TOR [redacted]

FIELD EN

EXAMPLES ·

070

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② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE

RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X= BELOW DETECTION LIMIT

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE: ABBREV. GEOL. DESCRIPTION	ASSAY SUMMARY	SAMPLE NUMBER	Au	Pt	Pd	Ru	Rh	Ir	Os	Ni
		WR-1	DUNITE BASEMENT IN ALLUVIAL	WORKINGS	300142	20	4	9	2.5	2.5	2.5	6	2150
		WR-2	"	"	143	10	2	21	4.5	1.5	1.5	1.5	1940
		WR-3	"	"	144	26	5.5	21	4	0.5	1	4	1280
		WR-4	"	"	145	<2	2.5	4.5	5	0.5	2.5	4	2300
		WR-5	"	"	146	12	<0.5	9	5	1.5	4.5	6	2200
		WR-6	"	"	147	34	1.5	13	4.5	1	3	4	2250
		WR-7	"	"	148	4	1	11	16	<0.5	2.5	<2	2100
		WR-8	"	"	149	22	<0.5	18	1.5	0.5	<0.5	<2	1980
		WR-9	"	"	150	6	7	13	4.5	1	2.5	4	1780
		WR-10	"	"	300151	16	<0.5	9.5	4.5	0.5	1.5	4	2150
CHECK SAMPLE						ppb	ppb	ppb	ppb	ppb	ppb	ppb	pp—

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: MACHINE: INCLINATION AT COLLAR: BEARING AT COLLAR: MAG./GRID

SAMPLE TYPE: ROCK CHIP FIELD ENTRY BY: K.M. DATE 18/2/88

LAB. NOTES: CHEMIST: DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD AREA OR GRID NAME: FENTONS

LINE No: LITTLE WARNERS CRK LOCATION ON LINE OR HOLE NUMBER LOG PAGE 1 OF 1

Enclosure 13 (Top right)

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

MEL Drg No 82 081

[redacted] SAM[redacted]LOCA[redacted] DET[redacted] ARE[redacted]LY C[redacted]DENT[redacted] – TH[redacted]RM [redacted]FOR [redacted]LES[redacted]G TO[redacted]. LA[redacted]TOR[redacted]

FIELD EN

071

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② Soil sampling along grid lines use LINE No. CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE etc.

MAXIMUM 1 SAMPLE/LINE

RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE: ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	Au	Pt	Pd	Ru	Rh	Ir	Os	Ni
		BRASSEY 1	SERPENT. HARZBT. (OLIV. RICH)	311534	2	4.5	7	5	2	1.5	<2	1980
		" 2	SHEARED SERPENT.	311535	<2	9.0	5.5	4	2	2	<2	1500
		" 3	SHEAR ZONE IN DUN/HZBT.	536	<2	10	7.5	6	2	1.5	<2	1880
		" 4	?CARB/SILIC WHITE ROCK	537	<2	3.5	7	2	1.5	<0.5	<2	54
		" 5	PLAG. DUNITE	538	<2	11	6	4	1.5	<0.5	<2	830
		" 6	INTERLAYERED DUNITE/f.g. HZBT.	539	<2	5	7	8	3	1.5	<2	1600
		" 7	INTERL. POIK/GRANUL. PXT.	540	6	17	7	7	2	1	<2	1280
		" 8	GABBRO f + med. grn.	541	<2	4.5	6	4	1.5	<0.5	<2	100
		" 9	FERRUG. CALC/SILIC ROCK + SULPHIDE	542	<2	16	3	4.5	2	<0.5	<2	810
		" 10	HZBT. (PX-RICH) POIK + GRAN. Px.	543	<2	38	5	7.5	3	2.5	<2	1020
		" 11	?SILIC WHITE ROCK (FLOAT)	544	<2	6.5	6	2.5	1.5	<0.5	<2	400
		" 12	GRAN. HZBT MINOR PLAG.	545	<2	14	14	7.5	1.5	1	<2	1200
		" 13	SHEAR SERPENT. GREEN MINERAL + MAGNETITE	546	2	14	3	3	0.5	<0.5	<2	92
		" 14	TROCT./PLAG HZBT INTERL.	547	<2	5	4	3	3	0.5	<2	770
		" 15	POIK HZBT.	548	<2	29	5	5.5	3	1	<2	1260
		" 16	GRAN HZBT/PXT	549	<2	11	3.5	7	1.5	1.5	<2	1260
		" 17	SMALL VEIN ?ANORTH IN HZBT HOST	550	<2	3.5	4	5	1.5	<0.5	<2	550
		" 18	SHEARED SERPENT	551	<2	9.5	6.5	5.5	2	0.5	<2	1460
		" 19	POIK. PLAG. HZBT.	552	<2	18	6	7.5	3	1.5	<2	1740
		" 20	?QUARTZ GABBRO	553	<2	10	10	2.5	1.5	<0.5	<2	100
		" 21	?ANORTH. LAYER OF DYKE IN TROCT. HOST.	554	<2	2	2.5	5	5	<0.5	<2	390
		" 22	SILVER-WHITE MICA IN HZBT.	555	2	89	110	26	7.5	1	<2	1020?
		" 23	?ANORTH BAND IN GABBRO	556	<2	2.5	3.5	3	0.5	<0.5	<2	510
		" 24	GABBRO PEGMAT. + SPINEL ENRICHMENT	557	2	3	14	1.5	<0.5	<0.5	<2	72
		" 25	PLAG. HZBT. + SPINEL ENRICHMENT	558	<2	30	8.5	14	5.5	2.5	2	1440?
		T.S SAMPLE	Bald Hill - Pyroxenite	559	<2	2.5	2.5	4.5	0.5	<0.5	<2	850
		"	Bald Hill - Dunite/Silica	560	<2	17	3.5	3.5	2	<0.5	<2	1120
		"	Bald Hill - Dunite/Silica	561	<2	4	2.5	5.5	1	0.5	<2	3100?
		"	Bald Hill - Ferricrete/conglom.	562	<2	9	1.5	10	3.5	3	2	430
		"	Eagle Rock - Gran Silica Rock	563	<2	1	3.0	3.5	1	<0.5	<2	50
				CHECK SAMPLE	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: MACHINE: INCLINATION AT COLLAR: — BEARING AT COLLAR: — MAG./GRID

SAMPLE TYPE: ROCKCHIP FIELD ENTRY BY: KM DATE – /1/88

LAB. NOTES: CHEMIST: DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD EL21/85 AREA OR GRID NAME: BRASSEY GRID

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE 1 OF 2

LOG & ANALYTICAL REPORT Sheet No. 13 of A/O

Letter Needed
re sample
loss

MEL Drg No. 82-081

SAMPLE LOCATION DETAILS ARE HIGHLY CONFIDENTIAL — THIS FORM ONLY FOR SAMPLES GOING TO M.E.L. LABORATORY

FIELD ENT

072

METALS EXPLORATION LIMITED

550073

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(1) Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV.GEOL.DESCRIPTION. This form is not to be used for a detailed DDH log.

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	ABBREV. GEOL. DESCRIPTION	ASSAY SUMMARY	SAMPLE NUMBER	Au	Pt	Pd	Ru	Rh	Ir	Os	Ni
		BRASSEY 26	DUNITE WITH SILVER MICA		311564	<2	7	5.5	4.5	0.5	<0.5	<2	860
		" 27	PX - RICH HZBT.		565	<2	14	4	5	2	<0.5	<2	280
2050N	1275E	" 28	? ANORTHOSITE		566	<2	1	3.5	1.5	<0.5	<0.5	<2	60
2000N	1000E	" 29	ANORTH/GABBRO/PXT.		567	<2	2.5	3	1.5	<0.5	<0.5	<2	250
2050N	1500E	" 30	ANORTH/GABBRO		568	<2	6	3	1	1.5	<0.5	<2	210
1950N	1380E	" 31	ANORTH/GABBRO		569	<2	1.5	4	1.5	<0.5	<0.5	<2	150
1950N	1240E	" 32	DOLERITE ?DYKE IN DUNITE		570	<2	3.5	5	1.5	1	<0.5	<2	500
1950N	1190E	" 33	GABBRO + Cu +? CHRYSOCOLLA		571	<2	<0.5	2	2	<0.5	<0.5	<2	670
1950N	1150E	" 34	DUN/ANORTH MIX		572	<2	5.5	11	3.5	1	<0.5	<2	400
		" 35	GRAN. PXT.		573	<2	19	2	4	1.5	<0.5	<2	170
		" 36	DUN. BODY IN GABBRO		574	<2	13	10	64	11	9.5	10	380
		" 37	PXT.		575	<2	<0.5	2.5	2.5	<0.5	<0.5	<2	850
		" 38	GABBRO DYKE/LAYER.		576	<2	1	5	8	<0.5	<0.5	<2	90
		" 39	PEGMAT. GABBRO/PXT.		577	<2	15	15	150	15	14	22	470
		" 40	? QUTZ DOLERITE		578	<2	2.5	18	6.5	1	<0.5	<2	92
		" 41	SERPENT + GREEN MINERAL		579	<2	24	6	12	2	1	<2	930
		" 42	SHEAR SERPENT WITH GREEN Cu or Ni MIN.		580	48	3	8	14	2	1.5	<2	2550
		BURGESS 43	LAYERED PXT		581	<2	12	4.5	11	1.5	<0.5	<2	390
		BURGESS 44	BRECCIATED DUNITE		582	<2	1	2.5	64	4	2.5	4	490
		45	BRECCIATED PXT WITH MAGNETITE		583	<2	80	6	78	26	5.5	10	1180
		46	SERPENT. + MAGNET/CHROM. SEAM		584	<2	59	2	77	28	4.5	10	750
		47	MIXED PXT, SERP, ?SILIC VEINING		585	8	3.5	3.5	140	45	15	24	580
		48	MIXED PXT/CHROM/DUNITE		586	<2	2	2.5	49	5	4.5	4	350
		49	MIXED PXT/CHROM/SERP/?SILIC/DUN.		587	<2	1	1.5	170	7	14	30	270
		50	MIXED PXT/CHROM/SERP/?SILIC		588	<2	1.5	1.5	190	15	17	22	410
		51	MIXED PXT/GABBRO/CHROM.		311 589	<2	<0.5	2	21	2	1.5	<2	165
		T.S. SAMPLE	Cu Ridge (T.S.)		300141	<2	4.5	2.5	12	0.5	0.5	<2	130

RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X = BELOW DETECTION LIMIT

CHECK SAMPLE	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm

MAP, AIR PHOTO OR DRAWING No.:

LOGGED BY: | MACHINE: | INCLINATION AT COLLAR: — | BEARING AT COLLAR: — MAG./GRID

SAMPLE TYPE: ROCKCHIP | FIELD ENTRY BY: K.M. | DATE: -/1/83

PROSPECT OR PROJECT: HEAZLEWOOD EL 21/85 | AREA OR GRID NAME: BRASSEY GRID/BURGESS GRID

LINE No: | LOCATION ON LINE OR HOLE NUMBER: | LOG PAGE 2 OF 2

LAB. NOTES:

CHEMIST:

DATE: /

MAXIMUM 1 SAMPLE/LINE. DESCRIPTION CAN BE

LOG & ANALYTICAL REPORT Sheet No. ...... of A/O

[redacted] AMPL [redacted] OCAT [redacted] ETA [redacted] RE H [redacted] Y CO [redacted] NTIA [redacted] THIS [redacted] M O [redacted] R S [redacted] ES G [redacted] TO M [redacted] LABO [redacted] RY [redacted]

FIELD ENTRY

073

METALS EXPLORATION LIMITED

556074

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① Diamond drilling use HOLE NUMBER FROM/TO INTERVAL ABBREV GEOL DESCRIPTION. This form is not to be used for a detailed DDH log

MAXIMUM 1 SAMPLE/LINE

CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE (ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY)	SAMPLE NUMBER	ppb Pt	Cr	Ru	ppb Pt	Pd ppb	Au g/t	Cu	Pb	Zn
1885N	1165E		Pecks Blast site, Nth Brassey chromitite GR359800540940	728280	45	1920							
1885N	1165E		channel Nth Brassey chromitite GR359800 5409400	81	<5	710							
1870N	1276E		Nth Brassey chromitite layers. GR.359826 54089950	82	5	710							
1876N	1256E		Nth Brassey chromite layers. GR 359850 54089960	83	5	900							
1450N	1350E		Burgess GRID. 2m radius rock chip samples	730313	<5	830	<1						
	1325E			730314	<5	1060	<1						
	1300E			730315	<5	1420	<1						
	1275E			730316	<5	2000	<1						
	1250E			730317	5	1180	<1						
1450N	1225E			730318	10	1760	<1						
1400N	1350E			730319	<5	790	<1						
	1325E			730320	<5	830	<1						
	1300E			730321	<5	970	<1						
	1275E			730322	<5	1800	<1						
	1250E			730323	<5	1180	<1						
	1225E			730324	5	640	<1						
1400N	1200E			730325	15	1260	<1						
1350N	1350E			730326	5	610	<1	5	6				
	1325E			730327	5	470	<1	6	6				
	1300E			730328	5	5500	4	<1	<1				
	1275E			730329	<5	1.92%	<1	<1	<1				
	1250E			730330	<5	3200	<1	<1	8				
	1225E			730331	<5	1680	<1	3	1				
1350N	1200E			730332	5	1180	<1	10	1				
2500N	1460E		Nth Brassey gossan (GR.3604585409200)	730365	5	2400				0.04	<2	<4	9

MAP, AIR PHOTO OR DRAWING No:

LOGGED BY: MACHINE: INCLINATION AT COLLAR: BEARING AT COLLAR: MAG./GRID

SAMPLE TYPE: 2m Radius Rock Chip FIELD ENTRY BY: DATE: / /

PROSPECT OR PROJECT: HEAZLEWOOD AREA OR GRID NAME: BRASSEY / BURGESS GRIDS

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE OF

CHECK SAMPLE: COMLABS Rapley Wilkinson

LAB. NOTES: CHEMIST: DATE: /

LOG & ANALYTICAL REPORT Sheet No. ..... of A/O

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① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV. GEOL. DESCRIPTION. This form is not to be used for a detailed DDH log.
② Soil sampling along grid lines, use LINE No., CO-ORDINATE, DEPTH, GEOLOGICAL DESCRIPTION OF SAMPLE, etc.

MAXIMUM 1 SAMPLE/LINE DESCRIPTION CAN BE

RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X= BELOW DETECTION LIMIT

LINE	CO-ORDINATE FROM	TO	DEPTH OR INTERVAL	ABBREV. GEOL. DESCRIPTION	ASSAY SUMMARY	SAMPLE NUMBER	Pt ppb	Cr ppm	Ru ppb	Au ppb	Cu	Pb	Zn	Ag
1	359150E	412200N		Bronzite Hill area	dunite with chrome spinel	730335	<5	760	<1	916				
2	359500E	412250N		"	dunite with chrome spinel	730336	<5	100						
3	359360E	412300N		"	dunite with chrome spinel	337	<5	52						
4	360910E	413100N		"	dunite with chrome spinel	338	5	350						
5	362600E	414700N		"	dunite with chrome spinel	339	5	840						
6	361900E	413600N		Bronzite Hill Helipad	Cr rich pyroxenite + harzburgite	340	5	750						
7	361900E	413600N		"		341	<5	580						
8	361900E	413600N		"	Cr rich pyroxenite + harzburgite	342	5	450						
9	361900E	413600N		"		343	5	550						
10	361900E	413600N		"	Cr rich pyroxenite + harzburgite	344	<5	1080						
11	361900E	413600N		"		345	<5	520						
12	361900E	413600N		"	Cr rich pyroxenite + harzburgite	346	<5	290						
13	361900E	413600N		"		347	5	1040						
14	361900E	413600N		"		348	<5	200						
15	361900E	413600N		"	Cr rich pyroxenite + harzburgite	349	5	500						
16	361050E	411200N		Upper Heazlewood log bridge	dunite c chromite	730360	<5	96						
17	361350E	411220N		"	dunite with chromite	361	<5	350						
18	360900E	411100N		"	harzburgite/du adj to gabbro	362	<5	750						
19	361400E	411900N		"	dunite with chromite	363	<5	36						
20	351250E	410600N		"	pyrite in granodiorite on log road	364	5	66		0.02	330	<4	14	<1
21	3300N	1600E		Fentons - Warners Ck traverse	serp dunite	730350	<5	54						
22		1650E		"	serp dunite	730351	<5	76						
23		1700E		"	serp dunite	352	<5	110						
24		1750E		"	serp dunite	353	<5	150						
25		1800E		"	serp dunite	354	<5	105						
26		1850E		"	serp dunite	355	<5	64						
27		1900E		"	serp dunite	356	<5	76						
28		1900E		"	lateritic soil	357	<5	1.32%						
29		1950E		"	serp dunite	358	<5	52						
30		2000E		"	serp dunite	730 359	<5	82						

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: MACHINE: INCLINATION AT COLLAR BEARING AT COLLAR MAG./GRID

CHECK SAMPLE

SAMPLE TYPE: 2m radius rock chip FIELD ENTRY BY: S. CARTHEW DATE: 1/10/89

LAB. NOTES: CHEMIST: DATE: /

PROSPECT OR PROJECT: HEAZLEWOOD AREA OR GRID NAME: BRONZITE HILL

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE OF

LOG & ANALYTICAL REPORT Sheet No. of A/O

[redacted] SAM[redacted]LOCA[redacted]DET[redacted]ARE[redacted]LY C[redacted]ENT[redacted]- TH[redacted]RM [redacted]FOR [redacted]LES[redacted]G TO[redacted]. LA[redacted]TORY[redacted]

FIELD ENTR

075

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① Diamond drilling, use HOLE NUMBER, FROM/TO, INTERVAL, ABBREV. GEOL. DESCRIPTION. This form is not to be used for a detailed DDH log.

LINE	CO-ORDINATE FROM	CO-ORDINATE TO	DEPTH OR INTERVAL	GEOLOGICAL DESCRIPTION OF SAMPLE: ABBREV. GEOL. DESCRIPTION / ASSAY SUMMARY	SAMPLE NUMBER	Cu	Pb	Zn	Ag	Au	Cr	Pt	
1				Alteration zone in basalt east of Hazlewood Mine	730334	105	2700	7900	10	0.04	540	<5	
2	358 900	401350N		Fuchsite in chert; Mt Stewart old campsite.	730335	3	34	96	<1	<0.02	2300	<5	
3	358300E	401200N		Mt Stewart - Loceglen Creek traverse.	730366						180	<5	
4	358350	401200N		samples 50m apart from West & East	367						82	<5	
5	358400	401200N			368						115	<5	
6	358450	401200N			369						150	<5	
7	358500	401200N			370						135	<5	
8	358550	401200N			371						135	<5	
9	357900E	401400N		Altered qtz-tourm granite Mt Youngback road	372	19	4	9	<1	<0.02	120	<5	
10	360410E	402500N		Mt Stewart grid; gossan	373	5	4	115	<1	0.08	8500	5	
11	360500E	402500N		Castray R.	730377							<5	
12	359870E	401100N		Mt Stewart	378							<5	
13	358900E	401060N		Mt Stewart dunite with chromite	379							<5	
14	358700E	401090N		Mt Stewart dunite with chromite	380							<5	
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
					CHECK SAMPLE	ppm	ppm	ppm	ppm	ppm	ppm	ppb	

RESULTS IN P.P.M. UNLESS OTHERWISE STATED; X=BELOW DETECTION LIMIT

556076

MAP, AIR PHOTO OR DRAWING No.

LOGGED BY: MACHINE: INCLINATION AT COLLAR BEARING AT COLLAR MAG./GRID

SAMPLE TYPE: FIELD ENTRY BY: DATE: / /

LAB. NOTES: CHEMIST: DATE: /

PROSPECT OR PROJECT: AREA OR GRID NAME: MT STEWART, etc

LINE No: LOCATION ON LINE OR HOLE NUMBER: LOG PAGE OF

MAXIMUM 1 SAMPLE/LINE

LOG & ANALYTICAL REPORT Sheet No. of A/O

556077

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Analytical Laboratories (INC. IN W.A.)

Job: 9AD0346
O/N: 19412

076 Mr Stewart
Pan Cons.

ANALYTICAL REPORT

SAMPLE	Cu	Zn	Ni	Cr	Pt	Pd	Ag
728252	130	5100	90	12.0%	10	1	1
728253	100	350	120	8.60%	<5	1	<1
728254	30	630	1460	8.40%	<5	1	<1
728255	230	120	38	2.30%	<5	1	<1
728256	220	310	70	3.30%	<5	1	<1
728257	80	300	70	1.10%	<5	1	<1
728258	150	380	100	1.90%	<5	1	<1
728259	100	370	90	1.10%	<5	1	<1
728260	<2	80	6	1100	<5	<1	<1
728261	20	160	90	2.30%	<5	1	<1
728262	20	160	36	1.70%	<5	1	<1
728263	<2	120	140	7000	<5	1	<1
728264	80	380	48	8.30%	5	1	<1
728265	80	910	190	11.0%	5	1	1
728266	30	430	155	11.0%	<5	1	<1
728267	90	790	1320	20.0%	<5	<1	<1
728268	<2	1360	1360	29.0%	35	<1	<1
728269	10	120	130	1.10%	<5	<1	<1
728271	70	3	100	1900	<5	1	<1
728272	40	<2	<4	1700	<5	<1	<1
728273	110	130	14	7800	<5	1	<1
728274	80	90	<4	98	<5	1	<1
728275	3	1320	170	39.0%	15	1	<1
728276	20	3	32	2500	<5	<1	<1
UNITS	ppm	ppm	ppm	ppm	ppb	ppb	ppm
SCHEME	AAS1	AAS1	AAS1	AAS1	FA3	FA3	AAS2
UPPER SCHEME				AAS1C			

556078

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Job: 9AD0346
O/N: 19412

ANALYTICAL REPORT

077 Mr Stewart Pan Concentrate Results

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Pb	Sn	As
728252	1.58	2.7	0.46	I.S.	1360	8300	570
728253	<0.02	—	—	—	24	2350	66
728254	<0.02	—	—	—	20	22	46
728255	<0.02	—	—	—	6	42	11
728256	<0.02	—	—	—	26	2100	84
728257	0.08	0.14	0.06	—	22	410	46
728258	<0.02	—	—	—	26	620	52
728259	<0.02	—	—	—	28	520	50
728260	<0.02	—	—	—	3	22	4
728261	<0.02	—	—	—	4	24	15
728262	<0.02	—	—	—	5	28	7
728263	<0.02	—	—	—	3	4	24
728264	<0.02	—	—	—	6	32	8
728265	<0.02	—	—	—	8	40	18
728266	<0.02	—	—	—	11	100	17
728267	<0.02	—	—	—	5	36	30
728268	<0.02	—	—	—	5	8	36
728269	<0.02	—	—	—	6	12	14
728271	<0.02	—	—	—	7	24	6
728272	<0.02	—	—	—	3	30	8
728273	<0.02	—	—	—	11	990	8
728274	<0.02	—	—	—	5	8	5
728275	<0.02	—	—	—	10	135	7
728276	0.04	0.04	0.02	—	<2	30	10
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS7	AAS7	AAS7	AAS7	XRF1	XRF1	XRF1

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Job: 9AD0411
O/N: 19413

078

ANALYTICAL REPORT

SAMPLE	As	Sn	Pt	Pd
728277	7	130	<5	<1
728278	17	750	<5	<1
728279	20	48	<5	<1
UNITS	ppm	ppm	ppb	ppb
SCHEME	XRF1	XRF1	FA3	FA3

556080

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Job: 9AD0411
O/N: 19413

079

ANALYTICAL REPORT

Mt Stewart Pan Concentrate Results

SAMPLE	Cu	Pb	Zn	Ag	Ni	Cr
728277	10	10	110	<10	100	17.5%
728278	20	<10	70	<10	<100	2.30%
728279	25	10	100	<10	<100	6.50%
UNITS	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS4	AAS4	AAS4	AAS4	AAS4	AAS4

APPENDIX 3

3. Survey Data Heazlewood

556082

Fasson's Loop Traverse [illegible]

081

KS [illegible] & CARRICK

N FR	TO	BEARING	DISTANCE	
108	109	323.5050	122.311	Intersection of Boundary and [illegible] Track
109	110	327.4045	203.337	
110	111	344.3833	239.201	
111	112	342.4621	160.316	
112	113	319.2726	73.838	
113	114	322.5429	103.410	
114	115	322.3319	44.491	
115	116	350.0909	152.120	
116	117	334.1202	85.599	
117	118	357.0336	281.248	
118	119	1.2051	178.555	
119	120	14.2722	93.671	
120	121	20.5938	64.326	
121	122	36.3257	141.444	
122	123	68.1513	80.650	
123	124	37.5538	81.875	
124	125	21.5818	58.361	
125	126	332.0249	45.482	
126	127	355.1715	64.042	
127	128	349.1038	89.193	
128	129	2.3922	57.141	
129	130	11.3520	49.633	
130	131	331.0328	64.577	
131	132	340.4109	34.167	
132	133	326.1853	78.292	
133	134	349.0858	59.549	
134	135	15.0223	55.513	
135	136	16.3914	83.694	
136	137	342.4151	57.520	
137	210	346.4136	263.679	
210	211	334.2532	99.742	
211	212	339.2908	57.156	

OKS LARK & CARRICK

N FR	TO	BEARING	DISTANCE	
212	213	0.5230	66.437	
213	214	290.3848	42.922	
214	215	341.4230	79.790	
215	216	282.0731	42.243	
216	217	267.3142	116.497	Star Bar at Stake 2ACON 1800E
217	218	50.1932	355.207	
218	219	50.0622	81.274	
219	220	49.2212	48.217	
220	221	48.1842	24.048	
221	222	50.3722	80.753	
222	223	49.2512	94.532	
223	224	52.2413	53.109	
224	225	50.2002	89.014	
225	226	49.3912	35.536	
226	227	50.0332	62.133	
227	228	49.1522	64.620	
228	229	228.2608	18.178	
229	230	140.3013	38.074	
230	231	140.1014	44.865	
231	232	140.2413	28.540	
232	233	139.2245	35.359	
233	234	138.3625	31.453	
234	237	140.2013	85.537	
237	238	141.4232	91.870	
238	240	49.3522	100.636	

KS LARK & CARRICK

1	[illegible]	47.5021	40.368
42	243	46.1011	30.255
3	244	139.2005	41.399
4	245	134.2540	42.106
5	246	139.3554	33.436
4	247	131.4653	20.314
7	248	139.5514	38.702
8	249	144.0339	47.369
49	250	140.1024	72.988
0	251	153.0319	52.754
1	252	146.1057	73.144
52	253	140.0734	52.568
3	254	212.0735	26.568
4	255	171.5729	22.871
5	256	155.2137	26.095
56	257	140.3423	24.327
7	258	187.0534	20.073
8	259	230.1818	43.839
59	260	183.3107	47.321
0	261	173.2057	52.781
1	262	188.1003	80.353
2	263	177.1134	65.051
63	264	198.1615	99.317
4	265	205.3859	112.182
5	266	185.3805	51.805
66	267	158.0314	426.212
7	268	166.1755	345.638
8	294	155.1347	193.996
94	293	174.1656	81.219
3	292	195.3637	118.151
2	291	156.0416	67.212
1	290	191.1720	185.339
90	289	187.3344	231.185
9	288	90.2756	45.067
8	287	226.2119	90.483
87	286	191.2350	59.304
6	285	201.4712	84.398
5	284	228.2918	54.958
84	283	209.0747	39.239
3	282	218.0842	86.197
2	281	205.4749	50.540
1	280	192.5539	123.215
80	279	198.0805	64.690
9	278	256.3758	27.561
8	277	314.4100	87.285
77	276	271.4955	54.523
6	275	227.1609	111.530
5	274	202.0032	108.465
74	273	193.4538	145.986
73	272	184.1737	40.361
2	271	194.4227	94.272
1	270	227.1949	294.334
70	269	282.1821	72.957
9	1800	272.0305	62.812

[redacted] Co-Ords [illegible]

556084

[redacted]B LARK & CARRICK

[redacted] 083	EASTING	NORTHING	REDUCED LEVEL	DESCRIPTION
108	358,567.307	5,407,644.420	248.792	
109	358,495.152	5,407,743.180	234.160	
[redacted]0	358,386.435	5,407,915.013	240.563	
[redacted]1	358,323.086	5,408,145.672	264.840	
112	358,275.605	5,408,298.796	292.093	
[redacted]3	358,227.610	5,408,354.907	305.902	
[redacted]4	358,165.244	5,408,437.394	310.149	
115	358,138.193	5,408,472.718	308.769	
[redacted]6	358,112.177	5,408,622.597	291.295	
[redacted]7	358,074.922	5,408,699.663	284.602	
118	358,060.498	5,408,980.538	314.128	
119	358,064.696	5,409,159.043	325.308	
[redacted]0	358,088.080	5,409,249.748	330.166	
[redacted]1	358,111.126	5,409,309.804	332.382	
122	358,195.358	5,409,423.432	338.136	
[redacted]3	358,270.268	5,409,453.313	340.035	
[redacted]4	358,320.594	5,409,517.896	344.803	
125	358,342.430	5,409,572.018	349.503	
[redacted]6	358,321.110	5,409,612.194	356.261	
[redacted]7	358,315.849	5,409,676.019	367.126	
128	358,299.101	5,409,763.625	380.459	
129	358,301.749	5,409,820.705	387.343	
[redacted]0	358,311.720	5,409,869.326	391.825	
[redacted]1	358,280.469	5,409,925.838	399.234	
132	358,269.168	5,409,958.082	403.091	
[redacted]3	358,225.745	5,410,023.228	412.187	
[redacted]4	358,214.335	5,410,081.713	419.572	
135	358,228.940	5,410,135.325	426.149	
[redacted]6	358,252.926	5,410,215.509	431.801	
[redacted]7	358,235.819	5,410,270.425	438.500	
210	358,175.129	5,410,527.025	408.130	
211	358,132.072	5,410,616.995	399.920	
[redacted]2	358,112.043	5,410,670.526	396.016	
[redacted]3	358,113.057	5,410,736.955	391.685	
214	358,072.892	5,410,752.090	394.297	
[redacted]5	358,047.849	5,410,827.848	389.151	
[redacted]6	358,006.549	5,410,836.721	390.749	
217	357,890.161	5,410,831.697	410.886	Stn [illegible] at [illegible] 2450 N 1800 E
218	358,163.558	5,411,058.470	424.712	
[redacted]9	358,225.914	5,411,110.596	414.517	
[redacted]0	358,262.507	5,411,141.993	436.361	
221	358,280.465	5,411,157.987	442.658	
[redacted]2	358,342.886	5,411,209.219	438.151	
[redacted]3	358,414.683	5,411,270.713	437.793	
224	358,456.763	5,411,303.114	439.733	
[redacted]5	358,525.284	5,411,359.933	448.260	
[redacted]6	358,552.367	5,411,382.939	454.012	
227	358,600.005	5,411,422.829	442.166	
228	358,648.963	5,411,465.005	421.676	
[redacted]9	358,635.362	5,411,452.944	421.974	
[redacted]0	358,659.579	5,411,423.564	421.034	
231	358,688.315	5,411,389.110	441.965	
[redacted]2	358,706.505	5,411,367.119	451.281	
[redacted]3	358,729.525	5,411,340.280	451.100	
234	358,750.323	5,411,316.684	446.377	
[redacted]7	358,804.918	5,411,250.837	431.852	
[redacted]8	358,861.846	5,411,178.731	434.436	
240	358,938.472	5,411,243.969	435.974	
241	358,997.424	5,411,299.011	438.029	
[redacted]2	359,027.347	5,411,326.107	446.709	
[redacted]3	359,049.173	5,411,347.059	451.240	
244	359,076.151	5,411,315.657	445.038	
[redacted]5	359,106.222	5,411,286.180	441.548	
[redacted]	[illegible]	[illegible]	[illegible]	

[illegible]	5,411,177.218	[illegible]
,242.508	5,411,123.160	461.990
359,266.412	5,411,076.137	467.887
359,307.121	5,411,015.368	467.777
359,340.822	5,410,975.024	470.492
359,326.694	5,410,952.524	473.338
359,329.893	5,410,929.879	474.671
359,340.772	5,410,906.160	474.422
359,356.223	5,410,887.368	473.830
359,353.744	5,410,867.449	473.747
359,320.012	5,410,839.449	473.158
359,317.108	5,410,792.218	471.546
359,323.221	5,410,739.792	470.015
359,311.805	5,410,660.254	468.400
359,314.991	5,410,595.280	466.439
359,283.854	5,410,500.970	465.064
359,235.294	5,410,399.843	462.485
359,230.208	5,410,348.288	459.262
359,389.498	5,409,952.961	457.996
359,471.367	5,409,617.159	450.136
358,630.080	5,407,642.172	441.330
358,701.360	5,407,626.623	255.219
358,917.775	5,407,826.114	259.550
358,939.171	5,407,907.625	280.068
358,942.193	5,407,947.872	290.269
358,976.918	5,408,089.668	294.169
359,017.565	5,408,190.229	310.503
359,099.489	5,408,265.908	333.863
359,153.984	5,408,264.165	359.874
359,216.044	5,408,202.787	373.455
359,242.858	5,408,209.159	382.310
359,262.993	5,408,270.636	388.919
359,290.558	5,408,390.727	403.349
359,312.553	5,408,436.231	425.528
359,365.792	5,408,504.021	436.949
359,384.893	5,408,538.296	450.422
359,426.047	5,408,574.721	454.133
359,457.372	5,408,653.091	462.322
359,469.091	5,408,711.225	464.138
359,534.567	5,408,773.675	458.918
359,489.501	5,408,774.042	452.930
359,519.925	5,409,003.216	448.115
359,556.207	5,409,184.969	439.536
359,528.945	5,409,246.404	431.720
359,560.739	5,409,360.196	432.429
359,552.647	5,409,441.012	439.922
		443.227

Commenced Survey of Burgess Grid from this point. See Page ① Burgess Grid Survey Field Book.

Fentons Loop. Commences at the Intersection of Brassey Track and Fentons Track. Traverse along Fentons Track untill we reach Fentons Base line ie Star Bar at Stake [illegible] N 1000 E. Then heads North along Fentons Base line to Warner [illegible] then along Warner Creek untill we reach Purcells [illegible]. Following the Base line all the way. Traverse along the Purcells [illegible] Track to the Intersection of Burgess and Brassey Tracks and then down Brassey track to the point of Commencement.

(g) (h)

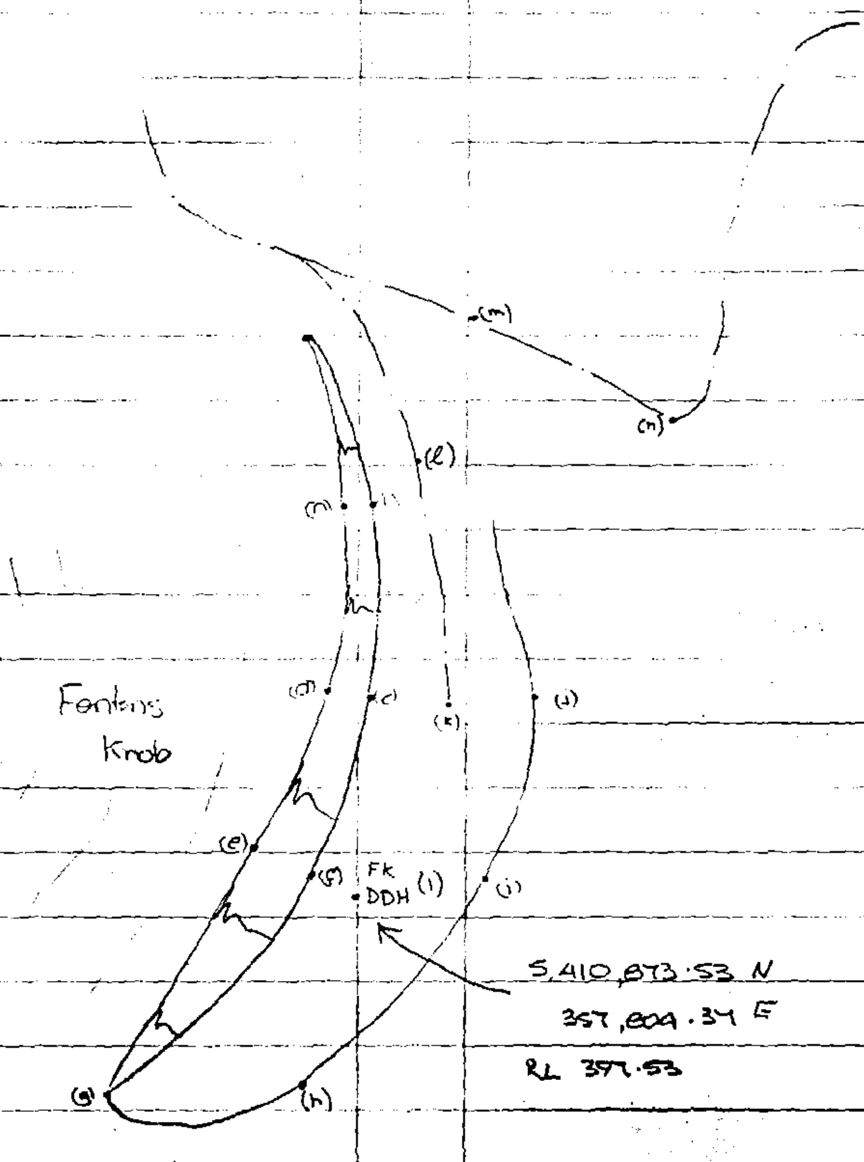
RL 377.53

Note - use bearings shown thus (   )

(95)

Brg	S/Dist	Vert X	Pt. No	Prism Δ	Remarks
Survey of Fenton Drill Rd and Base Line					
heading South from N2450					
					DN/GC 3-6-88
set on spike (295) on Drill Rd					See PT1 Book No1
(108°14'50")		81°29'50"			H.I. = 1.655
108°15'50"	89.245	81°30'30"		Y	To Star Bar (217) at Stake 1800E 2150N
104°05'	27.06	80°26'		x	Top of Cut (a) See Prof. over for Cut details & Levels
106°25'	26.98	82°18'		"	Bottom of Cut (b)
73°35'	7.19	90°47'		"	" " " (c)
65°23'	7.92	78°50'		"	Top " " (d)
0°49'	15.39	81°13'			" " " (e)
357°30'	15.21	92°21'		"	Bott.. (f)
334°24'	35.97	91°49'		"	Int of TR Bof Cut (g)
311°27'	17.99	94°11'			Edge of road (h)
285°47'	5.05	101°59'		"	" " " (i)
123°12'	8.61	89°34'		"	" " " (j)
102°38'	8.23	88°50'	1142 ✓	"	℄ of Trk (k)
109°27'	22.76	82°51	1143 ✓	"	" " (l)
352°03'	14.36	93°27	1144 ✓	"	FK DDH 1
134°36'	25.07	89°03'	1145 ✓	"	℄ of Trk (m)
196°49'	31.15	103°09'	1146 ✓	"	" " (n)
192°58'	61.47	95°19'	1147 ✓	"	" "
189°03'	96.55	98°42'	1148 ✓	"	" "

556087



(95)

Brg	S/Dist	Vert ∡	Ht. V°	Prism Δ	Remarks
Survey of Fentons Drill Pad and Base Line					
		heading	South from		N2450 DN/GC 3-6-88
					See PT1 Book 101
Set on Spike (275)		on Drill Pad			H.I. = 1.655
108° 14' 50"		81° 27' 50"			
[illegible]	[illegible]				

087

556088

(96)

Brg	S/Dist	Vert ∡	Pt. No	Prism Δ	Remarks
186°08'	116.82	88°43'	1149 ✓	Y	¢ of Trk
186°06'	138.98	87°46'	1150 ✓	x	Int of ¢'s of Trks.
Set on Spike (296) on Base Line					HI = 1.630
(50°33'20") 50°34'20"	232.924	93°27'20" ✓ 93°28'00"		Y	To Stn Bar (271) at Stake 1800 E 2450 N
50°49'	183.27	95°25'	1151 ✓	x	Stake 1800 E 2400 N
51°23'	134.47	99°28'	1152 ✓	"	" " 2350 N
51°32'	107.88	104°03'	1153 ✓	"	¢ of Trk
51°06'	86.55	105°10'	1154 ✓	Y	Stake 1800 E 2300 N
50°23'	36.21	106°02'	1155 ✓	"	" " 2250 N
228°14'	13.69	91°48'	1156 ✓	x	" " 2200 N
(230°14'10") 230°15'10"	38.339	89°48'50" ✓ 89°49'30"		"	To Spike (297) on Base Line.
Set on Spike (297) on Base Line					HI - 1.660
(50°14'10") 50°15'10"	38.357	91°48'40" ✓ 91°49'20"		x	To Spike (296) on Base Line
230°36'	24.94	97°15'	1157 ✓	"	Stake 1800 E 2150 N
(230°27'30") 230°28'30"	54.924	96°04'40" ✓ 96°05'20"		Y	To Spike (298) on Base Line
Set on Spike (298) on Base Line					HI = 1.645
(50°27'30") 50°28'30"	54.882	84°20'30" ✓ 84°21'10"		x	To Spike (297) on Base Line
232°07'	20.22	106°50'	1158 ✓	"	Stake 1800 E 2100 N

97

Brg	S/Dist	Vert ∢	Pt No	Prism Δ	Remarks.
231°02'	70.70	104°20'	1159 ✓	x	Stake 1800 E 2050 N
229°59'	217.12	98°21'	1160 ✓	"	" " 1900 N
229°55'	267.15	96°15'	1161 ✓	"	" " 1850 N
230°23'	313.09	93°05'	1162 ✓	"	" " 1800 N
(230°07'30") 230°08'30"	346.086	92°29'00" ✓ 92°29'40"		Y	To Spike (299) on Base Line
Set on Spike (299) on Base Line					H.I. = 1.550
(50°07'30") 50°08'30"	346.068	87°34'00" ✓ 87°24'40"		x	To Spike (298) on Base Line
(2°12'20") 2°13'20"	369.816	89°58'10"		"	To " (300) near F.T.7
227°48'	17.68	98°31'	1163 ✓	"	Stake 1800 E 1750 N
230°26'	67.42	95°16'	1164 ✓	"	" " 1700 N
(230°09'30") 230°10'30"	83.967	94°19'50" ✓ 94°20'20"		Y	To Spike (301) on Base Line
Set on Spike (301) on Base Line					H.I. = 1.695
(50°09'30") 50°10'30"	83.950	85°54'20" ✓ 85°55'00"		x	To Spike (299) on Base Line
(229°22'30") 229°23'30"	83.036	98°17'30" ✓ 98°18'10"		"	To " (302) at Stake 1800 E 1600 N
229°39'	33.71	101°36'	1165 ✓	"	Stake 1800 E 1650 N
Set on Spike (302) at Stake 1800 E 1600 N					H.I. = 1.550
(49°22'30") 49°23'30"	82.884	82°24'40" ✓ 82°25'20"		x	To Spike (301) on Base Line
(49°59'30") 50°00'30"	21.295	100°44'10" ✓ 100°44'50"		"	To " (303) in Stump near F.T.3

(Circled)

Note:- Use Bearings [illegible] Black Biro have been adjusted

(98)

Brg	S/Dist	Vert ∡	R Nº	Prism Δ	Remarks
(319° 11' 00") 319° 12' 00"	21.018	115° 22' 20"		x	(304) To Spike ^ on 1600 N Cross Line
228° 23' 10" 228° 24' 10"	26.274	90° 43' 20" ✓ 90° 44' 00"		·	To " (305) on Base Line
Set on spike (305) on Base Line					H.T = 1.565
(48° 23' 10") 48° 24' 10"	26.264	91° 16' 30" ✓ 91° 17' 10"		x	To Spike (302) at Stake 1800 E 1600 N
(229° 37' 00") 229° 38' 00"	100.948	89° 30' 00" ✓ 89° 30' 40"		Y	To " (306) on Base Line
228° 14'	24.16	97° 00'	1166 ✓	x	Stake 1800 E 1550 N
Set on Spike (306) on Base Line					H.T =
(49° 37' 00") 49° 38' 00"					To Spike (305) on Base Line

556091

Prism Δ x = 1.100 Y = 1.795

Burgess Grid Survey

Pg (1)

See Computer Print-Out for Co-Ords and Level info.

Brg	S/Dist	Vert ∡	Pt N°	Prism Δ	Remarks
Set on Spike (29A) ¢ of Trk					H.I. = 1.630
174°16'30"	81.279	92°11'10"		Y	To spike (293) ¢ of Trk
153°16'	28.49	91°28'		x	¢ of Trk
335°55'	7.26	95°00'		"	Jnt of ¢'s Burgess Trk & Rocells Trk.
322°47'	39.06	93°32'		"	¢ of Rocells Pbn Trk
335°13'00"	193.993	90°43'30"		"	To Sph (268) Side of Rocells Pbn Track
32°28'30"	61.527	89°06'50"		"	To " (27A) E.O. Trk
Set on Spike (27A) E.O. Trk					H.I. = 1.640
212°28'30"	61.550	91°54'20"		x	To Sph (29A) ¢ of Trk
209°40'	6.93	95°52'		"	¢ of Trk
359°06'	23.96	91°07'		"	" "
353°30'20"	196.158	90°17'10"		"	To Sph (28A) E.O. Trk
Set on Spike (28A) E.O. Trk					H.I. = 1.640
173°30'20"	196.149	90°08'00"		x	To Spike (27A) E.O. Trk
172°44'	91.81	90°35'		"	¢ of Trk
11°57'	10.65	93°24'		"	" "
[illegible]	[illegible]	90°12'50"		"	To Spike (29A) E.O. Trk
Set on Spike (29A) E.O. Trk					H.I. = 1.580
187°49'20"	87.426	90°27'50"		x	To Spike (28A) E.O. Trk

②

Brg	S/Dist	Vert ∡	Pt Nº	Prism A	Remarks
188°43'	26·03	91°13'		x	₵ of Trk
40°02'	5·16	96°43'		"	" "
30°05'30"	124·016	92°55'00"		Y	To Spk (30 A) ₵ of Trk.
Set on	Spike (30 A) ₵ of	Trk			H I = 1·680
210°05'30"	124·045	86°56'40"		Y	To Spk (29 A) E O Trk
15°55'10"	104·320	93°40'00"		"	To " (31 A) ₵ of Trk
Set on	Spike (31 A) ₵ of	Trk.			H.I. = 1.555
195°55'10"	104·292	86°24'00"		x	To Spk. (30 A) ₵ of Trk.
0°41'40"	52·217	93°34'10"		"	To " (32A) " "
Set on	Spike (32 A) ₵ of Trk				H I = 1.520
180°41'40"	52·271	87°24'20"		x	To Spk. (31 A) ₵ of Trk
43°21'	23·85	95°40'		"	₵ of Trk
25°21'50"	81·458	93°59'10"		Y	To Spk (33 A) ₵ of Trk
					DWIGC 27-6-08
Set on	Spike (33 A) ₵ of Trk				H I = 1·530
205°21'50"	81·434	86°08'50"		x	To Spk. (32 A) ₵ of Trk.
5°53'	23·07	97°44'		"	₵ of Trk
25°44'40"	56·517	97°05'00"		"	To Spk (34 A) E O Trk

③

Brg	S/Dist	Vert ∡	R. Nº	Prism Δ	Remarks
Set on Spike (34A) E.O. Trk					HI = 1.615
205°44'40"	56.400	83°53'10"		x	To Spk (33A) ¢ of Trk.
20°01'	7.47	105°08'		"	¢ of Trk
19°21'30"	50.884	97°33'00"		"	To Spk. (35A) E.O. Trk
Set on Spike (35A) E.O. Trk					H.I. = 1.650
199°21'30"	50.756	83°39'40"		x	To Spk. (34A) E.O. Trk
195°49'	15.20	89°38'		"	¢ of Trk.
318°20'	2.50	106°47'		"	" "
17°14'	33.63	103°17'		"	" "
27°30'	43.30	103°09'		"	" "
20°36'10"	263.571	98°48'30"		"	To Spk. (36A) side of Trk.
Set on Spike (36A) side of Trk.					HI = 1.625
200°36'10"	263.407	81°26'30"		x	To Spk (35A) E.O. Trk
200°02'	188.76	82°39'		"	¢ of Trk.
203°40'	162.13	82°38'		"	" "
208°36'	117.83	84°21'30"		"	" "
191°14'	55.10	95°50'		"	" "
183°00'	41.02	97°49'		"	" " + ¢ of Burgess Creek
182°01'	63.70	95°43'		"	¢ of Burgess Creek
190°10'	30.50	98°20'		Y	" "

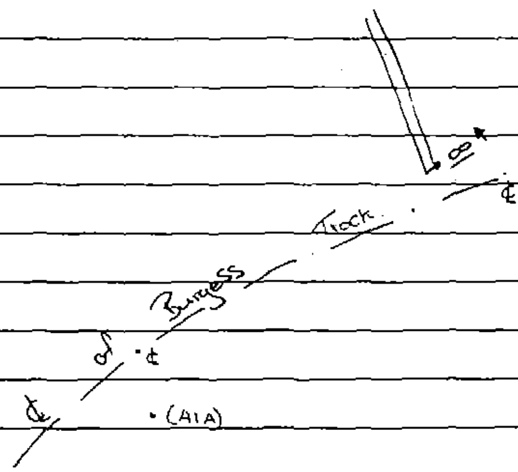
(A)

Brg	S/Dist	Vert ∡	Pt. No	Prism Δ	Remarks
179°28'	26.53	97°05'		x	¢ of Trk
181°48'	9.62	98°19'		"	" "
75°14'	10.13	78°48'		"	" "
72°08'50"	46.748	79°08'40"		"	To Spk (37A) ¢ of Trk
Set on spike (37A) ¢ of Trk					H.I. = 1.580
252°08'50"	46.945	102°05'00"		x	To Spk. (36A) side of Trk
56°40'	67.08	87°91'		"	¢ of Trk
57°14'00"	102.853	87°32'00"		"	To Spk (38A) E.O Trk
Set on spike (38A) E.O. Trk					H.I. = 1.650
237°44'00"	102.904	93°03'20"		x	To Spk. (37A) ¢ of Trk
113°38'00"	54.157	80°56'30"		Y	To " (39A) E.O Trk.
Set on Spike (39A) E.O Trk					H.I. = 1.665
293°38'00"	54.114	98°47'20"		Y	To Spk. (38A) E.O Trk
339°57'	36.06	103°17'		x	¢ of Trk
27°14'	45.38	103°46'		"	" "
20°01'	10.23	107°12'		"	" "
185°52'00"	43.348	78°13'50"		"	To Spk (40A) ¢ of Trk
Set on spike (40A) ¢ of Trk					H.I. = 1.640

7

⑤

Brg	S/DIST	Vert ∡	R. Nº	Prism A	Remarks
5°52'00"	43.591	103°12'50"		x	To Spk (39A) E O Trk.
168°43'50"	71.550	78°47'20"		"	To " (41 A) Side of Trk.
Set on	Spike	(41A) Side of Trk.			H.I. = 1.605
348°43'50"	71.495	101°00'30"		Y	To Spk (40 A) ℄ of Trk.
348°03'	21.84	99°24'		x	℄ of Trk.
114°42'	5.36	88°08'		"	" "
179°13'	29.87	89°35'		"	" "
169°44'	26.03	87°16'		"	CH 00 BU.T. 3 (Start)
128°09'	55.54	80°00'		"	" 40 " "
119°27'50"	120.088	77°58'00"		Y	To Spk (42 A) near Trnch BU.T. 3
Set on	Spike	(42 A) near	Trnch	BU.T.	3. H.I. : 1.505
299°27'50"	120.008	101°51'10"		Y	To Sph (41 A) Side of Trk
89°58'	4.39	88°14'		x	CH 110 BU.T. 3
99°48'	34.04	76°20'		"	" 140 " " (Break) A'
103°[illegible]'30"	59.666	72°08'40"		Y	To Spk (45A) near Trnch BU.T 3
179°06'00"	28.786	86°29'30"		x	To " (43A) in open.
Set on	Spike (43A)	in open			H.I. = 1.625
359°06'00"	28.806	93°59'10"		Y	To Spk (42 A) near Trnch BU.T. 3
224°42'40"	38.502	99°42'00"		"	To .. (44 A)



⑤

Brg	S/Dist	Vert ∡	R Nº	Prism Δ	Remarks
5°52'00"	43·591	103°12'50"		x	To spk. (39A) E.O Trk.
168°43'50"	71·550	76°47'20"		"	To " (A1 A) Side of Trk.
Set [illegible]	Spike	[illegible]			

⑥

Brg	S/Dist	Vert ∠	R. Nº	Prism A	Remarks
Set on	Spike (A4A)				H.I. = 1.640
44°42'40"	38.569	79°50'10"		Y	To Spk (A3A) in open
258°52'	41.90	108°10'		x	CH 94 B.U.T. 2 (Start)
251°46'	16.85	108°01'		"	" 119 " "
127°23'	9.26	72°27'		"	" 143 " " (Break) B'
Set on	Spike (A5A) near Trnch B.U.T 3				H.I. = 1.655
283°16'30"	59.734	108°07'30"		x	To Spk (A2A) near Trnch.
318°24'	8.07	109°12'		"	CH 158 B.U.T. 3 (Break) A'
23°56'	4.67	94°16'		"	" 166 " "
97°33'	14.57	94°56'		"	" 180 " "
93°53'	24.05	90°37'		"	" 189 " "
87°03'	30.19	88°30'		"	" 196 " "
85°09'	56.95	86°07'		"	" 223 " " (End)
130°57'50"	69.846	98°55'40"		"	To Spk (A6A) at Stake 1300E 1450N B.L.
Set on	Spike (A6A) at 1300E 1450N B.L.				H.I. = 1.590
310°57'50"	69.806	81°23'10"		Y	To Spk (A5A) near Trnch
259°55'	84.09	98°06'		x	CH 190 B.U.T. 2 (Break) B'
255°39'	73.80	100°08'		"	" 202 "
251°49'	61.93	101°38'		"	" 215 " " (Break) C'
252°47'	55.82	101°58'		"	" 221 " " " "

Staff Heights

A = 2.05 B = 3.56 C = 5.07 ⑦

Brg	S.Dist	Vert ∢	Pt. No	Prism △	Remarks
236°29'	35.77	106°42'		x	CH 245 B.U.T. 2
219°13'	21.35	106°57'		"	" 261 " "
142°16'	24.23	88°28'		"	" 290 " " (End)
47°29'00"	42.776	75°16'30"		"	To Spk (47A) on Base Line.
					DW/GC 28 - June - 1988
Set on Spike (46A) at 1300 E				1450 N	B.L. H.I. = 1.605
310°57'50"	No Distance Required				To Spk. (45A) near Trnch.
226°46'20"	451.200	98°36'00"		x	To Star Bar at 1300 E 1000 N B.L.
226°50'50"	412.810	103°57'30"		"	To Stake 1300 E 1050 N BL
226°45'00"	401.34	104°31'		BC	℄ of Burgess Creek
226°38'50"	362.06	105°15'20"		A	To Stake 1300 E 1100 N B.L
226°52'30"	311.99	106°18'00"		x	To " " 1150 N "
226°45'20"	261.55	107°11'10"		B	To " " 1200 N "
226°48'10"	208.25	107°16'00"		"	To " " 1250 N "
226°28'00"	156.75	107°25'00"		A	To " " 1300 N "
226°20'30"	104.31	107°35'20"		x	To " " 1350 N "
225°30'00"	51.79	[illegible]		"	To " " [illegible] N
Set on Spike (47A) on Base Line					H.I. = 1.555
227°29'00"	42.031	105°58'20"		x	To Spk (46A) at 1300 E 1450 N B.L.
47°01'	8.70	74°32'		A	To Stake 1300 E 1500 N BL
46°42'20"	36.571	79°24'00"		Y	To Spk (26A) on Base Line

(8)

Bry	S/Dist	Vert ∡	R. Nº	Prism △	Remarks.
Set on Spike (48A) on Base Line					H.I = 1.660
226°42'20"	38.622	101°06'20"		x	To Spk (47A) on Base Line
48°16'	21.91	99°28'		A	To Stake 1300E 1550N B.L
47°55'30"	72.86	96°25'40"		"	To " " 1600 N "
47°47'40"	123.39	94°24'30"		C	To " " 1650 N "
46°57'	165.11	95°08'		A	¢ of Creek
47°01'40"	173.41	94°25'10"		"	To Stake 1300E 1700 N B.L
46°40'30"	222.87	91°02'20"		"	To " " 1750 N "
46°55'10"	273.43	89°10'20"		"	To " " 1800 N "
46°50'10"	323.89	88°28'40"		"	To " " 1850 N "
46°54'20"	374.22	88°28'10"		"	To " " 1900 N "
Un. Able to See Stake				-	To " " 1950 N "
46°52'20"	Unable to measure	88°28'00"		A	To " " 2000N "

APPENDIX 4

4. D. Pecks Analytical Data and Sample Locations; Heazlewood Complex

APPENDIX 1. Index of Locations and Rock Types for Samples from D.C. Peck's Ph.D. Thesis.

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-3	Cbm	Low-Ti Basalt	Mt. Cleveland Road	615095	
8796-6	Cbm	Low-Ti Basalt	Mt. Cleveland Road	618094	
8796-8	Cbm	Low-Ti Basalt	Mt. Cleveland Road	617094	
8796-9	Cbm	Low-Ti Basalt	Mt. Cleveland Road	615090	
8796-13	Cbm	Low-Ti Basalt	Mt. Cleveland Road	614075	
8796-17	Cnm	Dunite	Caudry's Hill S.West	552089	
8796-18	Cnm	Dunite	Caudry's Hill S.West	552088	
8796-19	Cnm	Dunite	Caudry's Hill S.West	553087	
8796-20	Cnm	Dunite	Caudry's Hill S.West	553088	CG-120S/000E
8796-21	Cnm	Dunite	Caudry's Hill S.West	553089	CG-040S/000E
8796-22	Cnm	Dunite	Caudry's Hill S.West	553089	CG-040S/000E
8796-23	Cnm	Dunite	Caudry's Hill S.West	553089	CG-040S/000E
8796-24	Cnm	Dunite	Caudry's Hill S.West	554089	CG-000N/010E
8796-25	Cnm	Harzburgite	Caudry's Hill S.West	554088	CG-000N/150E
8796-26	Cnm	Orthopyroxenite	Caudry's Hill S.West	554088	CG-000N/150E
8796-27	Cnm	Orthopyroxenite	Caudry's Hill S.West	554087	CG-000N/275E
8796-28	Cnm	Orthopyroxenite	Caudry's Hill S.West	555087	
8796-29	Cnm	Orthopyroxenite	Caudry's Hill S.West	555087	
8796-30	Cfs(px)	Orthopyroxenite	Caudry's Hill S.West	556087	
8796-31	Cfs(px)	Orthopyroxenite	Caudry's Hill S.West	557086	
8796-32	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	558086	
8796-33	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	558086	
8796-34	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	559085	
8796-35	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	560085	
8796-36	Cch(px)	Orthopyroxenite	Caudry's Hill Proper	561083	
8796-37	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	561088	
8796-38	Cch(px)	Orthopyroxenite	Caudry's Hill Proper	562087	
8796-39	Cch(px)	Dunite	Caudry's Hill Proper	562087	
8796-40	Cch(px)	Orthopyroxenite	Caudry's Hill Proper	563087	
8796-41	Cch(px)	Dunite	Caudry's Hill Proper	563087	
8796-42	Cch(px)	Orthopyroxenite	Caudry's Hill Proper	565087	
8796-43	Cch(px)	Harzburgite	Caudry's Hill Proper	567087	
8796-44	Cch(px)	Orthopyroxenite	Caudry's Hill Proper	570087	
8796-45	Cch(w)	Orthopyroxenite	Caudry's Hill East	572087	
8796-46	Cch(w)	Orthopyroxenite	Caudry's Hill East	574087	
8796-47	Cch(w)	Plag. Websterite	Caudry's Hill East	577086	
8796-48	Cg(d)	F.G. Gabbronorite	Caudry's Hill East	579085	
8796-49	Cgh(dn)	Dunite	Gabbro Hill West	580085	
8796-50	Cgh(dn)	Orthopyroxenite	Gabbro Hill West	580085	
8796-52	Cgh(dn)	Orthopyroxenite	Gabbro Hill West	580085	
8796-53	Cgh(dn)	Dunite	Gabbro Hill West	583090	
8796-54	Cgh(px)	Orthopyroxenite	Gabbro Hill Proper	585090	
8796-55	Cgh(dn)	Harzburgite	Gabbro Hill Proper	586089	
8796-56	Cgh(px)	Orthopyroxenite	Gabbro Hill Proper	588089	
8796-57	Cg(d)	F.G. Gabbronorite	Gabbro Hill Proper	588091	
8796-58	Cgh(dn)	Harzburgite	Gabbro Hill Proper	588088	
8796-59	Cgh(dn)	Dunite	Gabbro Hill Proper	589088	
8796-60	Cg(px)	C.G. Gabbronorite	Brassey Hill N.West	591089	
8796-61	Cpp(l)	Troctolite	Brassey Hill N.West	592089	
8796-62	Cg(px)	C.G. Gabbronorite	Brassey Hill N.West	592088	
8796-63	Cpp(l)	Troctolite	Brassey Hill N.West	593088	
8796-64	Cpp(l)	Dunite	Brassey Hill N.West	594088	

Notes: Description of the map units are given in Figure . UGR is the universal grid reference, which is prefixed by 55GCQ for all of the samples in Appendix . MEL Grid refers to the Metals Exploration Ltd. grids shown on Figure . MEL grid co-ordinates are reference by grid name and sample position in metres. Abbreviations: CG-Caudry's Grid; FG-Fenton's Grid; BRG-Brassey Grid; BUG-Burgess Grid; DUN-dunite; HARZ-harzburgite; LHERZ-lherzolite; OPX-orthopyroxenite; F.G.-fine grained; C.G.-coarse grained; Plag.-plagioclase.

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-65	Cpp(l)	Dunite	Brassey Hill North	595088	BRG-1520N/1180E
8796-66	Cbh	Dunite	Brassey Hill North	597087	BRG-1550N/1400E
8796-67	Cbh	Dunite	Brassey Hill North	596088	BRG-1560N/1270E
8796-68	Cbh	Dunite	Brassey Hill North	597090	BRG-1780N/1020E
8796-69	Cbh	Dunite	Brassey Hill North	598089	BRG-1800N/1220E
8796-70	Cbh	Harzburgite	Brassey Hill North	598089	BRG-1810N/1330E
8796-71	Cbh	Troctolite	Brassey Hill North	599089	BRG-1880N/1400E
8796-72	Cbh	Orthopyroxenite	Brassey Hill N.East	601089	BRG-2050N/1440E
8796-73	Cbh	Harzburgite	Brassey Hill N.East	601089	BRG-1980N/1450E
8796-74	Cbh	Harzburgite	Brassey Hill N.East	600088	BRG-1870N/1520E
8796-75	Cbh	Harzburgite	Brassey Hill N.East	600087	BRG-1850N/1600E
8796-76	Cbh	Orthopyroxenite	Brassey Hill N.East	600087	BRG-1850N/1600E
8796-77	Cbh	Plag. Orthopyroxenite	Brassey Hill N.East	601086	
8796-78	Cbh	Harzburgite	Brassey Hill N.East	601086	
8796-79	Cbh	Harzburgite	Brassey Hill N.East	602086	
8796-80	Cbh	Troctolite	Brassey Hill N.East	603086	
8796-81	Cbh	Troctolite	Brassey Hill N.East	604085	
8796-82	Cg(d)	F.G. Gabbronorite	Brassey Hill East	607086	
8796-83	Cg(d)	F.G. Gabbronorite	Brassey Hill East	607086	
8796-84	Cbm	Low-Ti Basalt	Brassey Hill East	608085	
8796-85	Cbm	Low-Ti Basalt	Brassey Hill East	609084	
8796-86	Cbm	Low-Ti Basalt	Brassey Hill East	610083	
8796-87	Cbm	Low-Ti Basalt	Brassey Hill East	611082	
8796-88	Cbm	Low-Ti Basalt	Brassey Hill East	612082	
8796-89	Cnm	Orthopyroxenite	Chromite Hill	574108	FG-2000N/1550E
8796-90	Cfs(dn)	Harzburgite	Chromite Hill	574108	FG-2000N/1600E
8796-91	Cfs(dn)	Harzburgite	Chromite Hill	575108	FG-2000N/1650E
8796-92	Cfs(dn)	Dunite	Chromite Hill	576107	FG-2000N/1700E
8796-93	Cfs(dn)	Dunite	Chromite Hill	576107	FG-2000N/1750E
8796-94	Cfs(dn)	Dunite	Chromite Hill	577107	FG-2000N/1800E
8796-95	Cfs(dn)	Lherzolite	Fenton's Spur	579108	FG-2380N/1880E
8796-96	Cfs(dn)	Orthopyroxenite	Fenton's Spur	579107	FG-2370N/1900E
8796-97	Cfs(px)	Orthopyroxenite	Fenton's Spur	579107	FG-2370N/1900E
8796-98	Cfs(px)	Harzburgite	Fenton's Spur	579107	FG-2360N/1920E
8796-99	Cfs(px)	Orthopyroxenite	Fenton's Spur	579106	FG-2350N/1970E
8796-100	Cfs(px)	Serpentinite	Fenton's Spur	580106	FG-2330N/2000E
8796-101	Cfs(px)	Serpentinite	Fenton's Spur	580105	FG-2300N/2100E
8796-102	Cfs(px)	Harzburgite	Fenton's Spur	580104	FG-2260N/2160E
8796-103	Cfs(px)	Orthopyroxenite	Fenton's Spur	580104	FG-2260N/2160E
8796-104	Cfs(px)	Serpentinite	Fenton's Spur	580104	FG-2240N/2220E
8796-105	Cfs(px)	Wehrlite	Fenton's Spur	580103	FG-2220N/2260E
8796-106	Cfs(px)	Wehrlite	Fenton's Spur	580103	FG-2210N/2320E
8796-108	Cpp(dn)	Dunite	Reversal Hill South	583103	
8796-109	Cpp(dn)	Dunite	Reversal Hill South	584103	
8796-109	Cpp(dn)	Harzburgite	Reversal Hill South	586102	
8796-110	Cpp(dn)	Harzburgite	Reversal Hill South	586101	
8796-111	Cpp(dn)	Harzburgite	Reversal Hill South	586100	
8796-112	Cpp(dn)	Harzburgite	Reversal Hill South	586100	
8796-113	Cpp(l)	Troctolite	Purcell's Plain West	586099	
8796-114	Cpp(l)	Plag. Harzburgite	Purcell's Plain West	587099	
8796-115	Cpp(l)	Dunite	Purcell's Plain West	587098	
8796-116	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	588100	
8796-117	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	589101	
8796-118	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	591102	
8796-119	Cpp(l)	Troctolite	Central Purcell's Plain	592103	
8796-120	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	593103	
8796-121	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	594104	
8796-122	Cpp(l)	Plag. Lherzolite	Purcell's Plain East	595104	

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-123	Cpp(l)	Troctolite	Purcell's Plain East	596104	
8796-124	Cpp(l)	Plag. Lherzolite	Purcell's Plain East	597104	
8796-125	Cbh	Orthopyroxenite	Chromite Ridge	600104	BUG-1300N/1070E
8796-126	Cbh	Harzburgite	Chromite Ridge	601104	BUG-1350N/1100E
8796-127	Cbh	Harzburgite	Chromite Ridge	601104	BUG-1400N/1150E
8796-128	Cbh	Orthopyroxenite	Chromite Ridge	602103	BUG-1450N/1200E
8796-129	Cbh	Serpentinite	Chromite Ridge	602103	BUG-1500N/1250E
8796-130	Cbh	Serpentinite	Chromite Ridge	603103	BUG-1550N/1290E
8796-131	Cbh	Serpentinite	Chromite Ridge	604103	BUG-1610N/1350E
8796-132	Cbh	Plag. Dunite	Chromite Ridge	605103	BUG-1640N/1380E
8796-133	Cbh	Serpentinite	Chromite Ridge	605103	BUG-1700N/1450E
8796-134	Cbh	Websterite	Burgess Hill Proper	606103	
8796-136	Cg(d)	F.G. Gabbronorite	Burgess Hill Proper	607102	
8796-138	Cbh	Plag. Harzburgite	Burgess Hill Proper	608102	
8796-139	Cbh	Plag. Harzburgite	Burgess Hill Proper	609104	
8796-140	Cbh	Plag. Harzburgite	Burgess Hill North	607107	BUG-2070N/1300E
8796-142	Cbh	Plag. Harzburgite	Burgess Hill North	607106	BUG-2050N/1330E
8796-146	Cg(d)	F.G. Gabbronorite	Burgess Hill North	609104	
8796-148	Cbh	Serpentinite	Burgess Hill East	610104	
8796-149	Cbh	Harzburgite	Burgess Hill East	610104	
8796-150	Cbh	Harzburgite	Burgess Hill East	611105	
8796-151	Cbh	Harzburgite	Burgess Hill East	612106	
8796-152	Cbh	Harzburgite	Burgess Hill East	612106	
8796-154	Cg(d)	F.G. Gabbronorite	Burgess Hill East	614108	
8796-156	Cbh	Plag. Harzburgite	Burgess Hill East	616109	
8796-157	Ct	Diorite	Mt. Cleveland Road	620130	
8796-158	Cba(px)	Basaltic-Pyroxenite	Mt. Cleveland Road	623124	
8796-159	Ct	Gabbro	Mt. Cleveland Road	620121	
8796-160	Ct	Tonalite	Mt. Cleveland Road	619120	
8796-161	Ct	Tonalite	Mt. Cleveland Road	619120	
8796-164	Ct	Tonalite	Mt. Cleveland Road	616114	
8796-166	Cba(px)	Basaltic-Pyroxenite	West of Heazlewood Hill	579067	
8796-167	Cbm	Low-Ti Basalt	West of Heazlewood Hill	580067	
8796-171	Cba	Boninite	13 Mile Creek	619071	
8796-172	Cnm	Dunite	Swordgrass Hill	570111	FG-2000N/950E
8796-173	Cnm	Dunite	Swordgrass Hill	571110	FG-2000N/1050E
8796-174	Cnm	Dunite	Swordgrass Hill	572110	FG-2000N/1150E
8796-176	Cnm	Dunite	Swordgrass Hill	574109	FG-2000N/1350E
8796-177	Cnm	Harzburgite	Swordgrass Hill	574108	FG-2000N/1450E
8796-200	Cba	Boninite	West of Heazlewood Hill	583069	
8796-201	Cba	Boninite	West of Heazlewood Hill	576063	
8796-202	Cbm	Low-Ti Basalt	Bett's Track	686050	
8796-205	Cbh	Dunite	Burgess Hill North	608106	BUG-2060N/1450E
8796-206	Cbh	Anorthosite	Gerard's Knob	607107	BUG-2060N/1330E
8796-209	Cpp(l)	Dunite	North of Gerard's Knob	603110	
8796-210	Cpp(l)	Harzburgite	North of Gerard's Knob	603110	
8796-211	Cbh	Chromitite	Chromite Ridge	601103	BUG-1460N/1250E
8796-214	Cbh	Chromitite	Burgess Hill North	598090	BRG-1780N/1170E
8796-215a	Cg(a)	Anorthosite	Purcell's Plain South	597094	
8796-215b	Cpp(l)	Plag. Websterite	Purcell's Plain South	597094	
8796-216a	Cg(d)	F.G. Gabbronorite	Purcell's Plain East	598098	
8796-218	Cg(px)	C.G. Gabbronorite	Chromite Ridge	601103	BUG-1230N/1300E
8796-219	Cbh	Plag. Peridotite	Chromite Ridge	601103	BUG-1330N/1300E
8796-220	Cbh	Chromitite	Chromite Ridge	601103	BUG-1400N/1290E
8796-222a	Cbh	Harzburgite	Chromite Ridge	601103	BUG-1440N/1260E
8796-223	Cbh	Websterite	Chromite Ridge	601103	BUG-1440N/1260E
8796-224	Cbh	Plag. Peridotite	Chromite Ridge	601103	BUG-1380N/1280E
8796-225	Cbh	Chromitite	Chromite Ridge	601103	BUG-1360N/1290E

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-228	Cch(w)	Plag. Orthopyroxenite	Caudry's Hill East	578086	
8796-229	Cch(w)	Plag. Lherzolite	Caudry's Hill East	580085	
8796-230	Cg(px)	C.G. Gabbronorite	Caudry's Hill East	580084	
8796-232	Cg(px)	C.G. Gabbronorite	Caudry's Hill East	580084	
8796-235	Cg(px)	C.G. Gabbronorite	Gabbro Hill South	585083	
8796-236	Cgh(px)	Plag. Websterite	Gabbro Hill South	585083	
8796-237a	Cgh(px)	Plag. Websterite	Gabbro Hill South	585083	
8796-237c	Cgh(px)	Plag. Websterite	Gabbro Hill South	585083	
8796-245		Harzburgite	Serpentine Hill Complex	683674	
8796-246		Cumulate Gabbro	Serpentine Hill Complex	683674	
8796-247		Cumulate Gabbro	Serpentine Hill Complex	683674	
8796-248		Harzburgite	Serpentine Hill Complex	683674	
8796-249		Cumulate Gabbro	Serpentine Hill Complex	683674	
8796-250		Harzburgite	Serpentine Hill Complex	683674	
8796-251		Cumulate Gabbro	Serpentine Hill Complex	683674	
8796-255		Gabbro Dyke	Serpentine Hill Complex	683674	
8796-259	Cnm	Chromitite in OPX	Swordgrass Hill	573105	FG-1600N/1700E
8796-260	Cfs(dn)	Chromitite in LHERZ	South of Chromite Hill	575105	FG-1950N/1900E
8796-261	Cfs(px)	Orthopyroxenite	South of Chromite Hill	575105	FG-2150N/1900E
8796-268	Cg(px)	C.G. Gabbronorite	Little Bald Hill	579087	
8796-269	Cg(px)	C.G. Gabbronorite	Little Bald Hill	579087	
8796-270a	Cch(w)	Plag. Orthopyroxenite	Little Bald Hill	582077	
8796-270b	Cch(w)	Plag. Orthopyroxenite	Little Bald Hill	582077	
8796-271	Cch(w)	Plag. Websterite	Little Bald Hill	581077	
8796-272	Cgh(dn)	Harzburgite	Little Bald Hill	580078	
8796-273	Cg(px)	C.G. Gabbronorite	North of Gabbro Hill	585095	
8796-274	Cgh(dn)	Harzburgite	North of Gabbro Hill	587096	
8796-275	Cgh(px)	Plag. Websterite	North of Gabbro Hill	587096	
8796-276a	Cg(d)	F.G. Gabbronorite	Gabbro Hill North	588092	
8796-277c	Cgh(px)	Orthopyroxenite	Gabbro Hill South	585085	
8796-278	Cg(px)	C.G. Gabbronorite	Gabbro Hill South	585084	
8796-279	Cgh(px)	Plag. Orthopyroxenite	Gabbro Hill South	585084	
8796-280	Cgh(px)	Plag. Websterite	Gabbro Hill South	585083	
8796-281	Cgh(dn)	Harzburgite	Gabbro Hill South	586082	
8796-282	Cgh(px)	Plag. Websterite	Gabbro Hill South	586081	
8796-283	Cg(d)	F.G. Gabbronorite	Gabbro Hill South	586079	
8796-285	Cbh	Chromitite in Gabbro	Brassey Hill N. East	599086	
8796-286	Cg(d)	F.G. Gabbronorite	Brassey Hill North	598090	BRG-1830N/1100E
8796-287	Cbh	Orthopyroxenite	Brassey Hill North	598090	BRG-1775N/1130E
8796-289	Cbh	Dunite	Brassey Hill North	598090	BRG-1850N/1050E
8796-290	Cg(a)	Anorthosite	Brassey Hill North	598090	BRG-1910N/1040E
8796-291	Cbh	Orthopyroxenite	Brassey Hill North	598090	BRG-1910N/1090E
8796-292	Cbh	Dunite	Brassey Hill North	598090	BRG-1880N/1150E
8796-293	Cg(d)	F.G. Gabbronorite	Brassey Hill North	598090	BRG-1820N/1190E
8796-294	Cbh	Dunite	Brassey Hill North	598090	BRG-1820N/1190E
8796-295	Cg(a)	Anorthosite	Brassey Hill North	598090	BRG-1820N/1190E
8796-297	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1190E
8796-298	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1190E
8796-299	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1190E
8796-300	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1190E
8796-301	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1880N/1190E
8796-302	Cbh	Chromitite	Brassey Hill North	598090	BRG-1875N/1200E
8796-303	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1875N/1200E
8796-304	Cbh	Chromitite	Brassey Hill North	598090	BRG-1875N/1200E
8796-305	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1875N/1200E
8796-306	Cbh	Chromitite	Brassey Hill North	598090	BRG-1875N/1200E
8796-307	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1200E
8796-308	Cbh	Chromitite	Brassey Hill North	598090	BRG-1885N/1210E

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-309	Cbh	Chromitite	Brassey Hill North	598090	BRG-1875N/1220E
8796-310	Cbh	Chromitite	Brassey Hill North	598090	BRG-1860N/1230E
8796-311	Cbh	Chromitite	Brassey Hill North	598090	BRG-1855N/1235E
8796-312	Cbh	Chromitite	Brassey Hill North	598090	BRG-1850N/1240E
8796-313	Cbh	Chromitite	Brassey Hill North	598090	BRG-1855N/1245E
8796-314	Cbm	Low-Ti Basalt	Mt. Cleveland Road	611088	
8796-315	Cbm	Low-Ti Basalt	Mt. Cleveland Road	613089	
8796-316	Cbm	Low-Ti Basalt	Mt. Cleveland Road	614090	
8796-317	Cbm	Low-Ti Basalt	Mt. Cleveland Road	615090	
8796-318	Cbm	Low-Ti Basalt	Mt. Cleveland Road	616090	
8796-319	Cbm	Low-Ti Basalt	Mt. Cleveland Road	616089	
8796-320	Cbm	Low-Ti Basalt	Mt. Cleveland Road	616089	
8796-321	Cbm	Low-Ti Basalt	Mt. Cleveland Road	617088	
8796-322	Cbm	Low-Ti Basalt	Mt. Cleveland Road	618086	
8796-323	Cbm	Low-Ti Basalt	Mt. Cleveland Road	619085	
8796-324	Cbm	Low-Ti Basalt	Mt. Cleveland Road	620085	
8796-325	Cnm	Dunite	Caudry's Hill West	552083	
8796-326	Cnm	Dunite	Caudry's Hill West	552084	
8796-327	Cnm	Dunite	Caudry's Hill West	552085	
8796-328	Cnm	Dunite	Caudry's Hill West	553086	
8796-329	Cnm	Dunite	Caudry's Hill West	554088	CG-000N/300E
8796-340	Cnm	Dunite	Caudry's Hill West	554088	CG-000N/000E
8796-341	Cnm	Orthopyroxenite	Caudry's Hill West	554088	CG-000N/040E
8796-342	Cnm	Dunite	Caudry's Hill West	554088	CG-000N/110E
8796-343	Cnm	Orthopyroxenite	Caudry's Hill West	554088	CG-000N/150E
8796-344	Cnm	Dunite	Caudry's Hill West	554088	CG-000N/180E
8796-345	Cnm	Dunite	Caudry's Hill West	554088	CG-000N/220E
8796-346	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/230E
8796-347	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/270E
8796-348	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/320E
8796-349	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/400E
8796-350	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/460E
8796-351	Cnm	Dunite	Caudry's Hill West	552089	CG-200S/000E
8796-352	Cnm	Dunite	Caudry's Hill West	554088	CG-200S/500E
8796-352b	Cg(px)	C.G. Gabbronorite	Brassey Hill North	594090	
8796-352c	Cg(d)	F.G. Gabbronorite	Brassey Hill North	594090	
8796-360ab	Cfs(dn)	Chromitite	Fenton's Knob	578109	
8796-360ce	Cfs(dn)	Chromitite	Fenton's Knob	578109	
8796-361	Cfs(dn)	Chromitite	Fenton's Knob	578109	
8996-370	Cba	Boninite	West of Heazlewood Hill	578109	
8996-371	Cba	Boninite	Corinna Road	633080	
8996-372	Cba	Boninite	Corinna Road	633080	
8996-374	Cba(px)	Basaltic-Pyroxenite	East of Bronzite Hill	626135	
8996-375	Cpp(l)	Harzburgite	East of Bronzite Hill	624137	
8996-376	Cbz	Orthopyroxenite	Bronzite Hill East	622138	
8996-378	Cbz	Orthopyroxenite	Bronzite Hill Proper	620139	
8996-379	Cbz	Chromitite in HARZ	Bronzite Hill Proper	619138	
8996-382	Cbh	Orthopyroxenite	Chromite Ridge	601103	BUG-1350N/1350E
8996-383	Cbh	Harzburgite	Chromite Ridge	601103	BUG-1380N/1320E
8996-384	Cbh	Plag. Harzburgite	Chromite Ridge	601103	BUG-1380N/1320E
8996-385	Cg(px)	C.G. Gabbronorite	Chromite Ridge	601103	BUG-1380N/1320E
8996-386	Cbh	Chromitite	Chromite Ridge	601103	BUG-1380N/1320E
8996-387	Cbh	Plag. Harzburgite	Chromite Ridge	601103	BUG-1350N/1280E
8996-389	Cg(px)	C.G. Gabbronorite	Brassey Hill North	596091	
8996-390	Cnm	Dunite	East of Swordgrass Hill	580110	FG-2640N/1720E
8996-391	Cfs(dn)	Dunite	East of Swordgrass Hill	579112	FG-2650N/1510E
8996-392	Cnm	Dunite	East of Swordgrass Hill	578112	FG-2050N/1400E
8996-393	Cnm	Orthopyroxenite	East of Swordgrass Hill	577113	FG-2650N/1310E

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8996-394	Cnm	Dunite	East of Swordgrass Hill	577114	FG-2650N/1200E
8996-395	Cfs(dn)	Harzburgite	Fenton's Knob	580108	FG-2600N/1950E
8996-396	Cnm	Orthopyroxenite	West of Basalt Hill	585116	FG-3300N/1610E
8996-397	Cg(d)	F.G. Gabbronorite	West of Basalt Hill	585115	FG-3300N/1615E
8996-398	Cnm	Orthopyroxenite	West of Basalt Hill	585115	FG-3300N/1615E
8996-399	Cnm	Dunite	West of Basalt Hill	585115	FG-3300N/1720E
8996-400	Cnm	Harzburgite	Reversal Hill North	586113	FG-3300N/1920E
8996-401	Cg(d)	F.G. Gabbronorite	Reversal Hill North	587112	FG-3360N/2050E
8996-402	Cpp(l)	C.G. Gabbronorite	Reversal Hill North	588112	FG-3400N/2070E
8996-403	Cnm	Orthopyroxenite	Reversal Hill North	589112	FG-3450N/2200E
8996-404	Cg(d)	F.G. Gabbronorite	Reversal Hill North	591110	
8996-410	Cpp(l)	Plag. Lherzolite	Central Purcell's Plain	595101	
8996-411	Cpp(l)	Anorthosite	Central Purcell's Plain	595098	
89969-413	Cpp(l)	Plag. Websterite	Purcell's Plain South	595093	
8996-414	Cpp(l)	Harzburgite	Purcell's Plain South	595093	
8996-415	Cg(px)	C.G. Gabbronorite	Purcell's Plain South	592094	
8996-416	Cg(px)	C.G. Gabbronorite	Purcell's Plain South	592094	
8996-417	Cg(px)	C.G. Gabbronorite	Purcell's Plain South	592094	
8996-418	Cg(d)	F.G. Gabbronorite	Purcell's Plain South	592094	
8996-419	Cg(d)	F.G. Gabbronorite	Gabbro Hill North	589092	
8996-420	Cg(d)	F.G. Gabbronorite	Gabbro Hill North	589091	
8996-421	Cg(d)	F.G. Gabbronorite	Purcell's Plain South	594095	
8996-422	Cg(d)	F.G. Gabbronorite	South of Gabbro Hill	586076	
8996-423	Cch(w)	Plag. Websterite	South of Gabbro Hill	588077	
8996-424	Cch(w)	Plag. Websterite	South of Gabbro Hill	589076	
8996-425	Cch(w)	Plag. Orthopyroxenite	South of Gabbro Hill	589076	
8996-427	Cg(d)	F.G. Gabbronorite	Brassey Hill South	592076	
8996-428	Cch(w)	Plag. Orthopyroxenite	South of Gabbro Hill	589078	
8996-432	Cg(px)	C.G. Gabbronorite	Gabbro Hill East	589085	
8996-435	Cbh	Plag. Harzburgite	Brassey Hill North	596089	BRG-1620N/1180E
8996-436	Cbh	Plag. Lherzolite	Brassey Hill North	596089	BRG-1620N/1180E
8996-445	Cnm	Chromitite in OPX	South of Swordgrass Hill	570104	FG-1500N/1560E
8996-446	Cnm	Chromitite in DUN	South of Swordgrass Hill	570104	FG-1500N/1580E
8996-447	Cnm	Chromitite in DUN	South of Swordgrass Hill	570104	FG-1500N/1580E
8996-448	Cnm	Chromitite in DUN	South of Swordgrass Hill	570103	FG-1500N/1620E
8996-449	Cnm	Chromitite in DUN	South of Swordgrass Hill	570103	FG-1500N/1660E
8996-450	Cfs(dn)	Chromitite in DUN	South of Swordgrass Hill	569103	FG-1400N/1775E
8996-451	Cfs(dn)	Chromitite in DUN	South of Swordgrass Hill	570102	FG-1400N/1620E
8996-454	Cfs(dn)	Chromitite in DUN	South of Swordgrass Hill	574107	FG-2000N/1635E
8996-455	Cnm	Chromitite in DUN	Swordgrass Hill	572108	FG-2000N/1450E
8996-456	Cnm	Chromitite in DUN	Swordgrass Hill	572109	FG-2000N/1350E
8996-457	Cnm	Chromitite in DUN	Swordgrass Hill	571109	FG-2000N/1250E
8996-459	Cfs(dn)	Chromitite in DUN	South of Swordgrass Hill	572103	FG-1600N/1870E
8996-460	Cfs(dn)	Chromitite in DUN	South of Swordgrass Hill	572102	FG-1600N/1880E
8996-462	Cfs(px)	Chromitite in DUN	Fenton's Spur	560103	Trench 5:369m
8996-463	Cfs(px)	Dunite	Fenton's Spur	560103	Trench 5:295-310m
8996-464	Cfs(px)	Harzburgite	Fenton's Spur	560103	Trench 5:308-312m
8996-465	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:312-315m
8996-466	Cfs(px)	Dunite	Fenton's Spur	560103	Trench 5:330-337m
8996-468	Cfs(px)	Dunite	Fenton's Spur	560103	Trench 5:344m
8996-469	Cfs(px)	Dunite	Fenton's Spur	560103	Trench 5:362-364m
8996-470	Cfs(px)	Websterite	Fenton's Spur	560103	Trench 5:364-365m
8996-472	Cfs(px)	Orthopyroxenite	Fenton's Spur	560103	Trench 5:375-376m
8996-473	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:376-377m
8996-474	Cfs(px)	Ironstone	Fenton's Spur	560103	Trench 5:377-378m
8996-475	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:378-379m
8996-476	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:379-380m
8996-477	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:380-382m

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8996-481	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:388-391m
8996-482	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:391-395m
8996-483	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:395-397m
8996-484	Cfs(px)	Wehrlite	Fenton's Spur	560103	Trench 5:397-407m
8996-485	Cg(px)	C.G. Gabbronorite	Gabbro Hill N.West	584091	
8996-486	Cgh(dn)	Chromitite in HARZ	Gabbro Hill N.West	585091	
8996-487	Cgh(px)	Chromitite in OPX	Gabbro Hill N.West	585091	
8996-488a	Cgh(dn)	Harzburgite	Gabbro Hill N.West	585090	
8996-488b	Cg(px)	C.G. Gabbronorite	Gabbro Hill N.West	585090	
8996-489	Cch(w)	Orthopyroxenite	Caudry's Hill East	578095	
8996-490	Cch(w)	Orthopyroxenite	Caudry's Hill East	578093	
8996-491	Cch(w)	Plag. Orthopyroxenite	Caudry's Hill East	578092	
8996-492	Cch(w)	Plag. Lherzolite	Caudry's Hill East	578091	
8996-493	Cch(w)	Orthopyroxenite	Caudry's Hill East	572088	
8996-494	Cch(w)	Orthopyroxenite	Caudry's Hill East	573082	
8996-496b	Cg(px)	C.G. Gabbronorite	Chromite Ridge	601103	BUG-1400N/1280E
8996-496c	Cbh	Orthopyroxenite	Chromite Ridge	601103	BUG-1400N/1280E
8996-496f	Cbh	Orthopyroxenite	Chromite Ridge	601103	BUG-1400N/1230E
8996-497	Cbh	Plag. Harzburgite	Chromite Ridge	601103	BUG-1630N/1400E
8996-500	Cnm	Dunite	Basalt Hill North	593121	

RECONNAISSANCE SAMPLES

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-R30	Cfs(dn)	Dunite Breccia	Fenton's Knob	578109	FG-2410N/1720E
8796-R33	Cfs(dn)	Chromitite	Fenton's Knob	578109	FG-2410N/1720E
8796-R36	Cbh	Ni Sulphide in HARZ	Lord Brassey Mine	595086	BRG-1350N/1300E
8796-R40	Cbh	Chromitite	Chromite Ridge	601103	
8796-R41	Cbh	Chromitite	Chromite Ridge	601103	
8796-R52	Cnm	Dunite	Caudry's Hill west	552083	
8796-R56	Cg(d)	F.G. Gabbronorite	Brassey Hill North	598090	BRG-2100N/1450E
8796-R59	Cbh	Orthopyroxenite	Brassey Hill North	598090	BRG-1780N/1130E
8796-R62	Cbh	Chromitite	Brassey Hill North	598090	BRG-1840N/1240E
8796-R72	Cbh	Chromitite	Brassey Hill North	598090	BRG-1840N/1250E
8796-R74	Cg(a)	Anorthosite	Brassey Hill North	598090	BRG-1840N/1250E
8796-R77	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1860N/1200E
8796-R78	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1860N/1200E
8796-R79	Cbh	Chromitite	Brassey Hill North	598090	BRG-1860N/1200E
8796-R81	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1220E
8796-R82	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1220E
8796-R83	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1220E
8796-R84	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1220E
8796-R87	Cbh	Chromitite	Brassey Hill North	598090	BRG-1880N/1220E
8796-R88	Cg(a)	Anorthosite	Brassey Hill North	598090	BRG-1895N/1200E
8796-R90	Cbh	Chromitite	Brassey Hill North	598090	BRG-1890N/1190E
8796-R99	Cfs(dn)	Dunite Breccia	Fenton's Knob	578109	FG-2410N/1720E
8796-R100	Cfs(dn)	Dunite Breccia	Fenton's Knob	578109	FG-2410N/1720E
8796-R102	Cbh	Plag. Peridotite	Chromite Ridge	578109	
8796-R107	Cg(d)	F.G. Gabbronorite	Brassey Hill North	601103	BRG-1780N/1150E
8796-R111	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1880N/1190E
8796-R116	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1850N/1240E
8796-R118	Cbh	Plag. Peridotite	Brassey Hill North	598090	BRG-1800N/1200E
8796-R119	Cbh	Chromitite	Brassey Hill North	598090	BRG-1800N/1200E
8796-R120	Cbh	Ni Sulphide in HARZ	Lord Brassey Mine	595086	
8796-R121b	Cbh	Chromitite	Chromite Ridge	601103	
8796-R121c	Cbh	Plag. Peridotite	Chromite Ridge	601103	
8796-R121e	Cbh	Websterite	Chromite Ridge	601103	
8796-R133		Anorthosite Dyke	Serpentine Hill Complex	678672	
8796-R143		Ni-Cu-Fe Sulphide	CUNI Mine	663661	

APPENDIX (continued)

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	UGR	MEL GRID REF.
8796-R144		Ni-Cu-Fe Sulphide	CUNI Mine	663661	
8796-R145		Ni-Cu-Fe Sulphide	CUNI Mine	663661	
8796-R150	Cfs(px)	Orthopyroxenite	Caudry's Hill Proper	559087	
8796-R151	Cbm	Cu-rich Breccia	Old Jasper Mine	591057	
8796-R154	Cbm	Cu-rich Breccia	Old Jasper Mine	591057	
8796-R160	Cg(px)	C.G. Gabbronorite	Chromite Ridge	601103	
8796-R161		Chromitite in DUN	Wilson River Complex	670792	
8796-R162		Chromitite in DUN	Wilson River Complex	670792	
8796-R163		Chromitite in DUN	Wilson River Complex	670792	
8796-R166		Chromitite in DUN	Serpentine Hill Complex	672667	
SAMPLES COLLECTED BY P.R.HAMLYN					
8646-200	Cpp(dn)	Dunite	Purcell's Plain West		
8646-201	Cpp(l)	Plag. Dunite	Purcell's Plain West		
8646-202	Cfs(px)	Lherzolite	Fenton's Spur		
8646-203	Cfs(dn)	Dunite Breccia	Fenton's Knob		
8646-204	Cfs(dn)	Chromitite	Fenton's Knob		
8646-207	Cpp(l)	Troctolite	Purcell's Plain West		
8646-209	Cnm	Orthopyroxenite	Swordgrass Hill East		
8646-213	Cnm	Orthopyroxenite	Swordgrass Hill West		
8646-215	Cfs(px)	Orthopyroxenite	Fenton's Spur		
8646-217	Cbh	Harzburgite	Burgess Hill East		
8646-218	Cpp(l)	Troctolite	Gerard's Knob		
8646-219	Cpp(l)	Anorthosite	Gerard's Knob		
8646-222	Cg(d)	F.G. Gabbronorite	Burgess Hill Proper		
8646-223	Cbh	Harzburgite	Burgess Hill North		
8646-224	Ct	Diorite	Burgess Hill North		
8646-225	Cbh	Orthopyroxenite	Chromite Ridge		
8646-226	Cbh	Chromitite	Chromite Ridge		
8646-227	Cg(px)	C.G. Gabbronorite	Brassey Hill N.West		
8646-230	Cg(px)	C.G. Gabbronorite	Brassey Hill N.West		
8646-231	Cbh	Plag. Harzburgite	Brassey Hill North		
8646-234	Cbh	Plag. Harzburgite	Burgess Hill Proper		

APPENDIX . Location and Rock Type of Samples collected from the Adamsfield Ultramafic Complex.

SAMPLE #	ROCK TYPE	DRILL HOLE #	TYPE	INTERVAL
8796-A3	Serpentinite	AHP-87-1	RP	21-22m
8796-A4	Serpentinite	AHP-87-1	RP	22-23m
8796-A6	Serpentinite	AHP-87-1	RP	24-25m
8796-A7	Serpentinite	AHP-87-4	RP	24-25m
8796-A8	Serpentinite	AHP-87-5	RP	11-12m
8796-A11	Serpentinite	AHP-87-6	RP	22-23m
8796-A13	Serpentinite	AD-86-1	DD	93.9-95.2m
8796-A15	Serpentinite	AD-86-1	DD	96.5-97.8m
8796-A16	Serpentinite	AD-86-1	DD	97.9-98.9m
8796-A18	Serpentinite	AD-86-1	DD	100.3-101.4m
8796-A20	Serpentinite	AD-86-1	DD	102.5-103.5m
8796-A22	Serpentinite	AD-86-1	DD	104.5-105.5m
8796-A24	Serpentinite	AD-86-1	DD	106.5-107.5m
8796-A25	Serpentinite	AD-86-1	DD	107.5-108.3m
8796-A26	Serpentinite	AD-86-1	DD	49.6-51.0m
8796-A28	Serpentinite	AD-86-1	DD	58.8-59.7m
8796-A30	Chromitite	surface sample		
8796-R132	Chromitite	surface sample		

Notes: All samples are from Hall's open cut-universal grid reference=55GDN-476593. Abbreviations: RP-rotary percussion drilling; DD-diamond drilling.

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ROCK TYPE/CATEGORY	EXCEL FILES	PRINT	N	LAST UPDATE	SEQUENTIAL LISTING OF SAMPLES
SERPENTINIZED DUNITE	DUNITE	75%	49	1/10/89	8796-R52,17-20,23,24,39, 41,49,53, 59, 64-69, 92,94, 108 172,205,209, 289,292, 294,325-329,340,342,344, 345, 347, 348-352,391,399 462,463,466,468,469 ***8646-200
HARZBURGITE	PERID	80%	24	1/10/89	8796-43,55,58,70,73,74,75,78,79,90,102,110,112,127,210 222a,274,375,464,475***8646-217,223
LHERZOLITE	PERID		1	1/10/89	8646-202
WEHRLITE	PERID		10	1/10/89	8796-105,106,465,473,476,477,481,482, MEL725130,725131
ORTHOPYROXENITE	PYROXENITE	80%	44	1/10/89	8796-R56,R150,26-38,40,42,44,45,46,47,50,52,54,56,72,76 8796-96,99,125,277c,291,341,343,378,472,490,493,494 ***8646-209,213,215,225
WEBSTERITE	PYROXENITE		2	1/10/89	8796-223, 470
PL. DUNITE, TROCTOLITE	FELD	85%	8	1/10/89	8796-61,63,71,80,81,123***8646-201,218
PL. PERIDOTITE	FELD		8	1/10/89	8796-114,116,117,120,122,138,151,492
ANORTHOSITE	FELD		1	1/10/89	8796-206
PLAG. PYROXENITE	FELD		13	1/10/89	8796-77,134,215b,228,270a,270b,275,279,280,282,423,425,428
F.G. GABBRONORITE	DYKES	77%	20	1/10/89	8796-R56,R107,48,57,82,83,136,146,216A,276A,283,286,293 8796-352c,397,418,419,420,422***8646-222
M.G. LEUCOGABBRO	DYKES		5	1/10/89	8796-R74,R88,215A,290295
C.G. GABBRONORITE	DYKES		18	1/10/89	8796-R121c,60,62,218,235,268,269,273,278,352b,415,416 8796-432,485,488b***8646-227,230

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ROCK TYPE/CATEGORY	EXCEL FILES	PRINT	N	LAST UPDATE	SEQUENTIAL LISTING OF SAMPLES
LOW-TI BASALT	VOLCANICS	90%	20	1/10/89	8796-3,6,8,9,13,85-88,314-324
BONINITE	VOLCANICS		6	1/10/89	8796-171,200,201,370,371,372
BASALTIC-PYROXENITE	DYKES		3	1/10/89	8796-158,166,374
CHROMITE SEPARATES	CR-SEPS	100%	18	1/10/89	8796-325-328,329A-G,A4,A6,SS9A-D
CHROMITITE	CHROMITITE (unformatted- includes all data)		60	1/10/89	R33,R41,R72,R79,R81,R83,R84,R87,R90,R119,R121b,R161-R163, R166, 8796-211,214,220,225,297-300,302,304-313,360ab,360ce 361,379,386,445-448,450,451,454-457,459,460,462,486, A30 MEL300031,300032,300035,300037,300038
CHROMITITE-PGE DATA	CHROMITITE-PGE	85%	60	1/10/89	as above
HYBRID ZONE ROCKS	HYBRID (unformatted)		27	1/10/89	8796-R59,R74,R77,R78,R88,R102,R107,R111,R116,R118,R121c 8796-R160 8796-69,70,219,286,289-295,301,303,305,307
PLAGIOCLASE PERIDOTITE	MISC.-HRC	85%	9	1/10/89	8796-R77,R102,R111,R116,R118,219,301,303,307
DUNITE BRECCIA	MISC.-HRC		4	1/10/89	8796-R30,R99,R100***8646-203
SULFIDE-RICH ROCKS	MISC.-HRC		3	1/10/89	8796-R36,R120,154
TONALITE ZONE ROCKS	MISC.-HRC		6	1/10/89	8796-157,159,160,161,164***8646-224
TRAVERSE A - HRC	TRAVA	60%	70	1/10/89	8796-17-81 (excluding:21,22,48,51),340-345,347-352
TRAVERSE B- HRC	TRAVB	90%	34	1/10/89	8796-90,92,94,96,99,102,105,106,108,110,112,114,116,117 120,122,123,125,127,138,151,172,205,206,209,210,222a,223 ***8646-200,201,202,209,213,215

ROCK TYPE/CATEGORY	EXCEL FILES	PRINT	N	LAST UPDATE	SEQUENTIAL LISTING OF SAMPLES
RARE-EARTH ELEMENTS	REE-HRC	90%	40	1/10/89	8796-R56,R88,3,8,9,13,48,62,77,116,120,158,161,164,166,171 200,201,215b,216a,218,223,228,269,279,286,290,315,352b 352c,235,370,372,374,397,415,420,423,432,488b
SELENIUM	SELENIUM	85%	49	1/10/89	8796-3,13,41,57,63,65,66,68,70,71,72,74,76,78,79,80,88, 166,171,200,201,278,295,301,303,R57,R74,R77,R78,R79 R81,R83,R84,R87,R88,R90,R102,R118***8646-201,203,209 8646-213,215,217,222,223,224,227
ADAMSFIELD	AFIELD (unformatted)		20	1/10/89	8796-A3,A7,A13,A16,A18,A20,A22,A24-A26,A28-A30,R132
SERPENTINE HILL COMPLEX	SERPHILL (unformatted)		10	1/10/89	8796-245-251,253,255,R133

INDEXING OF GEOCHEMICAL ANALYSES BY CUMULATE SEQUENCE-HRC

CUMULATE SEQUENCE	MAP SYMBOL	ROCK TYPE(S)	N	SEQUENTIAL LISTING OF SAMPLES
19 Mile Creek Sequence	NM	Dunite	23	8796-17-20,23,24,172,325-329,340,342, 344,345,347-352,399
		Harzburgite	1	8796-25
		Orthopyroxenite	8	8796-26,27,28,259,341,343 ***8646-209,213
Fenton's Spur Sequence	FS(DN)	Dunite	3	8796-92,94,391
		Harzburgite	1	8796-90
		Orthopyroxenite	1	8796-96
	FS(PX)	Dunite	5	8796-462,463,466,468,469
		Peridotite	15	8796-102,464,475 ***8646-217 (Harzburgite) ***8646-202 (Lherzolite) 8796-105,106,465,473,476,477,481,482,MEL725130-131 (Wehrlite)
		Pyroxenite	12	8796-R150,29-35,37,472 ***8646-215 (OPX) 8796-470 (Websterite)
Caudry's Hill Sequence	CH(PX)	Dunite/Harz	3	8796-39,41 (Dunite) 8796-43 (Harzburgite)
		Orthopyroxenite	5	8796-36,38,40,42,44
	CH(W)	Orthopyroxenite	6	8796-45,46,47,490,493,494
		Plag. Peridotite	1	8796-492
		Plag. Pyroxenite	6	8796-228,270a,270b,423,425,428
Gabbro Hill Sequence	GH(DN)	Dunite	3	8796-49,53,59
		Harzburgite	3	8796-55,58,274
		Orthopyroxenite	2	8796-50,52
	GH(PX)	Orthopyroxenite	3	8796-54,56,277c
		Plag. Pyroxenite	4	8796-275,279,280,282
Bronzite Hill Sequence	BZ	Orthopyroxenite	1	8996-378
Purcell's Plain Sequence	PP(DN)	Dunite	2	8796-108 ***8646-200
		Harzburgite	2	8796-110,112
	PP(L)	Dunite/Troctolite	8	8796-61,63,64,65,123,209 ***8646-201,218
		Plag. Peridotite	7	8796-114, 210,375 (Harzburgite) 8796-116,117,120,122 (Lherzolite)
		Plag. Pyroxenite	1	8796-215b
Brassey Hill Sequence	BH	Dunite/Troctolite	13	8796-66-69,205,289,292,294 (Dunite)71,80,81 ***8646-218 (Troctolite)
		Anorthosite	1	8796-206
		(Plag) Harzburgite	13	8796-70,73,-75,77-79,127,138,151,222a ***8646-217,223
		Pyroxenite	6	8796-R59,72,76,125,291 ***8646-225 (OPX) 8796-223 (Websterite)
		Plag. Pyroxenite	1	8796-134

APPENDIX . Whole-Rock Geochemistry of Dunite from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

SAMPLE #	MAP UNIT	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	LOSS	TOTAL	Mg#
8796-R52	NM	34.6	<0.01	0.49	5.91	0.08	39.8	0.02	0.09	<0.01	<0.01	18.6	100.0	93.0
17	NM	36.2	<0.01	0.19	5.50	0.07	42.2	0.01	0.05	<0.01	0.01	15.4	100.0	93.8
18	NM	35.5	<0.01	0.34	5.49	0.07	43.3	0.06	0.08	<0.01	<0.01	15.7	100.9	94.0
19	NM	35.1	0.01	0.75	8.58	0.10	41.6	0.05	0.05	<0.01	0.02	14.1	100.8	90.6
20	NM	36.5	<0.01	0.22	6.47	0.09	42.2	0.02	0.04	<0.01	<0.01	14.3	100.3	92.8
23	NM	35.7	<0.01	0.49	6.78	0.09	41.9	0.03	0.12	<0.01	0.01	15.2	100.8	92.4
24	NM	34.9	<0.01	0.27	6.55	0.09	42.5	0.03	0.05	<0.01	<0.01	15.6	100.4	92.8
172	NM	38.1	<0.01	0.23	6.02	0.09	41.3	0.01	0.02	<0.01	0.01	13.5	99.8	93.1
325	NM	36.3	<0.01	<0.01	6.27	0.09	41.7	0.02	<0.01	<0.01	0.01	15.4	100.3	92.9
326	NM	36.2	<0.01	<0.01	6.49	0.09	42.0	0.02	<0.01	<0.01	<0.01	14.6	99.9	92.8
327	NM	35.5	<0.01	0.11	6.64	0.10	41.2	0.02	<0.01	<0.01	<0.01	15.3	99.5	92.5
328	NM	34.8	<0.01	0.00	6.44	0.09	41.7	0.02	<0.01	<0.01	<0.01	15.8	99.4	92.8
329	NM	33.9	<0.01	0.32	6.47	0.10	41.3	0.01	<0.01	<0.01	0.01	16.3	99.3	92.7
340	NM	35.9	<0.01	<0.01	6.93	0.09	41.7	0.01	<0.01	<0.01	0.01	14.9	99.9	92.3
342	NM	34.1	<0.01	0.16	10.2	0.14	40.3	0.01	<0.01	<0.01	0.01	14.1	99.5	88.7
344	NM	34.3	<0.01	0.14	9.18	0.13	41.3	0.02	<0.01	<0.01	<0.01	13.8	99.4	89.9
345	NM	34.9	0.01	0.71	7.38	0.10	40.9	0.01	<0.01	<0.01	<0.01	15.0	99.5	91.7
347	NM	38.5	<0.01	<0.01	6.78	0.10	43.8	0.01	<0.01	<0.01	<0.01	10.2	99.9	92.8
348	NM	35.5	<0.01	<0.01	8.82	0.12	41.7	0.01	<0.01	<0.01	<0.01	12.1	98.8	90.4
349	NM	37.2	<0.01	0.02	7.67	0.11	43.5	0.01	<0.01	<0.01	<0.01	9.83	99.0	91.8
350	NM	35.8	<0.01	0.20	10.0	0.15	40.4	0.01	<0.01	<0.01	<0.01	12.3	99.4	88.9
351	NM	35.3	<0.01	<0.01	6.59	0.09	41.5	<0.01	<0.01	<0.01	<0.01	15.4	99.4	92.6
352	NM	37.6	<0.01	<0.01	6.26	0.09	43.6	<0.01	<0.01	<0.01	<0.01	11.4	99.8	93.2
8996-399	NM	40.4	<0.01	0.03	6.40	0.07	39.1	<0.01	0.03	<0.01	0.02	13.6	100.2	92.4
8796-92	FS(DN)	35.7	0.01	1.05	11.9	0.16	41.4	0.07	0.06	0.01	0.01	7.60	98.9	87.3
94	FS(DN)	36.0	0.01	0.55	11.3	0.17	41.0	0.14	0.05	<0.01	0.01	9.38	99.1	87.8
8996-391	FS(DN)	35.4	<0.01	0.27	10.4	0.11	41.2	0.04	0.03	<0.01	0.01	11.7	99.8	88.7
463	FS(PX)	38.0	<0.01	0.38	12.7	0.19	35.6	<0.01	0.04	<0.01	<0.01	11.8	99.2	84.7
466	FS(PX)	38.3	<0.01	0.07	12.4	0.14	36.6	<0.01	0.03	<0.01	0.01	11.8	99.5	85.5
468	FS(PX)	38.8	0.01	0.28	15.1	0.22	36.7	0.49	0.06	<0.01	<0.01	7.56	99.7	82.8
469	FS(PX)	36.6	0.01	0.20	12.9	0.18	36.6	0.17	0.05	<0.01	<0.01	11.8	99.3	84.9
8796-39	CH(PX)	40.5	0.01	0.23	7.89	0.09	37.7	0.04	0.05	<0.01	0.01	13.3	100.3	90.4
41	CH(PX)	39.6	0.01	0.18	10.6	0.07	36.1	0.02	0.08	<0.01	<0.01	11.9	99.2	87.1
8796-49	GH(DN)	40.2	0.01	0.18	7.77	0.06	38.0	0.03	0.03	<0.01	<0.01	12.4	99.2	90.6
53	GH(DN)	37.6	0.01	0.24	12.8	0.08	36.0	0.02	0.04	<0.01	<0.01	12.0	99.3	84.8
59	GH(DN)	39.5	0.01	0.14	9.14	0.05	38.1	0.01	0.03	<0.01	<0.01	12.3	99.6	89.2
8646-200	PP(DN)	37.6	0.01	0.88	14.1	0.13	35.4	0.04	0.16	<0.01	<0.01	11.4	100.3	83.3
8796-108	PP(DN)	33.8	0.01	0.70	11.2	0.13	39.1	0.01	0.02	<0.01	<0.01	13.5	99.1	87.4
64	PP(L)	37.2	0.02	1.52	11.7	0.13	36.1	0.04	0.09	<0.01	0.01	12.3	99.7	85.9
65	PP(L)	37.3	0.01	2.21	9.59	0.14	36.9	0.02	0.03	<0.01	<0.01	12.8	99.7	88.4
209	PP(L)	37.8	0.01	0.65	11.9	0.13	36.2	0.04	0.03	<0.01	0.01	12.5	99.8	85.8
8796-66	BH	37.6	0.01	1.58	9.79	0.17	36.6	0.04	0.03	<0.01	<0.01	13.0	99.6	88.1
67	BH	38.1	0.01	1.35	8.70	0.12	37.3	0.03	0.02	<0.01	0.01	13.1	99.6	89.5
68	BH	38.5	0.01	1.19	10.6	0.10	36.8	0.03	0.06	<0.01	0.01	12.5	100.3	87.3
69	BH	39.7	0.01	0.46	7.05	0.08	38.5	0.01	0.02	<0.01	<0.01	12.9	99.5	91.5
205	BH	37.8	0.01	0.69	13.0	0.11	35.9	0.01	0.04	<0.01	<0.01	11.5	99.6	84.5
289	BH	38.0	0.01	0.69	12.0	0.11	35.9	0.01	0.03	<0.01	0.01	12.2	99.6	85.6
292	BH	38.9	0.01	0.55	8.61	0.08	37.5	0.01	0.03	<0.01	0.01	13.0	99.5	89.6
294	BH	38.6	0.01	1.00	9.60	0.09	36.9	0.02	0.03	<0.01	<0.01	12.6	99.7	88.4

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb.

APPENDIX (continued)

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-R52	NM	<20	1	2	1750	103	2480	16	23	17	13.0	2.45	4.9	1.7	0.9	0.36	0.69	1.89
17	NM	45	1	5	1410	97	2450	8	20	9	2.1	0.87	2.2	0.4		0.02	0.46	
18	NM	48	2	<1	1190	98	2600	13	17	19	5.3	0.52	4.4	0.2	0.9	0.16	0.38	0.22
19	NM	49	5	10	1740	119	2800	9	13	7	10.2	1.92	2.8	14.9		0.05	7.76	
20	NM	33	2	1	1630	104	2470	1	23	15	8.4	3.29	5.2	0.2		0.06	0.06	
23	NM	29	4	2	1770	107	2530	6	22	6	34.0	5.09	7.8	7.8		0.11	1.53	
24	NM	33	3	6	1630	103	2580	2	22	<1	4.4	3.20	8.4	0.3		0.06	0.09	
172	NM	23	1	<1	2230	97	2430	<1	25	<1		0.51	0.6	0.6	0.4	0.10	1.12	1.58
325	NM	<20	5	1	2250	102	2430	7	28	12		0.87	3.2	0.6	1.3	0.13	0.69	0.46
326	NM	<20	7	2	2480	107	2450	7	29	<1		0.54	3.1	0.7	0.3	0.09	1.30	2.33
327	NM	27	6	3	3930	107	2410	3	28	<1		1.05	6.2	1.7	1.1	0.13	1.62	1.55
328	NM	<20	6	<1	2620	106	2560	9	29	3		2.80	8.9	1.3		0.11	0.46	
329	NM	86	7	2	6260	106	2490	10	25	3		0.21	4.1	1.1	1.3	0.12	5.24	0.85
340	NM	<20	5	1	1330	111	2550	8	23	3		3.91	9.5	4.6	1.0	0.14	1.18	4.60
342	NM	<20	8	6	2760	137	1890	10	26	9		0.02	2.6	2.4	0.8	0.13	120	3.00
344	NM	<20	8	13	3250	126	2030	15	32	5		0.32	4.9	4.8	1.2	0.17	15.0	4.00
345	NM	<20	3	9	2280	108	2160	5	10	11		0.27	3.1	6.2	0.6	0.14	23.0	10.3
347	NM	<20	5	<1	2590	104	2540	4	29	6		0.79	3.3	0.4	0.3	0.10	0.51	1.33
348	NM	<20	4	2	3610	131	1930	13	28	11		0.51	4.6	4.2	0.6	0.27	8.24	7.00
349	NM	<20	7	7	3370	116	2710	11	27	8		0.91	4.3	1.9	0.3	0.13	2.09	6.33
350	NM	35	6	5	3420	140	1810	2	33	7		0.25	2.9	2.6	0.5	0.10	10.4	5.20
351	NM	<20	4	2	2190	103	2480	2	20	<1		0.99	4.0	0.5	0.2	0.09	0.51	2.50
352	NM	23	6	8	5310	106	2640	9	29	9		0.63	3.8	0.5	0.3	0.12	0.79	1.67
8996-399	NM	<20	8	7	2200	107	2960	78	39	10								
8796-92	FS(DN)	41	11	43	7120	146	1820	3	63	<1		0.34	2.3	2.0	0.7	0.31	5.82	2.83
94	FS(DN)	30	9	27	3000	145	2110	408	75	19		1.91	1.8	2.3	0.4	0.16	1.21	5.92
8996-391	FS(DN)	<20	6	13	3270	142	2020	25	48	5								
463	FS(PX)	<20	7	36	3290	158	1630	48	74	9		0.40	2.2	17.9	0.6	0.27	44.8	31.4
466	FS(PX)	<20	7	12	497	178	1740	34	61	6		0.14	1.3	8.8	0.7	0.30	62.9	12.6
468	FS(PX)	30	13	29	3520	152	1240	38	83	18		0.30	4.2	106	2.5	0.25	353	42.1
469	FS(PX)	46	11	34	5510	153	1470	20	77	16		0.53	4.0	120	1.1	0.23	226	105
8796-39	CH(PX)	24	4	8	2820	119	1560	2	28	8		0.22	0.9	2.5	<0.3		11.4	
41	CH(PX)	184	7	15	3750	146	2060	4	43	4		0.15	2.4	9.2	0.4	0.04	61.3	23.0
8796-49	GH(DN)	34	5	6	3100	124	1590	6	18	1		0.21	1.1	0.9	<0.3	0.04	4.29	
53	GH(DN)	76	5	12	3270	164	1390	3	26	16		0.39	2.1	4.6	<0.2	0.05	11.8	
59	GH(DN)	81	6	5	1650	136	1210	3	22	9		0.21	1.2	21.0	<0.4	0.04	100	
8646-200	PP(DN)	65	9	26	3310	128	1700	21	48	6	2.1	0.47	1.3	4.5	0.7	0.22	9.57	6.43
8796-108	PP(DN)	70	10	23	4100	132	1920	<1	59	6		0.61	1.2	2.7	0.2	0.22	4.49	11.4
64	PP(L)	55	11	43	3080	119	2100	5	59	18		1.56	4.4	3.3	1.6	0.08	2.12	2.06
65	PP(L)	77	8	48	5140	109	1890	2	53	1		0.84	4.1	10.5	0.8	0.03	12.5	13.1
209	PP(L)	51	12	20	3530	151	1490	<1	36	<1		0.61	4.5	11.2	1.1	0.12	18.4	10.2
8796-66	BH	<20	10	29	4670	124	2500	<1	45	4		0.73	4.6	3.3	0.4	0.07	4.52	8.25
67	BH	40	7	37	6380	129	2280	2	56	<1		0.56	7.2	4.6	0.8	0.12	8.21	5.75
68	BH	114	6	23	2260	117	2070	1	29	8		1.15	5.8	6.6	0.3	0.13	5.74	22.0
69	BH	132	2	23	5120	104	2110	<1	34	<1	0.6	6.20	6.2	6.5	0.5	0.08	1.05	13.0
205	BH	82	9	18	3620	137	1170	10	34	<1		0.51	3.6	9.1	1.0	0.16	17.8	9.10
289	BH	22	9	30	3700	134	2110	2	51	<1								
292	BH	34	9	19	4590	132	2830	2	43	<1								
294	BH	49	7	25	6070	103	2220	2	44	<1								

APPENDIX . Whole-Rock Geochemistry of Peridotite from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

HARZBURGITE

SAMPLE #	MAP UNIT	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-25	NM	44.0	0.01	0.35	11.4	0.19	36.5	0.35	0.07	<0.01	0.01	6.95	100.1	86.4
8796-43	CH(PX)	39.5	0.01	0.67	11.0	0.12	36.1	0.04	0.03	<0.01	0.01	12.3	100.5	86.7
90	FS(DN)	40.8	0.01	0.62	10.2	0.19	36.0	0.30	0.05	<0.01	<0.01	11.0	99.7	87.5
102	FS(PX)	38.5	0.01	0.18	14.0	0.16	35.5	0.28	0.05	<0.01	0.01	10.7	99.7	83.4
8996-464	FS(PX)	38.4	0.01	0.55	10.7	0.17	36.8	0.44	0.04	<0.01	0.01	12.4	99.9	87.2
475	FS(PX)	41.5	0.01	0.34	12.6	0.17	38.3	0.92	0.06	<0.01	0.01	5.67	100.0	85.8
8796-55	GH(DN)	39.7	0.01	0.47	9.92	0.13	36.5	0.04	0.03	<0.01	<0.01	12.5	99.7	87.9
58	GH(DN)	37.4	0.01	0.30	14.4	0.10	35.4	0.02	0.04	<0.01	0.01	11.8	99.7	83.0
274	GH(DN)	37.0	0.19	1.44	11.4	0.11	34.9	0.01	0.03	<0.01	<0.01	11.6	97.8	85.8
8796-110	PP(DN)	44.7	0.02	1.47	10.7	0.19	34.4	1.33	0.04	<0.01	0.01	5.89	99.3	86.4
112	PP(DN)	40.4	0.01	0.78	11.4	0.19	35.4	1.16	0.07	<0.01	<0.01	9.80	99.8	86.0
210	PP(L)	38.4	0.01	1.05	10.3	0.20	36.0	0.02	0.02	<0.01	<0.01	13.3	99.8	87.4
8996-375	PP(L)	38.3	0.01	1.81	9.43	0.15	36.9	0.02	0.03	<0.01	<0.01	12.6	100.0	88.6
8646-217	BH	42.5	0.02	1.14	9.51	0.25	35.3	0.87	0.11	<0.01	<0.01	9.46	99.8	88.0
8646-223	BH	40.6	0.02	1.01	10.4	0.17	35.4	0.31	0.09	<0.01	<0.01	11.2	99.7	87.1
8796-70	BH	36.4	0.01	0.56	14.9	0.13	35.0	0.02	0.06	<0.01	<0.01	11.8	99.4	82.3
73	BH	39.0	0.01	1.08	9.12	0.18	36.6	0.03	0.05	<0.01	<0.01	12.7	99.3	88.8
74	BH	40.1	0.02	1.24	9.92	0.20	35.2	0.42	0.05	<0.01	<0.01	12.0	99.6	87.5
75	BH	39.3	0.01	1.31	7.28	0.14	37.6	0.02	0.05	<0.01	0.02	12.9	99.2	91.1
78	BH	37.3	0.02	2.64	12.4	0.15	34.8	0.05	0.06	<0.01	0.02	11.8	99.8	84.8
79	BH	38.3	0.02	1.23	9.73	0.19	36.5	0.04	0.05	<0.01	<0.01	13.0	99.5	88.1
127	BH	39.5	0.01	1.08	8.48	0.15	37.4	0.03	0.07	<0.01	<0.01	12.7	100.0	89.7
222a	BH	36.7	0.01	1.27	12.2	0.17	35.7	<0.01	0.05	<0.01	<0.01	12.6	99.6	85.3

LHERZOLITE

SAMPLE #	MAP UNIT	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8646-202	FS(PX)	40.6	0.01	1.09	8.97	0.14	32.6	5.18	0.05	<0.01	<0.01	10.3	99.4	87.8

WEHRLITE

SAMPLE #	MAP UNIT	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-105	FS(PX)	46.4	0.03	1.20	6.80	0.12	26.5	12.5	0.07	<0.01	<0.01	5.72	99.8	88.5
106	FS(PX)	41.7	0.03	1.05	11.5	0.17	30.2	6.83	0.09	<0.01	<0.01	8.02	99.8	83.9
8996-465	FS(PX)	43.5	0.02	1.85	7.84	0.15	29.0	8.94	0.07	<0.01	0.01	7.75	99.5	88.0
473	FS(PX)	44.9	0.02	1.11	8.47	0.13	28.3	10.3	0.12	0.01	<0.01	5.90	99.4	86.9
476	FS(PX)	43.5	0.02	1.26	10.0	0.13	29.4	8.81	0.09	<0.01	<0.01	6.25	99.9	85.3
477	FS(PX)	45.1	0.02	1.06	8.70	0.14	28.9	8.73	0.16	0.01	<0.01	6.56	99.8	86.8
481	FS(PX)	45.2	0.04	2.14	9.07	0.23	25.6	11.7	0.13	<0.01	0.01	5.48	100.0	84.8
482	FS(PX)	45.2	0.03	1.45	10.6	0.20	30.0	7.58	0.08	<0.01	<0.01	4.54	100.1	84.9
M725130	FS(PX)	43.6	0.04	1.66	12.0	0.30	27.0	8.59	0.11	0.01	<0.01	6.07	99.8	81.7
M725131	FS(PX)	43.7	0.03	1.57	10.5	0.19	27.7	8.44	0.10	0.01	<0.01	7.00	99.8	83.9

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb.

HARZBURGITE

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-25	NM	105	9	12	2060	118	1190	4	34	7	1.4	0.28	0.7	4.8		0.30	17.1	
8796-43	CH(PX)	45	9	23	4690	128	1790	3	57	14		0.22	1.5	1.2	<0.4	0.04	5.45	
90	FS(DN)	45	16	55	4630	108	1250	98	55	11		0.35	1.1	16.0	0.5	0.16	45.7	32.0
102	FS(PX)	72	16	18	1760	146	1170	96	54	7		0.19	0.6	13.9	0.4	0.24	73.2	34.8
8996-464	FS(PX)	26	17	53	3030	126	989	34	56	9		0.35	2.0	17.9	0.6	0.15	51.1	32.5
475	FS(PX)	109	22	37	1950	148	1280	35	54	17		0.33	1.7	16.8	0.6	0.27	50.9	30.0
8796-55	GH(DN)	38	6	19	2800	103	967	<1	38	6		0.17	1.9	10.8	<0.3	0.04	63.5	
58	GH(DN)	42	10	11	1010	118	1370	2	22	20		0.11	1.7	6.5	0.7	0.05	59.1	9.29
274	GH(DN)	42	12	44	9590	130	1210	11	65	4		0.14	3.5	6.0	0.5	0.12	42.9	12.0
8796-110	PP(DN)	91	19	50	4330	97	1010	8	40	7		0.61	2.8	17.9	2.1	0.13	29.3	8.52
112	PP(DN)	6	18	50	3980	117	1230	120	74	17		0.20	1.2	15.9	0.9	0.14	79.3	16.9
210	PP(L)	68	14	38	3800	118	1170	25	55	<1		0.39	3.3	11.4	1.9	0.19	29.2	6.00
8996-375	PP(L)	59	12	30	5000	99	1870	71	94	9		0.04	0.5	1.1	0.4	0.09	28.3	2.90
8646-217	BH	36	15	40	4680	110	1380	11	54	11	0.9	0.27	1.7	10.4	0.1	0.02	38.5	74.3
8646-223	BH	30	12	34	3750	102	1310	3	35	7	0.2	0.23	2.0	8.0	1.6	0.04	34.8	5.00
8796-70	BH	68	10	26	2780	140	1630	<1	43	14		0.69	3.4	4.8	0.7	0.05	6.96	6.86
73	BH	87	10	36	3260	111	1600	<1	52	6		0.36	3.7	11.2	1.5	0.04	31.1	7.47
74	BH	34	15	33	3130	91	1550	7	42	12		0.89	4.6	6.6	1.4	0.06	7.42	4.71
75	BH	125	10	30	3290	120	1770	6	34	15		0.27	5.3	21.2	3.5	0.13	78.5	6.06
78	BH	384	13	47	4020	124	1200	1	40	10		0.21	3.0	20.7	9.9	0.15	98.6	2.09
79	BH	120	14	36	2880	124	1220	3	45	11		0.13	2.5	8.5	1.1	0.15	65.4	7.73
127	BH	70	10	21	3230	120	1760	7	56	23		0.52	4.5	19.3	0.7	0.11	37.1	27.6
222a	BH	102	7	46	6380	110	2250	31	78	8		0.47	1.1	3.1	0.5	0.10	6.64	6.24

LHERZOLITE

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8646-202	FS(PX)	26	28	60	3030	110	1030	18	29	9								

WEHRLITE

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-105	FS(PX)	6	56	164	3560	74	514	34	30	23		0.24	0.6	53.2	1.5	0.12	222	36.7
106	FS(PX)	2	39	111	2150	115	778	144	49	28		0.26	1.2	49.7	2.6	0.11	191	19.2
8996-465	FS(PX)	70	36	116	3300	84	744	17	46	14		0.20	2.1	30.1	1.4	0.24	151	21.8
473	FS(PX)	17	44	90	233	93	702	22	35	29		0.05	2.9	24.3	0.9	0.50	486	25.9
476	FS(PX)	23	44	87	3160	99	789	52	39	23		0.17	2.0	21.4	0.7	0.39	126	32.4
477	FS(PX)	41	39	88	2820	95	739	20	40	25		0.06	1.4	32.2	1.1	0.24	537	29.5
481	FS(PX)	2	53	131	2980	89	636	19	31	23		0.22	2.0	20.0	0.6	0.12	90.9	33.9
482	FS(PX)	23	39	120	3520	108	908	13	65	22		0.23	0.8	19.1	0.4	0.11	83.0	45.5
M725130	FS(PX)	12	49	139	3640	141	871	24	73	23		0.33	2.4	38.7			117	
M725131	FS(PX)	12	48	114	3590	130	910	20	54	26		0.21	1.6	45.0			214	

APPENDIX . Whole-Rock Geochemistry of Pyroxenite from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

SAMPLE #	MAP UNIT	ROCK TYPE	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8646-209	NM	OPX	56.1	<0.01	0.49	7.95	0.17	33.7	0.11	0.08	<0.01	0.02	0.29	99.5	89.4
213	NM	OPX	55.9	<0.01	0.44	8.24	0.16	33.6	0.11	0.10	<0.01	0.01	0.14	99.2	89.0
8796-26	NM	OPX	55.7	0.01	0.24	9.45	0.21	33.6	0.67	0.04	<0.01	<0.01	0.12	100.4	87.6
27	NM	OPX	50.2	0.01	0.47	9.46	0.16	35.9	0.26	0.03	0.01	0.02	2.67	99.7	88.3
28	NM	OPX	51.8	0.01	0.73	8.84	0.15	31.4	0.98	0.17	0.01	<0.01	6.16	100.7	87.6
341	NM	OPX	53.8	0.02	1.01	11.9	0.22	30.8	0.64	0.01	<0.01	<0.01	0.05	98.9	83.7
343	NM	OPX	54.1	0.01	0.13	9.82	0.21	34.1	0.60	0.00	<0.01	0.01	<0.01	99.4	87.3
8796-96	FS(DN)	OPX	52.9	0.02	1.26	10.9	0.22	31.6	1.93	0.10	0.01	<0.01	0.40	99.9	85.2
215	FS(PX)	OPX	48.7	<0.01	0.89	12.4	0.24	32.0	2.06	0.11	0.01	<0.01	0.03	96.8	83.6
R150	FS(PX)	OPX	53.5	0.01	0.64	9.77	0.18	32.8	0.23	0.04	0.01	0.01	1.44	99.1	86.9
29	FS(PX)	OPX	54.4	0.01	0.79	11.1	0.21	31.8	0.67	0.04	<0.01	<0.01	1.14	100.6	85.0
30	FS(PX)	OPX	50.9	0.02	0.55	9.22	0.18	34.4	0.27	0.03	<0.01	<0.01	2.37	98.4	88.1
31	FS(PX)	OPX	54.2	0.02	0.64	9.39	0.17	34.3	0.40	0.05	<0.01	<0.01	1.05	100.7	87.9
32	FS(PX)	OPX	54.7	0.02	0.77	10.8	0.20	33.2	0.55	0.05	<0.01	<0.01	0.14	100.9	85.9
33	FS(PX)	OPX	54.1	0.02	0.73	10.9	0.20	33.0	0.55	0.04	<0.01	<0.01	0.13	100.2	85.7
34	FS(PX)	OPX	52.5	0.02	0.84	11.6	0.21	32.5	0.62	0.10	<0.01	<0.01	0.14	99.0	84.7
35	FS(PX)	OPX	54.4	0.01	0.68	11.7	0.22	32.3	0.30	0.06	<0.01	<0.01	0.22	100.3	84.5
37	FS(PX)	OPX	54.5	0.01	0.51	9.15	0.17	33.9	0.22	0.03	<0.01	0.02	0.53	99.5	88.0
99	FS(PX)	OPX	53.1	0.02	0.84	10.5	0.21	32.4	1.60	0.15	0.01	0.01	0.54	99.8	86.0
8996-472	FS(PX)	OPX	54.7	0.02	0.74	11.2	0.23	30.9	1.90	0.06	<0.01	0.01	0.08	100.3	84.5
8796-36	CH(PX)	OPX	53.9	0.03	1.80	11.8	0.22	29.8	1.01	0.10	<0.01	0.02	<0.01	99.1	83.3
38	CH(PX)	OPX	48.0	0.01	0.41	9.91	0.16	35.2	0.15	0.05	0.01	<0.01	5.16	99.5	87.6
40	CH(PX)	OPX	48.4	0.01	0.34	7.96	0.13	35.9	0.16	0.41	0.02	0.02	5.92	99.6	89.9
42	CH(PX)	OPX	54.2	0.04	1.77	12.1	0.22	30.6	1.13	0.07	<0.01	0.02	<0.01	100.6	83.4
44	CH(PX)	OPX	54.0	0.04	1.94	12.4	0.22	30.1	1.25	0.07	<0.01	<0.01	<0.01	100.4	82.8
45	CH(W)	OPX	51.5	0.04	2.14	12.8	0.23	28.1	1.52	0.14	0.01	<0.01	2.22	99.1	81.3
46	CH(W)	OPX	54.4	0.04	1.60	12.1	0.22	30.7	1.10	0.27	0.01	<0.01	0.00	101.0	83.4
47	CH(W)	OPX	52.0	0.05	2.53	10.9	0.19	27.1	2.02	0.41	0.01	0.01	4.36	100.0	83.2
8996-490	CH(W)	OPX	54.5	0.04	1.84	12.3	0.22	29.8	1.24	0.10	<0.01	<0.01	0.05	100.5	82.8
493	CH(W)	OPX	54.5	0.04	1.62	12.9	0.24	29.6	1.25	0.09	<0.01	<0.01	0.02	100.6	82.0
494	CH(W)	OPX	54.8	0.03	1.82	10.7	0.19	30.9	1.18	0.10	<0.01	<0.01	<0.01	100.2	85.1
8796-50	GH(DN)	OPX	51.0	0.01	0.42	5.35	0.10	36.6	0.25	0.06	0.01	<0.01	5.12	99.3	93.1
52	GH(DN)	OPX	54.9	0.04	1.96	10.2	0.22	29.8	2.10	0.23	0.01	<0.01	0.80	100.6	85.3
54	GH(PX)	OPX	54.1	0.03	1.25	10.3	0.21	29.9	1.54	0.12	0.01	<0.01	2.09	99.9	85.2
56	GH(PX)	OPX	52.8	0.04	1.94	9.98	0.19	27.4	4.86	0.18	0.02	0.01	1.90	99.8	84.5
277C	GH(PX)	OPX	54.3	0.04	1.37	12.2	0.25	28.7	1.89	0.11	0.01	<0.01	0.18	99.3	82.3
8996-378	BZ	OPX	56.2	0.01	0.20	9.23	0.18	33.3	0.08	0.05	<0.01	<0.01	0.58	100.1	87.7
8646-225	BH	OPX	52.9	0.04	3.00	8.86	0.18	31.6	3.18	0.19	0.01	<0.01	0.03	100.4	87.6
8796-R59	BH	OPX	53.1	0.02	1.75	7.19	0.16	31.7	3.07	0.11	0.01	<0.01	2.21	99.7	89.7
72	BH	OPX	45.4	0.02	1.45	8.20	0.15	34.3	1.24	0.06	<0.01	<0.01	8.34	99.7	89.2
76	BH	OPX	53.0	0.03	2.09	6.20	0.17	31.5	3.60	0.09	0.01	0.01	2.14	99.3	91.0
125	BH	OPX	45.2	0.02	1.75	8.09	0.15	34.2	1.36	0.05	<0.01	<0.01	8.15	99.7	89.3
291	BH	OPX	52.8	0.02	2.09	6.96	0.14	31.8	2.52	0.11	0.01	0.01	3.25	100.1	90.1
8996-470	FS(PX)	WEBSTERITE	54.6	0.03	1.04	9.76	0.23	27.0	6.91	0.11	<0.01	<0.01	0.02	100.0	84.6
8796-223	BH	WEBSTERITE	48.6	0.05	1.99	7.39	0.18	30.0	6.06	0.09	0.01	0.01	5.35	100.1	88.9

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. OPX=Orthopyroxenite

APPENDIX (continued)

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8646-209	NM	<20	3	15	4600	78	663	8	39	13	0.0	0.01	0.6	0.8	0.1	0.05	80.0	8.00
213	NM	<20	5	16	4610	79	635	3	44	10	0.1	0.02	1.7	7.7	0.3	0.04	385	25.7
8796-26	NM	26	12	23	2860	75	668	2	42	10	1.5	0.30	4.2	5.2		0.17	17.3	
27	NM	27	9	15	3580	94	1160	2	45	20	<0.9	0.35	0.7	3.6		0.19	10.3	
28	NM	25	14	30	3320	78	750	0	23	6	1.3	0.30	<0.4	7.0		0.44	23.3	
341	NM	<20	26	51	3930	93	628	6	63	20		0.21	1.7	8.5	0.1	0.32	40.5	85.0
343	NM	<20	16	19	3380	82	796	13	39	24		0.10	3.9	8.1	0.7	0.15	81.0	11.6
8796-96	FS(DN)	<20	24	52	4710	88	557	9	54	40	2.8	0.22	2.7	78.9	1.7	0.10	359	46.4
215	FS(PX)	<20	22	40	2670	107	725	8	53	17	2.1	0.35	1.0	68.1	0.5	0.04	195	136
R150	FS(PX)	<20	16	20	3240	88	814	13	53	9		0.15	2.2	0.3		0.08	2.00	
29	FS(PX)	29	22	47	3610	87	798	0	58	15	0.9	0.32	0.8	3.0		0.45	9.38	
30	FS(PX)	26	13	23	3570	81	887	2	48	23	0.9	0.32	2.1	2.6		0.10	8.13	
31	FS(PX)	24	9	30	3980	89	796	0	55	16	0.9	0.33	1.1	5.7		0.56	17.3	
32	FS(PX)	54	17	39	3590	83	788	4	60	21	1.5	0.35	1.8	5.0		0.28	14.3	
33	FS(PX)	29	17	41	3740	86	805	2	60	14		0.21	1.2	5.3		0.08	25.2	
34	FS(PX)	28	17	43	3630	91	813	3	64	8		0.16	0.9	7.5	0.1	0.05	46.9	75.0
35	FS(PX)	21	10	27	3160	93	848	4	66	9		0.11	2.0	2.9	0.3	0.07	26.4	9.67
37	FS(PX)	31	7	20	3510	87	839	2	48	6		0.20	1.6	5.3	<0.2	0.03	26.5	
99	FS(PX)	<20	22	41	3550	80	611	271	60	21		0.19	1.2	57.4	0.7	0.20	302	78.7
8996-472	FS(PX)	<20	29	46	3020	76	450	16	74	22		0.37	2.8	48.7	0.6	0.14	132	77.3
8796-36	CH(PX)	<20	19	47	3330	95	928	31	68	39	0.4	0.20	1.4	5.2	2.2	0.11	26.0	2.36
38	CH(PX)	<20	9	12	3360	103	1200	4	44	8		0.19	1.6	1.8	0.2	0.04	9.47	9.00
40	CH(PX)	58	7	16	3210	90	1050	1	36	6		0.15	2.6	0.7	<0.5	0.04	4.67	
42	CH(PX)	52	24	52	3720	89	631	3	74	12		0.17	1.5	3.9	0.8	0.04	22.9	4.88
44	CH(PX)	42	20	49	3160	90	699	5	69	19		0.19	1.1	3.6	0.1	0.08	18.9	36.0
45	CH(W)	42	27	62	3780	83	634	10	77	22		0.16	3.4	4.8	0.4	0.07	30.0	12.0
46	CH(W)	44	16	55	4120	80	684	5	74	17		0.09	<0.6	4.1	0.2	0.07	45.6	20.5
47	CH(W)	74	24	61	3130	72	663	1	40	12		0.10	0.8	4.6	0.4	0.10	46.0	11.5
8996-490	CH(W)	<20	22	59	3100	92	598	15	110	23								
493	CH(W)	<20	25	59	2840	90	624	27	96	15								
494	CH(W)	<20	23	54	3800	85	841	13	93	16								
8796-50	GH(DN)	35	2	9	3530	63	617	<1	24	<1		0.16	1.3	1.5	<0.3	0.06	9.38	
52	GH(DN)	34	21	62	2560	73	484	2	50	14		0.21	0.9	11.8	2.2	0.03	56.2	5.36
54	GH(PX)	39	25	53	2500	74	468	1	41	6		0.07	0.7	2.6	0.6	0.02	37.1	4.33
56	GH(PX)	24	18	69	4300	75	433	13	50	39		0.10	0.7	4.4	2.9	0.03	44.0	1.52
277C	GH(PX)	<20	33	75	2070	81	421	10	56	4		0.01	1.3	10.5		0.09	1050	
8996-378	BZ	<20	10	11	2120	78	580	29	61	8		0.03	0.2	6.1	0.5	0.96	202	11.9
8646-225	BH	85	22	66	2910	84	565	8	34	6	0.8	0.17	0.8	19.2	1.9	0.10	113	10.1
8796-R59	BH	<20	19	46	3100	71	368	5	22	32		0.20	1.2	42.6	2.1	0.20	213	20.3
72	BH	268	14	49	4130	86	1120	20	38	9		0.18	3.2	15.4	2.9	0.08	85.6	5.31
76	BH	89	25	70	3860	60	593	4	32	13		0.13	2.1	9.0	2.1	0.07	69.2	4.29
125	BH	91	23	34	5800	78	1150	7	<1	<1		0.32	3.7	16.8	1.2	0.11	52.5	14.0
291	BH	213	22	48	3400	65	450	8	30	1								
8996-470	FS(PX)	<20	31	63	2610	70	387	14	57	25		0.27	1.8	40.6	0.5	0.17	150	90.2
8796-223	BH	191	25	70	3270	66	395	65	43	24		0.03	0.2	4.0	0.3	0.25	134	13.0

APPENDIX . Whole-Rock Geochemistry of Plagioclase-Bearing Cumulate Rocks from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

OLIVINE-PLAGIOCLASE CUMULATES

SAMPLE #	MAP UNIT	ROCK TYPE	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-61	PP(L)	PL. DUNITE	37.0	0.01	5.39	9.24	0.13	34.8	0.11	0.04	<0.01	0.01	12.7	100.0	88.2
8646-201	PP(L)	TROCTOLITE	38.2	0.02	6.94	9.58	0.15	30.2	4.76	0.18	0.01	<0.01	9.33	99.5	86.2
8646-218	PP(L)	TROCTOLITE	36.1	0.01	12.7	7.83	0.12	25.0	7.20	0.14	0.01	<0.01	10.7	100.2	86.3
8796-63	PP(L)	TROCTOLITE	36.8	0.01	9.86	8.16	0.12	27.8	5.45	0.08	0.01	<0.01	10.3	99.1	87.1
8796-71	BH	TROCTOLITE	35.4	0.01	7.53	9.36	0.20	32.4	2.77	0.03	<0.01	<0.01	12.1	100.3	87.3
80	BH	TROCTOLITE	36.7	0.01	8.93	9.70	0.14	28.8	5.20	0.10	<0.01	<0.01	9.87	99.8	85.5
81	BH	TROCTOLITE	36.2	0.01	5.97	11.3	0.17	33.1	0.55	0.09	<0.01	0.02	12.0	99.9	85.3
123	BH	TROCTOLITE	37.2	0.01	12.7	7.79	0.14	23.8	8.18	0.13	0.01	<0.01	10.3	100.5	85.8
206	BH	ANORTH.	31.9	0.01	26.1	1.28	0.93	10.5	21.6	0.04	<0.01	0.01	7.34	99.9	94.2

PLAGIOCLASE PERIDOTITE

SAMPLE #	MAP UNIT	ROCK TYPE	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-114	PP(L)	PL. HARZ	39.1	0.02	3.89	11.4	0.18	32.0	3.28	0.07	<0.01	<0.01	8.79	99.1	84.8
8796-138	BH	PL. HARZ	39.9	0.03	3.86	11.3	0.16	33.7	0.93	0.09	0.01	<0.01	8.55	99.3	85.5
151	BH	PL. HARZ	42.7	0.08	6.97	11.3	0.17	26.0	5.63	0.58	0.03	0.01	5.51	99.4	82.0
8996-492	CH(W)	PL. LHERZ	48.7	0.09	12.1	10.7	0.19	14.4	11.7	0.81	0.19	0.01	0.93	100.0	72.7
8796-116	PP(L)	PL. LHERZ	46.0	0.05	6.78	9.70	0.18	24.3	8.04	0.27	0.02	<0.01	4.37	99.9	83.2
117	PP(L)	PL. LHERZ	40.6	0.03	5.62	11.2	0.19	28.8	5.31	0.10	<0.01	0.01	7.63	99.8	83.6
120	PP(L)	PL. LHERZ	41.6	0.04	5.98	9.28	0.15	29.3	4.46	0.10	0.01	<0.01	7.91	99.5	86.2
122	PP(L)	PL. LHERZ	39.3	0.02	6.71	10.4	0.17	28.1	5.59	0.10	0.01	0.01	8.83	99.6	84.2

PLAGIOCLASE PYROXENITE

SAMPLE #	MAP UNIT	ROCK TYPE	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-228	CH(W)	PL. OPX	53.5	0.04	6.19	12.0	0.21	23.9	3.11	0.68	0.02	0.01	0.00	100.0	79.8
270a	CH(W)	PL. OPX	52.6	0.06	5.76	12.5	0.17	24.4	2.99	0.34	0.01	0.01	0.47	99.7	79.5
270b	CH(W)	PL. OPX	52.6	0.04	4.96	12.3	0.21	24.3	2.92	0.45	0.04	0.02	1.83	100.0	79.6
8996-423	CH(W)	PL. WEB	50.4	0.04	6.66	12.4	0.24	21.0	5.16	0.33	0.07	0.01	3.58	100.0	77.1
425	CH(W)	PL. OPX	43.5	0.03	3.56	13.8	0.18	29.4	2.37	0.12	0.01	0.01	6.58	100.1	80.8
428	CH(W)	PL. OPX	54.6	0.03	1.31	11.5	0.23	27.9	3.12	0.17	0.02	<0.01	1.00	100.2	82.8
8796-275	GH(PX)	PL. WEB	50.2	0.05	3.49	7.85	0.17	23.3	9.34	0.24	0.01	<0.01	4.12	99.2	85.5
279	GH(PX)	PL. OPX	47.8	0.03	20.6	4.71	0.09	10.5	11.8	0.85	1.21	0.01	1.88	99.6	81.5
280	GH(PX)	PL. WEB	47.2	0.07	8.79	5.84	0.10	21.8	10.1	1.50	0.05	<0.01	3.37	99.4	88.1
282	GH(PX)	PL. WEB	52.9	0.05	2.21	10.2	0.22	21.8	11.5	0.19	0.05	<0.01	0.23	99.6	80.9
8796-215b	PP(L)	PL. WEB	48.5	0.05	3.90	10.3	0.18	19.7	13.2	0.17	0.07	0.02	3.44	99.8	79.1
8796-77	BH	PL. OPX	46.3	0.01	20.3	3.33	0.08	14.6	11.2	0.53	0.24	<0.01	2.92	99.7	89.7
134	BH	PL. WEB	45.1	0.04	10.0	7.90	0.15	22.1	9.46	0.46	0.03	<0.01	4.79	100.4	84.7

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. Abbreviations: PL=plagioclase; ANORTH=anorthosite; HARZ=harzburgite; LHERZ=Lherzolite; PYROX=pyroxenite; OPX=orthopyroxenite; WEB=websterite

APPENDIX (continued)

OLIVINE-PLAGIOCLASE CUMULATES

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-61	PP(L)	76	7	25	3480	123	1650	<1	45	<1	3		0.41	<1.0	3.1	1.4	0.05	7.56	2.21
8646-201	PP(L)	31	9	48	109	109	1180	23	45	25	8	0.5	0.53	4.6	4.1	1.3	0.21	7.74	3.15
8646-218	PP(L)	52	1	10	2330	99	850	16	24	5	7	0.7	0.24	2.2	4.8	1.6	0.03	20.0	3.00
8796-63	PP(L)	49	5	29	3460	93	1150	7	33	9	9		0.39	2.2	2.6	1.4	0.06	6.67	1.86
8796-71	BH	155	7	16	3130	109	1070	4	44	<1	8		0.20	2.7	9.7	1.6	0.18	48.5	6.06
80	BH	271	5	10	2030	106	952	<1	36	10	21		0.25	<0.3	3.1	0.9	0.06	12.4	3.44
81	BH	104	7	24	3740	133	1270	19	47	0	22	2.3	1.09	3.8	8.3	2.4	0.17	7.61	3.46
123	BH	<20	<1	11	1630	89	861	17	28	47	27		0.09	2.9	2.8	2.5	0.13	31.1	1.12
206	BH	<20	3	9	2070	8	34	14	18	2	25		0.30	3.4	6.4	1.0	0.13	21.3	6.40

PLAGIOCLASE PERIDOTITE

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-114	PP(L)	213	20	49	2440	116	1110	17	50	<1	5		0.28	1.3	6.6	10.8	0.16	23.6	0.61
8796-138	BH	277	16	53	6530	95	1290	80	113	2	17		0.32	1.0	2.8	0.5	0.31	8.81	5.53
151	BH	163	26	112	3090	98	927	46	70	13	26		0.07	0.8	6.6	10.1	0.77	93.6	0.65
8996-492	CH(W)	23	47	193	881	58	212	22	117	54	38								
8796-116	PP(L)	24	32	91	1660	78	562	44	67	8	20		0.05	1.1	10.5	10.3	0.42	210	1.01
117	PP(L)	<20	22	56	2300	103	958	32	81	6	12		0.31	0.7	4.6	4.1	0.27	14.8	1.11
120	PP(L)	104	20	89	4850	94	1300	11	46	6	<1		0.34	3.4	5.3	7.3	0.19	15.6	0.73
122	PP(L)	49	18	53	2820	98	950	77	56	7	9		0.10	0.8	9.2	5.0	0.28	91.9	1.83

PLAGIOCLASE PYROXENITE

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-228	CH(W)	56	25	64	2410	75	516	12	68	48	6		0.12	0.40	9.7	0.8	1.89	80.8	12.1
270a	CH(W)	51	27	80	2540	78	577	6	53	32	<1		0.14	1.20	5.6	3.0	0.18	40.0	1.87
270b	CH(W)	49	25	67	2780	78	531	9	65	28	4		0.17	0.90	3.4	1.8	0.17	20.0	1.89
8996-423	CH(W)	<20	33	60	1240	77	280	26	116	28	22								
425	CH(W)	35	19	58	3840	119	1040	26	123	12	13								
428	CH(W)	<20	35	75	2530	85	442	12	101	2	16								
8796-275	GH(PX)	<20	21	83	3130	68	491	4	10	5	2		0.04	0.42	11.0	12.9	0.12	275	0.85
279	GH(PX)	49	18	54	729	33	168	12	16	184	52		<0.01	0.1	0.6	0.7	0.08		0.86
280	GH(PX)	37	21	119	5140	47	536	11	11	4	6		0.01	2.2	1.8	0.4	0.05	180	4.50
282	GH(PX)	61	60	130	1480	65	417	15	41	8	28		0.01	1.60	6.2	3.6	0.09	620	1.72
8796-215b	PP(L)	<20	19	58	2400	62	432	8	39	50	24								
8796-77	BH	<20	10	19	1290	36	284	4	8	113	28		0.10	<0.4	8.6	1.3	0.05	86.0	6.62
134	BH	<20	27	76	2890	74	592	18	38	22	33		0.10	2.3	2.2	4.6	0.23	22.0	0.48

APPENDIX . Whole-Rock Geochemistry of Dykes from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

SAMPLE #	MAP UNIT	ROCK TYPE	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8646-222	G(D)	F.G. GABBRO	52.8	0.21	14.9	10.1	0.18	8.53	11.2	1.62	0.07	<0.01	0.75	100.5	62.6
8796-R56	G(D)	F.G. GABBRO	48.5	0.02	20.3	3.34	0.08	11.2	15.2	0.74	0.26	<0.01	1.10	100.9	86.9
R107	G(D)	F.G. GABBRO	49.7	0.03	4.48	9.28	0.22	23.1	9.03	0.32	0.03	0.01	3.52	100.1	83.1
48	G(D)	F.G. GABBRO	50.0	0.17	14.8	7.97	0.14	10.2	11.5	2.10	0.53	0.01	2.65	100.2	71.7
57	G(D)	F.G. GABBRO	40.2	0.38	14.6	22.7	0.11	7.80	12.7	0.84	0.02	0.05	0.93	100.5	40.5
82	G(D)	F.G. GABBRO	49.1	0.14	15.3	7.32	0.11	11.3	12.0	1.34	0.73	0.01	2.18	99.7	75.4
83	G(D)	F.G. GABBRO	48.5	0.14	14.8	7.47	0.10	11.7	12.2	1.47	0.61	0.02	2.36	99.6	75.6
136	G(D)	F.G. GABBRO	52.5	0.20	14.1	10.2	0.18	8.49	12.1	1.44	0.11	0.03	0.23	99.6	62.2
146	G(D)	F.G. GABBRO	57.6	0.15	16.6	9.60	0.09	4.26	5.58	3.16	0.17	0.03	2.79	100.5	46.8
216a	G(D)	F.G. GABBRO	40.3	0.13	11.2	8.69	0.16	11.9	23.4	0.11	<0.01	0.11	3.92	100.1	73.1
276a	G(D)	F.G. GABBRO	49.0	0.15	14.5	10.9	0.19	11.3	12.6	0.89	0.09	0.01	0.19	99.9	67.3
283	G(D)	F.G. GABBRO	48.1	0.11	13.1	12.4	0.21	13.0	8.28	0.98	0.86	<0.01	1.95	99.2	67.5
286	G(D)	F.G. GABBRO	51.2	0.04	4.41	8.57	0.20	22.7	9.61	0.27	0.03	0.02	2.36	99.8	84.0
293	G(D)	F.G. GABBRO	52.8	0.04	5.14	9.24	0.19	21.9	7.37	0.74	0.07	<0.01	2.23	100.1	82.4
352c	G(D)	F.G. GABBRO	48.3	0.08	6.45	16.7	0.28	19.0	7.60	0.32	0.04	<0.01	0.88	99.9	69.3
8996-397	G(D)	F.G. GABBRO	52.8	0.35	11.9	8.82	0.17	12.2	11.3	1.29	0.48	0.06	0.23	99.9	73.3
418	G(D)	F.G. GABBRO	50.7	0.05	3.68	12.7	0.25	23.0	6.69	0.28	0.03	0.01	2.14	100.0	78.1
419	G(D)	F.G. GABBRO	48.6	0.13	14.1	9.64	0.18	11.6	13.4	0.83	0.14	<0.01	0.92	99.7	70.4
420	G(D)	F.G. GABBRO	49.6	0.10	14.4	9.26	0.16	11.2	13.3	1.11	0.18	0.02	0.33	99.8	70.5
422	G(D)	F.G. GABBRO	46.7	0.13	17.9	9.96	0.16	7.62	12.1	1.64	0.53	<0.01	2.64	99.5	60.2
8796-R74	G(A)	ANORTHOSITE	34.8	0.25	23.3	3.16	0.08	2.41	33.1	0.12	<0.01	0.01	3.56	100.9	60.2
R88	G(A)	ANORTHOSITE	33.0	0.20	24.4	7.48	0.09	2.21	28.9	0.15	0.01	0.01	4.04	100.5	36.9
215a	G(A)	ANORTHOSITE	59.5	0.02	16.7	1.22	0.05	2.08	10.3	8.09	0.05	0.02	1.76	99.9	77.2
290	G(A)	ANORTHOSITE	35.9	0.37	21.9	1.17	0.12	3.40	33.8	0.03	<0.01	0.02	3.44	100.2	85.2
295	G(A)	ANORTHOSITE	31.8	0.23	22.9	5.58	0.11	2.86	30.9	0.07	0.03	0.02	5.46	100.0	50.4
303	G(A)	LEUCOGABBRO	34.7	0.04	13.5	8.23	0.27	28.3	4.78	0.04	<0.01	0.02	10.6	100.5	87.2
8646-227	G(PX)	C.G. GABBRO	44.5	0.03	20.0	6.61	0.14	9.64	15.4	0.45	0.09	<0.01	3.23	100.2	74.3
230	G(PX)	C.G. GABBRO	44.0	0.03	20.2	5.52	0.10	10.1	15.0	0.69	0.12	<0.01	3.93	99.8	78.4
8796-R121c	G(PX)	C.G. GABBRO	35.5	0.06	9.82	9.91	0.20	26.0	8.61	0.04	0.02	<0.01	10.4	100.6	83.9
R160	G(PX)	C.G. GABBRO	50.7	0.12	6.78	10.7	0.22	17.8	11.1	0.54	0.09	0.01	1.61	99.9	76.7
60	G(PX)	C.G. GABBRO	47.5	0.03	21.5	7.10	0.13	8.23	13.5	0.86	0.71	<0.01	1.18	100.8	69.7
62	G(PX)	C.G. GABBRO	46.4	0.04	19.0	9.14	0.16	10.0	12.7	0.83	0.27	0.01	2.40	101.0	68.3
218	G(PX)	C.G. GABBRO	49.2	0.08	10.1	9.62	0.19	17.3	11.1	0.51	0.06	0.01	2.12	100.4	78.1
235	G(PX)	C.G. GABBRO	51.6	0.04	10.8	7.56	0.15	19.5	7.73	0.57	0.73	0.01	1.34	100.2	83.6
268	G(PX)	C.G. GABBRO	50.5	0.07	3.61	7.90	0.18	18.3	17.1	0.22	0.01	<0.01	1.17	99.3	82.1
269	G(PX)	C.G. GABBRO	47.8	0.04	10.0	7.45	0.15	16.3	16.0	0.31	0.01	0.01	1.75	100.1	81.2
273	G(PX)	C.G. GABBRO	46.5	0.05	16.9	6.98	0.13	10.9	13.0	1.33	0.63	0.02	3.20	99.7	75.6
278	G(PX)	C.G. GABBRO	47.0	0.03	17.8	5.28	0.10	12.2	12.5	0.88	0.71	0.01	2.50	99.2	82.1
352b	G(PX)	C.G. GABBRO	40.1	0.21	9.92	16.1	0.22	11.8	18.2	0.18	0.02	<0.01	2.98	99.9	99.4
8996-415	G(PX)	C.G. GABBRO	45.2	0.03	15.8	6.76	0.13	12.2	16.1	0.47	0.06	0.01	2.74	99.6	78.1
416	G(PX)	C.G. GABBRO	53.5	0.02	1.33	10.3	0.2	29.5	3.20	0.09	0.01	0.01	1.30	100.1	85.0
432	G(PX)	C.G. GABBRO	51.4	0.05	2.79	8.20	0.2	20.0	15.5	0.24	0.03	<0.01	1.35	100.1	82.9
485	G(PX)	C.G. GABBRO	49.7	0.02	10.2	7.42	0.16	20.9	9.05	0.56	0.02	<0.01	1.83	100.1	84.8
488b	G(PX)	C.G. GABBRO	43.7	0.02	12.1	6.07	0.31	15.1	19.5	0.11	0.01	<0.01	2.87	100.0	83.2
8796-158	BA(PX)	BAPX	53.7	0.02	2.01	12.8	0.23	27.0	1.26	0.14	0.03	0.01	2.56	100.3	80.7
166	BA(PX)	BAPX	52.1	0.06	5.08	9.09	0.17	24.7	3.36	0.36	0.02	<0.01	5.19	100.5	84.3
8996-374	BA(PX)	BAPX	53.7	0.05	2.40	14.6	0.25	24.2	1.68	0.26	0.04	<0.01	2.27	99.8	76.6

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. Notes: GABBRO refers to gabbronorite; BAPX refers to basaltic-pyroxenite.

APPENDIX (continued)

SAMPLE #	MAP UNIT	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Y	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8646-222	G(D)	108	41	234	297	42	87	126	57	27	10	10	19		0.02	0.1	8.7	20.6	0.68	435	0.42
8796-R56	G(D)	27	26	58	741	31	192	63	6	73	2	7	43		0.03	0.9	8.6	16.0	0.17	287	0.54
R107	G(D)	<20	19	74	3230	69	566	15	30	22	<1	5	47		0.06	0.7	7.8	4.4	0.74	130	1.77
48	G(D)	53	46	214	483	49	150	2	18	130	5	6	49		0.08	0.6	9.3	4.8	0.13	116	1.94
57	G(D)	38	64	759	8	61	189	9	22	24	1	1	50		0.08	<1.6	8.5	36.0	0.13	106	0.24
82	G(D)	79	35	156	1220	36	189	8	8	69	5	7	118		0.10	1.8	60.7	<0.4	16.0	607	
83	G(D)	134	35	144	1170	34	198	22	5	76	5	6	102		0.10	<0.2	6.6	8.0	0.12	66.0	0.83
136	G(D)	<20	43	237	292	35	79	36	122	27	7	7	35								
146	G(D)	3260	32	266	10	43	34	1250	18	126	7	7	64		0.01	0.6	5.8	22.0	0.67	580	0.26
216a	G(D)	227	76	141	725	71	284	11	21	5	2	4	30								
276a	G(D)	<20	45	241	509	49	120	12	57	39	3	3	12		0.03	0.4	17.0	24.3	0.32	567	0.70
283	G(D)	64	37	217	779	61	198	11	57	94	4	4	62		0.03	0.6	2.8	6.4	0.16	93.3	0.44
286	G(D)	<20	24	73	3040	56	593	4	26	33	2	5	26								
293	G(D)	<20	21	67	3340	62	419	4	44	80	2	8	27								
352c	G(D)	<20	31	184	2250	80	403	15	165	77	<1	4	37								
8996-397	G(D)	119	36	245	442	46	159	44	103	98	11	46	140								
418	G(D)	<20	36	116	2820	78	485	17	145	14	1	2	20								
419	G(D)	148	46	194	729	49	174	106	86	65	3	1	32								
420	G(D)	<20	48	215	501	48	124	14	115	53	3	2	23								
422	G(D)	<20	38	286	182	43	48	16	83	140	1	5	51								
8796-R74	G(A)	57	4	15	28	22	104	287	8	21	9	139	46		0.01	0.2	15.9	6.6	3.78	1590	2.41
R88	G(A)	<20	8	30	54	32	62	95	17	9	5	126	53		0.17	0.7	3.7	2.2	0.73	21.8	1.68
215a	G(A)	<20	<1	5	21	6	30	6	0	474	2	12	212								
290	G(A)	33	4	25	42	16	99	12	13	6	4	176	30								
295	G(A)	191	9	20	23	24	61	28	9	30	4	120	28	<2	1	12	3	13	3	3	0.23
303	G(A)	26	8	18	240	40	285	2	59	0	2	4	1	<2	1	1	1	4	3	1	0.25
8646-227	G(PX)	<20	15	32	203	42	167	11	25	153	1	6	32		0.01	0.1	1.3	0.2	0.03	130	6.50
230	G(PX)	<20	11	43	577	38	276	21	21	250	1	8	51	0.1	0.04	0.6	5.1	25.0	0.09	128	0.20
8796-R121c	G(PX)	94	8	39	447	59	426	14	39	6	4	4	20	<0.4	0.06	0.5	6.1	6.6	0.86	102	0.92
R160	G(PX)	<20	24	84	921	53	278	12	86	22	5	6	37		0.01	0.1	0.8	0.4	0.12	78.0	1.90
60	G(PX)	<20	25	77	175	39	100	22	29	250	2	10	85		<0.01	0.1	3.1	2.7	0.21		1.15
62	G(PX)	<20	19	64	142	45	128	3	32	226	<1	6	63		0.09	<0.9	1.0	0.5	0.04	11.1	2.00
218	G(PX)	<20	19	63	1000	55	274	9	52	23	3	3	15								
235	G(PX)	<20	23	71	1910	52	323	19	69	105	1	4	50								
268	G(PX)	26	65	153	2190	51	288	19	25	14	3	5	38		0.004	0.6	11.5	1.8	0.07	2880	6.39
269	G(PX)	<20	37	84	1130	49	266	12	57	65	<1	4	38								
273	G(PX)	49	43	131	486	42	121	13	13	126	<1	2	16		0.05	0.4	14.6	9.3	0.15	292	1.57
278	G(PX)	39	17	69	867	38	200	8	11	341	2	9	196		0.01	0.7	6.5	7.8	0.06	650	0.83
352b	G(PX)	48	45	688	700	65	189	17	111	92	1	4	59								
8996-415	G(PX)	<20	26	82	240	41	168	19	31	203	<1	6	53		0.003	0.1	1.5	1.0	0.09	500	1.49
416	G(PX)	<20	17	53	5310	80	456	21	87	7	<1	<1	6								
432	G(PX)	<20	58	139	2580	56	461	30	71	7	1	3	32								
485	G(PX)	39	23	68	1980	55	282	22	105	53	<1	2	29								
488b	G(PX)	<20	17	43	1030	43	231	17	67	7	<1	2	28								
8796-158	BA(PX)	<20	18	82	4280	64	545	11	59	1	<1	2	18		0.03	1.7	13.1	6.0	0.86	437	2.18
166	BA(PX)	<20	23	58	2470	69	566	12	62	8	2	5	1		0.03	1.1	5.8	5.2	0.41	193	1.12
8996-374	BA(PX)	<20	36	110	3030	94	509	23	106	5	<1	4	26								

APPENDIX . Whole-Rock Geochemistry of Volcanic Rocks from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

LOW-TITANIUM THOLEIITIC BASALT

SAMPLE #	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-3	49.3	0.23	14.50	10.4	0.18	11.2	11.9	1.18	0.10	0.03	1.11	100.3	68.1
6	49.9	0.21	14.70	9.54	0.20	9.84	11.1	1.49	0.90	0.02	2.03	100.1	67.1
8	53.0	0.29	14.20	11.2	0.18	7.63	9.71	2.13	0.57	0.04	1.66	100.7	57.4
9	51.2	0.24	14.60	10.5	0.20	8.65	10.5	2.35	0.27	0.02	1.48	100.2	62.0
13	53.6	0.34	13.50	11.8	0.20	7.40	8.47	2.39	0.44	0.03	2.10	100.4	55.4
85	51.1	0.27	14.30	10.9	0.21	8.08	10.1	2.37	0.60	0.03	2.00	100.1	59.5
86	54.0	0.22	14.10	10.2	0.19	7.70	9.23	2.03	0.42	0.06	1.68	99.9	59.9
87	49.5	0.22	15.40	9.75	0.20	8.84	11.2	1.57	0.64	0.04	2.19	99.7	64.2
88	50.3	0.28	14.40	10.9	0.20	8.09	11.1	1.73	0.24	0.03	2.55	100.0	59.5
314	50.6	0.23	14.30	10.3	0.20	8.85	10.6	2.08	0.41	0.03	1.46	99.2	63.0
315	53.3	0.21	14.90	9.56	0.17	6.70	8.77	2.89	0.57	0.02	1.66	98.9	58.1
316	50.4	0.23	14.30	9.93	0.20	8.70	11.6	1.40	0.36	0.02	1.86	99.1	63.4
317	50.1	0.25	14.10	9.93	0.19	8.30	11.8	1.58	0.29	0.02	1.70	98.4	62.3
318	51.0	0.19	11.90	10.6	0.21	11.3	9.61	1.22	0.27	0.03	2.36	98.8	67.9
319	49.8	0.23	14.30	9.96	0.17	8.56	11.7	1.50	0.12	0.03	2.04	98.5	63.0
320	51.2	0.23	14.10	9.50	0.18	8.61	11.2	1.50	0.38	0.02	2.14	99.2	64.2
321	53.3	0.27	13.60	12.4	0.22	7.90	5.54	2.67	0.19	0.04	3.16	99.5	55.8
322	50.8	0.23	14.70	9.93	0.27	8.74	9.43	1.72	1.29	0.02	2.46	99.7	63.5
323	50.6	0.24	14.70	9.96	0.19	8.70	12.3	1.12	0.16	0.02	1.78	99.9	63.4
324	50.8	0.32	14.00	12.0	0.22	7.49	9.73	2.18	0.55	0.03	2.42	99.9	55.3

BONINITE

SAMPLE #	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-171	54.3	0.05	4.71	11.0	0.36	16.9	9.00	0.47	0.03	0.02	2.45	99.6	75.3
200	54.9	0.09	8.80	8.92	0.15	12.1	5.11	0.22	0.03	0.05	9.32	99.9	72.9
201	53.8	0.08	3.68	10.0	0.15	24.0	2.92	0.37	0.02	0.02	4.10	99.5	82.6
8996-370	52.3	0.09	6.65	10.3	0.16	20.8	3.26	0.41	0.30	0.02	5.19	99.9	79.9
371	51.2	0.08	7.89	9.96	0.17	18.6	5.07	0.82	0.02	0.02	5.70	99.8	78.7
372	51.8	0.08	7.71	9.87	0.17	18.5	5.13	0.83	0.02	0.02	5.55	100.0	78.8

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb.

APPENDIX (continued)

LOW-TITANIUM THOLEIITIC BASALT

SAMPLE #	S	Sc	V	Cr	Co	Ni	Cu	Zn	Rb	Sr	Y	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-3	218	41	207	631	51	175	58	53	1	23	9	9	50	0.4	0.17	0.7	8.0	13.2	0.82	47.1	0.61
6	51	42	211	656	38	106	102	77	19	55	8	8	225	0.5	0.18	<1.0	11.9	13.4	1.16	66.1	0.89
8	<20	44	266	119	34	59	17	59	15	77	11	11	145	1.3	0.21	1.6	14.8	15.6	0.67	70.5	0.95
9	760	40	227	373	47	91	77	67	5	67	9	9	65	<0.8	0.17	1.3	12.4	10.4	1.68	72.9	1.19
13	649	42	311	296	44	101	38	70	7	66	13	13	118		0.01	2.4	11.5	30.6	0.91	1150	0.38
85	37	50	251	284	43	69	160	68	11	126	14	14	166		0.08	<0.7	32.0	19.9	5.20	400	1.61
86	<20	42	225	243	34	66	15	92	10	53	8	8	117		0.07	0.5	8.6	15.1	0.45	123	0.57
87	119	41	204	483	43	103	106	80	12	70	10	10	149		0.08	<0.5	10.6	12.9	0.56	133	0.82
88	296	49	266	255	40	71	197	75	6	57	12	12	61		0.07	<0.6	11.7	16.9	0.66	167	0.69
314	147	51	230	474	44	87	41	56	8	61	9	10	93								
315	577	44	248	117	39	54	129	48	15	116	9	13	86								
316	92	45	226	476	42	83	86	58	10	37	8	9	119								
317	157	47	248	376	43	76	126	55	5	36	8	9	44								
318	72	49	206	757	47	147	79	68	7	27	7	8	67								
319	72	46	231	381	43	87	88	46	4	27	8	8	35								
320	97	44	223	263	41	99	61	43	11	44	8	11	72								
321	440	43	357	337	47	105	464	144	4	53	10	14	40								
322	134	43	233	286	42	102	107	89	27	63	9	8	387								
323	276	43	229	225	42	93	102	55	3	25	8	8	47								
324	256	48	296	86	45	78	126	77	11	65	10	11	129								

BONINITE

SAMPLE #	S	Sc	V	Cr	Co	Ni	Cu	Zn	Rb	Sr	Y	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-171	<20	16	77	2060	84	621	8	92	1	14	3	7	<1		0.05	1.6	9.1	7.9	0.99	182	1.15
200	31	21	108	1260	53	359	6	57	<1	20	1	19	14		0.06	0.9	2.3	5.2	0.22	38.3	0.44
201	24	33	105	2220	72	403	387	36	1	1	2	6	3		0.13	1.3	14.1	3.9	0.16	108	3.62
8996-370	<20	30	114	2740	76	728	47	150	8	114	6	8	53		0.09	1.3	6.0	8.1	2.37	66.4	0.74
371	20	28	110	1720	64	494	21	137	<1	15	2	8	24		0.07	1.2	4.7	5.5	0.30	66.7	0.84
372	<20	27	111	1800	62	526	21	119	<1	14	1	8	24		0.05	1.0	3.1	3.7	0.28	62.8	0.86

APPENDIX . Whole-Rock Geochemistry of Miscellaneous Samples from the Heazlewood River Mafic-Ultramafic Complex, Tasmania.

PLAGIOCLASE PERIDOTITE FROM THE TYPE III CHROMITITE OCCURRENCES

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-R77	BH	PL. PERID	N. Brassey Hill	36.6	0.02	10.3	9.07	0.18	24.5	9.47	0.09	0.01	<0.01	9.52	100.0	84.3
R78	BH	PL. PERID	N. Brassey Hill	25.5	0.27	14.4	14.5	0.32	18.5	7.42	0.46	<0.01	<0.01	5.00	100.1	71.6
R102	BH	PL. PERID	Chromite Ridge	34.3	0.03	10.8	9.57	0.13	20.2	15.6	0.10	0.01	<0.01	9.24	100.1	80.7
R111	BH	PL. PERID	N. Brassey Hill	37.8	0.16	9.97	10.8	0.37	17.8	17.0	0.07	0.01	0.04	6.23	100.4	76.5
R116	BH	PL. PERID	N. Brassey Hill	29.6	0.12	15.5	9.64	0.31	10.6	20.5	0.47	<0.01	<0.01	3.33	99.5	68.5
R118	BH	PL. PERID	N. Brassey Hill	31.3	0.08	14.4	7.69	0.36	16.1	18.4	0.14	<0.01	<0.01	6.04	100.0	80.6
R121c	BH	PL. PERID	Chromite Ridge	35.5	0.06	9.82	9.91	0.20	26.0	8.61	0.04	0.02	<0.01	10.4	100.7	83.9
219	BH	PL. PERID	Chromite Ridge													
301	BH	PL. PERID	N. Brassey Hill	38.9	0.04	2.01	8.07	0.12	37.4	0.24	0.02	<0.01	0.02	13.2	100.4	90.2
305	BH	PL. PERID	N. Brassey Hill	39.7	0.02	5.34	8.50	0.19	29.9	6.30	0.06	0.01	<0.01	10.1	100.4	87.4
307	BH	PL. PERID	N. Brassey Hill	42.9	0.04	6.78	6.70	0.23	26.0	9.81	0.14	0.01	0.02	6.64	99.8	88.5

ROCKS FROM THE TONALITE COMPLEX

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-159	T	GABBRO	E. Burgess Hill	51.3	0.06	14.9	10.6	0.18	8.55	8.82	1.64	1.23	0.01	2.45	99.9	61.5
8646-224	T	DIORITE	E. Burgess Hill	63.4	0.09	18.2	2.36	0.05	3.29	6.11	2.88	1.50	0.02	2.10	100.1	73.4
8796-157	T	DIORITE	E. Burgess Hill	60.4	0.16	11.2	10.2	0.19	9.40	4.69	1.96	0.54	<0.01	1.18	100.1	64.5
161	T	TONALITE	E. Burgess Hill	76.8	0.16	11.4	3.36	0.02	0.90	1.09	4.12	0.36	0.05	1.25	99.5	34.7
164	T	TONALITE	E. Burgess Hill	75.1	0.16	11.8	3.64	0.05	1.33	1.26	4.88	0.25	0.07	1.19	99.8	42.0

MISCELLANEOUS SULPHIDE-RICH ROCKS

SAMPLE #	MAP UNIT	ROCK TYPE	LOCALITY	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	P2O5	LOSS	TOTAL	Mg#
8796-R36	BH	HARZ	L. Brassey Mine	31.8	0.02	7.01	10.6	0.06	29.0	1.45	0.08	<0.01	0.05	7.53	100.7	84.4
R120	BH	HARZ	L. Brassey Mine	30.5	0.01	2.49	23.5	0.07	26.2	0.24	0.10	<0.01	0.07	10.0	99.74	68.9
154	BM	BASALT	E. Burgess Hill	53.2	0.32	14.5	11.7	0.19	7.86	7.79	0.98	0.84	0.03	0.00	100.0	57.1
8646-203	FS(DN)	DUNITE	Fenton's Knob	36.4	0.01	1.10	12.9	0.16	39.9	0.06	0.09	<0.01	0.03	6.83	98.9	86.0
8796-R30	FS(DN)	DUNITE	Fenton's Knob	36.5	<0.01	0.69	12.6	0.18	40.4	0.08	0.00	<0.01	<0.01	8.77	100.0	86.4
R99	FS(DN)	DUNITE	Fenton's Knob	35.2	<0.01	1.41	11.2	0.15	39.5	0.07	0.11	<0.01	0.01	11.6	100.0	87.5
R100	FS(DN)	DUNITE	Fenton's Knob	37.0	<0.01	2.40	11.3	0.12	38.9	0.04	0.08	0.01	<0.01	8.08	100.0	87.2

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. Abbreviations: PL. PERID-plagioclase peridotite; HARZ-harzburgite

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APPENDIX (continued)

PLAGIOCLASE PERIDOTITE FROM THE TYPE III CHROMITITE OCCURRENCES

SAMPLE #	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-R77	20	4	17	1040	80	1020	90	27	5	4	42		0.17	2.8	2.2	5.7	0.34	12.9	0.39
R78	<20	0	520	13.50%	126	671	143	507	<1	8	60		9.38	51.0	4.4	6.9	0.07	0.47	0.64
R102	171	17	46	128	60	194	26	7	5	2	45		0.07	11.5	3.7	3.0	0.57	52.9	1.23
R111	87	48	216	623	48	234	21	29	14	2	19	0.1	0.03	0.3	9.2	13.8	0.20	307	0.67
R116	<20	8	372	9.30	82	478	90	239	16	8	47	52.0	9.21	75.0	23.2	19.7	0.51	2.52	1.18
R118	55	18	201	5.36	66	359	36	139	18	4	22	32.0	5.40	57.0	10.1	30.2	0.76	1.87	0.33
R121c	94	8	39	447	59	426	14	39	6	4	20	<0.4	0.06	0.5	6.1	6.6	0.86	102	0.92
219				19600		550						6	8	67	9	7	4	1.06	1.21
301	157	18	33	1460	113	1960	5	35	<1	3	<1	<2	2	13	19	4	<2	9.50	4.75
305	55	15	31	1350	97	1470	9	28	3	<1	12								
307	23	15	43	4280	63	1100	16	40	4	5	7								

ROCKS FROM THE TONALITE COMPLEX

SAMPLE #	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-159	<20	37	138	258	45	65	13	29	141	9	396		0.01	0.1	3.7	14.7	0.78	411	0.25
8646-224	27	11	23	74	12	71	16	5	234	19	200	0.1	0.01	0.1	0.7	0.2	0.04	74.0	3.70
8796-157	<20	30	143	936	38	148	16	45	55	22	93	<0.2	0.04	1.0	8.1	8.2	0.80	203	0.99
161	<20	5	61	22	9	14	7	8	89	46	46		0.01	<0.7	2.0	5.5	0.22	400	0.36
164	<20	9	118	20	4	18	2	9	54	36	34		0.06	0.2	2.5	13.9	0.42	41.7	0.18

MISCELLANEOUS SULPHIDE-RICH ROCKS

SAMPLE #	S	Sc	V	Cr	Co	Ni	Cu	Zn	Sr	Zr	Ba	Os	Ir	Ru	Pt	Pd	Au	Pt/Ir	Pt/Pd
8796-R36	19160	22	91	438	1610	64300	224	35	<1	12	24		<0.01	0.2	1220	51.8	270		23.6
R120	4960	22	32	351	1150	41000	500	89	<1	25	20		0.02	0.5	955		190	47800	
154	9570	62	285	174	84	1140	560	33	85	20	326		0.01	0.5	17	20.3	0.7	1740	0.86
8646-203	4590	12	24	2372	400	6950	105	26	<1	<1	16	0.7	0.91	3.9	39.6	0.0	9.70	43.5	
8796-R30	1110	11	23	2990	242	3500	35	40	1	2	35		1.10	7.1	60.8	13.3	16.8	55.3	4.57
R99	980	4	22	2980	194	2820	15	30	0	1	35		2.09	5.8	19.5	2.1	4.08	9.33	9.29
R100	6780	7	38	4100	487	9170	185	22	0	1	25	17.0	2.11	11.0	284	24.1	71.0	135	11.8

APPENDIX . Platinum-Group Element and Selected Trace Element Data for Chromitite Samples from the Tasmanian Mafic-Ultramafic Complexes.

TYPE I CHROMITITE

SAMPLE #	LOCALITY	METHOD	Os	Ir	Ru	Rh	Pt	Pd	Au	S	Se	Cr2O3 (%)	CR*	Ni	Cu	Pt/Ir	Pt/Pd
8996-379	Bronzite Hill	RNAA		0.04	3.3		90.7	1.1					30			2270	82.5
445	SwordGrass Hill	RNAA		0.03	7.0		97.5	5.8					30			3250	16.8
446	SwordGrass Hill	RNAA		0.02	1.9		13.9	<100					20			695	
447	SwordGrass Hill	RNAA		0.10	3.1		46.0	<100					15			460	
448	SwordGrass Hill	RNAA		1.16	8.4		24.5	23.0					15			21.1	1.07
455	SwordGrass Hill	RNAA		0.54	5.0		30.3	<100					15			56.1	
456	SwordGrass Hill	RNAA		3.47	8.8		37.4	0.5					15			10.8	76.3
457	SwordGrass Hill	RNAA		0.03	3.3		42.6	5.0					10			1420	8.52

TYPE II CHROMITITE

SAMPLE #	LOCALITY	METHOD	Os	Ir	Ru	Rh	Pt	Pd	Au	S	Se	Cr2O3 (%)	CR*	Ni	Cu	Pt/Ir	Pt/Pd
8796-R33	Fenton's Area	RNAA	70.0	14.7	81.0		25.0	3.4	0.44	<20		26.3		913	96	1.70	7.35
260	Fenton's Area	ICPMS	8	10	66	78	550	32	2			7.24				55.0	17.2
360ab	Fenton's Area	RNAA		26.7	120		39.0	3.4	0.79	278		30.4		1040	195	1.46	11.5
360ce	Fenton's Area	RNAA		24.8	93.0		29.0	1.8	0.04	241		31.3		939	83	1.17	16.1
361	Fenton's Area	RNAA		3.32	43.0		14.0	1.1	0.09	327		15.6		1320	95	4.22	12.7
8996-450	Fenton's Area	RNAA		0.57	8.1		32.6	8.1					40			57.2	4.02
451	Fenton's Area	RNAA		0.56	5.9		82.3	2.7					30			147	30.5
454	Fenton's Area	RNAA		8.09	75.2		130	13.0					50			16.1	10.0
459	Fenton's Area	RNAA		0.28	6.2		23.1	<100					20			82.5	
460	Fenton's Area	RNAA		0.28	5.2		19.8	1.6					15			70.7	12.4
462	Fenton's Area	RNAA		1.55	10.0		179	4.2					30			115	42.6
MEL300031	Fenton's Area	ICPMS	20	40	160	24	43	7						580		1.08	6.14
MEL300032	Fenton's Area	ICPMS	1700	1800	2000	150	450	12						620		0.25	37.5
MEL300035	Fenton's Area	ICPMS	16	17	120	33	84	3						1020		4.94	28.0
MEL300037	Fenton's Area	ICPMS	4	6	20	35	250	4						420		41.7	62.5
MEL300038	Fenton's Area	ICPMS	34	29	59	70	590	14						440		20.3	42.1

Notes: PGE and Se data are in ppb, S, Ni and Cu are in ppm. Cr* represents the visually estimated modal abundance of chromite. Samples with the prefix "MEL" represent data provided by Metals Exploration Ltd..
Abbreviations: RNAA-radiochemical neutron activation analysis; ICPMS-inductively-coupled plasma mass spectrometry; WRC-Wilson River Complex; SHC-Serpentine Hill Complex; AC-Adamsfield Complex.

APPENDIX (continued)

TYPE III CHROMITITE

SAMPLE #	LOCALITY	METHOD	Os	Ir	Ru	Rh	Pt	Pd	Au	S	Se	Cr2O3 (%)	CR*	Ni	Cu	Pt/Ir	Pt/Pd
8796-R62	N. Brassey Hill	RNAA		6.02	34.0		16.4	11.3	0.70	<20		17.2		1360	110	2.72	1.45
R72	N. Brassey Hill	ICPMS	96	110	520	240	1000	72.0	6	<20	180	33.1		1310	88	9.09	13.9
R79	N. Brassey Hill	RNAA	68.0	13.9	93.0		175	13.5	0.36	<20	55	28.5		963	111	12.6	13.0
R81	N. Brassey Hill	RNAA	106	26.8	123		359	28.0	0.87	<20	28	24.2		1690	46	13.4	12.8
R83	N. Brassey Hill	RNAA	87.0	22.4	122		144	15.0	0.45	<20	77	28.6		747	60	6.43	9.60
R84	N. Brassey Hill	RNAA	163	33.2	134		98.0	9.6	0.61	<20	37	31.5		1460	68	2.95	10.2
R87	N. Brassey Hill	RNAA	49.0	25.0	124		191	10.9	0.58	<20	10	34.0		944	100	7.64	17.5
R90	N. Brassey Hill	ICPMS	158	96	560	130	210	18.0	6	<20	444	42.8		1150	52	2.19	11.7
R119	N. Brassey Hill	RNAA	91.2	21.7	125		104	4.4	0.36	<20		24.8		626	57	4.79	23.6
214	N. Brassey Hill	ICPMS	96	110	620	150	170	11	14			39.8		850		1.55	15.5
297	N. Brassey Hill	ICPMS	2	24	140	53	340	10	<2			34.6		1160		14.2	34.0
298	N. Brassey Hill	ICPMS	26	30	170	65	400	18	<2			39.3		1000		13.3	22.2
299	N. Brassey Hill	ICPMS	16	27	130	42	210	9	4			40.1		1200		7.78	23.3
300	N. Brassey Hill	ICPMS	10	17	130	29	78	12	<2			25.1		1360		4.59	6.50
302	N. Brassey Hill	ICPMS	16	16	96	17	28	11	<2			23.4		1600		1.75	2.55
304	N. Brassey Hill	ICPMS	16	16	130	21	23	10	2			29.1		950		1.44	2.30
307	N. Brassey Hill	ICPMS	10	17	150	23	16	6	<2			31.7		900		0.94	2.67
308	N. Brassey Hill	ICPMS	20	19	140	31	48	3	<2			31.0		900		2.53	16.0
309	N. Brassey Hill	ICPMS	20	20	130	40	180	26	4			31.4		1060		9.00	6.92
310	N. Brassey Hill	ICPMS	20	17	120	47	310	10	<2			43.1		850		18.2	31.0
311	N. Brassey Hill	ICPMS	2	3	33	5	10	3	<2			23.1		1000		3.33	3.33
312	N. Brassey Hill	ICPMS	4	4	31	6	13	5	<2			27.0		1000		3.25	2.60
313	N. Brassey Hill	ICPMS	10	10	82	26	35	2	<2			42.0		950		3.50	17.5
R40	Chromite Ridge	RNAA		4.90	29.0		4.4	3.9	0.57	<20		18.9		70	66	0.90	1.13
R41	Chromite Ridge	RNAA	127	12.5	153		7.6	6.7	0.76	<20		29.0		266	97	0.61	1.13
R121b	Chromite Ridge	RNAA	34.9	6.64	83.4		49.9	0.8	0.63	52		15.7		459	70	7.52	62.4
220	Chromite Ridge	RNAA		7.99	171		83.8	39.0					90	700	9	10.5	2.15
211	Chromite Ridge	ICPMS	70	65	320	95	79	16	4			23.8		750	210	1.22	4.94
225	Chromite Ridge	ICPMS	40	41	400	22	3	11	6			18.7		500	83	0.07	0.27
8996-386	Chromite Ridge	RNAA		1.67	82.5		776	22.0					50			465	35.27

MISCELLANEOUS LOCALITIES

SAMPLE #	LOCALITY	METHOD	Os	Ir	Ru	Rh	Pt	Pd	Au	S	Se	Cr2O3 (%)	CR*	Ni	Cu	Pt/Ir	Pt/Pd
8996-486	Gabbro Hill	RNAA		0.28	3.8		24.2	<100					15			86.4	
R161	WRC	RNAA		6.09	23.0		22.2	<100					15			3.65	
R162	WRC	RNAA		0.28	10.6		46.1	6.8					15			165	6.78
R163	WRC	RNAA		0.32	11.0		40.6	<100					15			127	
R166	SHC	RNAA		0.54	10.2		176	<100					30			326	
8796-A30	AC	RNAA		11.0	158		5.7	2.7	0.09				75			0.52	2.11

APPENDIX (continued)

SAMPLE #	Distance	Map Unit	Rock Type	Cr	Co	Ni	Cu	Zn	Os	Ir	Ru	Pt	Pd	Au
8796-172	0	NM	DUNITE	2230	97	2430	<1	25						
8646-213	200	NM	OPX	4610	79	635	3	44	0.1	0.02	1.7	7.7	<0.3	0.04
8646-209	400	NM	OPX	4600	78	663	8	39	<0.1	0.01	0.6	0.8	<0.1	0.05
8796-90	680	FS(DN)	HARZ	4630	108	1250	98	55		0.35	1.1	16.0	0.5	0.16
92	800	FS(DN)	DUNITE	7120	146	1820	3	63		0.34	2.3	2.0	0.7	0.31
94	970	FS(DN)	DUNITE	3000	145	2110	408	75		1.91	1.8	2.3	0.4	0.16
96	1100	FS(PX)	OPX	4700	88	557	9	54		0.22	2.7	78.9	1.7	0.10
8646-202	1200	FS(PX)	LHERZOLITE	3030	110	1030	18	29						
8796-99	1220	FS(PX)	OPX	3550	80	611	271	60		0.19	1.2	57.4	0.7	0.20
8646-215	1250	FS(PX)	OPX	2670	107	725	8	53	2.1	0.35	1.0	68.1	0.5	0.04
8796-102	1400	FS(PX)	HARZ	1760	146	1170	96	54		0.19	0.6	13.9	0.4	0.24
105	1550	FS(PX)	WEHRLITE	3560	74	514	34	30		0.24	0.6	53.2	1.5	0.12
106	1600	FS(PX)	WEHRLITE	2150	115	778	144	49		0.26	1.2	49.7	2.6	0.11
108	1700	PP(DN)	DUNITE	4100	132	1920	<1	59		0.61	1.2	2.7	0.2	0.22
8646-200	1900	PP(DN)	DUNITE	3310	128	1700	21	48	2.1	0.47	1.3	4.5	0.7	0.22
8796-110	2220	PP(DN)	HARZ	4330	97	1010	8	40		0.61	2.8	17.9	2.1	0.13
112	2310	PP(DN)	HARZ	3980	117	1230	120	74		0.20	1.2	15.9	0.9	0.14
8646-201	2400	PP(L)	TROCTOLITE	109	109	1180	23	45	0.5	0.53	4.6	4.1	1.3	0.21
8796-114	2530	PP(L)	PL. HARZ	2440	116	1110	17	50		0.28	1.3	6.6	10.8	0.16
116	2550	PP(L)	PL. LHERZ	1660	78	562	44	67		0.05	1.1	10.5	10.3	0.42
117	2600	PP(L)	PL. LHERZ	2300	103	958	32	81		0.31	0.7	4.6	4.1	0.27
120	2780	PP(L)	PL. LHERZ	4850	94	1300	11	46		0.34	3.4	5.3	7.3	0.19
122	2920	PP(L)	PL. LHERZ	2820	98	950	77	56		0.10	0.8	9.2	5.0	0.28
123	3030	PP(L)	TROCTOLITE	1630	89	861	17	28		0.09	2.9	2.8	2.5	0.13
209	3200	PP(L)	DUNITE	3530	151	1490	<1	36		0.61	4.5	11.2	1.1	0.12
210	3250	PP(L)	HARZ	3800	118	1170	25	55		0.39	3.3	11.4	1.9	0.19
125	3420	BH	OPX	5800	78	1150	7	34		0.32	3.7	2.3	5.2	0.22
223	3500	BH	WEBSTERITE	3270	66	395	65	43		0.03	0.2	4.0	0.3	0.25
222a	3520	BH	HARZ	6380	110	2250	31	78		0.47	1.1	3.1	0.5	0.10
127	3560	BH	HARZ	3230	120	1760	7	56		0.52	4.5	19.3	<0.7	0.11
206	3900	BH	ANORTH	2070	8	34	14	18		0.30	3.4	6.4	1.0	0.13
205	4010	BH	DUNITE	3620	137	1170	10	34		0.51	3.6	9.1	1.0	0.16
138	4310	BH	PL. HARZ	6530	95	1290	80	113		0.32	1.0	2.8	0.5	0.31
151	4480	BH	PL. HARZ	3090	98	927	46	70		0.07	0.8	6.6	10.1	0.77

APPENDIX . Rare-Earth Element Geochemistry of Selected Rock Types from the Heazlewood River Mafic-Ultramafic Complex, Tasmanmia.

SAMPLE#	8796-3	8796-8	8796-9	8796-13	8796-315	8796-171	8796-200	8796-201	8996-370	8996-372	8796-158	8796-166	8996-374
ROCK TYPE	BASALT	BASALT	BASALT	BASALT	BASALT	BONINTE	BONINITE	BONINITE	BONINITE	BONINITE	BAPX	BAPX	BAPX
MAP UNIT	BM	BM	BM	BM		BA	BA	BA	BA	BA	BA(PX)	BA(PX)	BA(PX)
La	0.160	0.240	0.620	0.860	0.624	2.80	2.46	0.359	2.29	0.978	0.426	0.320	0.699
Ce						2.80							
Nd	0.820	0.980		1.32	0.971	1.15	3.21	0.794	0.798	0.536	0.378		1.01
Sm	0.380	0.500	0.400	0.740	0.418	0.310	0.516	0.221	0.403	0.244	0.094	0.100	0.137
Eu	0.100	0.240	0.110	0.180	0.161	0.071	0.147	0.050	0.203	0.115	0.014	0.029	0.042
Tb	0.220	0.240	0.290	0.200		0.044						0.039	
Yb	1.75	1.78	1.40	2.05	1.34	0.440	0.409	0.318	0.822	0.464	0.053	0.230	0.319
Lu	0.230	0.320	0.300	0.450	0.215	0.050	0.094	0.102	0.174	0.071	0.021	0.068	0.089
La*	0.656	0.984	2.54	3.52	2.56	11.5	10.1	1.471	9.40	4.01	1.75	1.31	2.86
Ce*						4.43							
Nd*	1.74	2.08		2.80	2.06	2.44	6.82	1.69	1.69	1.14	0.803		2.14
Sm*	2.50	3.29	2.63	4.87	2.75	2.04	3.39	1.45	2.65	1.61	0.617	0.658	0.901
Eu*	1.75	4.19	1.92	3.14	2.81	1.24	2.57	0.876	3.54	2.01	0.244	0.506	0.736
Tb*	5.91	6.45	7.80	5.38		1.18						1.05	
Yb*	10.5	10.7	8.43	12.3	8.05	2.65	2.46	1.92	4.95	2.80	0.319	1.39	1.92
Lu*	9.06	12.6	11.8	17.7	8.46	1.97	3.69	4.02	6.85	2.78	0.811	2.68	3.51
(La/Sm)*	0.262	0.299	0.966	0.724	0.930	5.627	2.97	1.01	3.55	2.50	2.83	1.99	3.18
(Sm/Yb)*	0.237	0.307	0.312	0.394	0.341	0.769	1.38	0.759	0.535	0.574	1.93	0.475	0.469
(La/Yb)*	0.062	0.092	0.301	0.285	0.318	4.329	4.10	0.768	1.90	1.43	5.47	0.947	1.49
Eu/Eu**													

Notes: All data are reported in ppm. * indicates represents the whole-rock abundance normalised to C1 chondrite (Sun and -, 19-). Elemental ratios are derived from the chondrite normalised abundances. (Eu/Eu)** is the ratio between the measured value of Eu and the predicted value obtained by extrapolation from Sm to Tb (or Yb where Tb is not determined) on a chondrite-normalised REE plot. Abbreviations: BAPX-basaltic-pyroxenite (dyke); F.G. Gabbro-fine-grained gabbronorite (dyke); ANORTH-anorthosite (dyke); C.G. Gabbro-coarse-grained

APPENDIX (continued)

SAMPLE#	8796-48	8796-R56	8796-77	8796-216A	8796-286	8796-352C	8996-397	8996-420	8796-R88	8796-290	8796-62	8796-218	8796-235
ROCK TYPE	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	F.G. Gabbro	ANORTH	ANORTH	C.G.Gabbro	C.G.Gabbro	C.G.Gabbro
MAP UNIT	G(D)	G(D)	G(D)	G(D)	G(D)	G(D)	G(D)	G(D)	G(A)	G(A)	G(PX)	G(PX)	G(PX)
La	1.59	0.840	0.310	0.871	0.043	0.114	6.47	0.574	3.47	2.160	0.300	0.205	0.357
Ce													
Nd			0.285	0.473	0.372	0.199	3.22	0.636	0.600	21.2		0.222	0.192
Sm	0.250	0.034	0.016	0.292	0.159	0.061	1.73	0.094	0.370	0.723	0.044	0.110	0.110
Eu	0.077	0.038		0.117	0.085	0.040	0.445	0.050	0.150	0.082	0.053	0.077	0.057
Tb	0.150	0.049							0.170		0.071		
Yb	0.990	0.360	0.094	0.265	0.705	0.293	1.45	0.421	0.940	0.898	0.220	0.800	0.251
Lu	0.220	0.027	0.042	0.082	0.109	0.054	0.259	0.032	0.180	0.178	0.037	0.127	0.029
La*	6.52	3.44	1.27	3.57	0.178	0.467	26.516	2.35	14.2	8.85	1.23	0.840	1.46
Ce*													
Nd*			0.605	1.00	0.790	0.423	6.84	1.35	1.27	45.0		0.471	0.408
Sm*	1.64	0.224	0.105	1.92	1.05	0.403	11.4	0.618	2.43	4.76	0.289	0.724	0.724
Eu*	1.34	0.663	0.000	2.04	1.49	0.702	7.766	0.874	2.62	1.43	0.925	1.34	1.00
Tb*	4.03	1.32							4.57		1.91		
Yb*	5.96	2.17	0.566	1.60	4.25	1.77	8.747	2.54	5.66	5.41	1.33	4.82	1.51
Lu*	8.66	1.06	1.65	3.22	4.29	2.13	10.2	1.24	7.09	7.01	1.46	5.00	1.14
(La/Sm)*	3.96	15.4	12.1	1.86	0.170	1.16	2.34	3.80	5.84	1.86	4.25	1.16	2.02
(Sm/Yb)*	0.276	0.103	0.186	1.20	0.246	0.228	1.30	0.244	0.430	0.879	0.218	0.150	0.479
(La/Yb)*	1.09	1.59	2.25	2.24	0.042	0.265	3.03	0.928	2.51	1.64	0.928	0.174	0.968
Eu/Eu*													

APPENDIX (continued)

SAMPLE#	8796-269	8996-432	8796-352B	8996-415	8996-488B	8796-161	8796-164	8796-116	8796-120	8796-228	8996-423	8796-279	8796-215B	8796-223
ROCK TYPE	C.G.Gabbro	C.G.Gabbro	C.G.Gabbro	C.G.Gabbro	C.G.Gabbro	Tonalite	Tonalite	PL.LHERZ	PL.LHERZ	PL.PYROX	PL.PYROX	PL.PYROX	PL.PYROX	WEB
MAP UNIT	G(PX)	G(PX)	G(PX)	G(PX)	G(PX)	T	T	PP(L)	PP(L)	CH(W)	CH(W)	GH(PX)	PP(L)	BH
La	0.042	0.343	0.125	0.043	0.248					0.056	0.150	0.332	0.733	0.093
Ce														
Nd	0.136	0.177	0.286	0.390	0.000					0.205	0.589	0.234	0.402	0.447
Sm	0.070	0.148	0.090	0.032	0.014					0.038	0.034	0.109	0.077	0.069
Eu	0.056	0.096	0.052	0.037	0.036					0.029	0.013	0.088	0.071	0.026
Tb														
Yb	0.203	0.468	0.214	0.286	0.059					0.339	0.270	0.101	0.315	0.460
Lu	0.042	0.064	0.051	0.040	0.019					0.036	0.042	0.032	0.063	0.040
La*	0.173	1.41	0.512	0.177	1.02					0.231	0.615	1.36	3.00	0.381
Ce*														
Nd*	0.289	0.376	0.607	0.828						0.435	1.25	0.497	0.854	0.949
Sm*	0.461	0.974	0.593	0.212	0.089					0.252	0.220	0.717	0.505	0.455
Eu*	0.983	1.68	0.904	0.649	0.621					0.513	0.229	1.54	1.23	0.457
Tb*														
Yb*	1.22	2.82	1.29	1.72	0.353					2.04	1.63	0.608	1.90	2.77
Lu*	1.64	2.50	2.02	1.57	0.740					1.43	1.66	1.28	2.48	1.56
(La/Sm)*	0.376	1.44	0.863	0.836	11.4					0.916	2.79	1.90	5.95	0.836
(Sm/Yb)*	0.377	0.345	0.460	0.123	0.253					0.123	0.136	1.18	0.266	0.164
(La/Yb)*	0.142	0.499	0.397	0.103	2.88					0.113	0.378	2.24	1.58	0.137
Eu/Eu*														

APPENDIX . Selenium and Selected Trace Element Data For Samples From The Heazlewood River Mafic-Ultramafic Complex.

SAMPLE #	ROCK TYPE	MAP UNIT	Se (ppb)	S (XRF)	S (LECO)	Pd (ppb)	Cu	S/Se(XRF)	S/Se(LECO)	Pd/Se
8796-41	DUNITE	CH(PX)	6	184		0.4	4	30670		66.7
65	DUNITE	PP(L)	22	71	77	0.8	2	3230	3500	36.4
66	DUNITE	BH	178	<20		0.4	<1			2.25
68	DUNITE	BH	62	108	114	0.3	1	1740	1840	4.84
8646-201	TROCTOLITE	PP(L)	56	31		1.3	23	556		23.3
8796-63	TROCTOLITE	PP(L)	12	37	49	1.4	7	3080	4080	117
71	TROCTOLITE	BH	55	155	118	1.6	4	2820	2150	29.1
80	TROCTOLITE	BH	16	271	259	0.9	<1	16900	16200	56.3
8646-217	HARZ	BH	12	36		0.1	11	2980		11.6
8646-223	HARZ	BH	14	30		1.6	3	2190		118
70	HARZ	BH	9	65	68	0.7	1	7220	7560	77.8
74	HARZ	BH	22	<20	34	1.4	7		1550	63.6
78	HARZ	BH	56	384	333	9.9	1	6860	5950	177
79	HARZ	BH	39	71	120	1.1	28	1820	3080	28.2
8646-209	OPX	NM	5	<20		1.9	8			380
8646-213	OPX	NM	4	<20		0.1	3			25.6
8646-215	OPX	FS(PX)	2	<20		0.3	8			125
8796-72	OPX	BH	53	263	268	2.9	20	4960	5060	54.7
R72	CHROMITITE	BH	180	<20		72.0	88			400
R79	CHROMITITE	BH	55	<20		13.5	111			245
R81	CHROMITITE	BH	28	<20		28.0	46			1000
R83	CHROMITITE	BH	77	<20		15.0	60			195
R84	CHROMITITE	BH	37	<20		9.6	68			270
R87	CHROMITITE	BH	10	<20		10.9	100			1100
R90	CHROMITITE	BH	444	<20		18.0	52			40.5
8796-R77	PL. PERID	BH	32	20		5.7	90	625		178
8796-R78	PL. PERID	BH	64	<20		6.9	143			108
8796-R102	PL. PERID	BH	63	<20		3.0	26			47.6
R118	PL. PERID	BH	36	55		30.0	36	1530		833
8796-301	PL. PERID	BH	294	157		4.0	5	534		13.6
8796-3	BASALT	BM	199	218		13.0	58	1100		65.3
8796-13	BASALT	BM	85	649		10.0	77	7640		118
8796-88	BASALT	BM	876	296		16.9	197	338		19.3
8796-171	BONINITE	BA	70	<20		7.9	8			113
8796-200	BONINITE	BA	47	31		5.2	6	660		111
8796-201	BONINITE	BA	48	24		3.9	387	500		81.3
8796-76	BAPX	BA(PX)	19	<20		2.1	4			111
8796-166	BAPX	BA(PX)	23	<20		5.2	12			226
8646-222	F.G. GABBRO	G(D)	141	108		20.6	126	766		146
8796-57	F.G. GABBRO	G(D)	10	55		36.0	9	5500		3600
8796-R74	ANORTH	G(A)	132	57		6.6	287	432		50.0
8796-R88	ANORTH	G(A)	109	<20		2.2	96			20.2
8796-295	ANORTH	G(A)	205	191		3.0	28	932		14.6
8646-227	C.G.GABBRO	G(PX)	20	<20		0.2	11			7.6
8796-278	C.G.GABBRO	G(PX)	8	<20		7.8	8			975
8796-303	C.G.GABBRO	G(PX)	27	26		3.0	2	963		111
8646-224	TONALITE	T	9	27		<0.2	16	3070		
8646-203	BRECCIA	FS(DN)	3554	4594			105	1290		

Notes: Breccia represents dunite breccia from Fenton's Knob; PL. PERID represents plagioclase peridotite from the Type III chromitite occurrences. Abbreviations: HARZ-harzburgite; OPX-orthopyroxenite; ANORTH-anorthosite; BASALT-Low-Ti tholeiitic basalt

APPENDIX . Iridium, Ru and Pt Abundances in Chromite Separates from the Tasmanian Mafic-Ultramafic Complexes.

SAMPLE #	LOCALITY	SAMPLE TYPE	Ir	Ru	Pt	Au
325	CAUDRY'S WORKINGS	DUNITE	19.20	31	26	1.10
326	CAUDRY'S WORKINGS	DUNITE	18.00	69	47	0.50
327	CAUDRY'S WORKINGS	DUNITE	3.50	24	20	0.10
328	CAUDRY'S WORKINGS	DUNITE	26.10	64	29	0.10
8796-329a	CAUDRY'S WORKINGS	DUNITE	5.82	23	69	
329b	CAUDRY'S WORKINGS	DUNITE	4.33	20	96	
329c	CAUDRY'S WORKINGS	DUNITE	23.50	85	54	0.20
329d	CAUDRY'S WORKINGS	DUNITE	9.30	16	18	1.00
329e	CAUDRY'S WORKINGS	DUNITE	3.40	40	35	5.10
329f	CAUDRY'S WORKINGS	DUNITE	17.40	65	45	2.50
329g	CAUDRY'S WORKINGS	DUNITE	14.60	32	44	4.00
SS9A	19 MILE CREEK	ALLUVIAL	15.30	28	35	
SS9B	19 MILE CREEK	ALLUVIAL	10.70	23	15	
SS9C	19 MILE CREEK	ALLUVIAL	11.10	38	21	0.10
SS9D	19 MILE CREEK	ALLUVIAL	6.80	21	19	
A4	HALL'S OPEN CUT*	SERPENTINITE	19.20	42	72	0.40
A6	HALL'S OPEN CUT*	SERPENTINITE	9.90	22	36	0.20
358	BEACONSFIELD**	CHROMITE SAND	23.70	38	14	

NOTES: All data are in ppb. Samples 329a-329g are splits of sample 329 which was subdivided prior to crushing.
* Adamasfield Complex; ** Anderson Creek Complex

APPENDIX . Whole-Rock Geochemistry of Cumulate Rocks from Traverse A, Heazlewood River Mafic-Ultramafic Complex, Tasmania

Sample #	Distance	Map Unit	Rock Type	SiO2	TiO2	Al2O3	Fe2O3	MgO	CaO	Mg#	S (LECO)	S (XRF)	Sc	V
8796-17	300	NM	DUNITE	36.2	<0.01	0.19	5.50	42.20	0.01	93.8	45	30	1	5
18	400	NM	DUNITE	35.5	<0.01	0.34	5.49	43.30	0.06	94.0	48	<20	2	<1
351	405	NM	DUNITE	35.3	<0.01	<0.01	6.26	43.60	<0.01	93.2		<20	6	4
19	420	NM	DUNITE	35.1	<0.01	0.75	8.58	41.60	0.05	90.6	49	<20	5	10
20	430	NM	DUNITE	36.5	<0.01	0.22	6.47	42.20	0.02	92.8	33	<20	2	1
340	460	NM	DUNITE	35.9	<0.01	<0.01	6.93	41.70	0.01	92.3		<20	5	1
23	470	NM	DUNITE	35.7	<0.01	0.49	6.78	41.90	0.03	92.4	29	<20	4	2
24	500	NM	DUNITE	34.9	<0.01	0.27	6.55	42.50	0.09	92.8	33	<20	3	6
341	520	NM	OPX	53.8	0.02	1.01	11.9	30.80	0.64	83.7		<20	26	51
342	570	NM	DUNITE	34.1	<0.01	0.16	10.2	40.30	0.01	88.7		<20	8	6
343	580	NM	OPX	54.1	0.01	0.13	9.82	34.10	0.60	87.3		<20	16	19
25	615	NM	HARZ	44.0	0.01	0.35	11.4	36.50	0.35	86.4	105	<20	9	12
26	620	NM	OPX	55.7	0.01	0.24	9.45	33.60	0.67	87.6	26	<20	12	23
344	630	NM	DUNITE	34.3	<0.01	0.14	9.18	41.30	0.02	89.9		<20	8	13
345	700	NM	DUNITE	34.9	0.01	0.71	7.38	40.90	0.01	91.7		<20	3	9
347	720	NM	DUNITE	38.5	<0.01	<0.01	6.78	43.80	0.01	92.8		<20	5	<1
27	760	NM	OPX	50.2	0.01	0.47	9.46	35.90	0.26	88.3	27	<20	9	15
348	770	NM	DUNITE	35.5	<0.01	<0.01	8.82	41.70	0.01	90.4		<20	4	2
349	820	NM	DUNITE	37.2	<0.01	0.02	7.67	43.50	0.01	91.8		<20	7	7
28	850	NM	OPX	51.8	0.01	0.73	8.84	31.40	0.98	87.6	25	<20	14	30
350	870	NM	DUNITE	35.8	<0.01	0.20	10.0	40.40	0.01	88.9		35	6	5
352	900	NM	DUNITE	37.6	<0.01	<0.01	6.26	43.60	<0.01	93.2		23	6	8
29	930	FS(PX)	OPX	54.4	0.01	0.79	11.1	31.80	0.67	85.0	29	<20	22	47
30	1010	FS(PX)	OPX	50.9	0.02	0.55	9.22	34.40	0.27	88.1	26	<20	13	23
31	1100	FS(PX)	OPX	54.2	0.02	0.64	9.39	34.30	0.40	87.9	24	<20	9	30
32	1150	FS(PX)	OPX	54.7	0.02	0.77	10.8	33.20	0.55	85.9	54	<20	17	39
33	1160	FS(PX)	OPX	54.1	0.02	0.73	10.9	33.00	0.55	85.7	29	<20	17	41
37	1200	FS(PX)	OPX	54.5	0.01	0.51	9.15	33.90	0.22	88.0	31	<20	7	20
34	1260	FS(PX)	OPX	52.5	0.02	0.84	11.6	32.50	0.62	84.7	28	<20	17	43
35	1320	FS(PX)	OPX	54.4	0.01	0.68	11.7	32.30	0.30	84.5	21	<20	10	27
38	1360	CH(PX)	OPX	48.0	0.01	0.41	9.91	35.20	0.15	87.6		<20	9	12
39	1365	CH(PX)	DUNITE	40.5	0.01	0.23	7.89	37.70	0.04	90.4	24	40	4	8
40	1450	CH(PX)	OPX	48.4	0.01	0.34	7.96	35.90	0.16	89.9	58	23	7	16
41	1455	CH(PX)	DUNITE	39.6	0.01	0.18	10.6	36.10	0.02	87.1		184	7	15
36	1580	CH(PX)	OPX	53.9	0.03	1.80	11.8	29.80	1.01	83.3		<20	19	47
42	1700	CH(PX)	OPX	54.2	0.04	1.77	12.1	30.60	1.13	83.4	52	<20	24	52
43	1900	CH(PX)	HARZ	39.5	0.01	0.67	11.0	36.10	0.04	86.7	45	26	9	23
44	2200	CH(PX)	OPX	54.0	0.04	1.94	12.4	30.10	1.25	82.8	42	<20	20	49
45	2450	CH(W)	OPX	51.5	0.04	2.14	12.8	28.10	1.52	81.3	42	<20	27	62
46	2650	CH(W)	OPX	55.4	0.04	1.60	12.1	30.70	1.10	83.4	44	<20	16	55
47	2900	CH(W)	PL. PYROX	52.0	0.05	2.53	10.9	27.10	2.02	83.1	74	<20	24	61
49	3250	GH(DN)	DUNITE	40.2	0.01	0.18	7.77	38.00	0.03	90.6	34	<20	5	6
50	3270	GH(DN)	OPX	51.0	0.01	0.42	5.35	36.60	0.25	93.1	35	<20	2	9
53	3350	GH(DN)	DUNITE	37.6	0.01	0.24	12.8	36.00	0.02	84.8	76	<20	5	12
52	3400	GH(DN)	OPX	54.9	0.04	1.96	10.2	29.80	2.08	85.3	34	<20	21	62
54	3500	GH(PX)	OPX	54.1	0.03	1.25	10.3	29.90	1.54	85.2	39	<20	25	53
55	3620	GH(DN)	HARZ	39.7	0.01	0.47	9.92	36.50	0.04	87.9	38	25	6	19
56	3750	GH(PX)	OPX	52.8	0.04	1.94	9.98	27.40	4.86	84.5	24	<20	18	69
58	3770	GH(DN)	HARZ	37.4	0.01	0.30	14.4	35.40	0.02	83.0	42	<20	10	11
59	4000	GH(DN)	DUNITE	39.5	0.01	0.14	9.14	38.10	0.01	89.2	81	34	6	5
61	4250	PP(L)	TROCTOLITE	37.0	0.01	5.39	9.24	34.80	0.11	88.2	76	54	7	25
63	4400	PP(L)	TROCTOLITE	36.8	0.01	9.86	8.16	27.80	5.45	87.1	49	37	5	29
64	4500	PP(L)	DUNITE	37.2	0.02	1.52	11.7	36.10	0.04	85.9	55	53	11	43
65	4620	PP(L)	DUNITE	37.3	0.01	2.21	9.59	36.90	0.02	88.4	77	71	8	48
68	4700	BH	DUNITE	38.5	0.01	1.19	10.6	36.80	0.03	87.3	114	108	6	23
67	4750	BH	DUNITE	38.1	0.01	1.35	8.70	37.30	0.03	89.5	40	46	7	37
69	4800	BH	DUNITE	39.7	0.01	0.46	7.05	38.50	0.01	91.5	132	134	2	23
66	4870	BH	DUNITE	37.6	0.01	1.58	9.79	36.60	0.04	88.1		<20	10	29
70	4920	BH	HARZ	36.4	0.01	0.56	14.9	35.00	0.02	82.3	68	65	10	26
71	5000	BH	TROCTOLITE	35.4	0.01	7.53	9.36	32.40	2.77	87.3	118	155	7	16
73	5120	BH	HARZ	39.0	0.01	1.08	9.12	36.60	0.03	88.8	87	50	10	36
72	5150	BH	OPX	45.4	0.02	1.45	8.20	34.30	1.24	89.2	268	263	14	49
74	5155	BH	HARZ	40.1	0.02	1.24	9.92	35.20	0.42	87.5	34	<20	15	33
75	5250	BH	HARZ	39.3	0.01	1.31	7.28	37.60	0.02	91.1	125	125	10	30
76	5255	BH	OPX	53.0	0.03	2.09	6.20	31.50	3.60	91.0	89	<20	25	70
77	5350	BH	PL. PYROX	46.3	0.01	20.3	3.33	44.60	11.2	96.4	48	<20	10	19
78	5355	BH	HARZ	37.3	0.02	2.64	12.4	34.80	0.05	84.8	333	384	13	47
79	5450	BH	HARZ	38.3	0.02	1.23	9.73	36.50	0.04	88.1	120	71	14	36
80	5600	BH	TROCTOLITE	36.7	0.01	8.93	9.70	28.80	5.20	85.5	259	271	5	10
81	5700	BH	TROCTOLITE	36.2	0.01	5.97	11.3	33.10	0.55	85.3		104	7	24

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. Distance refers to the relative position (m) of the samples, from west to east, along traverse line A (Figure). Abbreviations: OPX-orthopyroxenite; HARZ-harzburgite; PL. PYROX-plagioclase pyroxenite.

APPENDIX (continued)

Sample #	Distance	Map Unit	Rock Type	Cr	Co	Ni	Cu	Zn	Os	Ir	Ru	Pt	Pd	Au
8796-17	300	NM	DUNITE	1410	97	2450	8	20	2.1	0.87	2.2	0.4		0.02
18	400	NM	DUNITE	1190	98	2600	13	17		0.52	4.4	0.2	0.9	0.16
351	405	NM	DUNITE	2190	103	2480	2	20		0.99	4.0	0.5	0.2	0.09
19	420	NM	DUNITE	1740	119	2800	9	13	10.2	1.92	2.8	14.9		0.05
20	430	NM	DUNITE	1630	104	2470	1	23	8.4	3.29	5.2	0.2		0.06
340	460	NM	DUNITE	1330	111	2550	8	23		3.91	9.5	4.6	1.0	0.14
23	470	NM	DUNITE	1770	107	2530	6	22	34.0	5.09	7.8	7.8		0.11
24	500	NM	DUNITE	1630	103	2580	2	22	4.4	3.20	8.4	0.3		0.06
341	520	NM	OPX	3930	93	628	8	63		0.21	1.7	8.5	0.1	0.32
342	570	NM	DUNITE	2760	137	1890	10	26		0.02	2.6	2.4	0.8	0.13
343	580	NM	OPX	3380	82	796	13	39		0.10	3.9	8.1	0.7	0.15
25	615	NM	HARZ	2060	118	1190	4	34	1.4	0.28	0.7	4.8		0.30
26	620	NM	OPX	2860	75	668	2	42	1.5	0.30	4.2	5.2		0.17
344	630	NM	DUNITE	3250	126	2030	15	32		0.32	4.9	4.8	1.2	0.17
345	700	NM	DUNITE	2280	108	2160	5	10		0.27	3.1	6.2	0.6	0.14
347	720	NM	DUNITE	2590	104	2540	4	29		0.79	3.3	0.4	0.3	0.10
27	760	NM	OPX	3580	94	1160	2	45	<0.9	0.35	0.7	3.6		0.19
348	770	NM	DUNITE	3610	131	1930	13	28		0.51	4.6	4.2	0.6	0.27
349	820	NM	DUNITE	3370	116	2710	11	27		0.91	4.3	1.9	0.3	0.13
28	850	NM	OPX	3320	78	750	<1	23	1.3	0.30	<0.4	7.0		0.44
350	870	NM	DUNITE	3420	140	1810	2	33		0.25	2.9	2.6	0.5	0.10
352	900	NM	DUNITE	5310	106	2640	9	29		0.63	3.8	0.5	0.3	0.12
29	930	FS(PX)	OPX	3610	87	798	<1	58	0.9	0.32	0.8	3.0		0.45
30	1010	FS(PX)	OPX	3570	81	887	2	48	0.9	0.32	2.1	2.6		0.10
31	1100	FS(PX)	OPX	3980	89	796	<1	55	0.9	0.33	1.1	5.7		0.56
32	1150	FS(PX)	OPX	3590	83	788	4	60	1.5	0.35	1.8	5.0		0.28
33	1160	FS(PX)	OPX	3740	86	805	2	60		0.21	1.2	5.3		0.08
37	1200	FS(PX)	OPX	3510	87	839	2	48		0.20	1.6	5.3		0.03
34	1260	FS(PX)	OPX	3630	91	813	3	64		0.16	0.9	7.5	0.1	0.05
35	1320	FS(PX)	OPX	3160	93	848	4	66		0.11	2.0	2.9	0.3	0.07
38	1360	CH(PX)	OPX	3360	103	1200	4	44		0.19	1.6	1.8	0.2	0.04
39	1365	CH(PX)	DUNITE	2820	119	1560	2	28		0.22	0.9	2.5	<0.3	0.03
40	1450	CH(PX)	OPX	3210	90	1050	1	36		0.15	2.6	0.7	<0.5	0.04
41	1455	CH(PX)	DUNITE	3750	146	2060	4	43		0.15	2.4	9.2	0.4	0.04
36	1580	CH(PX)	OPX	3330	95	928	31	68		0.20	1.4	5.2	2.2	0.11
42	1700	CH(PX)	OPX	3710	89	631	3	74		0.17	1.5	3.9	0.8	0.04
43	1900	CH(PX)	HARZ	4690	128	1790	3	57		0.22	1.5	1.2	<0.4	0.04
44	2200	CH(PX)	OPX	3160	90	699	5	69		0.19	1.1	3.6	0.1	0.08
45	2450	CH(W)	OPX	2780	83	634	10	77		0.16	3.4	4.8	0.4	0.07
46	2650	CH(W)	OPX	4120	80	684	5	74		0.09	<0.6	4.1	0.2	0.07
47	2900	CH(W)	PL. PYROX	3130	72	663	1	40		0.10	0.8	4.6	0.4	0.10
49	3250	GH(DN)	DUNITE	3100	124	1590	6	18		0.21	1.1	0.9	<0.3	0.04
50	3270	GH(DN)	OPX	3530	63	617	<1	24		0.16	1.3	1.5	<0.3	0.06
53	3350	GH(DN)	DUNITE	3270	164	1390	3	26		0.39	2.1	4.6	<0.2	0.05
52	3400	GH(DN)	OPX	2560	73	484	2	50		0.21	0.9	11.8	2.2	0.03
54	3500	GH(PX)	OPX	2500	74	468	1	41		0.07	0.7	2.6	0.6	0.02
55	3620	GH(DN)	HARZ	2800	103	967	<1	38		0.17	1.9	10.8	<0.3	0.04
56	3750	GH(PX)	OPX	4300	75	433	13	50		0.10	0.7	4.4	2.9	0.03
58	3770	GH(DN)	HARZ	1010	118	1370	2	22		0.11	1.7	6.5	0.7	0.05
59	4000	GH(DN)	DUNITE	1650	136	1210	3	22		0.21	1.2	21.0	<0.4	0.04
61	4250	PP(L)	TROCTOLITE	3480	123	1650	<1	45		0.41	<1.0	3.1	1.4	0.05
63	4400	PP(L)	TROCTOLITE	3460	93	1150	7	33		0.39	2.2	2.6	1.4	0.06
64	4500	PP(L)	DUNITE	3080	119	2100	5	59		1.56	4.4	3.3	1.6	0.08
65	4620	PP(L)	DUNITE	5140	109	1890	2	53		0.84	4.1	10.5	0.8	0.03
68	4700	BH	DUNITE	2260	117	2070	1	29		1.15	5.8	6.6	0.3	0.13
67	4750	BH	DUNITE	6380	129	2280	2	56		0.56	7.2	4.6	0.8	0.12
69	4800	BH	DUNITE	5120	104	2110	<1	34		0.61	6.2	6.5	0.5	0.08
66	4870	BH	DUNITE	4670	124	2500	<1	45		0.73	4.6	3.3	0.4	0.07
70	4920	BH	HARZ	2780	140	1630	<1	43		0.69	3.4	4.8	0.7	0.05
71	5000	BH	TROCTOLITE	3130	109	1070	4	44		0.20	2.7	9.7	1.6	0.18
73	5120	BH	HARZ	3260	111	1600	<1	52		0.36	3.7	11.2	1.5	0.04
72	5150	BH	OPX	4130	86	1120	20	38		0.18	3.2	15.4	2.9	0.08
74	5155	BH	HARZ	3130	91	1550	7	42		0.89	4.6	6.6	1.4	0.06
75	5250	BH	HARZ	3290	120	1770	6	34		0.27	5.3	21.2	3.5	0.13
76	5255	BH	OPX	3860	60	593	4	32		0.13	2.1	9.0	2.1	0.07
77	5350	BH	PL. PYROX	1290	36	284	4	8		0.10	<0.4	8.6	1.3	0.05
78	5355	BH	HARZ	4020	124	1200	1	40		0.21	3.0	20.7	9.9	0.15
79	5450	BH	HARZ	2880	124	1220	3	45		0.13	2.5	8.5	1.1	0.15
80	5600	BH	TROCTOLITE	2030	106	952	<1	36		0.25	<0.3	3.1	0.9	0.06
81	5700	BH	TROCTOLITE	3740	133	1270	19	47		1.09	3.8	8.3	2.4	0.17

APPENDIX . Whole-Rock Geochemistry of Cumulate Rocks from Traverse B, Heazlewood River Mafic-Ultramafic Complex, Tasmania.

Sample #	Distance	Map Unit	Rock Type	SiO2	TiO2	Al2O3	Fe2O3	MgO	CaO	Mg#	S(XRF)	Sc	V
8796-172	0	NM	DUNITE	38.1	<0.01	0.23	6.02	41.3	0.01	93.1	23	1	<1
8646-213	200	NM	OPX	55.9	<0.01	0.44	8.24	33.6	0.11	89.0	<20	5	16
8646-209	400	NM	OPX	56.1	<0.01	0.49	7.95	33.7	0.11	89.4	<20	3	15
8796-90	680	FS(DN)	HARZ	40.8	0.01	0.62	10.2	36.0	0.30	87.5	45	16	55
92	800	FS(DN)	DUNITE	35.7	0.01	1.05	11.9	41.4	0.07	87.3	41	11	43
94	970	FS(DN)	DUNITE	36.0	0.01	0.55	11.3	41.0	0.14	87.8	30	9	27
96	1100	FS(PX)	OPX	52.9	0.02	1.26	10.9	31.6	1.93	85.2	<20	24	52
8646-202	1200	FS(PX)	LHERZOLITE	40.6	0.01	1.09	8.97	32.6	5.18	87.8	26	28	60
8796-99	1220	FS(PX)	OPX	53.1	0.02	0.84	10.5	32.4	1.60	86.0	<20	22	41
8646-215	1250	FS(PX)	OPX	48.7	<0.01	0.89	12.4	32.0	2.06	83.6	<20	22	40
8796-102	1400	FS(PX)	HARZ	38.5	0.01	0.18	14.0	35.5	0.28	83.4	72	16	18
105	1550	FS(PX)	WEHRLITE	46.4	0.03	1.20	6.80	26.5	12.5	88.5	<20	56	164
106	1600	FS(PX)	WEHRLITE	41.7	0.03	1.05	11.5	30.2	6.83	83.9	<20	39	111
108	1700	PP(DN)	DUNITE	33.8	0.01	0.70	11.2	39.1	0.01	87.4	70	10	23
8646-200	1900	PP(DN)	DUNITE	37.6	0.01	0.88	14.1	35.4	0.04	83.3	65	9	26
8796-110	2220	PP(DN)	HARZ	44.7	0.02	1.47	10.7	34.4	1.33	86.4	91	19	50
112	2310	PP(DN)	HARZ	40.4	0.01	0.78	11.4	35.4	1.16	86.0	<20	18	50
8646-201	2400	PP(L)	TROCTOLITE	38.2	0.02	6.94	9.58	30.2	4.76	86.2	31	9	48
8796-114	2530	PP(L)	PL. HARZ	39.1	0.02	3.89	11.4	32.0	3.28	84.8	213	20	49
116	2550	PP(L)	PL. LHERZ	46.0	0.05	6.78	9.70	24.3	8.04	83.2	24	32	91
117	2600	PP(L)	PL. LHERZ	40.6	0.03	5.62	11.2	28.8	5.31	83.6	<20	22	56
120	2780	PP(L)	PL. LHERZ	41.6	0.04	5.98	9.28	29.3	4.46	86.2	104	20	89
122	2920	PP(L)	PL. LHERZ	39.3	0.02	6.71	10.4	28.1	5.59	84.2	49	18	53
123	3030	PP(L)	TROCTOLITE	37.2	0.01	12.7	7.79	23.8	8.18	85.8	<20	<1	11
209	3200	PP(L)	DUNITE	37.8	0.01	0.69	11.9	36.2	0.04	85.8	51	12	20
210	3250	PP(L)	HARZ	38.4	0.01	1.05	10.3	36.0	0.02	87.4	68	14	38
125	3420	BH	OPX	45.2	0.02	1.75	8.09	34.2	1.36	89.3	91	23	34
223	3500	BH	WEBSTERITE	48.6	0.05	1.99	7.39	30.0	6.06	88.9	191	25	70
222a	3520	BH	HARZ	36.7	0.01	1.27	12.2	35.7	<0.01	85.3	102	7	46
127	3560	BH	HARZ	39.5	0.01	1.08	8.48	37.4	0.03	89.7	70	10	21
206	3900	BH	ANORTH	31.9	0.01	26.1	1.28	10.5	21.6	94.2	74	3	9
205	4010	BH	DUNITE	37.8	0.01	0.65	13.0	35.9	0.01	84.5	82	9	18
138	4310	BH	PL. HARZ	39.9	0.03	3.86	11.3	33.7	0.93	85.5	277	16	53
151	4480	BH	PL. HARZ	42.7	0.08	6.97	11.3	26.0	5.63	82.0	163	26	112

Major elements are reported in weight %. Trace element data are in ppm. PGE data are in ppb. Distance refers to the relative position (m) of the samples, from west to east, along traverse line B (Figure). Abbreviations: OPX-orthopyroxenite; HARZ-harzburgite; LHERZ-lherzolite; PL.-plagioclase; ANORTH-anorthosite.

HEAZLEWOOD PROSPECTS
NORTH WEST TASMANIA

E.L. 21/85

ANNUAL REPORT FOR THE PERIOD ENDING 1.12.89

YEAR 4 (2.12.88 - 1.12.89)

VOLUME 2 OF 2

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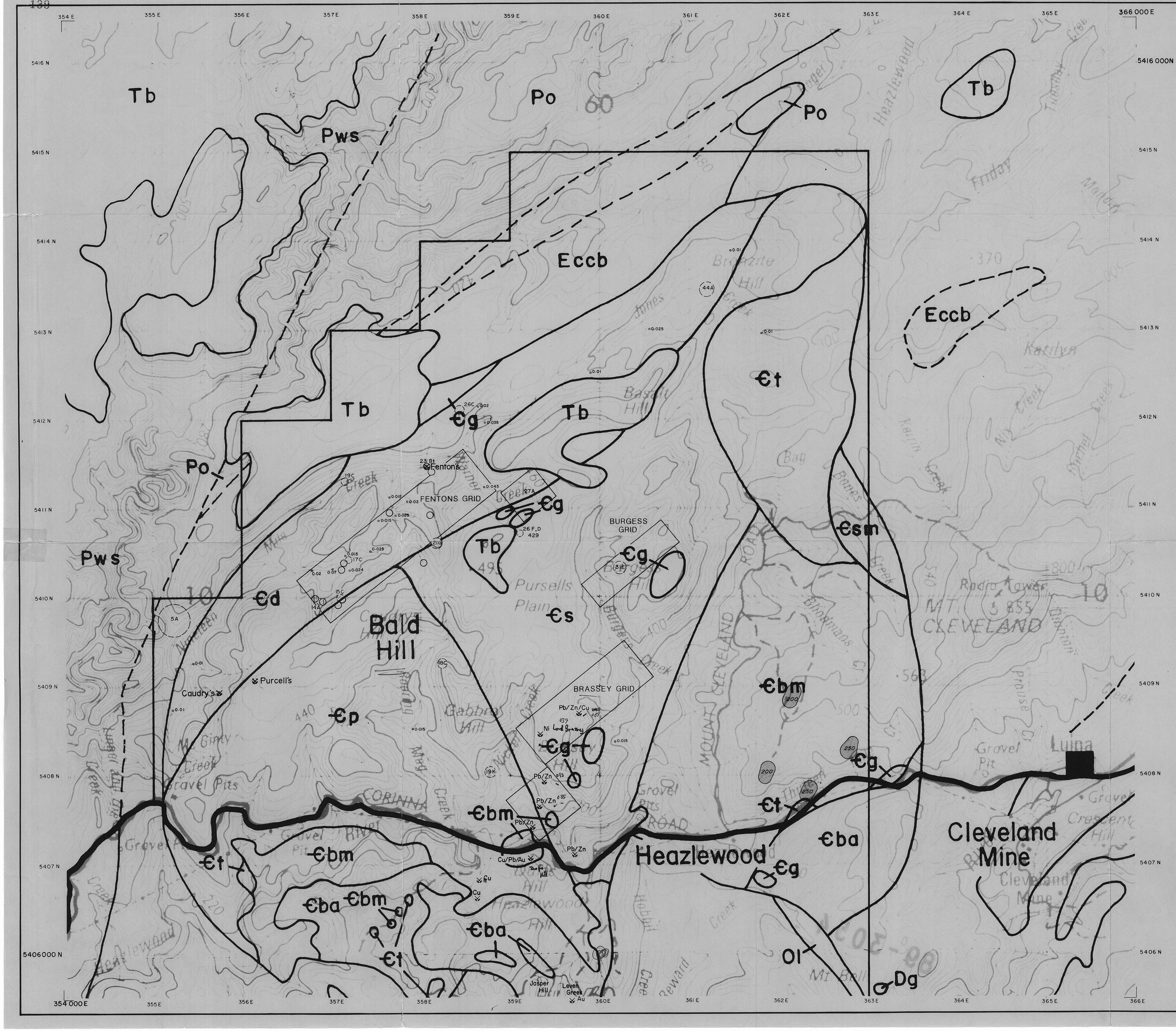
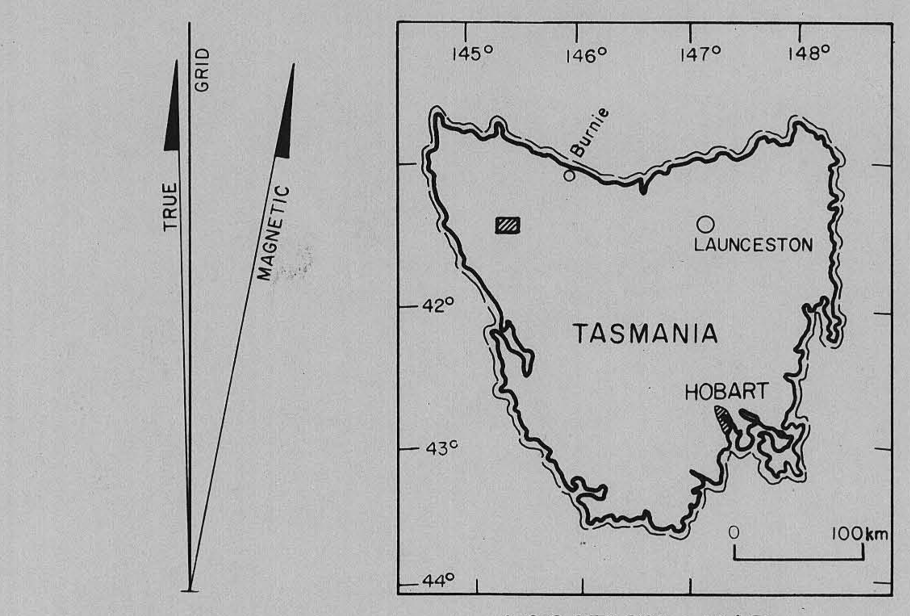
S.J. CARTHEW

NOVEMBER, 1989





LOCATION MAP

LEGEND

SILURO-DEVONIAN	S-Du	17	Eldon Group and correlates
ORDOVICIAN	Ol	71	Gordon Limestone Sub-Group and correlates
	Os	18	Owen Formation and correlates, including Moina Sandstone
EOCAMBRIAN	Ecc	58	Crimson Creek Formation and correlates, areas of dominantly lava flows Eccb [62] indicated
	Esc	61	Success Creek Group and correlates
PRECAMBRIAN	Po	69	Oonah Formation and correlates
	Pws	31	Whyte Schist and correlates, including Concert Schist
TERTIARY	Tb	2	Alkali Olivine and Tholeiitic Basalt, with associated sediment
DEVONIAN	Dg	13	Granitoids
CAMBRIAN	€g	33	Gabbro
	€bu (45) €bm	48	Low - Titanium Tholeiite
EOCAMBRIAN	€bu (45) €ba	41	High - Magnesian Andesite, and associated coarse-grained pyroxenite
	€t	21	**Tonalite and associated rocks**
	€p	11	Pyroxenite
	€d	7	Dunite
	€s	26	Serpentinized ultramafic-mafic rocks, tectonic melange €sm [24] indicated

♉	1930's Prospect
Au	Gold
Ni	Nickle
Pb	Lead
Cu	Copper
Zn	Zinc
○	Old Workings
◦ 0.02	Geochem (stream sediment ≥ 0·01) (pan concentrates)
(400)	Aeromagnetic anomalies (nt)
(44A)	DIGHEM II survey

5 cm

0 500 1000 1500 2000
METRES

Map covered with 1000 metre Australian Map Grid, Zone 55.
Contours interval 40 metres.

METALS EXPLORATION LIMITED

HEAZLEWOOD PROSPECT EL. 21/85
Tasmania

GEOLOGY and ANOMOLOUS AREAS

556142

Grey base map photo enlarged by M.E.L from Cleveland 7915-II 1:50,000 topographic sheet (provisional) by Lands Department.

Prepared by Date
Traced by Date
Revised:

SCALE 1:20,000

89-3054

Encl. 1
Drg.No 02/HZ/2/24

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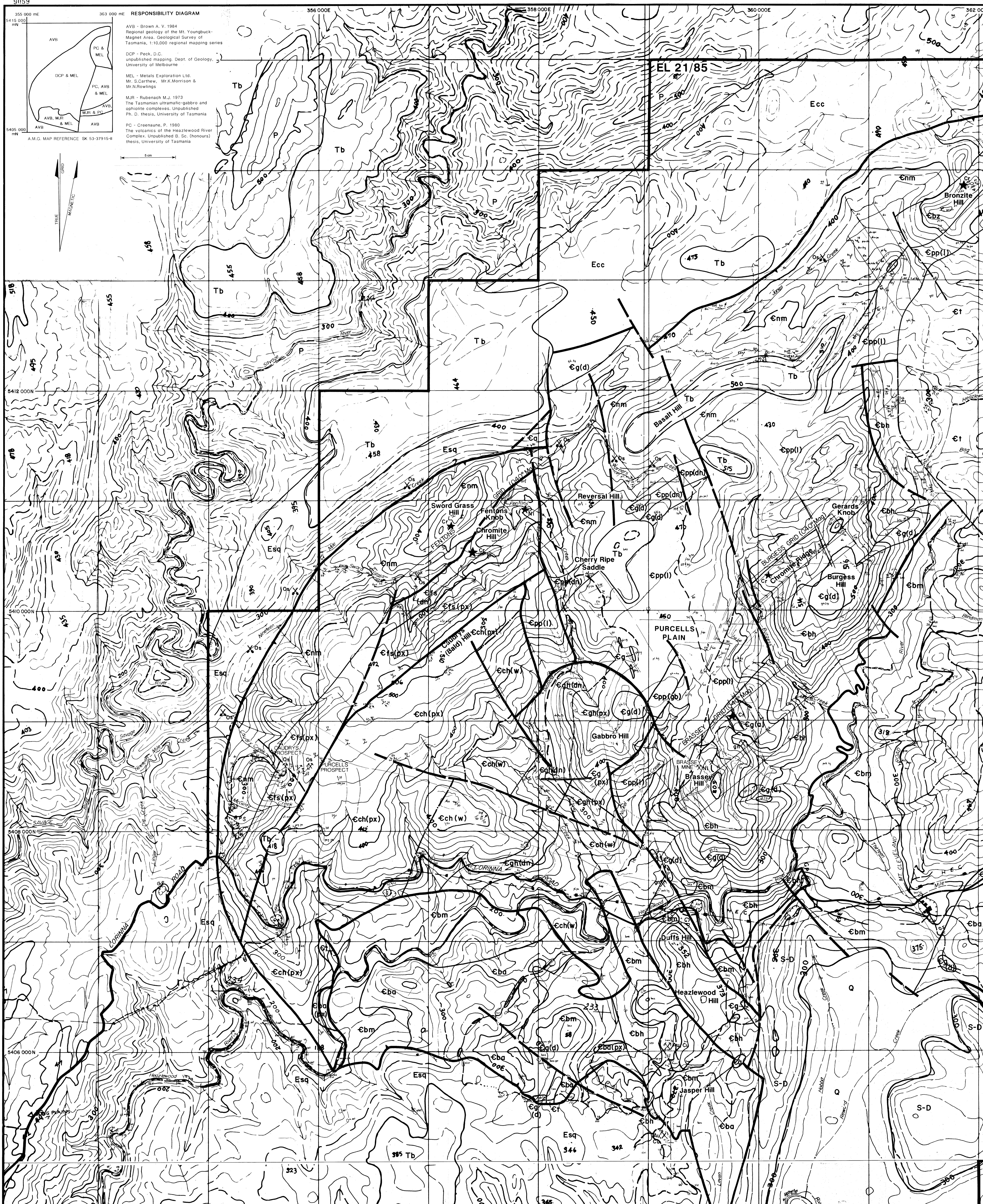


LEGEND

Power line 485· topographic elevation

Major sealed road

Main dirt road

Track watercourse: river, creek, intermittent creek

GEOLOGY

SEDIMENTARY ROCKS

Q **Quaternary** :alluvium

S-D **Silurian-Devonian** : quartz sandstone, siltstone, mudstone and conglomerate

O **Ordovician : Ol** – limestone
Ow – quartz wacke and mudstone

E **Eocambrian : Ecc** – tholeiitic basalt, lithic wacke, siltstone and mudstone
Esq – quartz wacke and minor mudstone

P **Precambrian** : quartz sandstone, siltstone and mudstone

IGNEOUS ROCKS

Tb **Tertiary** : alkali -olivine and tholeiitic basalt

CAMBRIAN
HEAZLEWOOD RIVER MAFIC-ULTRAMAFIC COMPLEX
Cumulate Sequences

Ꞓnm **Nineteen Mile Creek Dunite** : tectonized dunite and minor orthopyroxenite

Ꞓfs **Fenton's Spur Peridotite Sequence** : **fs(dn)**–dunite, harzburgite and minor orthopyroxenite, **fs(px)**–dunite, harzburgite, lherzolite, wehrlite and orthopyroxenite

Ꞓch **Caudry's Hill Pyroxenite Sequence** : **ch(px)**– orthopyroxenite, olivine orthopyroxenite, minor dunite **ch(w)**–plagioclase orthopyroxenite, websterite, and plagioclase websterite

Ꞓgh **Gabbro-Hill Plagioclase Pyroxenite Sequence** : **gh(dn)**– predominantly dunite, harzburgite and orthopyroxenite with cross-cutting plagioclase pyroxenite and gabbronorite dykes, **gh(px)**–plagioclase orthopyroxenite and plagioclase websterite with rafts of **gh(dn)** sequence

Ꞓpp **Purcell's Plain Lherzolite Sequence** : **pp(dn)**– dunite, pyroxene dunite, harzburgite and orthopyroxenite **pp(l)**– plagioclase dunite-harzburgite-lherzolite, troctolite and minor anorthosite with cross-cutting plagioclase pyroxenite, gabbronorite, and anorthosite dykes; **pp(gb)**–dunite-gabbro complex

Ꞓbh **Brassey Hill Harzburgite Sequence**: harzburgite, plagioclase harzburgite and lesser dunite, orthopyroxenite and plagioclase lherzolite with cross-cutting gabbronorite and anorthosite dykes

Ꞓbz **Bronzite Hill Orthopyroxenite Sequence**: orthopyroxenite with subordinate harzburgite and dunite

Ꞓu **Undifferentiated**: probable tectonic melange with undifferentiated mafic and ultramafic rocks

Mafic Rocks

Ꞓg **Mafic Dykes**: **g(px)**–coarse grained and pegmatitic plagioclase pyroxenite and gabbronorite, **g(a)**–medium-fine grained leuco-gabbronorite and anorthosite **g(d)**– fine to medium grained gabbronorite

Ꞓt **Tonalite Complex**: tonalite, diorite and gabbro

Ꞓa **Amphibolite**: amphibolite lenses developed along faults

Volcanic Rocks

Ꞓba **Boninite**: **ba**–massive and pillowed boninite lavas **ba(px)**– porphyritic basaltic- pyroxenite dykes

Ꞓbm **Low-Ti Tholeiitic Basalt**: massive and pillowed lavas with minor interflow mudstone

ABBREVIATIONS

a-anorthosite	cr-chromitite	dn-dunite
gb-gabbronorite	hz-harzburgite	l-lherolite
pl-plagioclase	px-orthopyroxenite	bon-bonite
ton-tonalite	t-troctolite	w-websterite
wh-wehrlite	bas-basalt	s-serpentinite
bas px- basaltic pyroxenite		gdi-granodiorite
gn- galena	br-breccia zone	dol-dolerite
slst-siltstone	poik-poikilitic	ct-chert
js-jasper	mag-magnetite	Au-gold
Cr-chromite	Cu-copper	Os- osmiridium
f.g.-fine grained	c.g.-coarse grained	

SYMBOLS

geological boundary - observed

geological boundary - position approx.

geological boundary - transitional

igneous marker layer – position approximate

fault - observed, trend measured, lateral movement indicated (⇄), vertical movement indicated (U-D)

fault - observed (no trend measured)

fault - position approx. ? fault - inferred

shear zone - trend measured; trend approx.

small scale fold; anticline; sincline

strike and dip of igneous layering: facing unknown; facing known; overturned; vertical

strike and dip of foliation; foliation parallel to layering

strike and dip of joints; slickensides

breccia zone pillow lavas

mineral workings (abandoned): bedrock; alluvial; addit

Os mineral occurrence: Os-osmiridium; Cr-chromitite; Ni-nickel sulphide; Pb-galena; Cu-Au-copper and gold mE **RESPONSIBILITY DIAGRAM**

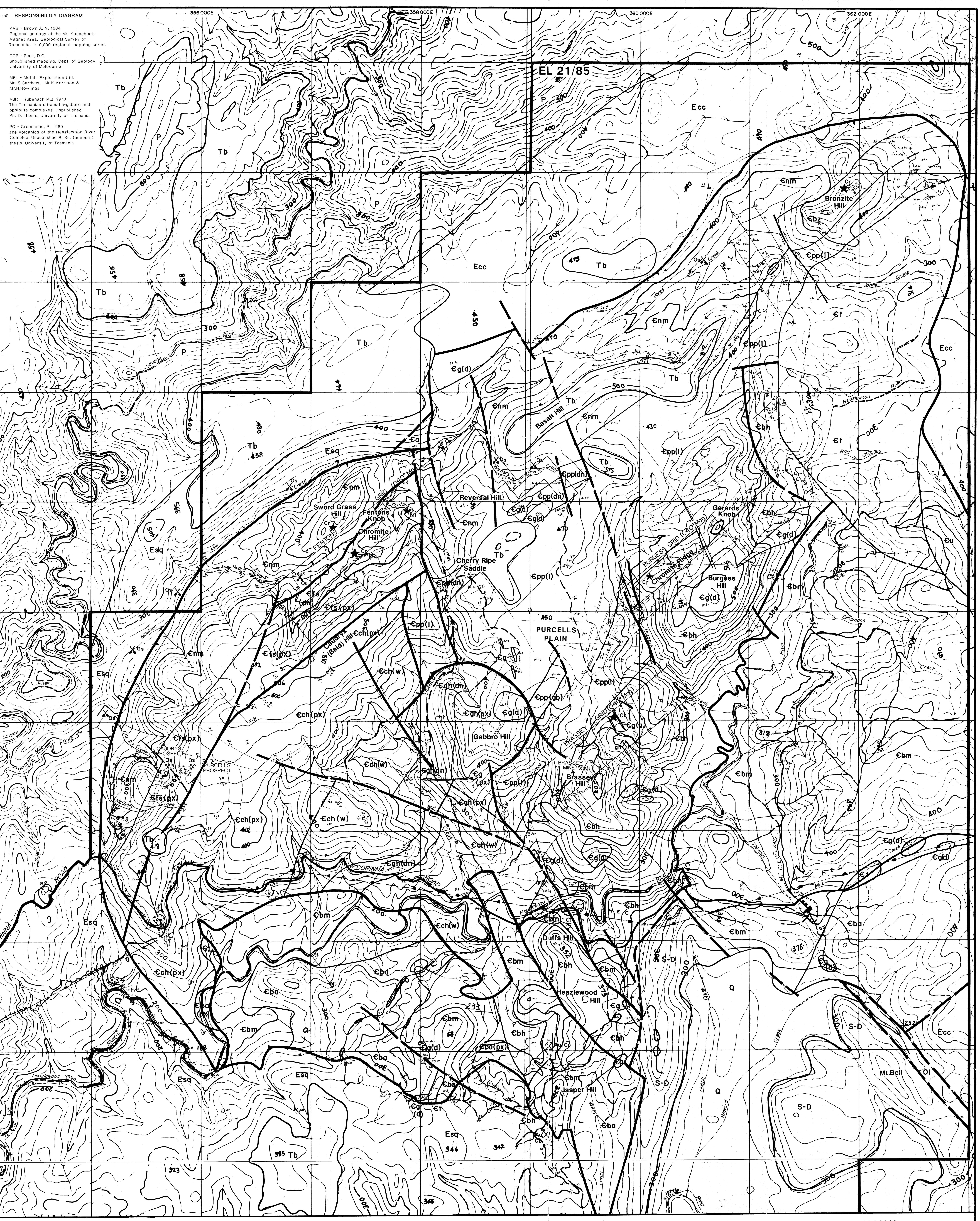
AVB - Brown A. V. 1984
Regional geology of the Mt. Youngbuck-Magnet Area. Geological Survey of Tasmania, 1:10,000 regional mapping series

DCP - Peck, D.C.
unpublished mapping. Dept. of Geology, University of Melbourne

MEL - Metals Exploration Ltd.
Mr. S.Carthew, Mr.K.Morrison & Mr.N.Rowlings

MJR - Rubenach M.J. 1973
The Tasmanian ultramafic-gabbro and ophiolite complexes. Unpublished Ph. D. thesis, University of Tasmania

PC - Creenaune, P. 1980
The volcanics of the Heazlewood River Complex. Unpublished B. Sc. (honours) thesis, University of Tasmania



tion

P **Precambrian :** quartz sandstone, siltstone and mudstone

IGNEOUS ROCKS

Tb **Tertiary :** alkali -olivine and tholeiitic basalt

creek,

CAMBRIAN
HEAZLEWOOD RIVER MAFIC–ULTRAMAFIC COMPLEX
Cumulate Sequences

Єnm **Nineteen Mile Creek Dunite :** tectonized dunite and minor orthopyroxenite

Єfs **Fenton's Spur Peridotite Sequence : fs(dn)**–dunite, harzburgite and minor orthopyroxenite, **fs(px)**–dunite, harzburgite, lherzolite, wehrlite and orthopyroxenite

Єch **Caudry's Hill Pyroxenite Sequence : ch(px)**–orthopyroxenite, olivine orthopyroxenite, minor dunite **ch(w)**–plagioclase orthopyroxenite, websterite, and plagioclase websterite

Єgh **Gabbro-Hill Plagioclase Pyroxenite Sequence : gh(dn)**–predominantly dunite, harzburgite and orthopyroxenite with cross-cutting plagioclase pyroxenite and gabbronorite dykes, **gh(px)**–plagioclase orthopyroxenite and plagioclase websterite with rafts of **gh(dn)** sequence

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556143

METALS EXPLORATION LTD.

NORTH WEST TASMANIA
EXPLORATION LICENCE 21/85

9059

HEAZLEWOOD
Geology and Topographical Features

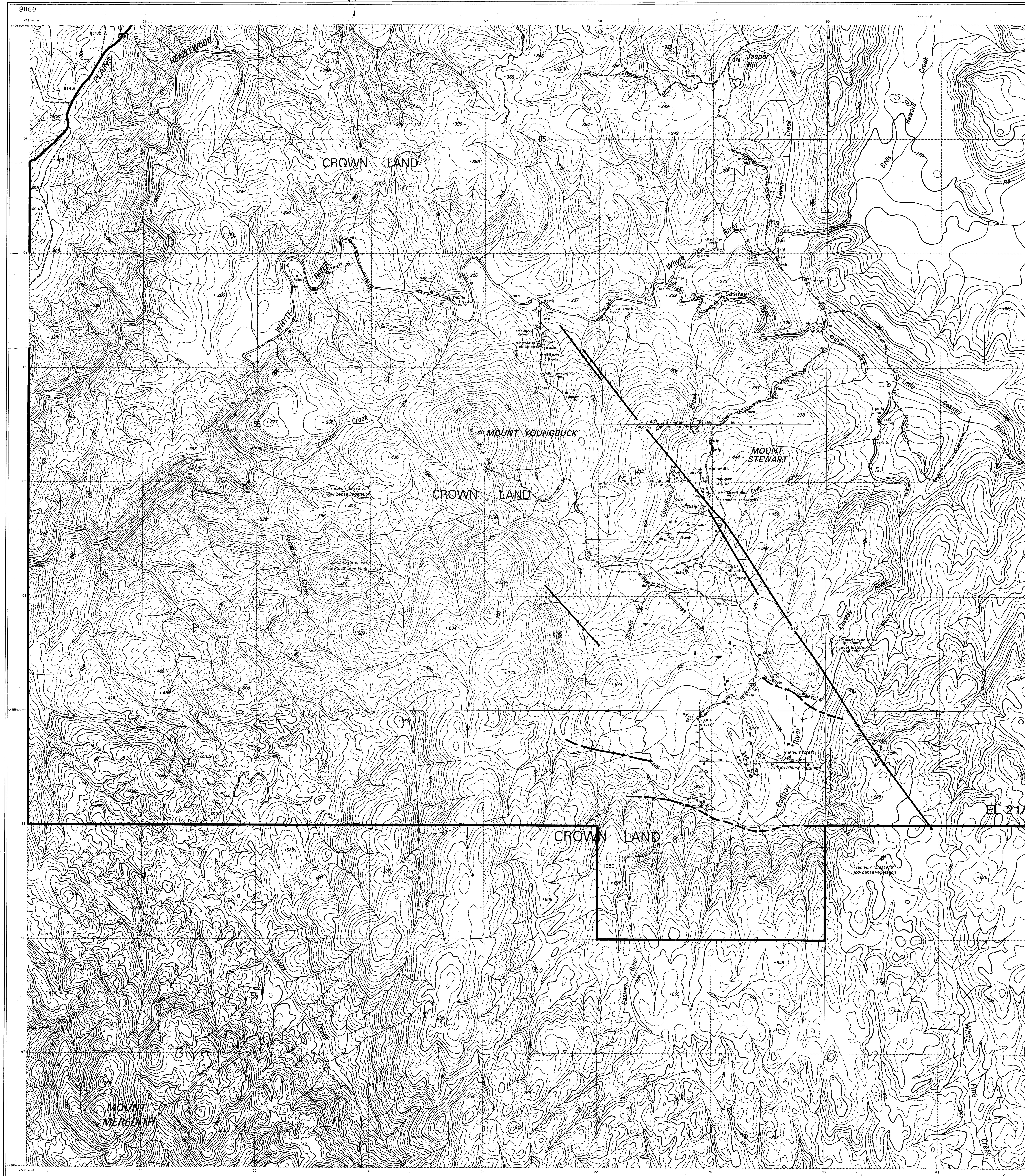
SCALE 1:10,000 FIGURE
DATE SEPT. 1989 DRG.NO.
SHEET NO. 1 OF 2

0 500 1000m

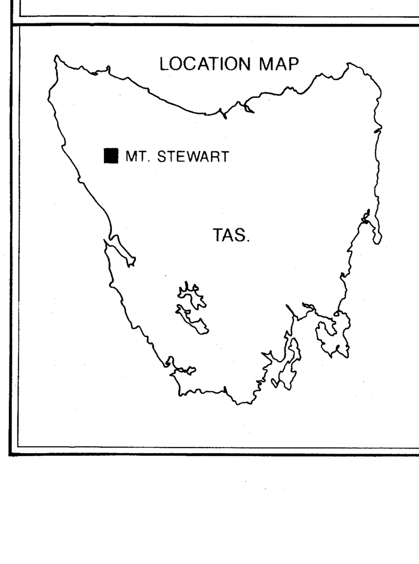
5 cm

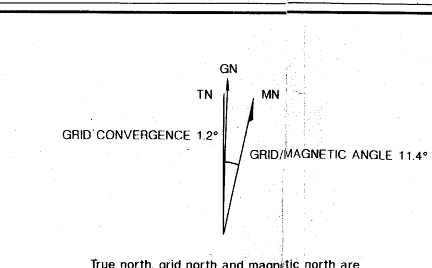
Enclosure 2

9060



556144 9060





True north, grid north and magnetic north are shown diagrammatically. Magnetic north moves easterly by 0.1° in about three years.

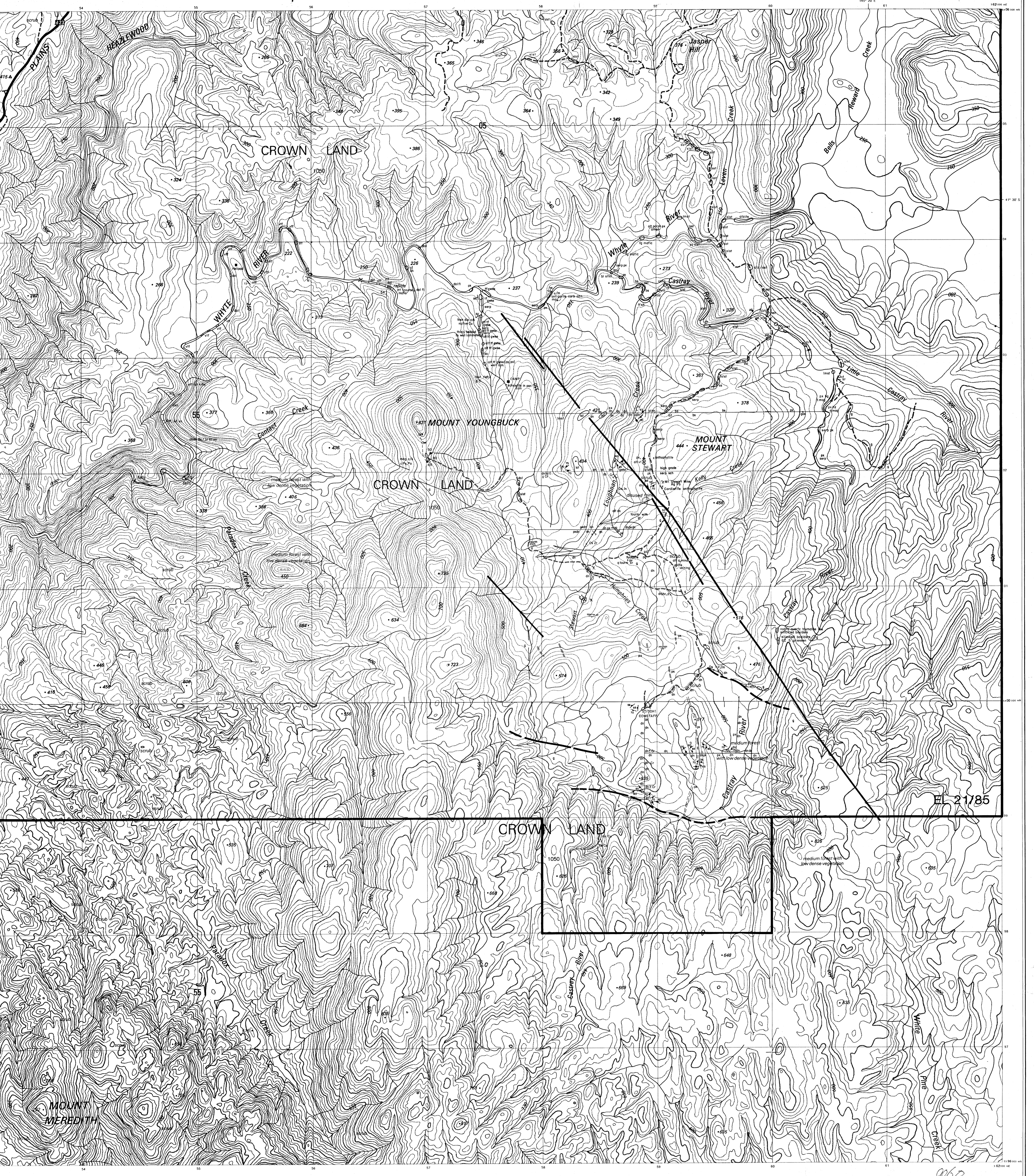
0 200 400 600 800 1000
metres

METALS EXPLORAT

Project	MT. STEWART EL 21/85 Tasmania
Title	MT. STEWART GEOL AND TOPOGRAPHIC FEAT

5 cm

Author		Date	5/89	Scale	1:1000
Drawn	C.W.L.	Office	PER	Revision	
Drawing No.	02/HZA/1/02			AMG REF SK 55	



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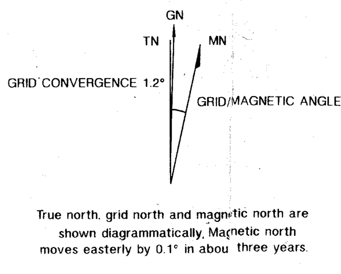


True north, grid north and magnetic north are shown diagrammatically. Magnetic north moves easterly by 0.1° in about three years.

0 200 400 600 800 1000

metres

METALS EXPLORATION LTD.

Project	MT. STEWART EL 21/85 Tasmania
Title	MT. STEWART GEOLOGY AND TOPOGRAPHIC FEATURES

5 cm

Author		Date	5/89	Scale	1:10000
Drawn	C.W.L.	Office	PER	Revision	Date
Drawing No.	02/HZA/1/02			AMG REF SK 55 3 7915	Encl. 3

MAPPING DIVISION	DATUM COORDS- AUSTRALIAN MAP GRID (AMG) HEIGHT- AUSTRALIAN HEIGHT DATUM (AHD)
LANDS DEPARTMENT-TASMANIA	NOTE- CHECKING OF THIS MAP IS NOT COMPLETE
CROWN COPYRIGHT RESERVED	DISTRIBUTION AUTHORISED- DATE-

PROJECT- SAVAGE RIVER AREA			SHEET NUMBER
NUMBER- M755 SCALE- 1:5000 V.I. 5. METRE(S)			1
PHOTOGRAPHY PROJECT- M458 TIME FLOWN-	RUN- 13	NEG- 228-229	
DATE-25-MAR-85 SCALE- 1:42000 1105 HRS.	RUN-	NEG-	PLOTTED

TASMAP

REFERENCE

ESQ — Eocambrian — quartzwacke and minor mudstone.

PP — Precambrian — quartz sandstone, siltstone and mudstone.

CUMULATE ULTRAMAFIC SEQUENCES
- NM — Nineteen Mile Creek Dunite Sequence: tectonized dunite with minor orthopyroxenite and harzburgite
- FSp — Fenton's Spur Peridotite Sequence: interlayered dunite, harzburgite, orthopyroxenite, lherzolite and wehrlite
- CHp — Caudry's Hill Pyroxenite Sequence: orthopyroxenite, olivine orthopyroxenite and minor dunite
- CHw — Caudry's Hill Pyroxenite Sequence: plagioclase orthopyroxenite, websterite and plagioclase websterite
- GHdn — Gabbro Hill Dunite Sequence: interlayered dunite, harzburgite and orthopyroxenite
- GHpx — Gabbro Hill Plagioclase Pyroxenite Sequence: plagioclase orthopyroxenite and websterite

MAFIC ROCKS — Gd — Fine-grained gabbro, norite and dolerite

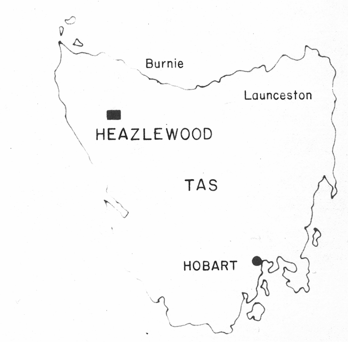
VOLCANIC ROCKS
- Bpx — Porphyritic basaltic-pyroxenite (boninitic affinities)
- LTB — Low-Ti tholeiitic Basalt: pillowed and massive lavas and minor mudstone

NOTE: FOR A FULL REFERENCE GUIDE PLEASE REFER TO THE LEGEND ON THE 'HEAZLEWOOD GEOLOGY AND TOPOGRAPHICAL FEATURES' MAP.

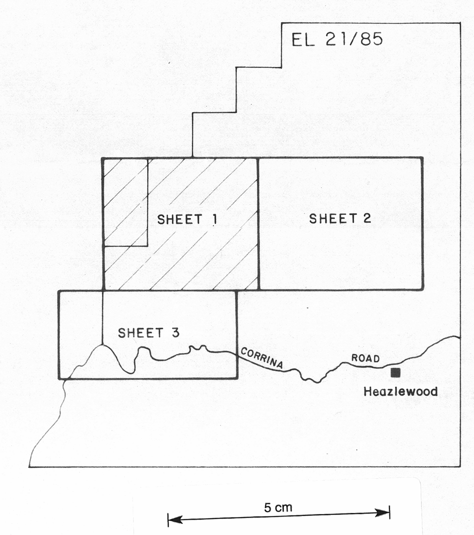
SYMBOLS

- Fault (observed, inferred)
- Geological Boundary (observed, approximate, transitional)
- Strike and dip of joints
- Strike and dip: igneous laying (primary); Foliation (Facing not known)
- Quarry
- Hard Rock Osmiridium workings
- Alluvial Osmiridium workings
- Shear

LOCATION MAP



SHEET LAYOUT



Grid Convergence 1·2°

Grid/Magnetic Angle 11·3°

0 100 200 300 400 500

metres

556145

METALS EXPLORATION LTD.

HEAZLEWOOD EL 21 85
Tasmania

SHEET 1

ORTHOPHOTO
(with contours)

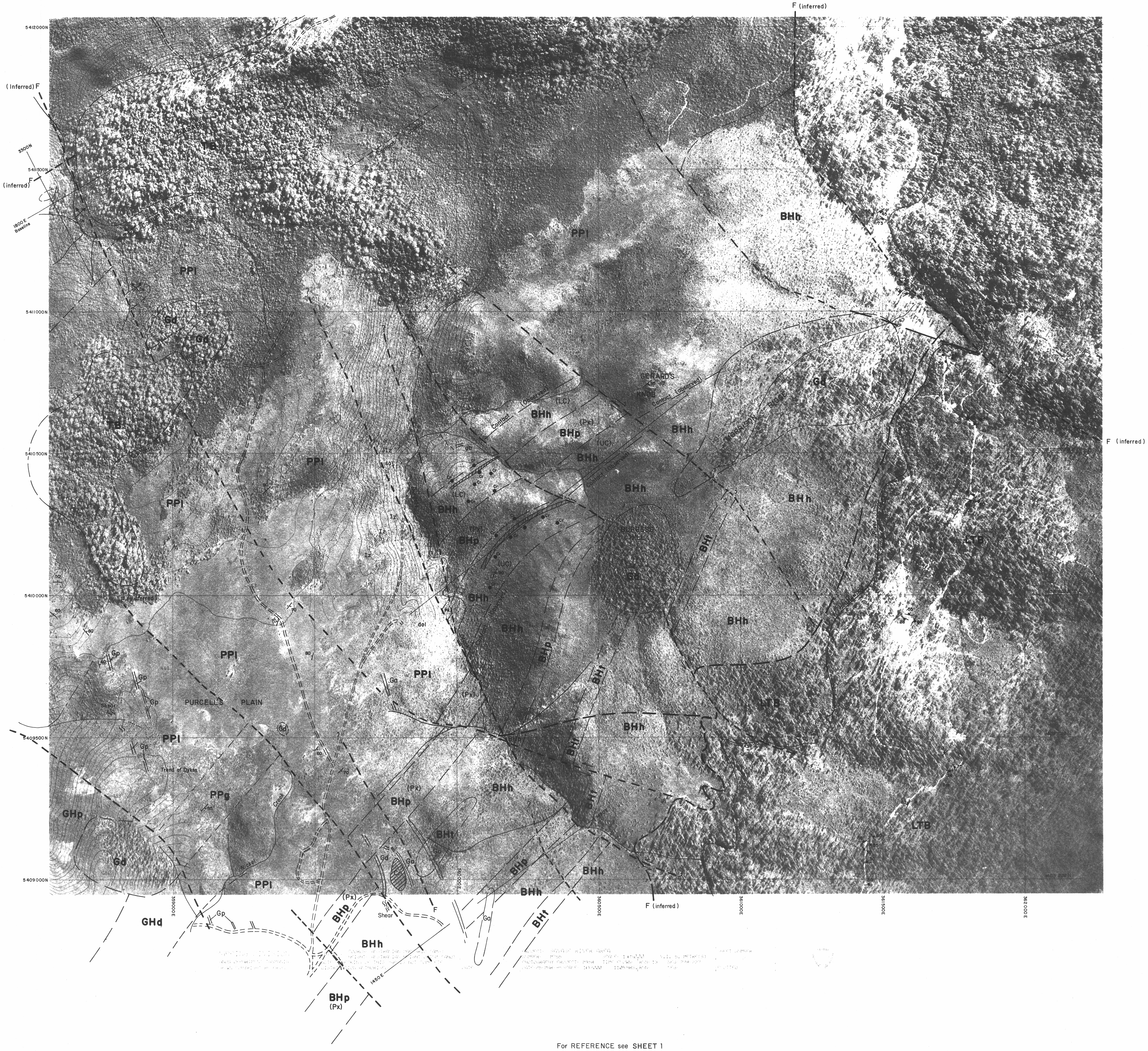
OBSERVED GEOLOGY - FENTONS AREA

Drawn Date Revised Date

Drawing No 02/HZ/1:11

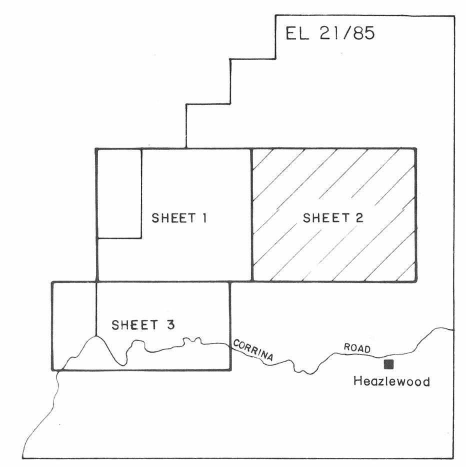
Encl. 4

9062



For REFERENCE see SHEET 1

SHEET LAYOUT



5 cm

Grid convergence 1·2
Grid/Magnetic Angle 11·3°

0 100 200 300 400 500
metres

556146

METALS EXPLORATION LTD.

HEAZLEWOOD EL 21 85
Tasmania

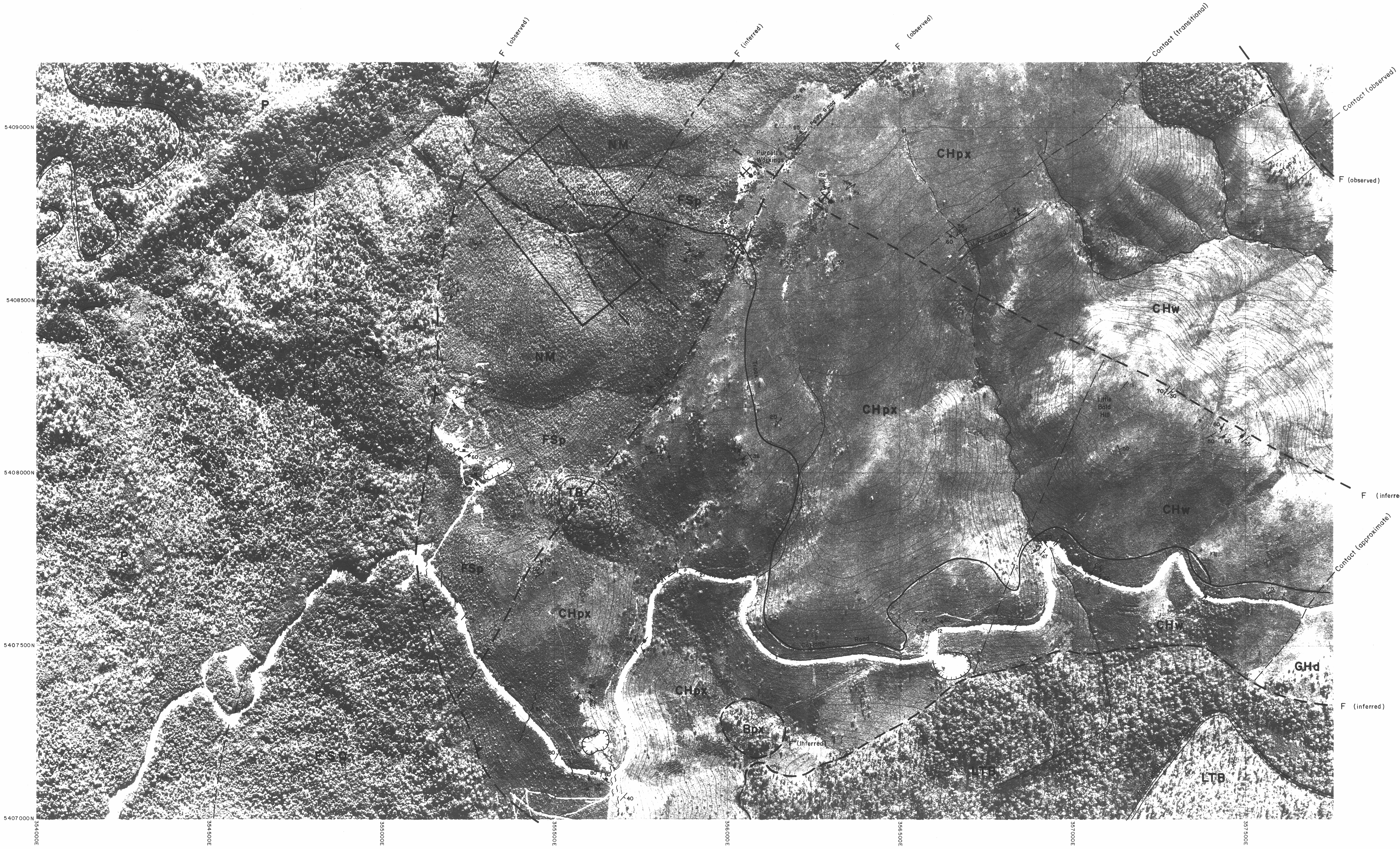
SHEET 2

ORTHOPHOTO
(with contours)
OBSERVED GEOLOGY
BRASSEY AND BURGESS AREA

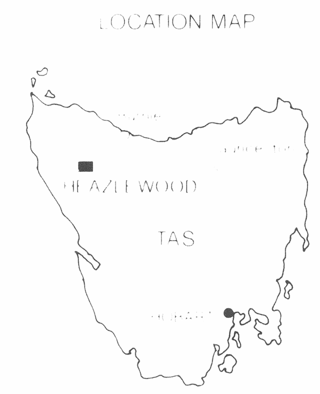
Encl. 5

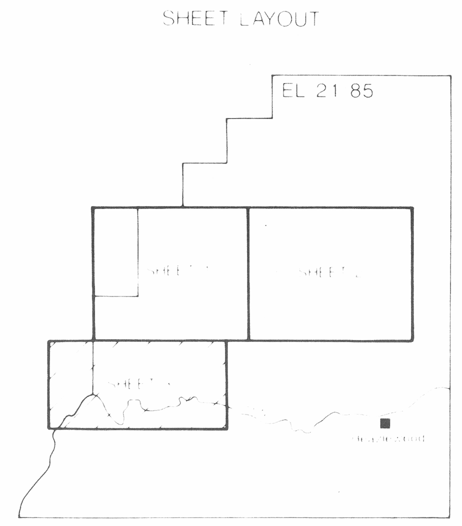
9062

9063



For REFERENCE see SHEET 1





metres

556150

METALS EXPLORATION LTD.

Project: HEAZLEWOOD EL 21/85
Tasmania

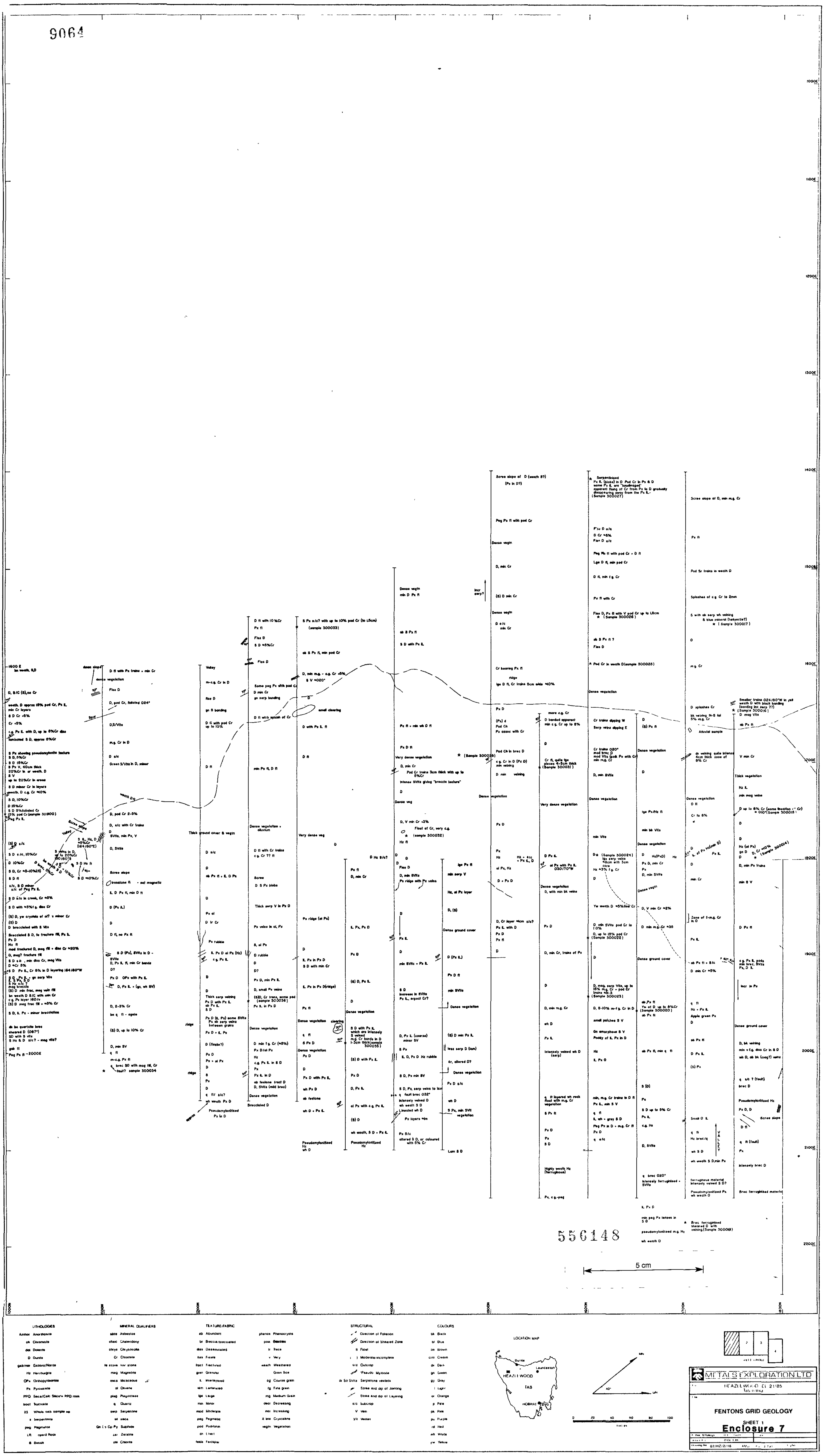
Title: SHEET 3

ORTHOPHOTO
(with contours)
OBSERVED GEOLOGY
PURCELLS AND CAUDRY AREAS

Scale 1:5000

Encl. 6

9064



METALS EXPLORATION LTD

HEAZLEWOOD EL 21/85

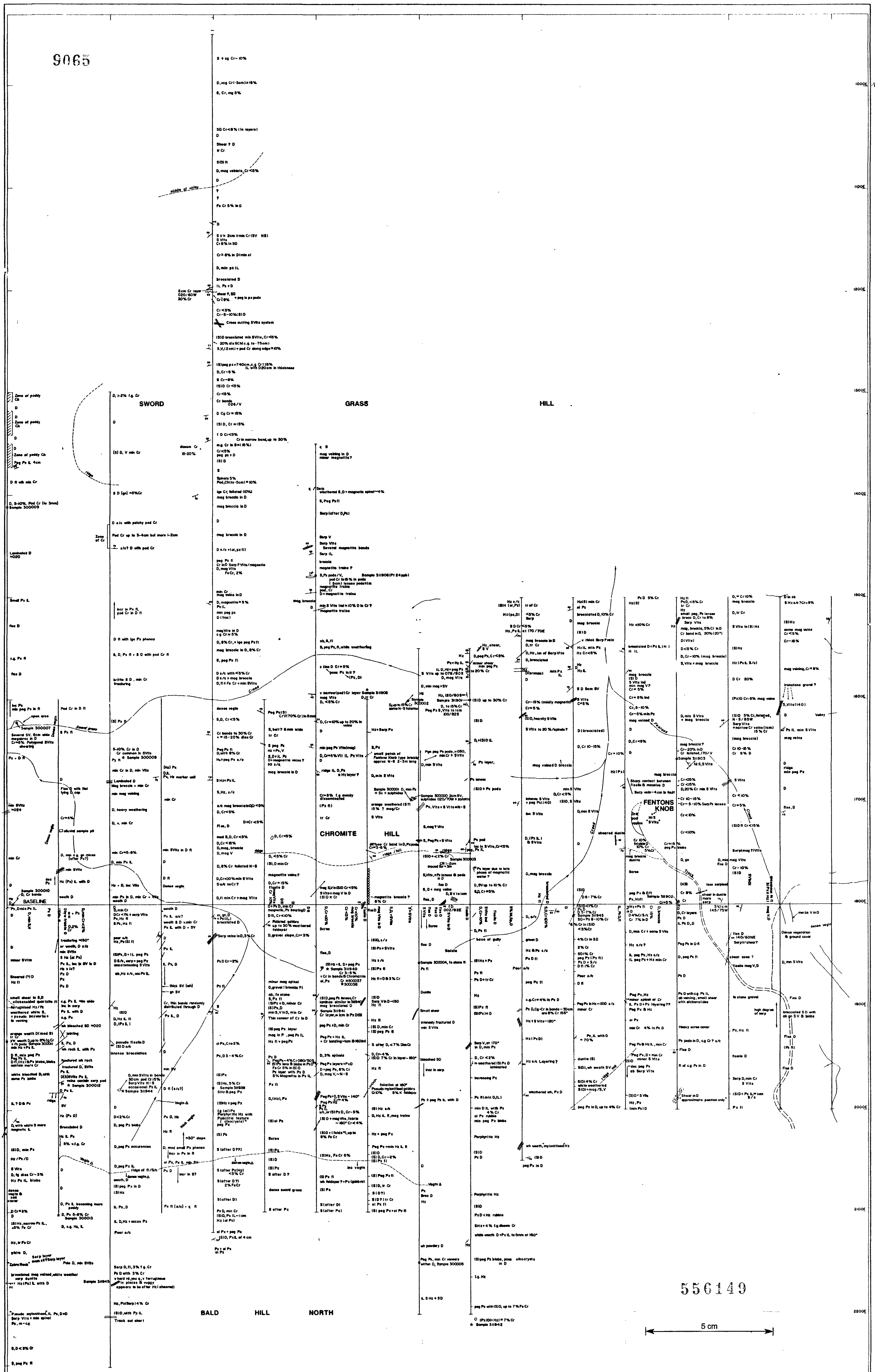
FENTONS GRID GEOLOGY

SHEET 1

Enclosure 7

Drawing No 02/HZ/2/16

9065



556149

LITHOLOGIES	
Anthor	Anorthosite
ch	Chromitite
dol	Dolerite
D	Dunite
gab/nor	Gabbro/Norite
Hz	Harzburgite
OPx	Orthopyroxenite
Px	Pyroxenite
PPO	Silica/Calc Silicate PPO rock
troct	Troctolite
23	Whole rock sample no.
s	Serpentinite
peg	Pegmatite
LR	Leopard Rock
B	Basalt

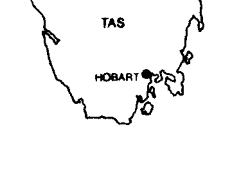
MINERAL QUALIFIERS	
abts	Asbestos
chalc	Chalcedony
chrys	Chrysocolla
Cr	Chromite
fe stone	Iron stone
mag	Magnetite
mica	Micaceous
ol	Olivene
plag	Plagioclase
q	Quartz
serp	Serpentine
sil	silica
Gn Sp Cp Py	Sulphide
zar	Zaratite
chl	Chlorite

TEXTURE/FABRIC			
ab	Abundant	phenos	Phenocrysts
br	Breccia/brecciated	oik	Oikilitic
diss	Disseminated	tr	Trace
fiss	Fissile	v	Very
fract	Fractured	weath	Weathered
gran	Granular		Grain Size
IL	Interlayered	cg	Course grain
lam	Laminated	fg	Fine grain
lge	Large	mg	Medium Grain
min	Minor	decr	Decreasing
mod	Moderate	incr	Increasing
peg	Pegmatic	X line	Crystalline
pod	Podiform	vegtn	Vegetation
ch	Chert		
felds	Feldspar		

STRUCTURAL	
	Direction of Foliation
	Direction of Sheared Zone
fl	Float
( )	Moderate/Incomplete
o/c	Outcrop
	"Pseudo" Mylonite
or SV,SVlts	Serpentine veinlets
	Strike and dip of Jointing
	Strike and dip of Layering
s/c	Subcrop
V	Vein
Vlt	Veinlet

COLOURS	
bk	Black
bl	Blue
bn	Brown
crm	Cream
dk	Dark
gn	Green
gy	Grey
l	Light
or	Orange
p	Pale
pk	Pink
pu	Purple
rd	Red
wh	White
yw	Yellow

LOCATION MAP



MN
40°
GN

0 20 40 60 80 100
metres

SHEET LAYOUT
1 2 3 4

METALS EXPLORATION LTD.

Project: HEAZLEWOOD EL 21/85
Tasmania

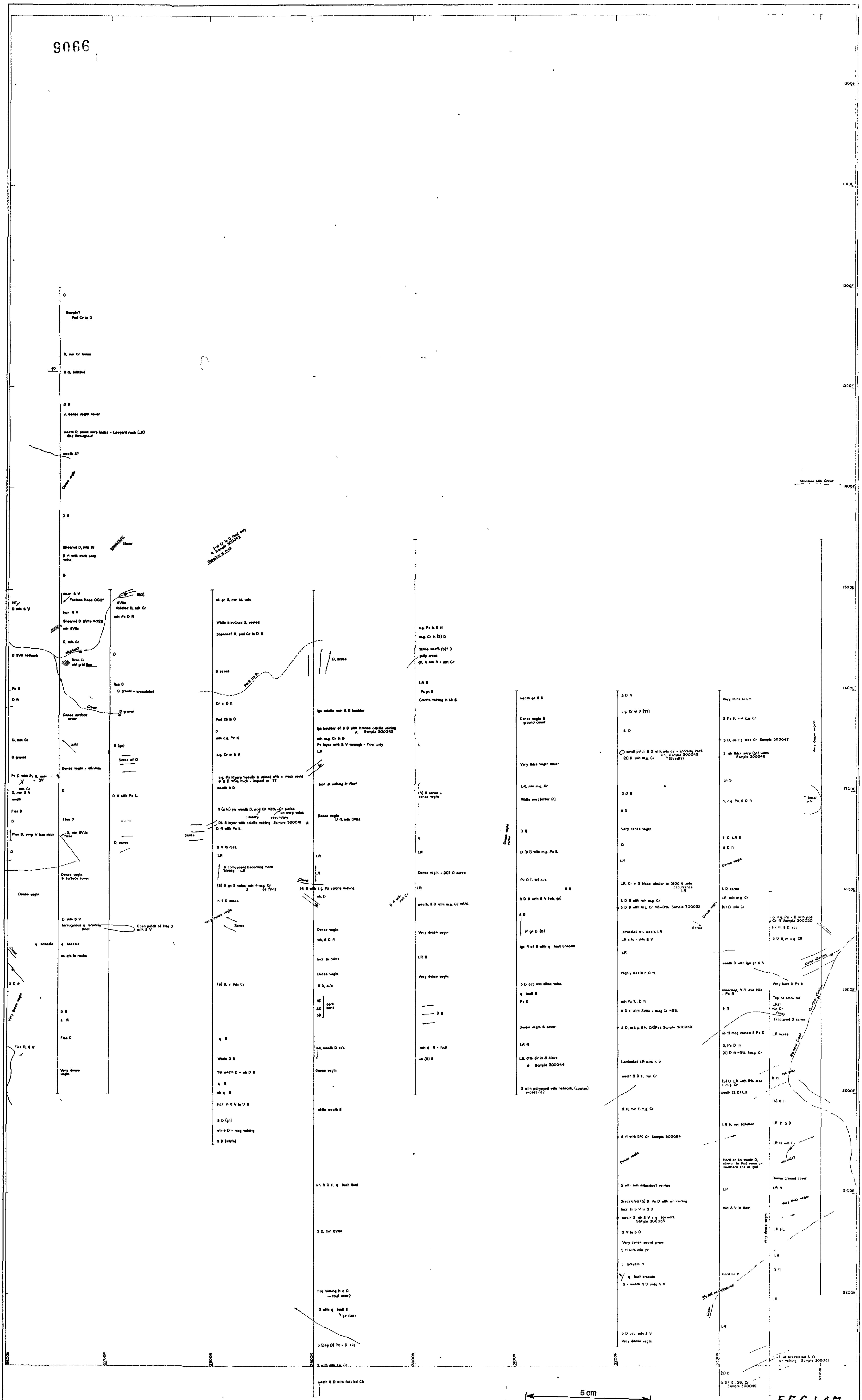
Title: FENTONS GRID GEOLOGY

SHEET 2

Enclosure 8

Author N Rollings	Office Perth	Scale	
Drawn K J C	Date 4/86	Revised	Date
Drawing No 02/HZ/2/04	AMG SK55 3 7915 2	Fig No	

9066



LITHOLOGIES

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mod	Moderate	incr	Increasing
peg	Pegmatic	X line	Crystaline
pod	Podiform	vegtn	Vegetation
cht	Chert		
felds	Feldspar		

STRUCTURAL

(symbol)	Direction of Foliation
(symbol)	Direction of Sheared Zone
fl	Float
( )	Moderate/incomplete
o/c	Outcrop
(symbol)	Pseudo Mylonite
or SV SVlts	Serpentine veinlets
(symbol)	Strike and dip of Jointing
(symbol)	Strike and dip of Layering
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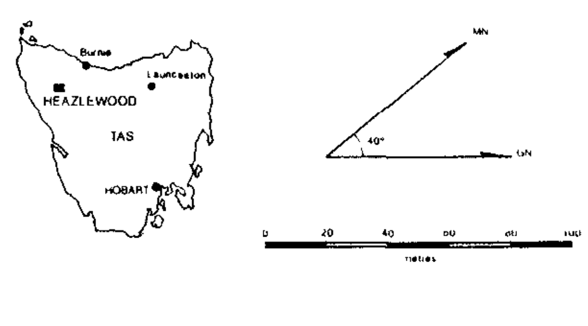


556147.

METALS EXPLORATION LTD

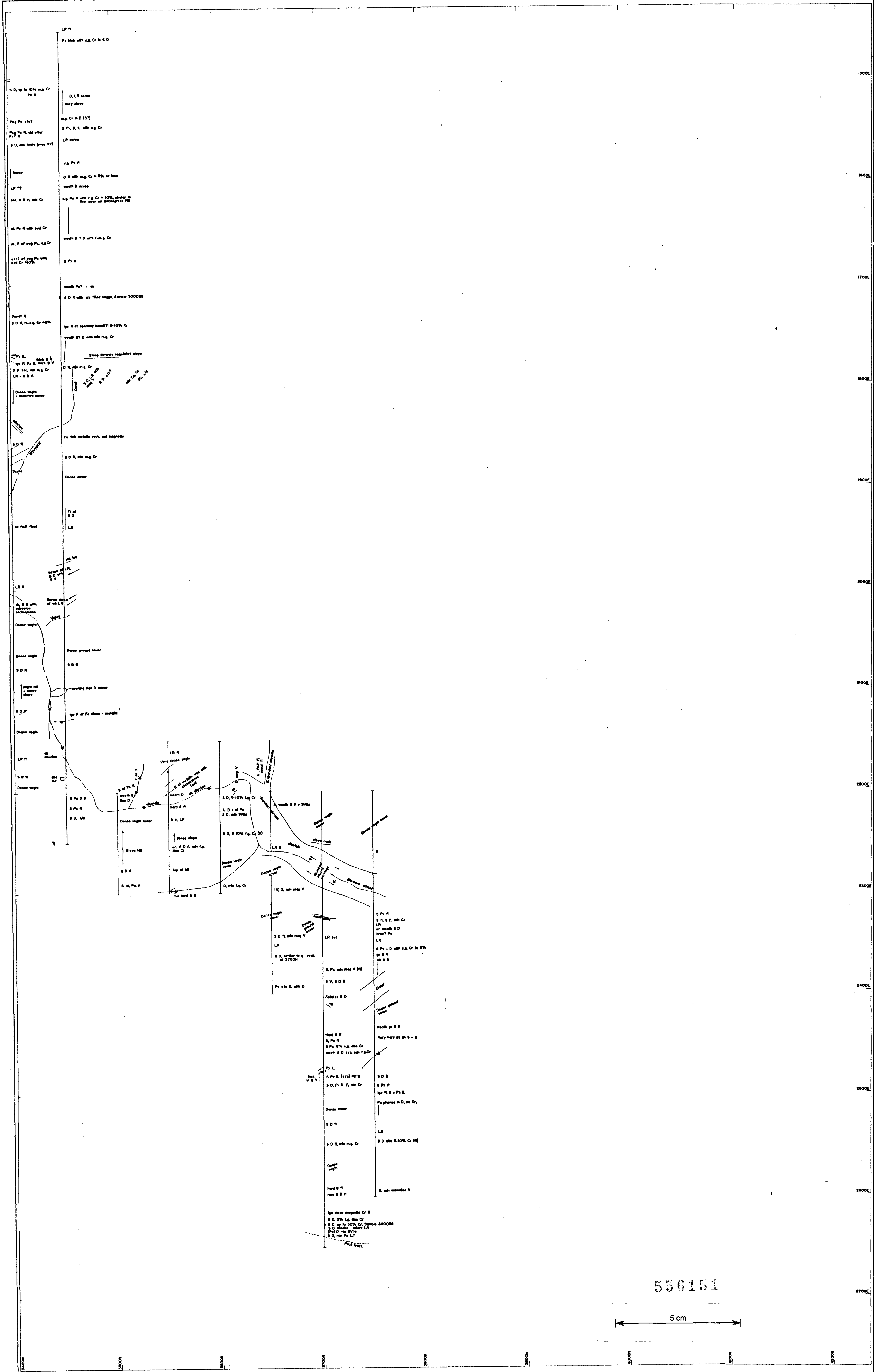
HEAZLEWOOD EL 21/85
Tasmania

FENTONS GRID GEOLOGY

SHEET 3

Enclosure 9

9067



556151

5 cm

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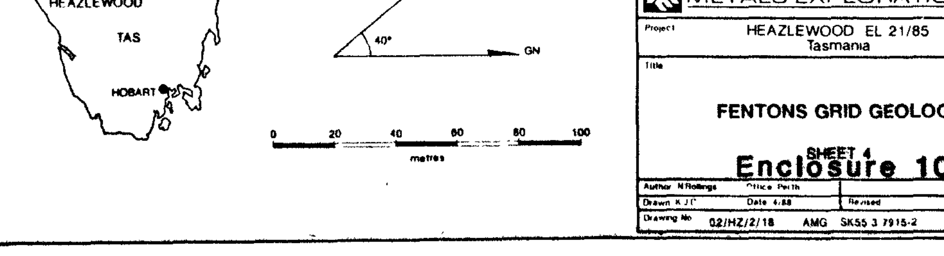
yw	Yellow

LOCATION MAP



METALS EXPLORATION LTD.

Project: HEAZLEWOOD EL 21/85
Tasmania

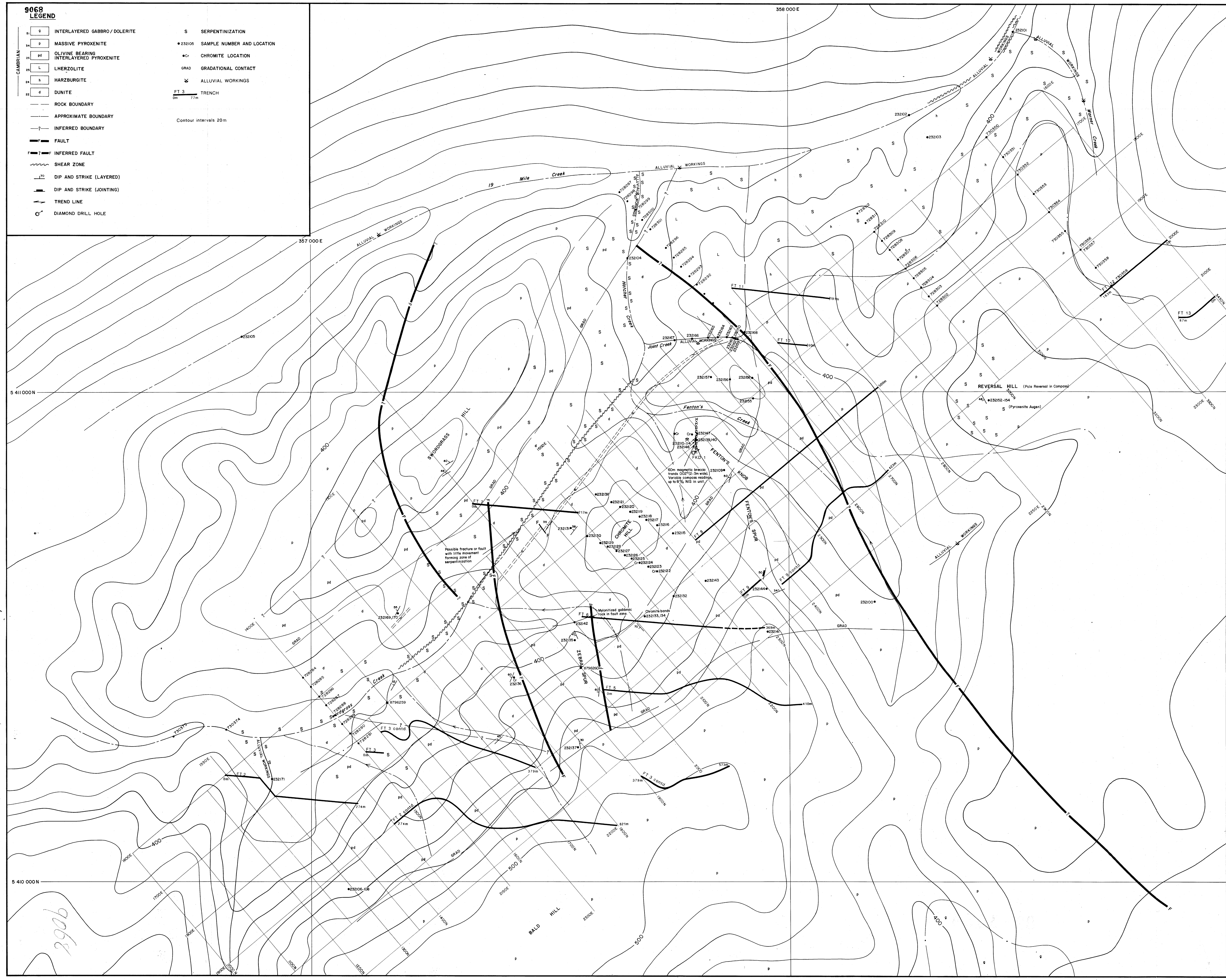
Title

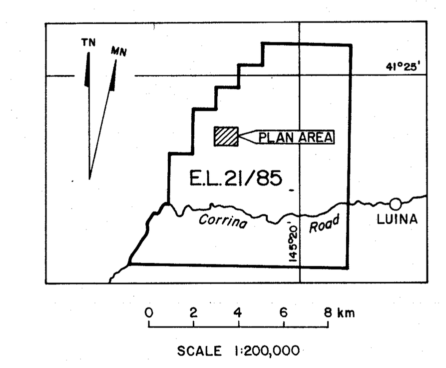
FENTONS GRID GEOLOGY

SHEET 4

Enclosure 10

Author N Rollings	Office Perth		
Drawn K J C	Date 4/88	Revised	Date
Drawing No 02/HZ/2/18	AMG SK55 3 7915-2	Fig No	





556152

METALS EXPLORATION LIMITED

HEAZLEWOOD PROSPECT, TASMANIA
EXPLORATION LICENCE 21/85

GEOLOGY IN THE VICINITY OF FENTONS WORKINGS

DATE MAY 1986
SCALE 1:2500

Enclosure 11

Drg.No 02/HZ/2/10

9069

LOCATION MAP

E.L. 21/86 — Corinna — Road — LUINA

0 2 4 6 8km

SCALE 1:200,000

LEGEND

	TRENCH
BRP	DRILL COLLAR POSITION WITH DRILLHOLE DIRECTION
● 311	SAMPLE LOCALITY (PREFIX 8796) ◉ PREFIX 728
X 60	SAMPLE LOCALITY (PREFIX 231)
x 495	ROCK CHIP SAMPLE LOCATION (PREFIX 725)
	CONTOURS (20m intervals)
	GEOLOGICAL BOUNDARY - POSITION APPROXIMATE
	GEOLOGICAL BOUNDARY - POSITION INFERRED
	FAULT POSITION APPROXIMATE
	FAULT POSITION INFERRED
	ANTICLINE, FOLD AXIS
	STRIKE OF BEDS
	SHEAR ZONE
	SILICIFICATION
	CREEK
⊗DDH	PRE M.E.L. DIAMOND DRILL HOLE SITE
*CHROMITITE	MINOR MINERAL OCCURENCE
Os	OSMIRIDIUM
	ABANDONED ALLUVIAL WORKINGS
	ABANDONED HARD ROCK WORKINGS
Ni	MINE NOT BEING WORKED
	QUARRY
	SHALLOW SHAFT, TRENCH

TERTIARY

10	TB	BASALT

CAMBRIAN AGE HEAZLEWOOD MAFIC-ULTRAMAFIC COMPLEX

21	B	BASALT
18	PG	PLAGIO GRANITE
70	SC	SILICA CARBONATE ROCK
44	A	ANORTHOSITE
48	T	TROCTOLITE
51	GD	GABBRO / DOLERITE
52	GN	GABBRO / NORITE
34	P	PYROXENITE
24	H	HARZBURGITE (plH PLAGIOCLASE HARZBURGITE)
22	D	DUNITE

MULTI LITHOLOGY ROCK GROUPS

26	P.H.D.	INTERLAYERED PYROXENITE - HARZBURGITE - DUNITE
30	pl(D.H.)	INTERLAYERED PLAGIOCLASE DUNITE - PLAGIOCLASE HARZBURGITE
41	pl(D.H.)T	INTERLAYERED PLAGIOCLASE DUNITE - PLAGIOCLASE HARZBURGITE - TROCTOLITE
43	TD	INTERLAYERED TROCTOLITE - DUNITE

GN TN MN

0 100 200
METRES

5 cm

METALS EXPLORATION LIMITED

HEAZLEWOOD PROSPECT, N.W. TASMANIA
EXPLORATION LICENCE 21/85

556153

Interpretation of Fact Geology

BRASSEY HILL SHEET

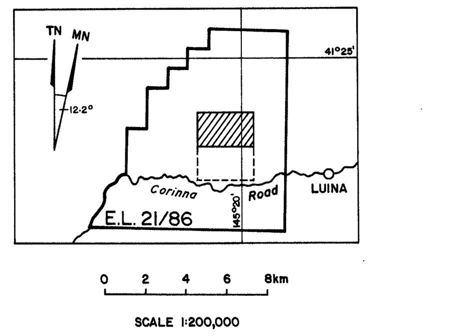
PREPARED : T. SUMMONS, K. MORRISON, G. ANDERSON
DATE OCTOBER 1986
SCALE 1:2500

Enclosure 12

Drg.No 02/HZ/2/08

89-3054 BASE MAP DRG.NO. 86-336

LOCATION MAP



LEGEND

	TRACK
	CREEK
	CONTOURS (20m intervals)
	GEOLOGICAL BOUNDARY - POSITION APPROXIMATE
	GEOLOGICAL BOUNDARY - POSITION INFERRED
	FAULT POSITION APPROXIMATE
	FAULT POSITION INFERRED
	ANTICLINE, FOLD AXIS
	STRIKE OF BEDS
	SHEAR ZONE
	SILICIFICATION
X21	SAMPLE LOCALITY (PREFIX 231___)
⊗DDH	PRE M.E.L. DIAMOND DRILL HOLE SITE
CHROMITITE	MINOR MINERAL OCCURENCE
●211	SAMPLE LOCALITY (PREFIX 8796)
	ABANDONED ALLUVIAL WORKINGS
	ABANDONED HARD ROCK WORKINGS
Ni	MINE NOT BEING WORKED
	QUARRY
	SHALLOW SHAFT, TRENCH
BUT 3	TRENCH

TERTIARY	10	TB	BASALT
CAMBRIAN AGE HEAZLEWOOD MAFIC-ULTRAMAFIC COMPLEX	21	B	BASALT
	18	PG	PLAGIO GRANITE
	70	SC	SILICA CARBONATE ROCK
	44	A	ANORTHOSITE
	48	T	TROCTOLITE
	51	GD	GABBRO / DOLERITE
	52	GN	GABBRO / NORITE
	34	P	PYROXENITE
	24	H	HARZBURGITE (plH PLAGIOCLASE HARZBURGITE)
	22	D	DUNITE
			MULTI LITHOLOGY ROCK GROUPS
	26	P.H.D.	INTERLAYERED PYROXENITE - HARZBURGITE - DUNITE
	30	pl(D.H.)	INTERLAYERED PLAGIOCLASE DUNITE - PLAGIOCLASE HARZBURGITE
	41	pl(D.H.)T	INTERLAYERED PLAGIOCLASE DUNITE - PLAGIOCLASE HARZBURGITE - TROCTOLITE
	43	TD	INTERLAYERED TROCTOLITE - DUNITE

0 100 200
METRES

5 cm

METALS EXPLORATION LIMITED

HEAZLEWOOD PROSPECT, N.W. TASMANIA
EXPLORATION LICENCE 21/85

556154

Interpretation of Fact Geology

BURGESS HILL SHEET

PREPARED : T. SUMMONS, K. MORRISON, G. ANDERSON
DATE OCTOBER 1986
SCALE 1:2500

Enclosure 13

Drg.No 02/HZ/2/07

BASE MAP DRG.NO. 86-335

9071

LEGEND

Mullock/dump

Geological boundary approx.

Strike/dip of bedding — Strike/dip of foliation

Strike/dip of joint — Strike/dip of fault

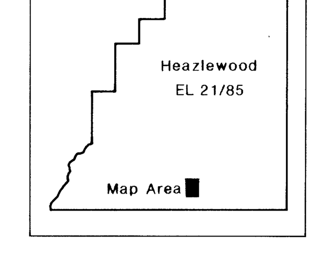
Formed tracks

JP2● Percussion drillhole JD88-1● Diamond drillhole

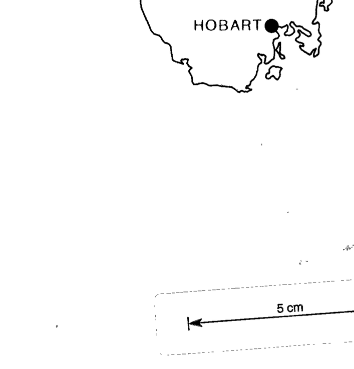
js	Jasper
dl	Fine to medium grained dolerite
bs	Fine grained basalt; generally fresh patchy local Si-Ep alt. but not with sulphides
pa	Porphyritic Andesite. fine medium grained mafic lava ? with small phenocrysts plagioclase and ferromagnesians
ss	Sediments: fine to medium grained sometimes cherty, dark greenish grey (mafic?) siltstones and fine wackes.
abs	Amygdaloidal Basalt, generally strongly altered (silicified) with varying intensity of quartz and cpy stockwork veining and/or disseminated Cpy>>Py. Probably pillowed flows.
(s)px	Serpentinized/Steatitized Pyroxenite (?)
(cross hatching)	Zone of qtz stockwork veining generally with assoc. Cpy>>Py veinlet and dissem. mineralization in range 1.5% sulphides (or limonite ex sulph) Density of cross hatching indicative of intensity of stockwork/mineralization
px bs	Pyroxene rich basalt

and	Andesite	dn	Dunite
tf	Tuff		
f.g.	Fine grained	br	Breccia
alt	Altered	weath	Weathered
vq	Vein quartz	mass	Massive
vesic	Vesicular	carb	Carbonate
mag	Magnetite	sil	Siliceous
chl	Chloritic	sv	Serpentinised veins

MAP AREA



LOCATION MAP



5 cm

SCALE 1:1000

0 25 50 75 100

metres

9071

556155

89-3054

METALS EXPLORATION LTD.

Project. HEAZLEWOOD EL 21/85 Tasmania

Title.

JASPER HILL GEOLOGY

Author. S.Carthew	Office. Melb.	Scale. 1:1000	
Drawn. J.M.	Date. 10/88	Revised.	Date.
Drawing No.	AMG SK 55-3-7015-II		Encl. 14

9072

556156

89-3054

METALS EXPLORATION LTD.

Project.	HEAZLEWOOD EL 21/85 Tasmania
Title.	JASPER PROJECT MAGNETIC GRID PROFILES JASPER HILL

Author. S.Carthew	Office. Melb.	Scale. 1:1000	
Drawn. J.M.	Date. 9/88	Revised.	Date.
Drawing No.	AMG		Encl. 15