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AMAX AUSTRALIA LIMITED

BEACONSFIELD GEOLOGY AND EXPLORATION

by

D.A. Hamlyn

Minerals Exploration Division

March, 1982

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CONTENTS

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FIGURES

* See rear pocket

SECTION 1 - INTRODUCTION

In late 1979, Amax Iron Ore Corporation, in joint venture with Allstate Exploration N.L. and Tricentrol Oil Corporation commenced work on the rehabilitation of the Hart Shaft at the Tasmania Gold Mine in Beaconsfield, North Tasmania. The Tasmania Mine has been closed since 1914 and the extensive underground workings are inaccessible. It was hoped that a blockage in the top of the Hart Shaft, formed by the collapse of the shaft collar, could be cleared and the workings dewatered thus providing access to the lower mine levels, from which, exploratory drilling could be carried out to prove the potential of the ore body.

In mid 1980, with the clearing of the shaft blockage well underway and a breakthrough seeming imminent, exploration in areas adjacent to the Tasmania Mine was initiated. This report presents some brief details of the history and geology of the goldfield and summarises the exploration activities carried out in the past, particularly those conducted by Amax during 1980 and 1981.

1.2 LOCATION

Beaconsfield is situated in central north Tasmania, 39 kilometres by road northwest of Launceston and 8 kilometres west of the Tamar River Estuary. The deposits in the Beaconsfield Goldfield are centred over Cabbage Tree Hill which forms a northwest-southwest trending ridge immediately to the west of the township. The main workings in the field are those of the Tasmania Gold Mine which operated from 1877 to 1914, however numerous smaller mining operations were carried out along Cabbage Tree Hill and around Brandy Creek to the North.

Amax initially entered into joint venture agreement with Allstate Exploration who held Exploration Licence 17/73 covering most of Cabbage Tree Hill and alluvial covered plains to the north. E.L. 17/73 originally consisted of 25sq. kilometres extending from the Middle Arm of the Tamar Estuary and Middle Arm Creek in the east to the Beaconsfield Reservoir in the west, and from the Flowery Gully Road-West Tamar Highway junction and Leviathan Hill in the south to Bowens Jetty in the north.

1.3 LAND TENURE

E.L. 17/73 originally covered an area of 25sq. kilometres, excluding 9ha held under Mineral Lease 5M/76 by H.A. Bleazard and approximately 19ha held as a prospecting claim by K. Furlonge near Brandy Creek, however the E.L. was reduced to 16sq. kilometres in December 1979 by the Mines Department and that area west of Cabbage Tree Hill was included in a State Reserve. Part of this confiscated area was granted back to Amax Iron Ore Corporation under Authority to Prospect 8/80 covering 2.6 sq. kilometres over Leviathan Hill.

E.L. 17/73 was renewed for a further six monthly period on 12th January 1982, and an application made for renewal of AP 8/80 for six months from 13th February 1982.

An agreement was signed in 1979 between H.A. Bleazard and Allstate, to enable the joint venture parties to prospect over M.L. 5M/76, while an agreement is presently being formilised to allow exploration to be conducted over K. Furlonge's prospecting claim.

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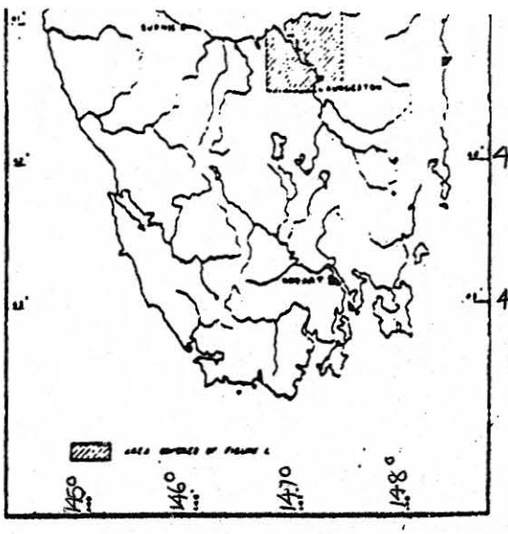
FIGURE 1. - LOCALITY PLAN



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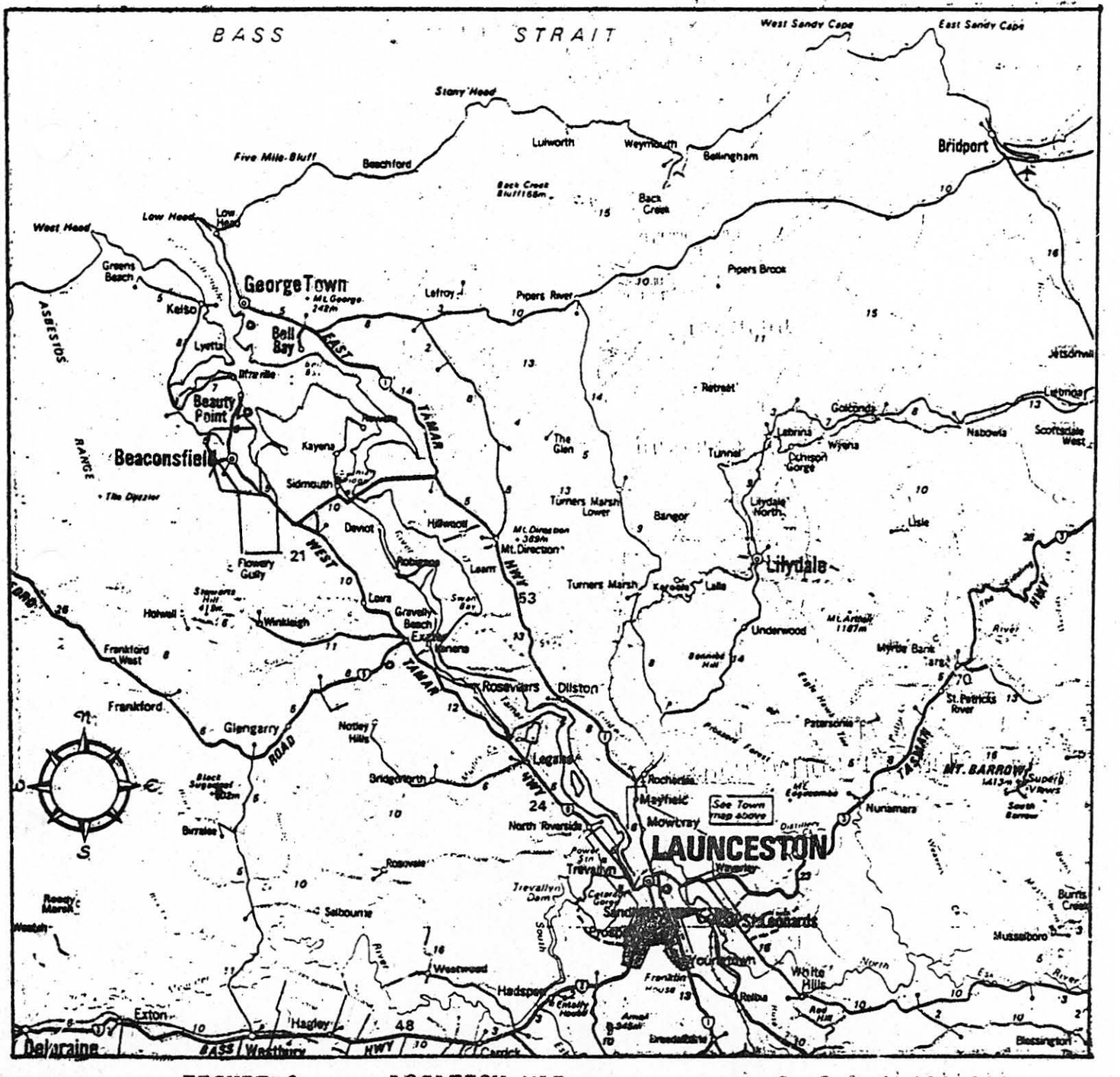


FIGURE 2. LOCATION MAP Scale 1:400,000

SECTION 2 - REGIONAL GEOLOGY

The oldest rocks in the vicinity of Beaconsfield are the Precambrian Badger Head Group which are exposed at Badger Head and in the Asbestos and Dazzler Ranges, 5 kilometres west of Beaconsfield. The group consists of a non-metamorphosed sequence of interbedded greywacke-type arenites and slates which have been tightly folded during several phases of deformation and forms an elongate structural high flanked by lower Palaeozoic rocks to the east and west.

The lower Palaeozoic fold belt to the east of this structural high, consists of Cambrian slates and Ordovician arenites in imbricate thrust slices shuffled up against the Precambrian during the Upper Devonian Tabberabberan Orogeny. This belt also contains the Andersons Creek Ultramatic Complex of Cambrian age.

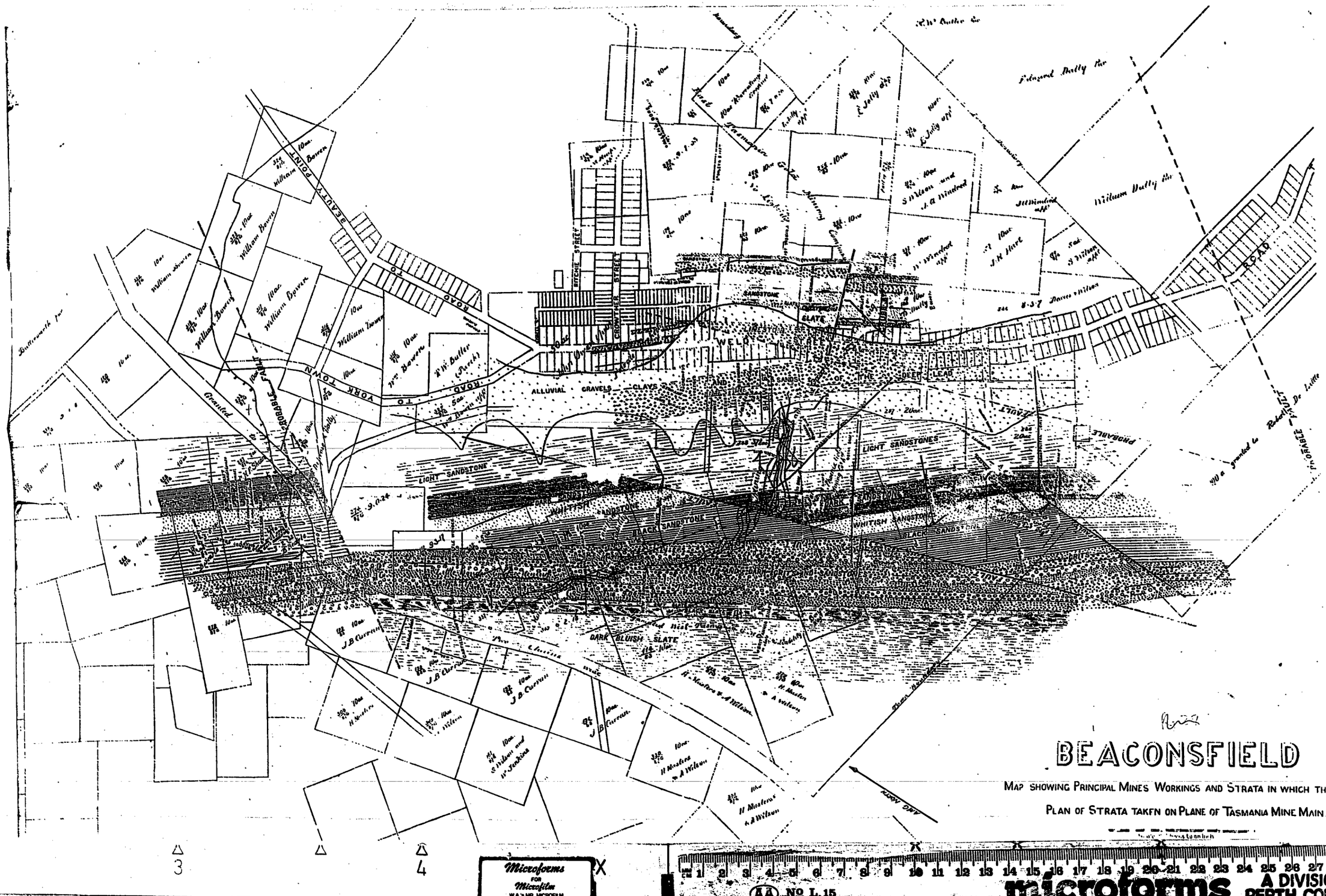
Four structural slices of Cambrian sediments have been described between Dazzler Range and the Tamar River and these sediments consist of interbedded fine grained siltstones and slates with a minor keratophyre lens in the east. The Andersons Creek Ultramatic Complex occupies a Structural position close to the boundary between the Precambrian basement and the Lower Palaeozoic units. The complex consists of an elongate body of serpentinite, pyroxenite and gabbro with associated metamorphosed greywacke-type rocks, which may have been initially intruded into a sedimentary pile of Middle or Lower Cambrian age and was later tectonically re-intruded into early Upper Cambrian sedimentary rocks along a line of weakness.

Ordovician sediments of the Cabbage Tree Formation occur in four NNW trending belts structurally interlayered with the Cambrian thrust slices. The formation consists of medium grained cross bedded sandstones and basal lenses of granite and small pebble conglomerate. Cabbage Tree Hill to the west of Beaconsfield is composed of these sandstones and grits which host the mineralised veins that make up the Beaconsfield Goldfield.

Overlying the Cabbage Tree Formation, east of Cabbage Tree Hill, is a sequence of Ordovician limestone and interbedded siltstone horizons (Grubb Beds) known as the Gordon Limestone Correlate.

A gently tilted Permian sequence unconformably overlies the Lower Palaeozoic rocks. These Permian carbonaceous sandstones and siltstones are exposed in the estuarine inlets of the Tamar River.

Triassic quartz sandstones outcrop at Middle Arm and West Arm and have been intruded by Jurassic dolerites which occur in a northwest trending belt 5 kilometres east of Beaconsfield.



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BEACONSFIELD

MAP SHOWING PRINCIPAL MINES WORKINGS AND STRATA IN WHICH THE (22) Fig 22

PLAN OF STRATA TAKEN ON PLANE OF TASMANIA MINE MAIN A

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Much of the Beaconsfield area is covered by extensive deposits of semi-consolidated terrestrial sediments and minor basalt flows of Tertiary age. These sediments consist of sandy clays, siliceous granule conglomerate and argillaceous sands. Some ferruginous deposits are associated with the Tertiary sediments and at Andersons Creek early attempts were made at mining the concretionary and pisiolitic haematite and goethitic ironstone locally developed on the ultramafic complex.

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SECTION 3 - LOCAL GEOLOGY

Cambrian rocks are poorly exposed on Leviathan Hill covered by A.P. 8/80 west of Beaconsfield. Green (1959) described these grey slates and slaty siltstones as belonging to the Ilfracombe slates which consist of a basal 180m of greywacke sandstone, siltstone and quartzose sediments and an upper 300m of black shale and fine greywacke siltstone.

Overlying the Cambrian rocks is a sequence of Ordovician quartzites, conglomerates, sandstone, shales and minor limestones of the Cabbage Tree Formation. The lower units consist of grey and black quartzites and quartz grits with conglomeratic lenses and occasional black shale beds; these form the major topographic feature in this area, the Cabbage Tree Hill-Salisbury Hill strike ridge. These highly siliceous units are generally referred to as the Cabbage Tree Conglomerate and they have been well exposed on the western flank of Cabbage Tree Hill and to the north in numerous gravel pits. The Flowery Gully road cutting on Middle Arm Creek presents a good section through the Cabbage Tree Formation and in particular the conglomerate sequence. The base of the unit consists of a fine grained black pyritic and siliceous mudstone followed by 30m of alternating black (carbonaceous) siliceous sandstone and thin beds of quartz conglomerate. The conglomerate becomes more abundant 30m above the base of the sequence while at 60m the sandstones lose the gritty lenses and become flaggy cross-bedded medium to fine grained sandstones. Several narrow quartz veins dip against the northeasterly dipping conglomerate sequence which in this area is only about 60m thick although reports from the underground workings of the Tasmania and Moonlight-cum-Wonder mines suggest that the sequence is over 200m thick further to the north.

The upper section of the Cabbage Tree Formation, previously known as the Caroline Creek Sandstone or the Transition Beds, is a succession of light grey and yellowish sandstone and siltstone with lenses of impure limestone in the upper part of the sequence. These Transition Beds which are up to 370m thick tend to grade into the overlying Gordon Limestone correlate also of Ordovician age.

The Cabbage Tree Formation strikes northwest-southeast and generally dips to the northeast at angles of 45°, although flexures in the strata have been reported by Montgomery (1891) in the mines on the crest of Cabbage Tree Hill and in the western end of the upper levels in the Tasmania Mine. A synclinal, and possibly an associated anticlinal fold, is exposed in the Garfield Adit on the western side of the hill and Montgomery mapped a probable synclinal axis in the conglomerates on the crest of the ridge. The Transition Beds on the eastern flank of Cabbage Tree Hill are covered by shallow scree and alluvium but were intersected by the Flowery Gully road cutting and the Bonanza Adit, these units exhibit a consistent northeasterly dip.

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Most of the formations to the east of Cabbage Tree Hill are concealed beneath thick Tertiary sands and gravels. The Gordon Limestone correlate is a hard blue limestone with black shale and micaceous siltstone interbeds referred to as the Grubb Beds by Green (1959). The limestone unit is approximately 300m thick in the north but thins to no more than 30m along the eastern flank of Salisbury Hill.

The formation immediately to the east of the Gordon Limestone is uncertain. Gee and Legge (1979) mapped Cambrian slates in faulted contact on the east of the limestone in the south-east corner of this exploration licence. The basal 100m of this Cambrian sequence consists of grey glossy slate containing limonitic cavities which is overlain by interbedded slate and greywacke containing gritty lenses. A discontinuous keratophyre lens above these slates is about 70m thick where exposed and overlying it is a sequence of grey-green slaty siltstones containing fragmented trilobite fossils. In this section of the licence area, the Cambrian rocks are overlain by poorly outcropping medium grained quartz sandstones assigned to the Cabbage Tree Formation. The northward extent of these formations is uncertain as they disappear under the extensive auluvial cover and are not seen outcropping again in this region.

In 1969, Allstate Exploration drilled a diamond drill hole (DDH A3) on the eastern edge of the Beaconsfield township. This hole intersected a succession of grey-green and dark red calcarecus mudstones, pink and grey limestones and minor quartzites before passing through a shear zone of approximately 500m and entering recognisable Gordon Limestone units. The stratigraphic classification of these calcareous mudstones and limestones is not clear.

Permian rocks outcrop in the Middle Arm inlet of the Tamar River in the extreme east of the area. The sequence reportedly (Gee and Legge, 1979) shows a pronounced angular unconformity with the folded earlier Palaeozoic basement. The siltstones, sandstones, shales and minor conglomerates and limestones are members of the Masseys Creek Group, Liffey Sandstone, West Arm Group, and Middle Arm Group. Gee and Legge (1979) suggested that only the Liffey Sandstone and Middle Arm Group siltstones and sandstones outcrop in the licence area while the other units are concealed by the Tertiary cover. The Permian sequence has a uniform dip of 10^{o} to 15^{o} to the northeast.

The tertiary sediments which form a blanket over most of the exploration licence are composed mainly of clayey sands and gravels with some carbonaceous deposits. Along the eastern flank of Cabbage Tree Hill a deep lead channel is filled with up to 140m of these Tertiary sediments. The lead is developed in the Gordon Limestones and is filled with boulders and sands with interbedded clays and occasional carbonaceous horizons. Coarse siliceous scree material from the adjacent Cabbage Tree Hill is interlayered with the fluviatile and lacustrine deposits within the deep lead channel.

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SECTION 4 - THE TASMANIA REEF

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4.1 INTRODUCTION

Gold was originally discovered high on the eastern flank of Cabbage Tree Hill in 1877 and subsequent prospecting led to the opening up of the Tasmania Reef, the main reef in the field, as well as numerous smaller deposits along the crest of the hill. The Tasmania Reef remained in production until 1914 in which time 26,580 kg of gold was recovered from 1,084,690 tonnes of ore for an average gold recovery of 24.7 g/t.

Diamond drilling carried out by the Tasmanian Mines Department in 1964 and by Allstate Exploration in 1973, confirmed that the extensions of the reef below the lowest mined levels still contained reasonable gold grades over significant vein widths. It was proposed to further test the potential of the reef extensions by clearing the blockage in the top of the Hart Shaft, dewatering the workings and conducting a drilling programme from a hanging wall crosscut driven from one of the lowest levels. However this programme has been delayed by difficulties encountered in clearing the shaft blockage. The current position is that the blockage has been cleared to a depth of approximately 50m and recent drilling indicates that a further 35m of material remains in the top of the shaft and that below this the shaft appears to be open to a depth of 390m.

4.2 GEOLOGY

The Tasmania Reef is a fissure reef emplaced in a pre-existing fault zone, the movement along this fault being approximately 30m north side east. The reef strikes N. 50° E. with an overall strike length of about 395m, it dips to the southeast at 50° to 60° and plunges towards the northeast at 55°. The width of the lode varies from less than 1m to more than 8m with an overall sloping average of 2 to 2.5m. The reef is widest in the upper sandstone units of the Cabbage Tree Formation (Transition Beds) and apparently dwindles to irregular stringers in the underlying conglomerates and the overlying limestones.

The reef has been displaced by two major faults; the 'Main Crosscourse' which strikes N 30° W and the 'No 2 Fault' further to the west, striking N 45° W. Both faults dip steeply towards the southwest. Montgomery (1891) described the Main Crosscourse in the upper levels of the Tasmania Mine as "a well defined fissure with polished and striated walls". This fault was often up to 2m wide, filled with crushed rock and sometimes containing quartz carrying gold which was stoped in some areas. Movement along the Main Crosscourse has displaced the Western section of the Tasmania Reef, the 'Upper Working Lode', approximately 73m to the north. Montgomery considered that there had been several periods of movement along these faults with the overall effect being the displacement, of the wedge of country between the two faults, to the north by predominately horizontal movement. Gee and Legge (1979) suggested that lithological information indicated that vertical

Hart Shaft

715 level

815

915

1000

1100

1250

1370

1500 level

ALSO FW ZONE

S 34,400 (7.8) / 11.2

T 10,300 (7.8) / 11.2

U 19,200 (7.8) / 11.2

A 45900 (6.3) / 13.0

10,700 (4.8) / 13.6

C 23,100 (9.3) / 6.7

V 59,400 (9.9) / 28.6

D 9000 / 33.5

E 23,400 (5.0) / 33.5

F 22900 (11.0)

G 9400 / 15.2

O 42,400 (13.1) / 12.2

W 37,000 (10.5) / 23.1

H 3,500 (10.0) / 33.1

I 14,600 (10.8)

J 3500 / 33.1

P 23,500 (10.5) / 23.1

X 23,700 (8.5) / 8.5

K 3,600 (5.5) / 9.5

L 10,500 / 8.5

M 5600 / 9.5

Q 18,000 (5.5) / 8.5

Y 1500 (5.5) / 8.5

N 6600 (5.5) / 8.5

R 2100 (9.8) / 8.5

Z 110,000 (5.2) / 8.5

250

DDH 1

DDH 2

DDH 3

DDH 4

330 = QUARTZ VEIN THICKNESS FEET X GOLD CONTENT DWTS

TONNES (TRUE THICKNESS FT) / DWTS AU/TONNE

DRILL HOLE No. Au dwts/ton / true width/feet

10.700 (4.8) / 13.6

A7 •

Curly's Lode

Av. Thickness used 6.7'

PROJECTED LIMIT OF LODE.

BEACONSFIELD GOLD MINE

TASMANIA

LONGITUDINAL SECTION

SHOWING FEET x DWTS AU/TON CONTOURS

SCALE = 1" : 100'

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Fig ①

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Microforms International

movement in the order of 150-180m west side up had also occurred, and that similar movement had taken place along the No. 2 Fault, although the displacement could not be determined.

The reef mined in the conglomerates on the western side of the No. 2 Fault strikes N 56° W, as opposed to the generally consistent N 50° E strike of the Tasmania Reef both east and west of the Main Crosscourse. This far western section of the mined reef differs from the main lode in the nature of the veining which tended to be 'bunchy' with the veins ranging in size from threads to lenses up to 1m in width, rather than the well defined reef worked further to the east. Also gold values were generally lower in this section of the orebody. These reported differences in the reefs on either side of the No. 2 Fault led Montgomery (1891) to suggest that the western section was not the continuation of the Tasmania Reef.

Due to the northeasterly plunge of the reef and the steep southwesterly dip of the two main faults, the lode lies entirely on the eastern side of the Main Crosscourse below the 183m level.

In the Tasmania Reef the gold mineralization reportedly changed with depth. In the richer upper levels the reef consisted of free milling auriferous quartz which was readily amalgamated, however below 120m sulphides became increasingly abundant and the gold was intimately associated with pyrite, chalcopyrite, sphalerite and galena. Gold values also varied with depth; above the 120m level an average grade of 38 g/t was reported but this dropped to 25 g/t over the next 90m and at the 417m level, Gee and Legge (1979) suggest that the grade was as low as 3.8 g/t (this low grade has not been substantiated by recent investigations by Amax personel) but that it improved to an average of 20 g/t over a stoping length of 285m on the 457m level.

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PREVIOUS INVESTIGATIONS

Most of the knowledge of the Tasmania Reef comes from old reports, particularly Montgomery 1891 and Cundy and Fawcett 1914, and from the old mine and stope plans.

Mines Department diamond drill hole B4 obtained three intersections of the reef between MRL 524m and 536m. The logs of this hole are available, the core is stored in Hobart although very little is left of the ore intersections, the surveys are generally considered to be reasonably accurate, and the programme and results have been quite well documented (Noldart, 1968).

Allstate Exploration DDH A3 was drilled from the show ground along Grubb Street, it was designed to intersect the reef at about 900m, but no intersection obtained in either A3(i), A3(ii) or A3(iii). Surveys of the holes unreliable; programme poorly documented (refer Middleton 1974); core stored in Hobart.

Allstate Exploration DDH A6/A7 was drilled to the east of B4 near the corner of John Street and Stephens Lane. A6 and A7 intersected lode; logs and surveys apparently alright; core in Hobart.

Drilling programme initiated as a panic manouvre when not all was going well with the shaft. The final proposal involved the drilling of four vertical holes across the reef. All previous intersections had been in the central part of the orebody which is possibly the richest section, so this programme was designed to verify the previous results and also test the extremities of the reef at a depth of about 600m. It was probable that the holes would flatten out towards the southwest at a rate of between 1° and 2° per 100m and surveys were to be conducted at 25m intervals using an Eastman single shot camera.

		INTERSECTION	
HOLE NO.	TOTAL DEPTH	DOWN HOLE MINE RL	LOCATION
TDH 1	620m	580 to 590m 600m	between B4 and A6/A7.
TDH 2	620m	585 to 595m 600m	rear of Masonic Hall.
TDH 3	630m	595 to 610m 610m	Hinds property, Archer St.
TDM 4	570m	540 to 550m 560m	east of Grubb Shaft.

Exploration Drilling WA were contracted to carry out precollar drilling with all holes to be pre-collared to 300m and cased with 4 inch ID steel pipe. Their Ingersoll Rand TH60 cyclone rig commenced on TDH 1 in August 1981. This hole, in black shales, was abandoned at 128m when the rods twisted off and fishing failed to recover the rods and full hole stabiliser. A second attempt, 15m to the south, was abdndoned at 108m under similar conditions.

H.J. Stacpoole Drilling Contractors commenced rotary drilling on TDH2 and carried the hole down to 130m in hard limestones and quartzites using a Mobile Drill B80, before Amax Sydney called for the deferment of the entire programme. TDH 2 has been cased with 4 inch ID steel pipe to a depth of 130m, chip samples are stored at Beaconsfield, logs and survey data are attached. If this hole were to be continued, it would probably be possible to remove the casing from the hole and continue rotary drilling to the prescribed 300m since the hole was in good hard ground all the way.

In January 1982, a cable tool rig owned and operated by K. Cummings was used to drill an 8 inch diameter hole in the black shales that plagued precollar drilling on TDH 1. 78m of 6 inch ID steel casing are now set in the TDH 1 precollar and although the black shale sequence has not been completely drilled through, the hole bottomed in harder more competent grey shales and it is hoped that the worst of the black shales (about 45 to 56m) has been successfully cased off.

No attempts have been made to precollar either TDH 3 or TDH 4 and no diamond drilling was carried out on any of these holes.. A.D.D. had been contracted to do the diamond drilling, they were favoured because they know the ground, having drilled the Allstate holes in the past. A.D.D.'s rig is still parked in the mine compound and their State Manager, Jim Patterson is awaiting a definite decision on the drilling programme before removal or otherwise of the rig.

RECOMMENDATIONS:

No drilling should be carried out from the surface, and A.D.D. should be notified as soon as possible that their rig will not be required: - establishment costs and short-fall in drilling expenses have already been paid so no further expenses should be incurred.

D.D.H.B.4

Depth From	Depth To	Description
feet in.	feet in.	
1,689 0	1,693 0	Quartz/siderite reef heavily impregnated with sulphides—progressively less sulphide.
1,693 0	1,695 9	As above—low sulphide content.
1,695 9	1,697 9	Quartz/siderite sulphide as above.
1,697 9	1,698 9	Quartz with coarse flecks of gold and minor sulphides.
1,698 9	1,702 0	Quartz/siderite with moderate sulphide content—leached over last six inches.
1,702 0	1,704 0	Quartz with coarse flecks of gold and minor sulphides.
1,704 0	1,705 9	Slightly mineralised grey quartzite.
1,702 0	1,704 0	Quartz with coarse fleck of gold and minor sulphides.
1,706 11	1,707 8	Mineralised chert.
		END OF ORE ZONE.

D.D.H.B.4 A

Depth From	Depth To	Description
feet in.	feet in.	
1,680 10	1,683 5	Quartz/siderite/sulphide — sulphide prominent.
1,683 5	1,688 2	Quartz with small flecks of gold.
1,688 2	1,688 10	Quartz—strongly leached and honeycombed.
1,688 10	1,690 10	Quartz with small flecks of gold—minor sulphide.
1,690 10	1,696 5	Quartz/siderite reef with moderate sulphides.
1,696 5	1,702 7	Quartz with minor sulphides and occasional small flecks of gold—some assimilated country rock.
		END OF ORE ZONE.

D.D.H.B.4 B

Depth From	Depth To	Description
feet in.	feet in.	
1,723 6	1,727 2	Quartz/siderite reef with moderate sulphides and occasional fine flecks of gold.
1,727 2	1,730 0	As above but no visible gold.
1,730 0	1,731 2	Siderite vein along core.
1,731 2	1,731 8	Quartz/carbonate with massive sulphides.
1,731 8	1,735 3	Quartz/siderite with moderate sulphides and occasional fine flecks of gold.
1,735 3	1,744 6	Gangue—massive siderite with occasional blebs of pyrite and quartz.
1,744 6	1,745 3	Leached massive siderite.
1,745 3	1,747	Quartz/carbonate with moderate sulphides.
1,747 1	1,747 7	Quartz/carbonate with massive sulphides—quartz minor.
		END OF ORE ZONE.

Detailed Logs of Ore Intersections from
Mines Department
Diamond Drill Hole B4
(after Noldart 1968)

D.D.H.B.4

Depth From	Depth To	Description
feet	feet	
0	13	Rubble and old mine talus.
13	36	Clay, sand and gravel representing the Eastern lip of the Beaconsfield deep lead.
36	213	Black carbonaceous shale.
213	660	Hard blue cavernous Gordon Limestone. Ordovician age.
660	764	Interbedded blue limestone and black, porous carbonate rock.
764	1,689	Transition beds comprising grey massive lime-rich sandstone, impure limestone, siltstone and occasional horizons of hematite-stained dark brown to pink limestone containing numerous crinoid fragments. Below 1,200 feet the beds have progressively less carbonate content and more silica, grading to sandstone and quartzite of light to medium grey colour.
1,689	1,708	ORE ZONE.
1,708	1,716	Medium grey quartzite.
1,716	1,753	Dark grey to black quartzite containing minor grit and pebble bands.
1,753	1,865	Predominantly light coloured pebble conglomerate of the Cabbage Tree Conglomerate type.
		END OF HOLE.

D.D.H.B.4 A (First Diversion)

Depth From	Depth To	Description
feet	feet	
1,490	1,681	Mainly light to medium grey quartzite and sandstone.
1,681	1,704½	ORE ZONE
1,704½	1,714	Quartzite as above.
1,714	1,733	Dark grey to black quartzite.
		END OF HOLE.

D.D.H.B.4 B (Second Diversion)

Depth From	Depth To	Description
feet	feet	
1,314	1,660	No core due mainly to intensive wedging.
1,660	1,723½	Medium grey quartzite—Lower Ordovician Orthid, Tritoechia(?) *careyi* at 1,701 feet.
1,723½	1,747½	ORE ZONE.
1,747½	1,787	Medium grey quartzite.
1,787	1,852	Dark grey to black quartzite.
1,852	1,874	Predominantly light coloured pebble conglomerate of the Cabbage Tree Conglomerate type.
		END OF HOLE.

Summary of Geological Logs from Mines Department
Diamond Drill Hole B4
(after Noldart 1968)

D.D.H.B.4

Depth From feet	in.	To feet	in.	Au dwts.	Ag dwts.	Cu %	As %	Pb %	Zn %	Mn %	S %
1,689	0	1,691	0	23.0							
1,691	0	1,693	0	10.7							
1,693	0	1,695	0	1.7							
1,695	0	1,697	0	7.5							
1,697	0	1,699	6	18.3							
1,699	6	1,702	0	35.3							
1,702	0	1,704	0	591.0							
1,704	0	1,706	0	2.0							
1,706	0	1,707	8	19.1							
Composite											
1,689	0	1,707	8	60.20	4.7	1.06	1.49	0.10	0.80	0.49	7.5

D.D.H.B.4 A

Depth From feet	in.	To feet	in.	Au dwts.	Ag dwts.	Cu %	As %	Pb %	Zn %	Mn %	S %
1,680	10	1,683	10	15.4							
1,683	10	1,686	10	71.0							
1,686	10	1,689	10	75.0							
1,689	10	1,692	10	45.0							
1,692	10	1,695	10	11.0							
1,695	10	1,698	10	79.2							
1,698	10	1,701	10	16.0							
1,701	10	1,704	6	34.2							
Composite											
1,680	10	1,704	6	42.1	6.6	0.91	0.43	0.03	0.16	0.36	4.9

D.D.H.B.4 B

Depth From feet	in.	To feet	in.	Au dwts.	Ag dwts.	Cu %	As %	Pb %	Zn %	Mn %	S %
1,723	6	1,726	6	21.7							
1,726	6	1,729	6	17.4							
1,729	6	1,732	6	41.8							
1,732	6	1,735	3	39.8							
1,735	3	1,739	3	0.8							
1,739	3	1,743	3	1.2							
1,743	3	1,745	3	3.4							
1,745	3	1,747	7	16.4							
Composite											
1,723	6	1,735	3	26.8	11.0	1.10	0.05	0.10	0.03	0.39	3.58

Assay Sections and Results from Mines Department
Diamond Drill Hole B4
(after Noldart 1968)

ALLSTATE D.D.H. A3 (i)

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
0.00	155.25	No core.
155.25	502.64	Interbedded grey-green calcareous mudstones, limestone, minor quartzite containing sulphides, dark red calcareous mudstone and pink limestone with occasional calcite and quartz veinlets with sulphides.
502.64	524.91	Shear zone containing calcareous breccia with limestone and quartzose fragments in a phyllitic matrix.
524.91	841.80	No logs - hole abandoned.

ALLSTATE D.D.H. A3 (ii) (First Diversion)

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
479.92	483.43	Interbedded grey-green calcareous mudstone and limestone.
483.43	541.07	Shear zone containing calcareous breccia with limestone and lesser quartz fragments in a micaceous matrix.
541.07	796.51	Interbedded black shale containing disseminated pyrite, dark grey siltstone, light grey limestone and occasional quartzite with minor calcite, siderite and quartz veins.
796.51	995.22	TRANSITION BEDS. Interbedded grey limestone and calcareous sandstone with occasional haematitic bands, minor quartz siderite and lesser calcite veins.
995.22	995.83	Shear zone containing brecciated sandstone with quartz, siderite and calcite veins.
995.83	1076.04	Grey sandstone and quartzite with varying calcareous content, minor limestone and conglomerite bands, occasional quartz siderite and calcite veins.
1076.04	1076.19	Black shale
1076.19	1076.65	Light grey clacareous conglomerate
		END OF HOLE

Summary of Geological Logs from Allstate Diamond Drill Hole A3(i) and A3(ii)

ALLSTATE D.D.H. A3 (iii)

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
657.63	725.29	Interbedded blue-grey limestone with calcareous shales.
725.29	729.87	Brecciated quartzite with a carbonate matrix and calcite and siderite veins containing minor pyrite.
729.87	1022.36	Interbedded grey limestone, stylolitic in part, dark green and black shale, sandstone and quartzites with varying calcareous content, minor quartz and siderite veins.
1022.36	1030.60	Shear zone containing brecciated quartzite in a clayey matrix.
1030.60	1065.89	Interbedded quartzite and conglomerate with minor limestone interbeds and minor quartz veining.
1065.89	1068.93	Brecciated quartzite with much thick quartz veining, some calcite but no visible sulphides. Evidence of shearing on footwall and hanging wall - possible Tasmania Reef (Sheehan, 1972)
1068.93	1114.47	Interbedded quartzite and conglomerate with some minor quartz veining.
1114.47	1120.88	Shear zone containing highly shattered quartzite and conglomerate cut by quartz and calcite veins.
1120.88	1129.42	Coarse conglomerate.
1129.42	1155.95	CABBAGE TREE FORMATION consisting of black quartzites and coarse conglomerate.
		END OF HOLE

Summary of Geological Logs from Allstate Diamond Drill Hole A3(iii)

020

893023

ALLSTATE D.D.H. A6

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
0.00	173.24	No core
173.24	291.58	Interbedded blue-grey limestone, in part, and black shales, with occasional calcite veins and pyrite on joint planes.
291.58	580.26	TRANSITION BEDS consisting of interbedded grey calcareous quartzite, sandstone, shale and blue-grey limestone with occasional chloritic beds, and thin haematitic bands, some containing crinoid fossils, and some minor siderite veins.
580.26	583.06	TASMANIA REEF.
583.06	589.11	Partially brecciated quartzite with thin siderite/quartz veins with minor sulphides.
589.11	598.11	Dark blue-grey quartzite with some thin siderite veins.
598.11	622.20	Interbedded grey-blue quartzite and pebbly quartzite.
		END OF HOLE

ALLSTATE D.D.H. A7 (First Diversion of D.D.H. A6)

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
470.31	507.98	Interbedded grey calcareous sandstone and grey-green shales with occasional carbonate veins and minor pyrite stringers.
507.98	508.74	Shear zone in calcareous sandstone and shale with some siderite-calerite veinlets and fine pyrite in calcareous rich shear fractures.
508.74	532.76	Interbedded calcareous sandstone, shale and siltstone with minor limestone, containing chlorite in fracture zones and some siderite-calcite veinlets and disseminated pyrite.
532.76	573.20	More massive sandstone with decreasing calcareous content with occasional interbeds of shale and limestone and minor siderite veinlets.
573.20	576.98	Fractured sandstone with calcite and siderite veins and some disseminated pyrite and chalcopyrite.
576.98	581.25	TASMANIA REEF

Summary of Geological Logs from Allstate Diamond Drill Hole A6/A7

021

893024

ALLSTATE D.D.H. A6

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
580.26	580.57	Sheared shaley quartzite with traces of pyrite and siderite.
580.57	581.33	Sheared quartzite with sulphides and siderite. Sulphides consist of varying proportions of chalcopyrite, and pyrite and lesser arsenopyrite and microscopic stibnite-sulphides increasing.
581.33	581.94	Brecciated country rock heavily replaced by siderite, minor quartz and minor sulphides.
581.94	582.25	As above, but more sulphides.
582.25	582.40	As above, but minor sulphides only.
582.40	582.93	Siderite, quartz and country rock with massive sulphides, mainly chalcopyrite.
582.93	583.06	Sheared country rock with minor sulphides and siderite.
583.06	584.28	Partly brecciated quartzite with thin siderite/quartz veins and traces of sulphides.
584.28	584.61	Barren quartzite.
584.61	585.09	Brecciated quartzite, some siderite /quartz veinlets and traces of sulphides.
585.09	585.30	Vein quartz with traces of pyrite, and sheared quartzite carrying sulphides.
585.30	585.60	Quartzite with traces of pyrite and some small quartz veins.

Detailed Logs of Ore Intersection from
Allstate
Diamond Drill Hole A6

022

ALLSTATE D.D.H. A7

DEPTH From	DEPTH To	DESCRIPTION
metres	metres	
576.98	577.47	Grey quartz with veinlets of creamy quartz with disseminated pyrite and veinlets and blebs of pyrite and chalcopyrite.
577.47	578.05	Dense sulphide rich ore with associated creamy and milky quartz.
578.05	578.20	Band of sulphides with parallel grey and white quartz.
578.20	578.74	A mottled fabric of creamy quartz, milky quartz and decreased sulphides.
578.74	578.81	Sulphides and grey quartz with a few blebs of creamy quartz.
578.81	579.12	Mottled fabric of creamy quartz, grey quartz and pyrite and chalcopyrite.
579.12	579.27	Banded creamy quartz, grey quartz and sulphides with some visible gold.
579.27	579.73	Mottled creamy and grey quartz with blebs, patches and streaks of sulphides - sulphides decreasing.
579.73	580.80	Creamy and grey quartz with disseminated sulphides and occasional small blebs.
580.80	580.95	Grey and white quartz with small patches and blebs of sulphides and partly digested rock fragments.
580.95	581.25	Creamy and grey quartz with small patches and blebs of sulphides and some specks of free gold.

Detailed Logs of Ore Intersection from
Allstate
Diamond Drill Hole A7

SECTION 5 - PARALLEL REEFS

5.1 INTRODUCTION

The existence of mineralised reefs parallel to the Tasmania Reef has been a source of much speculation throughout the history of this goldfield. Prospecting in the past was generally unsuccessful in locating any reef of sufficient size to warrant development and more recent theories, based on structural evidence gleaned from old reports, appear to be based largely on misinterpretation of those reports.

The most comprehensive account of the structure of the Beaconsfield Goldfield is that presented by A. Montgomery in his report to the Secretary of Mines in 1891. On the basis of Montgomery's description of the Tasmania Reef and the faulting which has affected it, Leckie (1973) proposed that the 'Upper Workings lode' was not infact the continuation of the Tasmania Lode on the western side of the Main Crosscourse. This theory was examined by A. Stewart and myself in 1981 and appeared feasible, particularly in the light of additional information on the reefs encountered in the Bonanza Shaft and Montgomery's Prospecting Shaft, however some of these assumptions now appear to be quite incorrect.

5.2 DISCUSSION

Montgomery (1891) describes the Tasmania Reef as being displaced by two major faults, the 'Main Crosscourse' which strikes N 30° W and dips steeply to the southwest and the more westerly 'No. 2 Fault' striking N 45° W and dipping steeply to the southwest. That part of the reef mined between these two faults is referred to as the 'Upper Workings Lode' and movement along the Main Crosscourse has displaced this lode 73m to the north of the main Tasmania Reef.

On the basis of lithological evidence, Montgomery interpreted the movement along the Main Crosscourse to be either down throw of the eastern side, or "a bodily heave of the wedge of country lying between the crosscourses to the northward". Due to the southeasterly dip of the reef, east-side-down movement on this fault could not explain the observed dislocation of the lode, consequently Montgomery favoured the latter proposal.

Leckie (1973) assumed that no horizontal movement had taken place along the fault and postulated that the Upper Workings Lode could be an entirely different reef to the Tasmania Reef and that two unmined reefs may exist, namely:-

(1) the continuation of the Tasmania Lode west of the Main Crosscourse, approximately 76m south of the outcrop of the Main Workings and

(ii) the eastward continuation of the Upper Workings Lode, 76m north of the outcrop of the Upper Workings.

Montgomery's observations do not support Leckie's proposal. In his description of the Main Crosscourse, Montgomery suggests that there is clear evidence that horizontal, as well as vertical,

movement has taken place along this fault as striations on some slickensided surfaces in the fault place "are not always vertical and are sometimes inclined at considerable angles". Further, he describes the Main Crosscourse cutting through the Tasmania Reef in a section where the vein had divided into two branches and enclosed a mass of the country rock. Montgomery states that "the distance between the two branches, where they abut against the fault on the eastern side, agrees almost exactly with the distance between them where they are found again abutting against its western wall". Thus providing reasonably strong evidence that the Tasmania Reef and the Upper Workings Lode are infact the same reef which has been displaced by predominantly horizontal movement along the Main Crosscourse.

The most encouraging evidence for the existence of reefs parallel to the Tasmania Lode comes from reports on the Bonanza Shaft. According to extracts from 'The Examiner' newspaper published in 1906, 1908 and 1909 and a statement by J.A. Windred (1934) on a lease covering the Tasmania, Phoenix and part of the Bonanza Mines, three reefs were encountered in the Bonanza workings.

During the sinking of the Bonanza Shaft a 'lode formation' was cut at 92m (or 153m according to Windred) which was quite narrow but assayed at 9 to 12 g/t and contained bunches of pyrite assaying at 122 g/t. At a depth of 183m a 10cm wide leader was intersected which contained 17 g/t gold and 61 g/t silver. On the 306m level a 2m wide lode assaying at 22 g/t gold was cut 2.4m from the shaft and this reef was referred to as "the south lode". At the 336m level a drive to the north intersected a narrow leader at 15.3m which contained 22 g/t gold and at 18.7m along this drive the hanging wall of the Tasmania Lode was encountered and the reef consisted of 1.5m of lode material, 3.4m of dense sandstone horse and 0.3m of lode on the footwall. The wouthward drive on the 336m level intersected the south lode 9.5m from the shaft and the reef was 2.8m wide and consisted of intermixed quartz and pyrite. Little development was carried out on any of these lodes reportedly due to the fact that the lodes occurred in the corner of the Bonanza lease and the lodes dipped away into the Tasmania Gold Mining Company's ground.

During the operating life of the Tasmania Mine attempts were made to test for possible parallel lodes and although it would appear that at least two such reefs were detected, it is probable that neither was particularly extensive, as only minor development was carried out on these lodes. 'The Examiner' newspaper in 1898 published several reports on the Tasmania Mine which suggest that a south parallel lode was worked to the west of the Main Crosscourse on the 152m level. While driving northward along the Main Crosscourse in order to pick up the continuation of the reef in the Upper Workings, a 5cm wide vein was encountered on the western side of the fault about 12m north along the crosscourse drive. This vein was followed to the west and at 2.4m it had opened out to a width of 1m and had "a fair show of gold", at 11.7m the reef was 2.7m wide and at 13.4m it was said to have had an average width of 2.4m. Thus it would appear that a reasonably significant reef did exist approximately 60m south of the Upper Workings Lode on the 152m level.

However there is little evidence in the old reports or mine plans that this lode was worked, or even detected, on other levels or in other parts of the mine. If this vein had persisted in the Main Workings east of the Main Crosscourse it should have been encountered in the crosscut to the Phoenix Shaft on the 152m level and the long southeast crosscut on that level, which tested the hanging wall country for some 125m south of the Tasmania Lode, however the reef does not appear to have been detected. Similarly long crosscuts from the Hart Shaft to the lode at the 305m level and the 335m level have not proven any hanging wall lodes.

In the Tasmania workings a footwall lode was detected in a crosscut to the north on the 381m level. Cundy and Fawcett (1914) reported that at 113m along this crosscut from the main reef a "small irregular reef was cut and followed east for 210ft (64m) but, though carrying gold, it was too small and too low grade to pay". This reef was not tested on other levels and its extent and grades are unknown.

5.3 PREVIOUS INVESTIGATIONS

Throughout the early life of the Beaconsfield Goldfield, extensive prospecting was carried out by several companies in an attempt to define reefs parallel to the Tasmania Lode. Most of these activities have not been well documented and were obviously unsuccessful.

Cundy and Fawcett (1914) suggested that the Tasmania Company tested the footwall country at various depths down to 381m in an attempt to pick up any parallel lodes, but the only success appears to be the narrow reef intersected in the 381m level crosscut to the north which was described previously. The hanging wall country was considered to have been sufficiently prospected by the shafts and crosscuts to the lode.

The Tasmanian Mines Department completed a diamond drill hole in 1968-69, which was aimed at examining the 'south lode' reported in the Bonanza Shaft. This hole, DDH B5, was collared 85.6m south of the Hart Shaft, inclined at 75° towards magnetic north and drilled to a depth of 203m. Core recovery was generally poor as the hole passed through friable sandstones and quartzites which were often sheared and fractured Minor quartz and carbonate veins were detected in the lower part of the hole but no 'south lode' was defined.

Allstate Exploration conducted several shallow drilling programmes designed to locate any parallel lodes. In 1969 a total of 57 auger holes ranging in depth from 1.2m to 40.5m, were drilled in the vicinity of the Tasmania Mine and along Grubb Street, Weld Street, and the Yorktown Road, to obtain samples at or near bedrock. The samples were analysed for base metals which were assumed to be useful indicators of reef mineralisation due to the sulphide-gold association in the Tasmania Reef, and some selected samples were also analysed for gold. Low order base metal anomalies were detected in several holes, but all gold assays were neglegibel and Leckie (1969) concluded that none of the anomalies was sufficiently significant to warrant any further examination.

An auger and rotary drilling programme was initiated by Allstate in 1979. Two lines of holes were drilled on the eastern flank of Cabbage Tree Hill across the line of the Tasmania Reef. The programme was designed to test the applicability of the sampling method across the known reef and to delineate any parallel lodes adjacent to the main reef. A number of significant gold and base metal anomalies were detected and several holes were deepened by diamond drilling. Bates (1979) discusses in detail the location of these anomalies and attributed them to dispersion from the Tasmania Reef, contamination from gold bearing detritus or, as in the case of a large anomaly on Line 1 in holes RB 8 to 11 and RB 79 to 81, a westerly dipping mineralised fracture zone striking northwest-southeast. However no structures parallel to the main reef were detected on these two lines.

027

MINES DEPARTMENT D.D.H. B5 - "SOUTH LODE"

DEPTH		DESCRIPTION
From	To	
metres	metres	
0.00	36.58	No core - oxidised sandstone.
36.58	71.02	Friable oxidised fine grained quartz sandstone.
71.02	85.88	Broken and partly oxidised fine grained grey quartzite.
85.88	113.77	Dark and medium grey quartzite/ carbonate rock with some carbonate bands, and friable zones and some small faults and minor brecciation.
113.77	134.31	No core - non coring bit used to by-pass broken ground.
134.31	161.80	Medium grey quartzite, some oxidisation on joint faces and fracture planes.
161.80	168.25	Medium grey quartzite with numerous sub-parallel shear planes at 35 degrees to core axis.
168.25	202.23	Medium grey quartzite with some minor quartz and carbonate veins.
		END OF HOLE

Summary of Geological Logs from Mines Department
Diamond Drill Hole B5- "South Lode"

5.4 CONCLUSIONS AND RECOMMENDATIONS

The old reports on this goldfield suggest that much time and effort has been devoted to proving the existence of reefs parallel to the Tasmania Lode. Prospecting in the distant, and more recent, past has failed to delineate any significant parallel structure in the vicinity of the Tasmania Reef, and it is probable that any further exploration from the surface will be similarly fruitless.

Several parallel lodes have been reported such as those intersected in the Bonanza Shaft, the vein followed on the western side of the Main Crosscourse on the 152m level and the narrow footwall lode encountered in the crosscut on the 382m level. None of these lodes appear to have been sufficiently extensive to warrant development and were probably not continuous over any great vertical or horizontal distance.

Further investigations into the elusive parallel lodes should be postponed until the Hart Shaft has been cleared and the mine dewatered. Detailed examination of the footwall lode on the 381m level could then be carried out and drilling from underground or the surface to test this lode then be initiated if warranted. The crosscuts in the hanging wall from the Hart and Grubb shafts to the lode could also be carefully examined, particularly the crosscut from the Grubb Shaft on the 381m level where two short drives have been put out to the northeast and may be following some parallel veining.

A detailed study of the reports published in 'The Examiner' newspaper may also prove useful in determining if any veining was encountered during the sinking of the Hart or Grubb Shafts or for that matter any other shafts in the area.

SECTION 6 - CABBAGE TREE HILL

The hill is covered by a multitude of workings about which there is generally very little information. Several possible exploration targets may exist:-

(i) REEFS PARALLEL TO THE TASMANIA LODE.

Prospects of finding any significant lode parallel to the Tasmania Reef appear rather grim. Extensive surface and subsurface exploration has been carried out on the eastern flank of the hill but no significant reef was ever detected. With the exception of some of the long adits driven into the eastern side of the hill most of the workings were shallow and obviously did not provide much incentive for deeper work.

(ii) MOONLIGHT-CUM-WONDER REEF.

This reef system developed in the conglomerates on the crest of the hill, consisted of a series of narrow irregular veins containing erratic gold mineralisation. The mines on this line of reefs were quite extensive and according to Montgomery, (1891) and Twelvetrees (1902) the reefs were tested over considerable lateral extent and to a depth of at least 240m but were found to be difficult to follow and generally grades did not persist at depth.

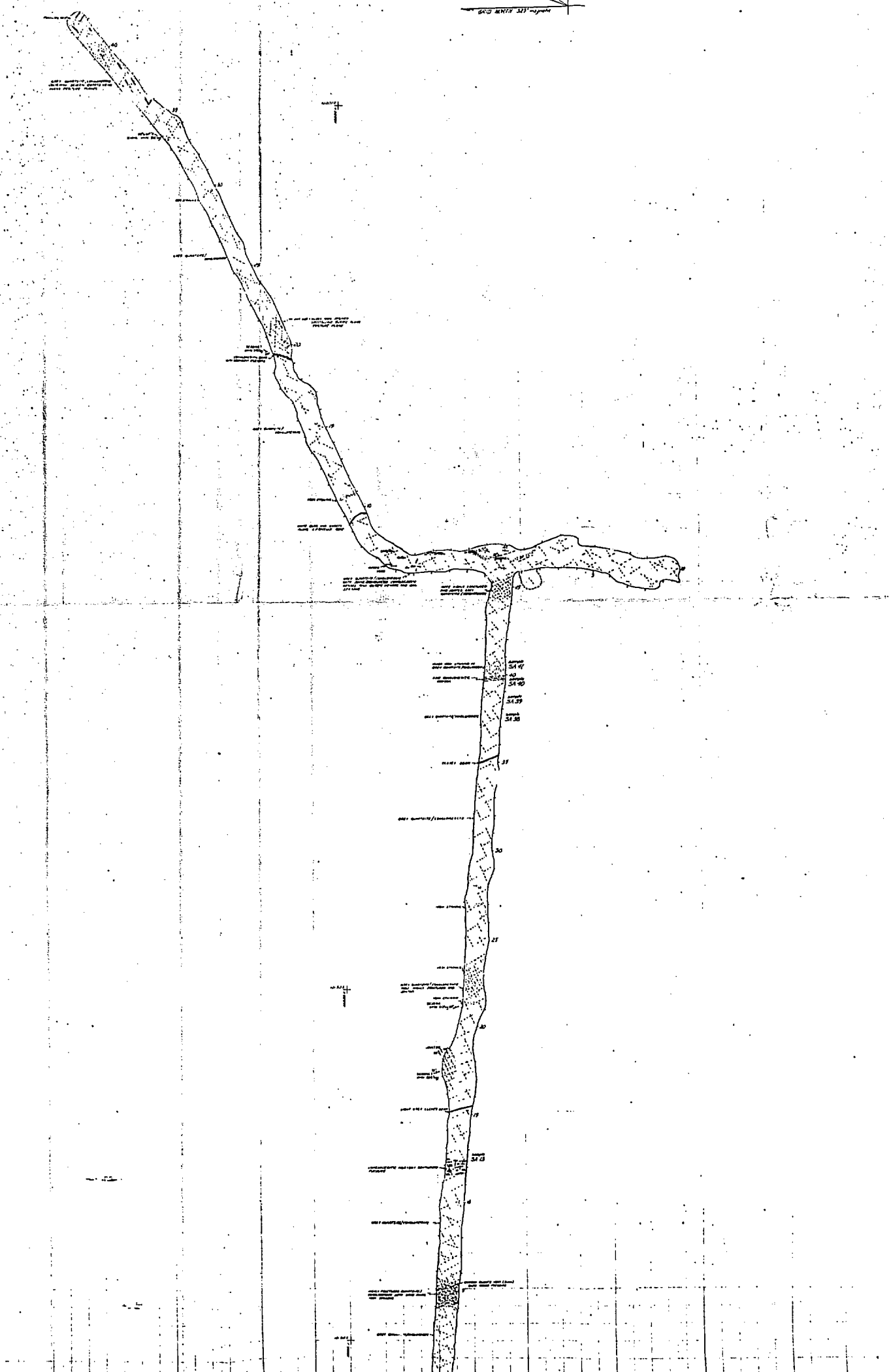
Those workings are now inaccessible. The Moonlight, Olive Branch, Little Wonder, New Providence, Eureka, etc. shafts have all been filled in completely. The Amalgamated West Tasmania Shaft has been used by the local slaughterhouse as an offal dump for some time and although open to about 40m it is quite inaccessible (as far as I'm concerned anyway!) A very large shaft north of the Little Wonder Shaft is blocked by the collar which has collapsed into it and this shaft may be the one referred to by Twelvetrees in his 'Report on Deep Sinking at the Moonlight-Cum-Wonder Gold Mine, Beaconsfield'. The Whim Shaft further to the northwest is open to a depth of 64m and it is obvious that a considerable amount of the old dump has been bulldozed into this shaft.

Attempts were also made to gain access to these workings via adits which, according to Montgomery, connect to the Little Wonder Shaft. Although the Little Wonder Main Adit was located, it is in a hopelessly collapsed condition. Another adit further up the western flank of the hill, in the vicinity of Shona's Adit, could not be found.

In view of the extensive underground work already carried out on this reef and the general lack of success that it met with, it is unlikely that mineable quantities of material exist along the Moonlight-cum-Wonder Reef. Pockets of high grade mineralisation are no doubt still to be found, but the sporadic nature of the veining and mineralisation would make it difficult to recover economically.

SHONA'S ADIT No. 2

SCALE 1:100



(iii) STONE'S "CONGLOMERATE REEF".

Very little is known of this "conglomerate reef" and what information that has been gathered has been provided by Mr. Bob Stone who prospected over Cabbage Tree Hill in the 1950's, and actually worked a shaft near the Eureka Shaft. Bob Stone maintains that an adit on the western side of the hill (approx. 70m south of the Garfield Adit) intersected a "conglomerate reef", 3m wide which assayed at about 15 g/t. Also a similar, if not the same, reef was stoped in the Olive Branch Adit on the eastern flank of the hill, but was found to be too low grade to pay. The reef apparently strikes with the surrounding sediments and similarly dips to the northeast.

The exact nature of this 'reef' is not known, it may be a highly fractured sandstone unit which has been injected with a myriad of quartz veinlets or it may be a true conglomeratic horizon.

Several attempts have been made to locate the adit on the western side of the hill which reportedly intersects this 'reef', however extensive backhoe trenching in the area has failed to pinpoint the entrance to the adit. The Garfield Adit was sampled in the hope that it may have also cut through this reef, however Bob Stone's theory is that it would not have, and the poor sample results suggest that if the reef did exist it was not encountered in this adit.

Twelvetrees, in his "Report on the Mineral Resources of the Districts of Beaconsfield and Salisbury", 1903, suggests that some attempts were made to define auriferous conglomerate horizons during the early mining operations and he quotes some rather impressive grades from these units. Stone indicated that attempts to stope the conglomerate had been made in the Olive Branch Adit at a point about 6m west of the air shaft, while Twelvetrees talks about the conglomerate being cut at 90m from the air shaft in the Olive Branch or Moonlight Tunnel. Whether the Olive Branch Adit and Twelvetrees' "Olive Branch or Moonlight Tunnel" are one and the same is uncertain.

Admittedly much of the evidence for the existence of such a "conglomerate reef" is hearsay and the conglomerates reportedly gold bearing by Twelvetrees were never extensively developed, however there appears to be some need to further investigate these theories. Since the Olive Branch Adit is completely inaccessible, since the air shaft has been dozed in, and the reported adit on the western side of the hill not located, a line of shallow percussion holes across the western flank and crest of the hill may prove to be the most convenient exploration method. The line of holes could be drilled along the track which runs adjacent to the 10900N grid line and the holes could be spaced at 20m intervals from 10080E to 10240E, a total of nine holes approximately 25m deep. Further drilling would depend on the results of these holes.

In recent discussions with David Russell, who is examining some samples from Beaconsfield with the view to writing a Masters Thesis on some aspect of the deposit, he suggests that he may have observed minute specs of gold in a polished section of conglomerate containing fuchsite from the western side of the hill. A reasonably extensive section of the conglomerate was sampled in the Garfield Adit, however the results were not encouraging and did not tend to indicate that any of these conglomerates were gold bearing. It remains to be seen if David Russell can verify these observations, and if so the airtrack drill samples obtained from BHP may assist in defining horizons of further interest if it appears that the conglomerates are infact containing gold, although this seems a little unlikely.

(iv) FOLDS WITHIN CONGLOMERATES.

Reasonably large scale folds occur in the conglomerates which may have areas of associated fracturing and slippage of the beds, which have proved favourable for reef development. Montgomery maps a synclinal axis on his map of the Moonlight-cum-Wonder workings and a fold structure is observable in the Garfield and possibly Shona's, adits. In the Garfield a syncline is apparent and an associated anticlinal fold may be developed near the end of the adit, although bedding directions are difficult to observe.

The idea of investigating these fold structures for possible reefs is not new and Montgomery suggests that similar attempts were made early in the life of the field, however the efforts proved fruitless. In the Garfield Adit the axis of the syncline is fractured but does not contain any quartz veining. If an anticline does exist towards the end of the adit, its axis would be close to the north and south drives that have been put out at about 115m from the entrance, however veining is scarce and sampling produced rather discouraging results. It would therefore appear that no significant reefs have been detected along these fold axes, however further attempts should be made to trace the folds to see how the workings relate to them.

WORK CARRIED OUT.

Apart from the gridding and mapping (1:2000 scale) that has been carried out over Cabbage Tree Hill, some of the accessible workings have been sampled and mapped.

The main aim of the base map was to locate all old workings and to show enough detail so that the workings could still be located long after the disappearance of the grid.

The only workings that have been examined in detail are the Garfield Adit, and Shona's Adit. The Garfield Adit was channel/chip sampled along the southern wall and along the drives, and the roof of the adit was mapped (or at least attempts were made to map it), Assay results were discouraging.

Shona's Adit, named after the secretary who wished to be immortilised in the annals of Beaconsfield, has been mapped and selected samples collected, although no analyses have been carried out.

Several shallow auger holes were drilled beside the Allstate rotary holes on lines 1 and 2 to test the depth capabilities of the Jacro rig and the sample method. Gravels in the scree limit the depth penetration of the small auger rig and the sampling method does not seem very satisfactory for this area where the extensive disturbance of the soils by bulldozing and land clearing, and the contamination from previous mining would necessitate the collection of bedrock samples in any meaningful geochemical survey.

033

893037

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Samples

1:250,000 Sheet Area Launceston — Board & Depart. Bracknell EL 17/23

Date 13 August 1981 — Collected by: BHP — Sample Batch No BP14 — Analyses by Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	Ag	Cu	Pb	Zn	Ag	Co	Ni
BP11 3-6			0.017	7	45	30	35	0.5	900	15
9-12			x	10	65	40	60	0.5	1700	25
12-15			x	32	50	25	70	0.5	1550	45
15-18			x	110	45	30	65	2.0	1500	115
18-21			x	100	40	35	70	3.5	2150	145
21-24			x	190	50	35	100	3.0	2050	205
66- 0-3			x	14	35	10	30	1.5 0	565	15
2			x	8	20	10	15	1.5	600	20
9-12			x	8	55	15	35	1.0	1300	15
15-18			0.017	6	50	25	10	0.5	430	20
18-21			0.008	9	25	10	25	0.5	950	20
21-24			x	8	65	25	15	0.5	600	20
2 0-3			0.058	8	5	30	65	x	1150	15
3-6			0.067	9	35	20	65	0.5	915	5
6-9			0.009	4	55	35	40	0.5	925	20
9-12			0.050	7	80	50	50	1.0	1200	25
72 BPH 12-15			0.183	6	50	70	95	0.5	1650	25
15-18			0.275	3	60	50	60	0.5	1000	25
18-20			0.133	6	95	70	70	0.5	1200	30
0-3			0.025	9	20	25	20	x	365	30
3-6			x	10	20	30	25	0.5	240	35
6-9		Standards	2.72	400	25	20	200	x	35	75
5 0-3		" "	5.82	720	25	10	175	1.5	40	60
3-6		" "	0.875	180	30	15	75	1.5	35	70
6-9		" "	8.70	470	30	15	170	0.5	80	50
9-12		" "	4.33	900	25	20	330	x	30	80
16- 0-3		" "	1.59	220	95	30	35	x	45	45
3-6		" "	3.37	400	150	30	70	3.0	155	50
6-9		" "	12.8	980	30	40	65	7.5 0	85	25
0-3			0.200	25	40	10	40	x	945	25

FORM 2

B.H.P. Airtrack drill samples from Cambrian rocks on west side of Cabbage Tree Hill

034

893038

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area Mackenzie Property or Project Beaverfield 17/23

Date 12 August 1981 Collected by BLLP Sample Batch No. BF1 Analyses by Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	Ag	Cu	Pb	Zn	Mo	Cr	Ni
2-3-6			0.025	6	35	12	35	0.5		
6-9			x	6	25	5	50	x		
9-10			0.100	x	70	5	60	1.5		
0-3			0.175	8	80	25	95	0.5		
3-6			0.025	7	95	50	75	0.5		
6-9			0.050	2	75	25	60	x		
9-10			x	2	75	5	50	x		

FORM 2

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

893039

White: Office
Yellow: Project Geologi
Green: Sampler

1:250,000 Sheet Area Launceston Property or Prospect EL 17/73 Beaconsfield

Date: 8th May 1981 Collected by: CDE & CAH Sample Batch No. GA Analyses by: Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Hg	Zn	Ag	Co	Ni
GA 1			x	2	5	x	30	1.0	505	90
2			x	2	10	10	35	0.5	630	175
3			x	3	10	x	30	0.5	1550	230
4			x	2	5	x	25	x	715	150
5			x	3	x	5	30	x	585	75
5A			x	4	5	x	30	0.5	355	130
6			x	2	5	x	20	x	725	135
7			x	5	5	x	15	x	1450	90
8			x	2	x	x	25	x	750	50
9			x	1	x	x	25	x	715	40
11			x	1	x	x	15	x	555	40
12			x	1	x	x	10	x	2200	15
13			x	2	x	x	40	x	1400	40
14			x	1	x	x	20	x	925	40
15			x	1	x	x	20	x	1450	45
15A			0.067	1	x	x	70	0.5	1250	60
16			x	1	x	x	15	x	1400	40
17			0.044	2	1	x	10	x	565	65
GA 18			x	1	5	x	20	x	600	140
19			x	1	x	5	25	0.5	450	60
20			0.009	1	5	5	10	x	915	135
20A			0.009	2	5	20	25	0.5	920	130
21			x	1	x	x	20	0.5	400	45
22			x	1	x	x	25	0.5	285	40
23			x	x	x	10	20	0.5	215	50
			x	1	5	x	20	x	335	150
25			x	1	10	x	30	x	700	145
25A			0.042	1	10	5	210	1.0	390	125
26			x	6	5	x	25	x	445	100
27			x	x	5	x	15	x	165	75
28			x	1	5	x	10	x	120	10
29			x	1	20	5	40	0.5	1900	55
30			x	1	10	5	105	0.5	2350	125
31			x	x	15	x	40	0.5	1750	130
32			x	1	15	x	60	x	4050	165
33			x	1	10	x	45	x	1950	95

FORM 2

CARRIED ADIT - Channel chip samples over 1m intervals were to be taken with (horizontal samples)

A postscript about vertical samples

036

893040

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Launceston Property or Prospect EL 17/73 Beaconsfield

Date: 8th May 1981 Collected by: D.D.E and D.P.H Sample Batch No. GA Analyses by: Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Co	Ni	Mo
A 34			x	x	5	x	40	x	1050	55	45
35			x	1	10	x	40	0.5	1700	165	75
35a			x	1	10	x	55	1.0	2000	170	50
36			x	2	5	x	195	0.5	4250	130	20
37			x	1	5	x	30	x	710	115	40
38			x	1	5	x	15	x	165	95	25
39			x	1	x	x	20	0.5	440	70	40
40			x	1	10	5	90	0.5	5250	200	95
41			x	1	5	20	55	1.0	2100	95	60
41			x	x	5	x	40	x	900	115	35
42			x	1	10	x	25	0.5	520	200	40
43			x	x	x	x	10	x	250	40	15
44			x	x	x	x	10	x	150	50	20
45			x	x	x	20	40	x	1100	50	15
45A			x	1	5	x	20	0.5	250	115	35
46			x	x	5	x	15	x	155	110	20
47			x	x	5	x	20	x	440	110	30
48			x	x	5	x	10	x	340	110	40
49			x	x	x	x	10	0.5	110	5	25
50			x	x	10	x	10	x	440	205	20
50A			x	x	5	x	5	0.5	110	60	20
51			x	4	x	x	10	x	170	110	10
52			x	3	5	x	15	0.5	410	110	40
53			x	10	x	x	10	x	250	110	20
54			x	1	15	x	25	x	1000	110	60
55			x	x	25	5	25	0.5	420	110	25
55A			x	1	5	x	30	0.5	650	65	60
56			x	x	15	x	20	x	410	50	25
57			x	4	15	x	15	x	375	110	35
58			x	x	10	x	25	x	510	110	30
59			x	x	10	x	20	x	355	110	30
60			x	x	20	x	30	x	960	210	45
60A			x	1	10	x	40	x	1200	160	135
61			x	2	10	x	275	x	1600	110	95
62			x	1	5	0.5	70	0.5	3500	110	120
63			0.005	1	15	x	30	x	1150	110	50

FORM 2

037

893041

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White — Office
Yellow — Project Geologist
Green — Sampler

1:250,000 Sheet Area Labrador Property or Project FL 11 73 Beaverfield

Date 5th May 1981 Collected by DME and PMH Sample Batch No. G1 Analyses by Analabs

Sample No	Description	Location	Analyses (ppm unless otherwise stated)								
			Na	Mo	Cu	Pb	Zn	Ag	Co	Ni	As
64			0.008	3	10	10	50	x	2450	10	10
65			x	2	5	x	20	x	1450	10	10
65A			0.017	2	10	5	40	0.5	1100	10	110
66			x	3	5	5	50	x	2100	100	5
67			x	1	5	x	20	x	1150	10	105
68			x	1	5	x	30	x	1100	10	50
69			x	1	5	x	10	x	350	200	105
70			x	x	x	x	10	x	105	50	25
70A			0.106	1	10	x	20	1.0	1450	260	75
71			0.053	x	x	x	15	x	360	150	25
72			0.125	x	x	5	10	x	120	105	20
73			x	1	x	x	10	x	140	5	15
74			x	1	x	x	20	x	1350	105	20
75			x	1	x	x	20	0.5	360	150	30
75A			x	1	x	x	10	x	1145	50	45
76			0.008	x	x	x	15	x	275	150	50
77			x	x	5	x	10	x	165	50	50
78			x	x	x	x	10	x	155	150	20
79			x	1	15	x	25	x	1000	500	150
80			x	2	5	5	15	x	440	95	135
80A			x	3	10	x	205	0.5	530	140	125
81			x	7	5	5	25	x	450	70	70
82			x	25	5	25	30	x	50	50	20
83			0.025	3	5	15	110	x	95	120	45
84			x	1	5	5	50	x	70	1000	15
85			x	x	5	10	55	x	50	1150	40
85A			0.117	2	5	5	50	x	930	150	40
86			x	x	5	10	35	x	70	200	20
87			x	3	5	15	35	x	100	100	50
88			x	4	x	20	35	x	50	100	15
89			x	2	5	50	210	x	50	4100	195
90			x	8	15	100	410	x	20	1150	240
90A			0.008	4	5	100	65	x	910	100	60
91			x	3	x	20	100	x	60	50	50
92			x	1	5	55	100	x	45	1100	70
93			x	7	x	100	55	x	50	1100	45

038

893042

AMPLE RECORD

AMAX IRON ORE CORPORATION
MINERALS EXPLORATION DIVISION

White Office
Yellow Project Geologist
Green Samples

Property or Project: L.L.D.A. Mcconnell

U.S.G.S. Map 1131 Collected by D.W. and D.H. Sample Batch No. G-1 Analyses by Ocala

Sample No	Description	Location	Analyses (ppm unless otherwise stated)								
			Mn	Ni	Cu	Pb	Zn	Ag	Co	Mo	Ba
94			0.142	2	5	30	125	x	3500	40	40
95			x	1	5	30	120	x	4000	120	130
95a			0.030	1	5	10	45	1.0	1240	90	70
96			x	1	x	40	30	x	240	40	40
97			x	1	5	15	25	x	670	40	50
98			x	1	x	30	40	x	1000	80	60
99			x	x	x	5	35	x	1430	40	80
100			x	2	10	35	10	x	1500	70	40
100a			0.008	2	20	25	110	0.5	1600	100	85
101			0.033	5	5	50	30	x	500	60	30
102			0.058	9	15	30	50	x	1200	100	60
103			0.033	5	15	25	30	x	930	120	110
104			0.058	15	15	35	100	x	2250	105	150
105			0.033	9	10	15	35	x	550	50	55
105a			0.076	20	10	x	15	0.5	500	70	90
106			0.067	40	25	15	25	x	700	50	45
107			0.117	22	20	30	60	x	1350	95	60
108			0.050	11	10	15	30	x	470	90	65
109			0.033	31	5	5	25	x	470	50	20
109A			0.317	21	10	25	55	x	1050	85	25
110			0.067	91	5	10	45	x	795	55	15
111			0.058	13	5	10	30	x	545	55	15
112			0.142	20	5	25	40	x	480	50	15
113			0.242	72	5	35	40	x	475	50	10
115a			0.83	200	5	20	60	0.5	720	50	30
116			0.192	130	15	20	75	x	1600	50	20
117			0.158	90	10	10	60	x	1400	65	25
118			0.50	46	5	10	30	x	510	75	15
119			0.100	22	5	10	25	x	480	60	20
120			0.100	36	5	40	35	x	450	50	15
120a			0.100	71	5	20	25	0.5	330	50	20
121			0.050	22	5	45	55	x	340	70	20
122			0.058	30	x	30	50	0.5	920	65	40
123			0.242	31	5	10	40	0.5	1500	130	50
124			0.033	50	10	65	40	0.5	1650	125	35
125			0.167	80	15	105	60	0.5	2650	130	40
125a			0.117	57	5	20	20	0.5	500	90	25

FORM 2

039

893043

AMAX IRON ORE CORPORATION

White
Yellow
Green

AMPLE RECORD

Project or Property Area Adamsville — Project or Property Enfield

Date 8th May 1981 — Collected by D.A.C. and D.A.H. — Sample Batch No. C1 — Analyses by Analabs

Sample No	Description	Location	Analyses (ppm unless otherwise stated) Au	Ag	Co	Cu	Zn	Mo	Cr	Ni	Pb
126			0.002	100	10	120	20	x	340	60	20
127			0.002	43	10	35	45	0.5	1650	130	50
128			0.007	9	x	10	25	0.5	1160	150	35
129			0.002	13	5	10	50	0.5	2000	120	55
130			0.005	21	5	20	45	0.5	1600	115	30
130A											
131			0.007	60	5	15	25	x	810	120	60
132			0.005	75	5	15	20	0.5	830	120	25
133			0.002	24	x	x	50	0.5	1750	110	35
134			0.003	24	5	x	10	0.5	295	105	20
135			0.007	28	5	10	25	0.5	775	100	20
135a			0.008	37	5	20	25	0.5	895	65	20
136			0.005	22	x	5	20	0.5	490	90	25
137			0.007	13	x	x	25	0.5	740	70	20
135			x	10	5	x	10	0.5	380	45	30
10.1			x	3	5	x	30	x	910	120	30
10.2			0.008	3	20	5	25	0.5	1050	250	45
10.3			x	5	5	x	25	0.5	1200	155	45
10.4			0.008	2	5	x	40	0.5	820	95	20
10.5			0.008	4	x	5	40	0.5	930	80	20
10.5a			0.025	2	x	x	40	0.5	750	65	20
10.6			0.033	5	5	5	40	0.5	810	80	30
10.7			0.017	5	10	5	20	0.5	800	170	60
10.8			0.017	2	x	x	30	0.5	900	65	35
10.9			0.017	2	x	x	35	x	970	105	40
10.10			0.017	2	5	x	35	0.5	850	80	35
10.10a			0.008	2	5	x	20	0.5	730	70	30
10.11			0.017	1	x	x	40	0.5	890	40	20
10.12			0.008	1	5	5	30	0.5	630	95	20
10.13			x	4	5	5	60	1.0	960	95	40

FORMS

040

893044

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White — Office
Yellow — Project Geologist
Green — Sampler

250,000 Sheet Area Hamilton — Property or Project EL 12 73 Beaconsfield

Date 8th May 1981 — Collected by D.J. and D.H. — Sample Batch No. SE — Analyses by Bondar

Sample No	Description	Location	Analyses (ppm unless otherwise stated)								
			Au	As	Cu	Pb	Zn	Ag	Co	Ni	Mn
113-1			0.120	60	5	35	60	x	615	[illegible]	[illegible]
113-2			0.242	140	15	35	55	0.5	900	130	30
113-3			0.167	100	10	20	45	0.5	705	110	20
113-4			0.123	95	5	20	35	1.0	660	65	15
113-5			0.333	190	10	10	40	0.5	1500	125	30
113-5A			0.309	730	15	30	45	0.5	1050	135	30
113-6			0.083	250	5	5	20	0.5	500	85	25
113-7			0.038	310	5	20	35	0.5	800	55	25
113-8			0.058	190	5	30	45	0.5	500	65	25
113-9			0.017	160	5	15	35	x	630	90	20
113-10			x	95	5	x	40	0.5	700	75	30
113-10A			0.008	150	10	5	35	0.5	560	105	25
113-11			0.092	200	5	5	30	0.5	660	90	25
113-12			0.042	260	10	10	40	0.5	730	150	35
113-13			0.008	110	5	5	30	0.5	700	90	25
113-14			0.008	45	5	x	45	0.5	920	90	35
113-15			0.017	14	5	x	35	0.5	660	115	45
113-15A			0.009	22	15	x	40	0.5	560	215	50
113-16			0.017	15	5	5	30	0.5	520	170	55
113-17			0.109	17	5	5	50	0.5	475	125	35
113-18			0.425	28	10	20	60	x	450	155	40
113-19			0.500	39	20	15	40	0.5	230	130	35
115-1			0.092	25	5	20	50	0.5	390	35	10
115-2			0.225	290	15	100	125	0.5	1300	50	20
115-3			0.325	280	5	60	55	0.5	1200	35	10
115-4			0.150	91	5	20	35	0.5	530	60	10
115-5			0.492	180	10	45	60	0.5	950	115	20
115-5A			0.117	20	5	x	20	0.5	420	95	20
115-6			0.517	120	5	15	25	0.5	900	110	25
115-7			0.308	100	5	20	25	x	500	125	25
115-8			0.233	12	20	5	15	0.5	375	310	50
115-9			0.017	6	15	x	30	0.5	295	180	40
115-10			0.317	40	5	10	30	x	565	160	30
115-10A			0.092	32	5	15	40	x	905	90	20
115-11			0.208	75	5	20	60	0.5	1250	75	25
115-12			0.075	34	5	10	40	0.5	845	75	30

FORM 2

041

893045

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Samples

1:250,000 Sheet Area Jamestown — Property or Project 1/11/73 Beaverfield

Date 8th May 1973 — Collected by D.C. West & crew — Sample Batch No. C.O. — Analyses by Analabs

Sample No	Description	Location	Analyses (ppm unless otherwise stated)								
			Cu	Pb	Co	Ni	Zn	Ag	Sr	Mo	B
115-13			0.013	50	5	10	45	0.5	300	10	20
115-14			0.012	11	5	10	30	0.5	370	75	15
115-15			0.017	10	10	15	50	x	420	150	25
115-15A			0.008	10	x	15	35	0.5	335	25	5
115-16			0.012	9	5	5	30	0.5	365	30	20

P.-FORM 2

042

893046

SAMPLE RECORD

MAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Beaconsfield Property or Prospect Cabbage Tree Hill EL 17/73

Date: 23 March 1981 Collected by: DAH & DAE Sample Batch No. ARB Analyses by: Analabs

Amax Rotary Borehole

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)							
			Cu	Pb	Zn	Co	Ni	Sn	As	Cr
B-6-1			10	50	150	1.5	60	0.028	27	115
2			10	40	115	1.0	35	0.016	29	110
3										
4			10	40	55	0.5	60	0.008	30	50
B-8			5	25	40	0.5	70	0.048	25	120
2			5	10	30	x	60	0.064	19	100
B-10-1			110	370	130	3.5	130	0.124	850	85
B-12-1			5	25	70	0.5	65	x	19	60
2			5	25	60	1.0	35	x	9	25
3			x	20	50	0.5	20	x	4	25
B-14-1			x	15	30	0.5	40	x	12	130
2			5	20	25	0.5	50	x	12	95
3			x	25	45	0.5	45	0.004	10	65
B-16-1			x	5	30	0.5	35	x	3	40
			5	25	60	0.5	35	x	8	20
B-18-1			x	15	60	0.5	30	x	5	30
2			5	40	95	0.5	35	x	8	25
B-20-1			x	25	70	1.0	35	x	5	45
2			x	30	70	0.5	30	x	7	35
B-22-1			5	45	95	1.5	50	x	14	40
2			5	20	30	1.5	35	x	10	15
B-24-1			10	20	75	0.5	115	0.002	8	90
2			5	10	55	1.0	30	0.008	4	25
3			5	190	90	0.5	40	x	5	35
B-26-1			5	30	25	0.5	55	x	6	180
2			5	15	45	0.5	55	0.024	7	105

FORM 2

1

043

893047

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Beaconsfield Property or Prospect Cabbage Tree Hill EL 17/73

Date: 23 March 1981 Collected by: DAH - DAE. Sample Batch No. ARB Analyses by: Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Cu	Pb	Zn	Ag	Ni	Au	As	Cr
ARB-26:3			10	30	30	1.0	80	0.032	7	30
ARB-28 1			5	10	40	0.5	60	0.141	2	45
2			5	15	70	0.5	50	0.364	7	70
ARB-80			70	45	260	1.5	80	0.235	900	100
2			55	50	170	1.5	90	0.308	1700	14.5
ARB-84 1			15	20	50	1.0	100	0.412	90	50
ARB-86:1			5	5	30	0.5	40	0.016	23	40
2			5	15	40	1.0	30	0.064	32	30
3			20	20	55	1.0	40	0.058	66	20

P.-FORM 2

044

893048

SECTION 7 - NORTH TASMANIA AREA

The north Tasmania area is that gridded area to the north of Cabbage Tree Hill and includes the areas covered by Bleazard's mineral lease and Furlonge's prospecting claim.

Shallow alluvial workings occur along Brandy Creek and several shafts, all inaccessible, have been excavated on the low hill above the creek. No reliable records are available for these mines. Most of these workings appear to be within the conglomerates and the veining observed in these units on Cabbage Tree Hill has generally been narrow and irregular, so it is probable that these shafts did not encounter any substantial lodes.

The main workings in this area which are of interest are those of the North Tasmania Mine, which apparently developed the only reef reported parallel to the Tasmania Lode. The reef was supposed to be about 1.2m wide and according to the only available reports, which are of dubious accuracy and incomplete, the gold was accociated with sulphides and grades were quite high. The only incomplete mine plan of the workings suggest that the reef was tested to at least 130m depth, though strike length was only of the order of 60m in the lower levels.

The North Tasmania Reef is of interest because it is parallel to the Tasmania Lode and unlike many of the other workings in the field, gold values did persist to considerable depth. Unfortunately it has not been possible to accurately locate the North Tasmania Main Shaft. The latest theory is that it was situated at about 11585N 10165E on the exploration grid, and discussions with Bert Bleazard confirm that there was a reasonably deep shaft in this area before it was filled with the surrounding dump material. Shallow workings to the immediate north, east and west of this main shaft location, suggest that if a reef outcropped in this area it may well have had a strike of approximately N 50° E, as there appears to be a trend of the workings from the old Dundee Shaft as far west as the old dump on the edge of the dam. The Dundee Shaft is an inclined shaft suggesting that the reef dipped to the southeast as did the North Tasmania Reef. The Dundee Shaft and all the other working along this trend line are inaccessible, so a trench was excavated across the possible surface trace of the reef to see if any veining could be detected, however it could not and only sandstones were encountered. A second trench was proposed further to the west, however this has not been completed (refer basic map).

Other work carried out in this area includes the sampling and mapping of the North Tasmania Adits which have been driven northwestward into the flank of the hill just above Brandy Creek. These adits are in the Transition Bed sandstones but appear to have been unproductive. Sampling produced poor results and only the No. 1 Adit contains any veining of any interest, some further grab sampling and more detailed examination of the ferruginous and manganiferous quartz encountered at the end of the drive could be warranted, although it is obviously a very irregular and narrow structure.

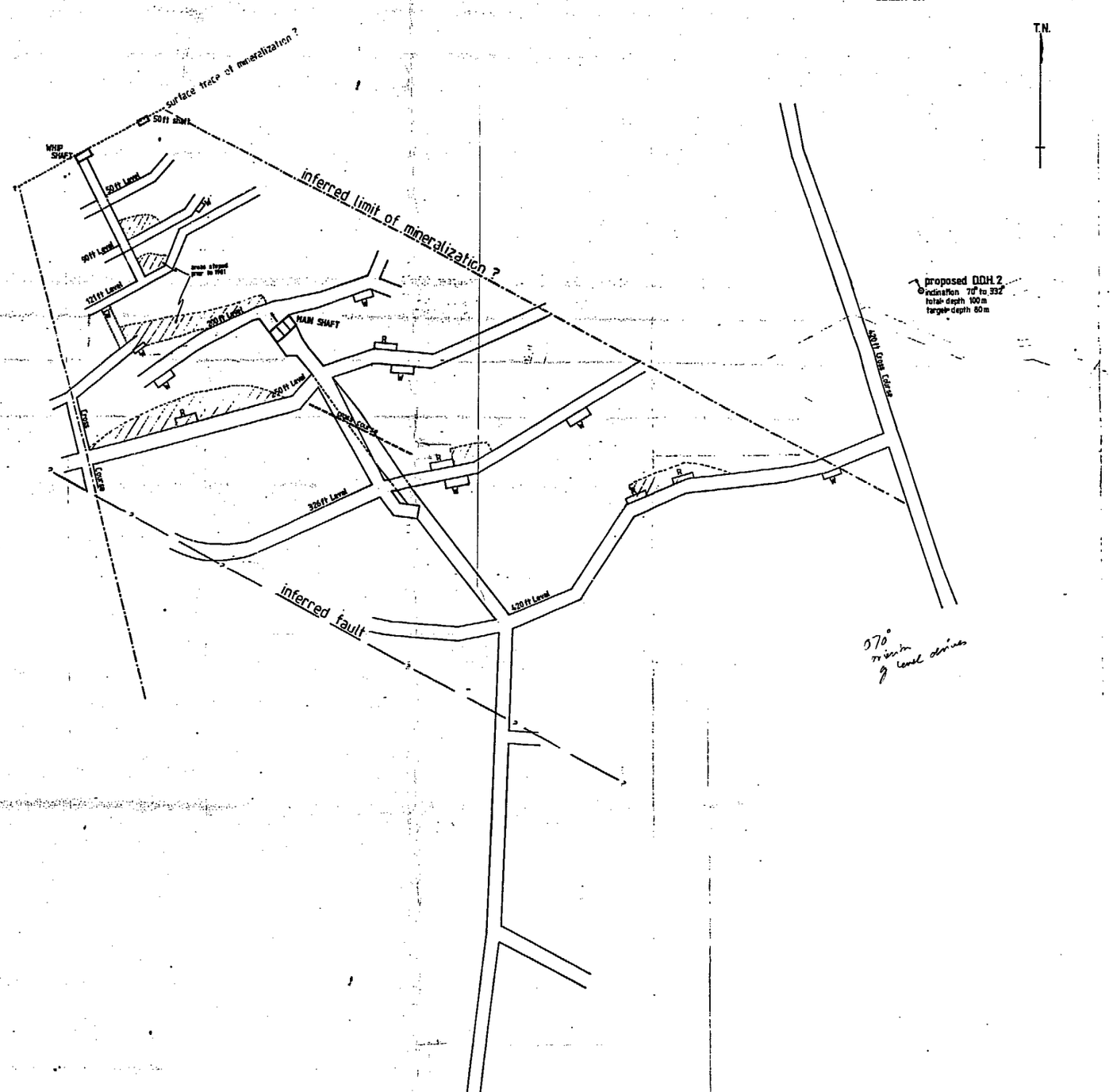
FIG.9.

FIGURE 6.

NORTH TASMANIA MINE

COMPOSITE PLAN (1901)

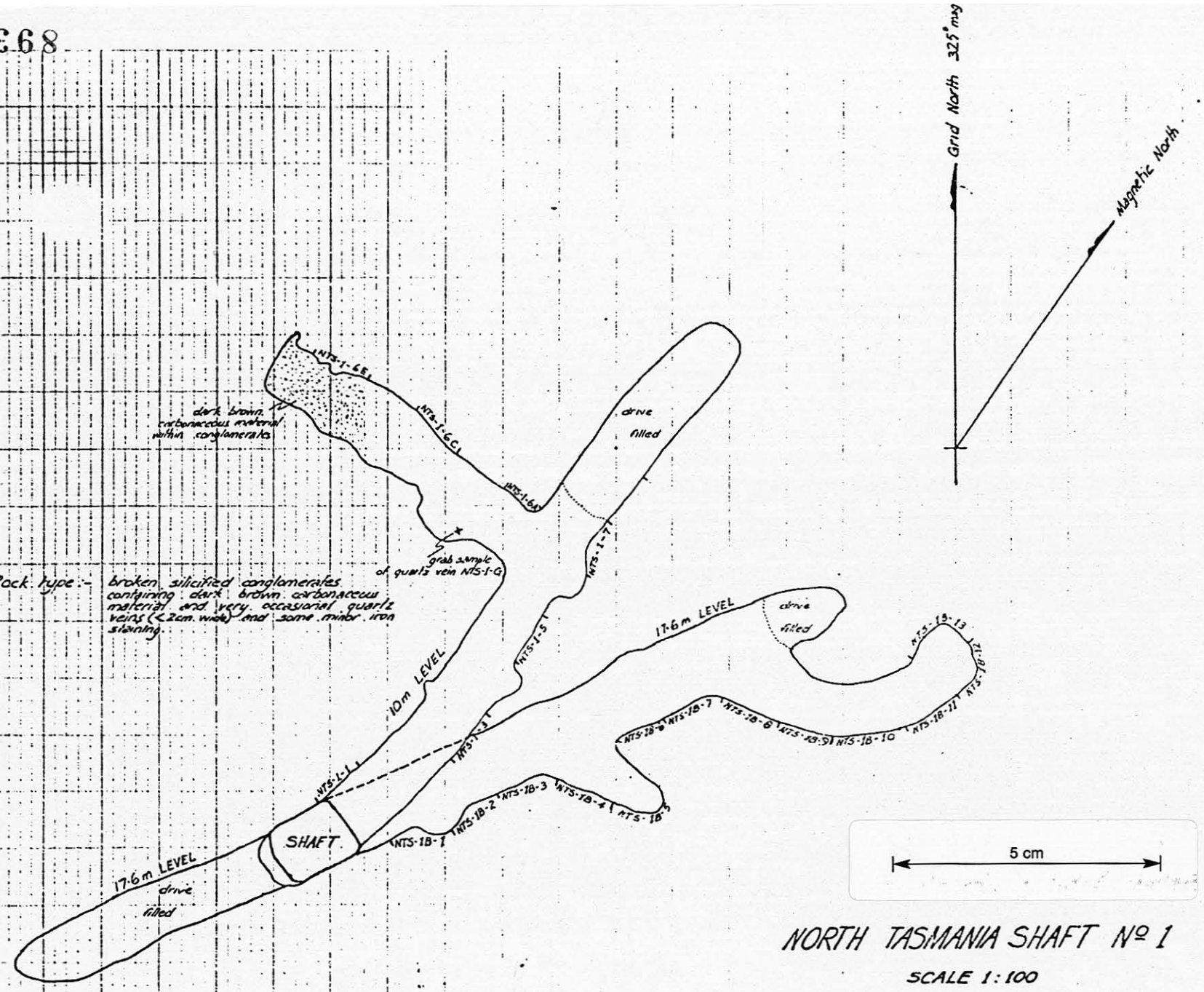
SCALE: 1 300



6968

82-1681 Fig ③

Fig. 10



NORTH TASMANIA SHAFT Nº 1

SCALE 1:100

Sampled June 1981 by D.A.H. and D.A.E.
Grid Coordinates 11850N 10025E

893051

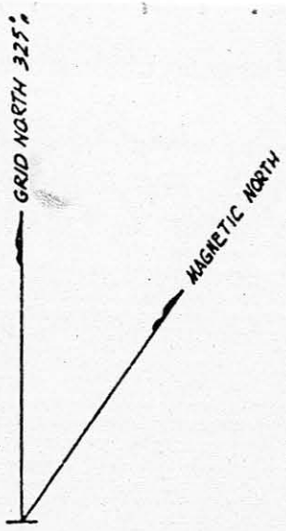
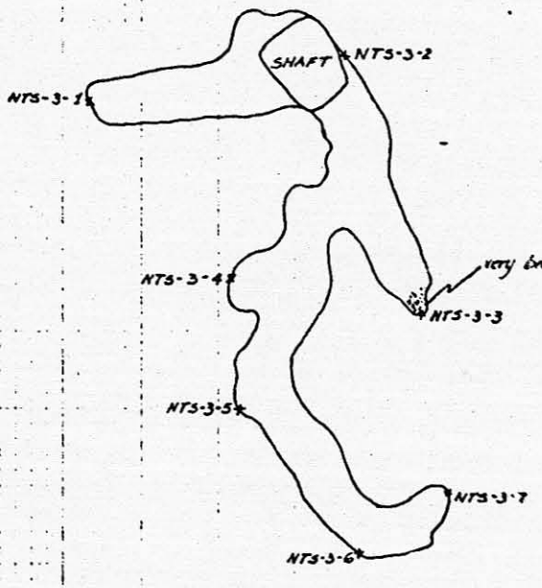


Fig 11

Rock type :- silicified conglomerate containing carbonaceous material



very broken carbonaceous ground — Valiant mankins that this broken ground is actually a filled stope of the Aulers mine which was supposed to be an attempt to re-open the North Tasmania Mine in the 30's.

NORTH TASMANIA SHAFT Nº 2 only 4.5m deep - no sample (11086 N 10058 E)
NORTH TASMANIA SHAFT Nº 4 only 7 m deep - no sample. (11995 N 10065 E)
NORTH TASMANIA SHAFT Nº 5 only 8 m deep - no sample (12140 N 10039 E)
all shafts in silicified conglomerate with varying amounts of carbonaceous material

NORTH TASMANIA SHAFT Nº 3

SCALE 1:100

Sampled by DAH and DAE. May 1981.
Grid Coordinates 11960 N 10090 E.

5 cm

030

NORTH TASMANIA ADIT No.1

NORTH TASMANIA ADIT No.2

NORTH TASMANIA ADIT No.3

Scale 1 : 100

82-1681
Fig (4)

6869

The London Adit was opened up and briefly examined. This tunnel is in the conglomerates and an air shaft approximately 40m from the entrance has been filled from the surface thereby completely blocking the adit. No significant veining was observed and the adit again filled.

In Bleazards Mineral Lease several shallow shafts have been examined however none appear to be of any great interest. Once again these are in the conglomerates and Bleazard reports good gold from some veins, and he has a sample of quartz containing some specs of reasonably coarse gold (1 to 1.5 mm) which reportedly came from the shaft referred to as North Tasmania Shaft No. 3. Grab sampling in this shaft failed to detect any significient mineralization.

Allstate completed two lines of rotary/auger holes in the area. Line No. 3 was drilled across Brandy Creek and a reasonably significant anomaly, Anomaly 6, was encountered in holes RB 34 to RB 36. Bates interpreted this anomaly as being due to an east-west striking quartz vein which dips to the south, ie; more or less parallel to the Tasmania and North Tasmania reefs. This anomally should be further examined by a short diamond drill hole, and strike extensions both to the east and west should be tested by drilling.

046

893054

SAMPLE RECORD

CRA IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Launceston Property or Prospect Beaconsfield EL 17/78 N.E. Tasmania

Date: 12th January 1981 Collected by: DAH - DAE Sample Batch No. NTA Analyses by: Analabs

North Tasmania Edit No. 1

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Sr	Ni	Mn
A-1.4	Silicified sandstones with some clays	3 to 4m	x	2	15	15	15	x	20	5	5
5	interbeds - quartz veins almost non-existent	4 to 5m	x	24	25	25	15	x	15	10	5
6		5 to 6m	x	19	25	25	15	x	20	x	5
7		6 to 7m	x	23	30	30	15	x	15	25	10
8		7 to 8m	x	24	30	45	15	x	20	15	5
9		8 to 9m	x	33	30	45	10	x	20	10	5
10		9 to 10m	x	70	30	50	10	x	20	10	10
11		10 to 11m	x	12	15	40	15	x	20	15	5
12		11 to 12m	0.008	11	10	20	10	x	20	10	10
13		12 to 13m	0.008	11	5	30	10	x	20	10	10
14		13 to 14m	x	20	15	45	10	x	25	10	10
15		14 to 15m	x	10	10	30	10	x	25	10	10
16		15 to 16m	x	10	5 10	15	5	x	20	10	10
17		16 to 17m	x	12 Mo	10	20	5	x	25	10	10
18		17 to 18m	x	10	10	10	5	x	20	10	10
19		18 to 19m	0.008	10	5	5	5	x	20	10	10
20		19 to 20m	x	8 Mo	5	10	10	x	20	10	10
21		20 to 21m	x	8 Mo	x	10	10	x	15	10	10
A-1.22		21 to 22m	x	0	x	5	10	x	10	10	10
23		22 to 23m	0.008	3	x	5	10	x	15	10	10
24		23 to 24m	0.016	6	x	5	10	x	10	10	10
		24 to 25m	0.008	5	x	10	5	x	15	15	10
26		25 to 26m	0.008	3	x	15	10	x	15	10	5
27		26 to 27m	0.016	5	x	10	10	0.5	10	5	10
28		27 to 28m	x	5	x	25	10	x	10	15	5
29		28 to 29m	0.032	5	x	30	15	x	15	10	10
30		29 to 30m	0.017	6	x	10	10	x	15	10	10
31		30 to 31m	0.025	6	x	10	10	x	15	10	5
32		31 to 32m	0.067	8	5	15	15	x	20	10	5
33		32 to 33m	0.125	11	5	15	5	x	20	10	5
34		33 to 34m	0.067	15	5	85	x	x	40	10	15
A-1.34 Q			0.016	10	x	15	10	x	35	10	10
34-B			0.016	5	x	10	x	x	35	5	10
34-C			x	4	x	x	5	x	60	10	15

FORM 2

047

893055

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Launceston Property or Prospect Beaconsfield EL 17/73 Nth Tasmania

Date: 14th January 1981 Collected by: DAH & DAE Sample Batch No. NTA Analyses by: Amdel Labs

NORTH TASMANIA ADIT No. 1

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Cr	Ni	Mn
34 TA-1:D			x	3	5	5	5	x	40	x	10
34-E			x	8	x	10	5	x	50	x	10
34-F			0.005	10	x	10	5	x	30	5	10
34 G			0.042	33	35	25	x	x	30	10	10
34-H			0.633	19	10	60	5	x	55	15	15
34-I			0.225	25	10	35	5	x	55	10	45
34-			0.175	23	10	20	5	x	40	20	25
34-K			0.05	35	15	20	10	x	10	20	15
34-L			0.075	25	10	35	5	x	50	20	35
34 M			x	5	5	5	10	x	25	10	10
34 N			0.005	8	x	5	5	x	40	5	10
34:O			0.60	28	5	40	5	x	30	10	20

FORM 2

048

893056

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area Launceston Property or Prospect Beaconsfield EL 17/73 NTA Tasmania

Date: 19 January 1981 Collected by: DAE, GM, MM Sample Batch No. NTA Analyses by: Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Cr	Ni	Mn
A-2 3		2 to 3m	x	7	5	50	5	x	60	10	15
4		3 to 4m	x	23	20	50	10	x	55	20	20
5		4 to 5m	x	13	25	60	15	x	45	15	15
6		5 to 6m	x	14	20	70	10	x	50	20	15
7		6 to 7m	x	50	25	85	20	x	50	15	20
8		7 to 8m	x	23	25	40	30	x	50	15	20
9		8 to 9m	x	45	25	60	20	x	50	20	20
10		9 to 10m	x	30	20	50	20	x	150	10	20
11		10 to 11m	x	40	35	35	35	x	60	20	30
12		11 to 12m	x	40	45	30	50	x	70	25	25
13		12 to 13m	0.003	70	30	25	35	x	65	15	30
14		13 to 14m	x	55	25	20	55	x	60	20	45
15		14 to 15m	x	14	5	10	15	x	65	5	10
16		15 to 16m	0.003	40	20	70	35	x	30	15	20
17		16 to 17m	0.002	60	20	30	35	x	30	10	15
18		17 to 18m	0.002	50	20	15	25	x	30	15	15
19		18 to 19m	0.002	130	20	25	60	x	50	30	30
20		19 to 20m	0.005	180	35	30	50	x	70	20	25
A-2 21		20 to 21m	0.006	300	30	20	45	x	20	25	30
22		21 to 22m	0.002	240	20	15	30	x	30	15	20
23		22 to 23m	0.006	240	15	15	35	x	15	10	20
24		23 to 24m	x	260	25	15	25	x	30	10	20
25		24 to 25m	0.005	220	20	10	30	x	20	5	25
26		25 to 26m	0.005	120	10	25	25	x	20	10	25
27		26 to 27m	0.005	120	10	25	20	x	30	10	45
A-2 5A			0.005	27	5	55	20	x	40	20	20
10B			x	36	30	65	20	x	55	10	25
15C			x	47	x	30	30	x	75	15	30
20D			x	190	30	30	45	x	30	25	25
25E			0.033	220	10	10	25	x	35	15	20
27F			0.003	90	5	15	20	x	30	15	40
A-3 1		0 to 1m	x	83	5	35	40	x	90	25	30
2		1 to 2m	x	21	x	25	35	x	70	25	20
3		2 to 3m	x	12	5	15	20	x	75	20	20

P.-FORM 2

051

893057

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

IPLE RECORD

10 Sheet Area Launceston Property or Prospect EL 17/73 Beaconsfield

th June 1981 Collected by: DAE and DAH Sample Batch No. NTS 18 Analyses by: Acalabs

o.	Description	Location	Analyses (ppm unless otherwise stated)									
			Mo	Au	As	Cu	Pb	Zn	Ag	Co	Ni	Mn
1			40	-	1	15	x	15	x	235	215	40
3			15	x	x	x	x	10	x	230	40	5
5			25	0.010	x	x	10	25	x	260	50	5
7			30	0.012	x	x	5	60	x	580	50	10
6A			20	0.012	x	x	x	15	x	185	55	10
bc			15	0.003	x	x	x	20	x	220	60	15
6E			20	x	x	x	5	15	x	265	60	10
G			5.5	x	x	15	x	5	x	185	265	50
1				x	x	15	x	25	x	650	215	90
2				x	x	55	x	10	x	345	310	50
3				x	1	40	5	5	x	450	670	90
4				x	x	10	x	x	x	220	165	25
5				x	x	5	x	5	x	105	55	15
6				x	x	10	x	20	x	490	155	25
7				x	x	15	5	20	x	440	210	40
8				0.002	x	15	x	45	x	1000	195	40
9				x	x	15	5	30	x	710	260	45
10				x	5	15	5	25	x	610	165	30
11				0.032	2	15	5	5	x	275	235	35
12				0.003	x	10	x	x	x	140	155	25
13				0.016	4	10	5	x	x	190	100	30
31			3.5	0.023	4	35	25	30	x	465	80	10
2			3.0	0.064	2	60	25	125	x	3150	80	90
3			2.0	0.275	1	15	20	50	x	900	115	60
4			2.0	0.024	1	15		20	x	325	40	10
5			1.5	x	1	15	10	15	x	280	75	15
6			3.5	x	2	20	25	30	x	555	195	45
7			23.0	0.187	8	140	75	65	x	1250	530	95

SECTION 8 - DEEP LEAD

The deep lead channel along the eastern flank of Cabbage Tree Hill has not been examined in any great detail. Early mining and drilling attempts reportedly met with varied success, and no extensive development was carried out in the channel.

The lead is poorly defined, gravity surveys and drilling results not necessarily complementing one another; therefore the limits of the lead and the exact extent of the channel are uncertain.

Several observation bores have been drilled in the lead to monitor the water drawdown during dewatering of the mine. Two of these bores B6 and B7 were resampled and submitted for gold assays to see if any mineralisation could be detected. Some gold within the gravels and sands was indicated, particularly in B6. Obviously the samples were not representative since they were only rotary samples, but they did suggest that the lead may contain gold and coupled with the information from the old reports suggest that some further work may be warranted.

Some drilling could be carried out in the central part of the lead. H.J. Stacpoole in Launceston is currently in the process of setting his Mobile Drill B80 rig up for reverse circulation drilling which may prove to be the quickest and cheapest method to test the channel. The fact that new houses are presently being constructed on the lead does not increase the prospectivity of the channel, however it does offer the potential for a large tonnage of material.

055

893059

AMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

50,000 Sheet Area Launceston Property or Prospect Beaconsfield EL 17/73 - DEEP LEAD

te: 15 October 1980 Collected by: Sample Batch No. Analyses by: Ansalabs

ple No.	Description	Location	Analyses (ppm unless otherwise stated) Au						Comments
-2	Dark brown soil	1 to 2 m	0·025						
-4	Buff & brown clay	3 to 4 m	0·025						
-6	Light coloured gritty clays	5 to 6 m	×						
-8	Buff to brown clay	7 to 8 m	×						
-10	Buff to brown gravelly clay	9 to 10m	×						
-12	Buff to grey gravelly clay	11 to 12 m	×						
-13	Gravelly clays with some woody material	12 to 13 m	0·050						
-14	Dy woody clays	13 to 14m	0·542						
-16	White & grey sandy clays	15 to 16 m	0·006						
-18	" " " "	17 to 18m	×						
-20	Grey to brown clay, some brown coal and sand	19 to 20m	×						
-22	" " " " " " "	21 to 22 m	0·030						
-24	" " " " " " "	23 to 24m	0·006						
-26	Clayey gravel	25 to 26m	×						
-28	" "	27 to 28m	×						
-30	Grey to grey brown clays with brown coal	29 to 30m	×						
-32	" " " " " " "	31 to 32m	×						
-34	" " " " " " "	33 to 34m	×						
	Grey to grey brown clays with brown coal	35 to 36m	0·025						
	Brown to grey clays with sandstone and coal chips	37 to 38m	0·005						
	" " " " " " "	39 to 40m	×						
	" " " " " " "	41 to 42m	×						
	" " " " " " "	43 to 44m	×						
	" " " " " " "	45 to 46m	×						
	" " " " " " "	47 to 48m	0·008						
	" " " " " " "	49 to 50m	×						
	" " " " " " "	51 to 52m	×						
	" " " " " " "	53 to 54m	×						
	" " " " " " "	55 to 56m	×						
	" " " " " " "	57 to 58m	×						
	" " " " " " "	59 to 60m	×						
	Silted graphitic shale, siltstone marls and limestone	61 to 62m	×						
	" " " " " " "	63 to 64m	0·008						
	" " " " " " "	65 to 66m	×						
	" " " " " " "	67 to 68m	×						
	" " " " " " "	69 to 70m	×						

056

893060

SAMPLE RECORD

MAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office. Yellow: Project Geologist Green: Sampler

250,000 Sheet Area: Launceston Property or Prospect: Beaconsfield EL 17/73 - DEEP LEAD

Date: October 1980 Collected by: Sample Batch No. Analyses by: Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au						Comments
-72	Highly silicified quartz sandstone bedrock with pyrite	71 to 72m	0·009						
-74	" " " " " "	73 to 74m	0·006						
-76	" " " " " "	75 to 76m	×						
-78	" " " " " "	77 to 78m	×						
-84	Highly silicified siltstone with limonite stained fractures	83 to 84m	×						
-86	" " " " " "	85 to 86m	×						
-90	Silicified siltstone with quartz pyrite veinlets	89 to 90m	×						
-92	Quartz sandstone gravel with minor limestone	91 to 92m	0·717						
-94	" " " " " "	93 to 94m	0·017						
-96	" " " " " "	95 to 96m	0·175						
-98	Medium to coarse sandstone gravels	97 to 98m	2·42						
-100	" " " " "	99 to 100m	1·07						
-102	" " " " "	101 to 102m	0·775						
-104	" " " " "	103 to 104m	0·058						
-110	" " " " "	109 to 110m	0·050						
-112	" " " " "	111 to 112m	0·175						
-116	" " " " "	115 to 116m	0·050						
-119	" " " " "	118 to 119m	0·042						
-122	Medium to coarse sandstone gravels	121 to 122m	0·058						
-124	" " " " "	123 to 124m	0·017						
126	" " " " "	125 to 126m	0·483						
-128	" " " " "	127 to 128m	0·058						
-130	Highly siliceous quartz sandstone bedrock	129 to 130m	0·042						
132	" " " " "	131 to 132m	0·058						
-134	" " " " "	133 to 134m	0·042						
136	" " " " "	135 to 136m	×						
138	" " " " "	137 to 138·5m	0·017						

DAM 3

057

893061

SAMPLE RECORD

MAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Samples

1:250,000 Sheet Area [illegible] Property or Project: [illegible] FLIGHT - DEEP LEAD

Date: [illegible] Collected by: Sample Batch No. Analysis by: [illegible]

Sample No.	Description	Location	Analysis (ppm unless otherwise stated) Au						Comments
7-2	Red clay	1 to 2m	0·256						
-4	" "	3 to 4m	0·050						
-6	" "	5 to 6m	0·017						
-8	Buff clay with quartz sandstone gravel and coal	7 to 8m	0·058						
-10	" " " " " " " "	9 to 10m	0·050						
-12	" " " " " " " " "	11 to 12m	0·050						
-14	Buff clay with quartz sandstone and brown coal	13 to 14m	0·075						
-16	" " " " " " " "	15 to 16m	0·050						
-18	Clay with quartz sandstone and minor coal	17 to 18m	0·025						
-20	Grey clay with chips of sandstone quartz coal and schist	19 to 20m	0·033						
-22	" " " " " " " " "	21 to 22m	0·017						
-24	" " " " " " " " "	23 to 24m	0·025						
-26	Grey clay with graphite and sandstone chips some coal	25 to 26m	0·008						
-28	" " " " " " " " "	27 to 28m	0·008						
-30	" " " " " " " " "	29 to 30m	0·017						
-32	Grey clay with graphite and sandstone chips	31 to 32m	0·025						
-34	" " " " " " " "	33 to 34m	0·017						
37-36	Grey clay overburden to coarse gravels	35 to 36m	0·042						
-38	Grey & buff clays with sandstone chips	37 to 38m	0·017						
-40	Brown clays with quartz sandstone and quartzite	39 to 40m	×						
-42	" " " " " " " "	41 to 42m	0·008						
-44	" " " " " " " "	43 to 44m	0·017						
-46	Brown clays with gravels and boulders	45 to 46m	×						
-48	" " " " " "	47 to 48m	0·017						
-50	" " " " " "	49 to 50m	0·017						
-52	" " " " " "	51 to 52m	0·025						
-54	" " " " " "	53 to 54m	0·008						
-56	" " " " " "	55 to 56m	0·008						
-58	" " " " " "	57 to 58m	×						
-60	" " " " " "	59 to 60m	×						
-62	" " " " " "	61 to 62m	0·008						
-64	" " " " " "	63 to 64m	×						
-66	" " " " " "	65 to 66m	×						
-68	" " " " " "	67 to 68m	0·008						
-70	" " " " " "	69 to 70m	0·017						
7-72	" " " " " "	71 to 72m	0·075						

FORM 3

058

893062

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area: Laverton Property or Project: Barwidgi 11/38 - DEEP LEAD

Date: Oct 1980 Collected by: Sample Batch No.: Analyses by: Amdel

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au						Comments
67-74	Brown clay with gravel and boulders		0·042						
-76	" " " " " "		0·033						
-78	" " " " " "		0025						
-80	" " " " " "		0·050						
-82	" " " " " "		0·017						
-	" " " " " "		0·008						
-86	" " " " " "		0·033						
-88	" " " " " "		0·033						
-90	" " " " " "		0·025						
-91	Medium to coarse sandstone gravels.		0·025						
-92	Clay, gravel and boulders.		0·033						
-94	Grey to buff quartz sandstone bedrock		0·058						
-96	" " " " " "		0·033						
-98	" " " " " "		0·025						
87-100	" " " " " "		0·033						

M.P. - FORM 2

059

SECTION 9 - SALISBURY HILL

893063

9.1 INTRODUCTION

Authority to Prospect A.P. 6/80 was granted to Amax Iron Ore Corporation on 26th June, 1980 for an initial term of six months. The Authority, previously a State Reserve and therefore exempt from the Mining Act, covers an area of 12.6 sq. kilometres centred over Salisbury Hill.

9.2 GEOLOGY

Salisbury Hill is the southward continuation of Cabbage Tree Hill and is composed of similar quartzose sandstones and conglomerates belonging to the Cabbage Tree Formation. These Ordovician sediments conformably overlie finer grained sediments of Cambrian age. The contact between the Cambrian and Ordovician, although concealed by colluvial deposits throughout the area, is most probably present along the western flank of Salisbury Hill.

Quartz veining in this area tends to parallel the north-westerly strike of the Cabbage Tree Formation, yet these veins generally dip to the south-west at about 30 degrees, thereby cutting across the bedding of the easterly dipping sediments.

9.3 MINERALIZATION

The Salisbury goldfield, situated at the southern end of Salisbury Hill, consists of several small workings, including the Salisbury, Duchess of York and Victoria mines on the eastern flank, as well as numerous shallow pits and somesignificant hydraulic sluicing operation on the western edge of the hill. No production figures for this area are available, however appreciable quantities of gold have reportedly been won from these workings.

According to Mines Department reports, the near surface mineralization consists of "coarse lumps of gold" and "patches of free gold met with in sugary quartz and soft seams of pug*", while deeper deposits are intimately associated with sulphides. In the Victoria workings the northerly trending quartz-pyrite lode varied in width up to 0.75 metres and the rich parts of the vein carried ten to twenty per cent sulphides with 124 to 1488 g/t gold. Narrower sulphide rich quartz veins were working in the Salisbury Mine where grades of up to 113 g/t were reported.

Sluicing operations at the southern extremity of the hill exposed numerous quartz veins within the sandstones and an adit was driven north along several of these narrow veins. This adit is the only subsurface working in the field that is still accessible. Twelvetrees (1903) reported grades of 4 to 5 g/t gold from the sluiced material and the adit excavations.

Some reports tell of shallow workings in Eaglehawk Gully at the north end of Salisbury Hill and also the Rising Sun adit at the south end of Cabbage Tree Hill, however, no grades are given for either.

* pug - a local name given to decomposed shale

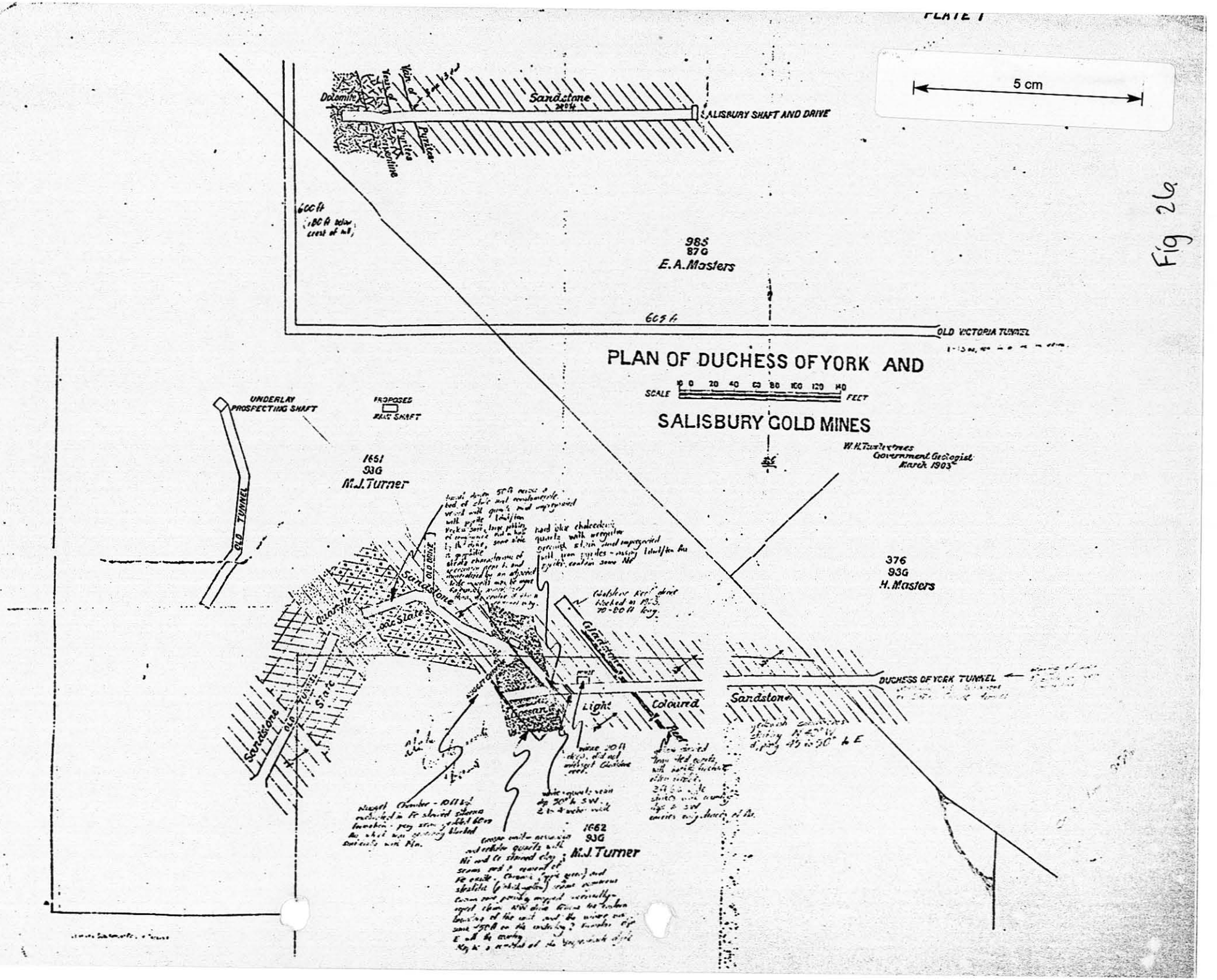
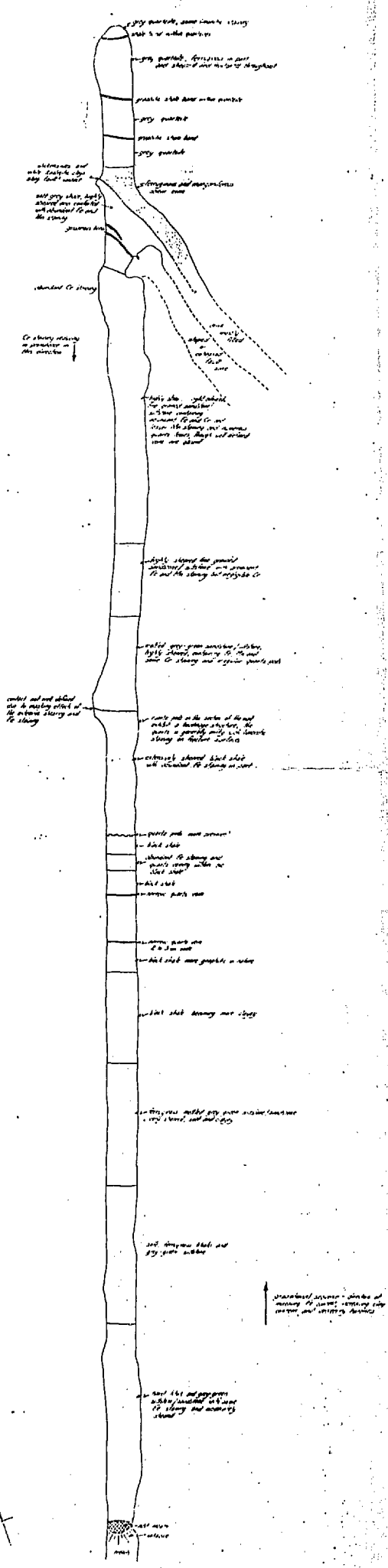
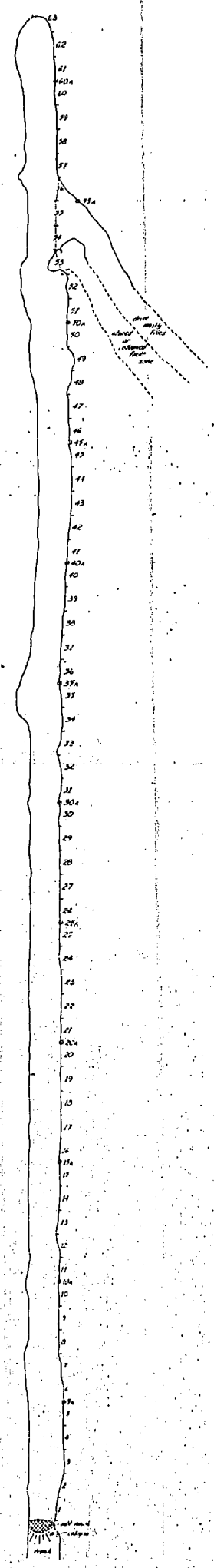


Fig 26

SALISBURY HILL - 'DYKE TUNNEL'

5 of 6





'DYKE TUNNEL' referred to as Twelvetrees report of 1903

SCALE 1:100

sampled and continuously mapped by DAH and DAE on 6th May 1991

SAMPLING PLAN

all sample numbers prefixed by SDT-

Annotated channel samples over 1m interval along the eastern wall only, with vertical channel samples at every 5m interval (marked by a red arrow on the image)

samples analysed for: Au, As, Ag, Cu, Pb, Zn, Cr, Ni and Mn

(41)

1891-78

Fig 17

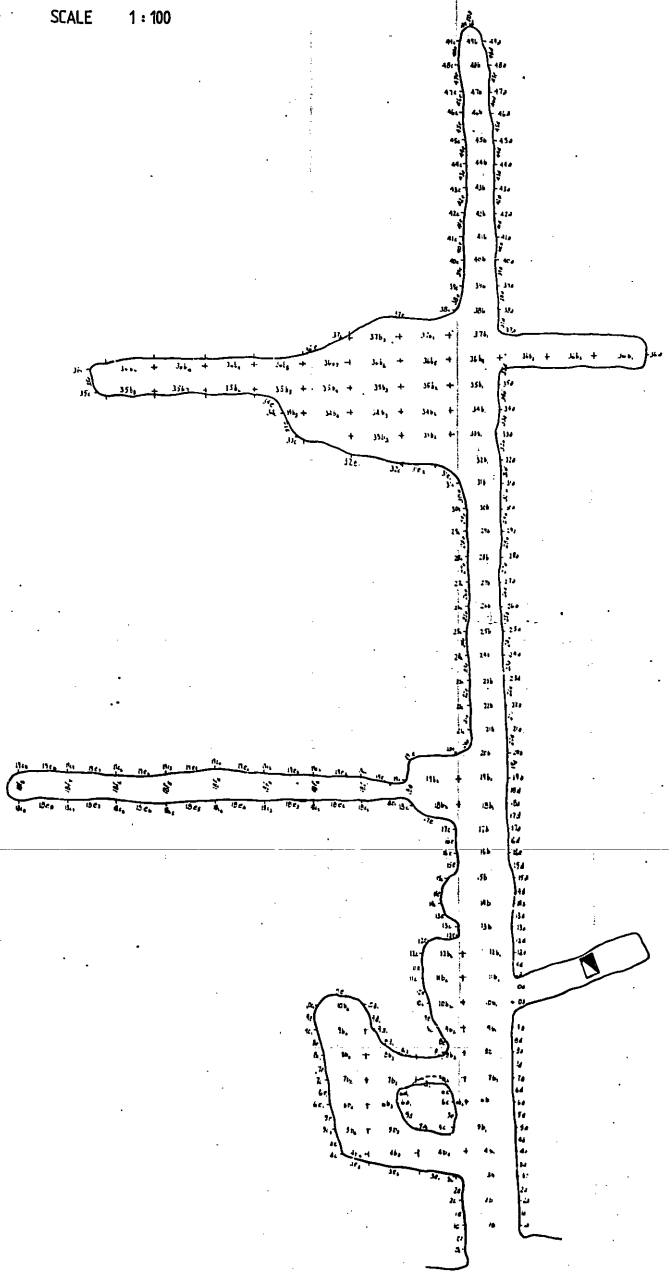
6882

FIG 28:

SALISBURY HILL

POWERLINE ADIT – SAMPLE LOCATIONS

SCALE 1 : 100



6888

Fig 23

9.4 DIAMOND DRILLING

Between 1970 and 1973 the Tasmanian Department of Mines drilled two diamond drill holes in the vicinity of the Salisbury Mine. The first hole, DDH S.1., was situated 30 metres north of the Salisbury shaft and drilled to a depth of 177.6 metres at an inclination of 50 degrees to the west. This hole intersected only minor sulphide free quartz veining within the Cabbage Tree sediments.

The second hole, DDH S.2., was collared 30 metres south of the shaft and similarly angled to the west, it was drilled to a depth of 233 metres and intersected numerous quartz and quartz-siderite veins many of which were sulphide bearing. Neither of these holes was ever sampled by the Mines Department, however Amax sampling over several intervals showed gold values to be generally 1ppm.

In view of the fact that most of the quartz veins observed to date dip to the west, holes drilled from the western side of the hill and angled to the east may have more accurately tested the veining in the area.

9.5 WORK PROGRAMME

A gridding, soil sampling and mapping program was initiated over the southern part of the Authority early in 1980, however this was later suspended due to sampling difficulties. Deep alluvial cover and recent deposits of poorly consolidated scree material on the flanks of Salisbury Hill render soil sampling a relatively ineffectual exploration tool in this area. It is quite possible that these recent deposits may be up to 40m thick on some sections of the hill. Surface sampling is also frustrated by contamination from the old mine workings.

In view of these sampling problems it was decided that exploration should centre on the reassessment of existing workings. The Powerline Adit was mapped and extensively channel sampled over 2m intervals producing assays of up to 12 ppm Au, with 25% of samples carrying greater than 1 ppm. The Salisbury Dyke Tunnel was also sampled although gold values were generally low (0.03 ppm).

The Duchess of York workings were successfully opened by an excavator beyond a major collapse, however a second collapse 43m from the excavation rendered sampling impossible. An attempt to excavate the Victoria Adit was also made, but the hard ground encountered in from the collapse could not be penetrated by two excavators, and the attempt was abandoned.

As yet only the southern part of the Authority has been examined and reconnaissance work over the remainder of the area is required to determine the extent of the old workings and hopefully give some guide as to the mineralization along the hill. No mention is made of this area in any of the old reports, however there seems little evidence to suggest that it should not also be mineralized, and possibly only the deep Recent cover has protected it from earlier mining.

Several geophysical traverses across the hill, possibly employing a portable EM technique, could prove valuable to establish the depth and extent of the Recent deposits, particularly those on the eastern flank of the ridge.

Sampling in areas of greatest potential would probably be most effectively achieved by short diamond drill holes and in areas of continuing interest, pattern drilling programmes would ultimately be initiated.

The final aim of such a work programme would be to delineate areas of mineralization, probably low grade, which would lend themselves to open cut extraction and which could be mined in conjunction with the main Beaconsfield mine.

REFERENCES

Twelvetrees, W.H. 1903 "report on the Mineral Resources of the Districts of Beaconsfield and Salisbury." Mines Dept., Tasmania.

GEE, R.D. and Legge, P.J. 1979 "Geological Atlas 1 Mile Series, Zone 7, Sheet no. 30 (8215) Beaconsfield." Explan. Rep. Dept. Mines, Tasmania.

063

893069

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area LAUNCESTON Property or Project Salisbury Hill - DDH S1 (Company Name)

Date 29 August 1980 Collected by DAH + [illegible] Sample Batch No. Analyses by Analabs

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Cu	Pb	Zn	Ag	Au	As	Cr	Se	Sb
1-1	Black quartzite containing pyrite stringers	303'0" to 303'3"	65	20	50	3.5	x	55	30	x	[illegible]
-2	Quartz and siderite vein in grey quartzite	335'1" to 335'6"	10	20	15	x	x	6	10	x	[illegible]
-3	Quartz and siderite in grey quartzite	REDRILL: 325'1" to 325'5"	5	5	35	x	x	30	150	x	[illegible]
-4	15cm vuggy quartz and siderite vein in conglomerate (trending ~5° to core axis)	REDRILL: 341'3" to 341'6"	5	10	30	x	0.02	16	200	x	[illegible]
-5	Quartz and siderite vein in grey quartzite	381'8" to 382'2"	5	5	35	x	x	5	150	x	[illegible]
-6	Quartz and siderite vein	455'3" to 455'6"	5	x	10	x	x	1	175	x	[illegible]
-7	Quartz and siderite vein in dark siltstone	459'10" to 460'2"	5	5	120	x	x	90	20	x	[illegible]
-8	Carbonate rock - siliceous dolomite	485'5" to 485'9"	5	x	125	x	0.009	460	2250	x	[illegible]
-9	Pink dolomite with quartz and siderite veining and possible magnetite?	507'11" to 508'2"	x	10	50	x	x	27	1200	x	[illegible]
-10	Red siliceous dolomite	509'6" to 509'9"	x	x	35	x	x	8	550	x	[illegible]
-11	No core - chips of dark grey sludge	527'2" to 528'8"	50	20	455	x	0.017	100	130	x	[illegible]
-12	Chips of pebbly mudstone and conglomerate	528'10" to 535'1"	15	5	45	x	x	5	450	x	[illegible]
-13	Sheared mudstone with fuchsite on shear planes	547'5" to 547'6"	20	15	70	x	x	5	650	x	[illegible]
2-1	Sulphide rich conglomerate with 2mm wide quartz vein (~30° to core axis)	162'10" to 163'3"	15	30	30	x	0.233	50	250	x	[illegible]
-2	Dark quartzite/conglomerate with bleached patches and quartz veins (1-2cm) containing sulphides	167'8" to 168'0"	5	5	15	x	x	7	430	x	[illegible]
-3	Quartzite/conglomerate with sulphides on fracture surfaces and in narrow quartz veins	170'6" to 170'10"	5	55	30	x	0.033	39	250	x	10
-4	Quartz vein (15cm wide ~20° to axis) containing sulphides in dark quartzite	174'3" to 174'6"	5	30	20	x	0.043	48	230	x	10
-5	Quartz vein (2cm wide) with abundant pyrite in dark quartzite with minor sulphides	185'9" to 186'4"	15	10	25	0.5	0.217	750	280	x	25
-6	Dark quartzite with occasional sub-rounded quartz pebbles and pyrite and quartzite fractures	195'5" to 196'0"	15	5	35	0.5	x	3.2	200	x	20
-7	Vuggy quartz vein containing pyrite in quartzite/conglomerate	204'7" to 205'0"	20	5	30	1.0	0.017	42	260	x	25
-8	Vuggy quartz vein containing pyrite in dark conglomerate	221'8" to 222'0"	15	20	130	0.5	x	49	330	x	25
2-9	Quartz vein with sporadic sulphides in dark conglomerate and lighter sandstone	260'1" to 260'4"	15	x	55	x	x	30	115	x	15

FORM 2

064

893070

SAMPLE RECORD

AMAX IRON ORE CORPORATION
MINERALS EXPLORATION DIVISION

White Office
Yellow Project Geologist
Green Samples

1:250,000 Sheet Area LAUNCESTON Property or Project Salisbury Hill DDH 82 (Mines Dept)

Date 29 August Collected by DAH & [illegible] Sample Batch No. Analyses by [illegible]

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Cu	Pb	Zn	Ag	Au	As	Cr	Se	Sb
2-10	Vuggy crystalline quartz vein with sulphides in dark conglomerate & recessive pyrite	272'0" to 272'4"	40	10	85	<	0.175	8	270	×	<
-11	Sulphide filled shears and stringers in dark conglomerate	281'10" to 282'1"	5	10	20	0.5	0.225	46	230	×	15
-12	Quartz containing minor sulphide in dark conglomerate with some fuchsite?	69.71m to 69.81m	10	×	10	×	×	4	430	×	8
-13	Quartz and siderite vein in light grey silty sandstone	92.13m to 92.51m	15	10	30	×	0.133	1800	250	×	6
-14	Vuggy crystalline quartz vein containing pyrite in black silty quartzite	103.60m to 102.81m	10	10	15	×	×	30	235	×	9
-15	Crystalline quartz and siderite vein in dark quartzite/conglomerate	120.36m to 120.50m	5	×	20	×	0.017	26	360	×	15
-16	Crystalline quartz vein (3.5cm wide) containing siderite and minor pyrite in dark conglomerate	132.06m to 132.16m	10	×	10	×	0.056	24	420	×	8
-17	Quartz vein containing siderite and later sulphides in dark conglomerate	148.18m to 148.30m	355	605	2650	1.5	4.75	380	525	×	20
-18	Quartz vein containing siderite, minor pyrite and limonite blebs in dark quartzite	157.84m to 158.03m	10	10	50	0.5	0.042	28	330	×	15
-19	Dark conglomerate	168.07m to 168.14m	10	5	20	0.5	<	13	210	<	×
-20	Dark conglomerate	171.92m to 171.99m	155	×	55	×	×	7	2200	3	×
-21	[illegible]ite and siderite in conglomerate	172.80m to 173.00m	10	×	25	×	×	17	850	×	×
-22	Quartz in black siltstones	201.10m to 201.23m	5	×	15	×	×	2	130	×	×
-23	Quartz veins and stringers in brecciated black siltstones	209.70m to 209.83m	5	70	185	×	×	230	120	×	×
-24	Mottled pink silicified dolomite	213.39m to 213.51m	×	5	40	×	×	9	1400	×	15
-25	Serpentinite	222.91m to 223.04m	×	5	35	×	×	3	560	×	7
-26	Chip sample of black graphitic shales	229.22m to 231.17m	50	25	125	×	×	6	20	×	6
-1	Siderite and sulphide rich quartz vein within dark quartzite	Beaconsfield DDH 84 approx 1723'	45	45	20	×	1.83	380	75	×	15

FORM 3

065

893071

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area Launceston Property or Prospect Salisbury Hill - Power line Adit

Date: August 1980 Collected by [illegible] Sample Batch No Analyses by: [illegible]

Power Line Adit

Sample No	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Mn	Comments
0 c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
0 e			0·15	320	65	130	200	1·0	550	
1 a	rotted shear zone - adit wall		0·037	420	45	345	155	0·5	350	
1 b	shear zone cross adit - sample		×	610	30	30	175	0·5	340	
1 c	rotted shear zone - adit wall		0·375	720	65	155	125	1·0	500	
1 d	brecciated shear zone - adit wall		0·042	900	35	410	510	1·0	670	
1 e	brecciated shear zone - adit wall		0·075	200	30	145	95	0·5	110	
2 a			0·053	700	55	410	475	1·0	320	
2 b			0·042	700	30	90	220	×	175	
2 c			0·275	460	40	160	170	0·5	145	
2 d.			0·042	500	20	110	235	×	225	
2 e			0·063	260	25	125	105	0·5	70	
3 a			1·75	1500	160	490	275	1·5	1350	
3 b			×	210	15	45	90	0·5	160	
3 c			0·506	670	70	170	175	1·0	150	
3 d			0·217	600	30	95	170	0·5	645	
3 e1			0·383	450	50	90	255	0·5	420	
3 e2			0·192	220	30	140	90	0·5	295	
3 3			0·033	310	45	900	140	1·0	340	
4 a			3·08	650	75	205	190	1·0	705	
4 b1			0·050	430	30	145	185	0·5	175	
4 b2			0·025	510	25	125	285	0·5	295	
4 b3			0·017	150	20	380	155	1·0	120	
4 b4			0·033	920	75	800	690	0·5	175	
4 c			1·26	250	50	405	95	0·5	210	
4 d			0·575	640	20	175	260	0·5	200	
4 d1			0·925	1000	75	260	130	1·0	410	
4 e			0·033	340	75	1000	135	0·5	235	
5 a			11·83	600	60	355	315	1·5	515	
5 a1			0·325	1600	130	620	605	0·5	415	
5 b1			0·050	800	55	405	320	1·0	180	
5 b3			0·050	250	30	190	150	0·5	90	
5 b4			0·025	310	20	630	245	0·5	140	
5 c			1·25	700	70	210	230	0·5	315	
5 c1			0·017	240	30	275	115	0·5	110	
5 d			0·533	1400	55	730	345	1·0	500	

M.P. - FORM 3

066

893072

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area

Property or Prospect

Date

Collected by

Sample Batch No

Analyses by

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	Ag	Cu	Pb	Zn	Mo	Comments
5 d1									
5 e									
5 e1									
6 a									
6 a1									
6 b									
6 b2									
6 b3									
6 b4									
6 c									
6 c1									
6 d									
6 d1									
6 e									
6 e1									
7 a									
7 a1									
7 b1									
7 b2									
7									
7 b4									
7 c									
7 c1									
7 d									
7 d1									
7 e									
7 e1									
8 a									
8 b1									
8 b2									
8 b3									
8 b4									
8 c									
8 c1									
8 d									
8 d1									

067

893073

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area

Property or Project

Date: Collected by: Sample Batch No. Analyses by:

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Mo	Comments
8c			0.517							
8c1			783	560	70	275	130	1.5	135	
9a			7.00	900	65	130	185	2.5	250	
9a1			0.668		55	175				
9b1			0.054	340	50	40	105	×	170	
9b2			0.795	450	55	220	95	0.5	340	
9c			0.175	670	65	270	165	1.0	170	
			3.09	700	100	420	105	1.0	195	
9d			0.133	400	20	80	250	0.5	170	
9d1			0.542	310	75	295	95	0.5	215	
9e			0.150	700	70	165	145	1.0	280	
9e1			1.42	300	45	165	55	0.5	220	
10a			—	900	50	250	340	1.0	225	
10a1			0.403	110	20	210	25	0.5	70	
10b1			0.042	450	20	110	370	×	175	
10b2			0.016	340	35	35	145	×	120	
10b4			0.325	550	110	360	170	1.0	290	
10c			1.35	700	75	165	190	0.5	260	
10c1			1.75	460	220	295	105	×	145	
10d			0.117	430	25	130	305	0.5	110	
10e			0.075	610	60	125	140	1.0	480	
10e1			4.08	530	95	325	105	1.0	205	
11a			0.317	500	45	300	215	1.0	170	
11b1			0.075	850	40	250	735	0.5	300	
11b2			0.025	320	30	85	170	×	175	
11c			0.058	670	35	50	225	0.5	455	
11d			0.092	460	35	115	255	0.5	70	
11e			0.033	610	35	125	205	0.5	345	
12a			0.358	900	35	285	345	1.0	215	
12b1			0.083	1200	50	225	515	0.5		
12b2			0.333	510	40	75	230	×	245	
12c			1.01	850	95	190	180	0.5	480	
12d			0.175	800	55	300	250	1.0	165	
12c1			0.042	700	35	110	555	0.5	265	
12a2			0.636	820	30	165	332	1.0	1000	
13a			1.04	900	70	260	315	1.0	200	
13b			0.142	540	20	195	350	×	80	

FORM 3

068

893074

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geol
Green: Sampler

1:250,000 Sheet Area

Property or Prospect

Date: August 1977 Collected by: Sample Batch No Analyses by:

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
13c			0.033	530	40	170	355	0.5	80
13d			0.175	500	55	320	495	1.0	120
13e			0.033	1000	65	345	675	1.0	205
14a			0.317	130	20	125	70	0.5	75
14b			0.067	900	90	230	710	×	355
14c			0.454	610	70	100	405	0.5	510
14d			0.100	1300	80	385	770	2.0	250
14e			0.108	750	55	225	500	1.0	315
15a			1.03	260	20	130	80	×	85
15b			0.004	220	10	155	140	×	55
15c			0.317	1000	50	255	455	0.5	160
15d			0.017	160	15	335	95	0.5	65
15e			0.042	130	15	70	80	0.5	75
16a			1.05	210	25	125	60	0.5	80
16b			×	240	10	100	105	×	50
16c			0.117	530	25	95	100	0.5	60
16d			0.008	110	10	115	95	0.5	100
16e			0.025	170	15	85	85	0.5	115
17a			2.00	310	30	140	95	0.5	80
17b			×	130	10	70	85	×	50
17c			0.208	400	85	115	110	0.5	65
17d			0.008	130	10	155	65	0.5	50
17e			0.033	110	15	70	80	0.5	90
18a			0.092	320	60	215	100	0.5	145
18b			0.016	300	25	190	240	×	210
18c			0.008	310	30	140	135	×	105
18C			1.11	1500	35	255	900	1.0	170
18C			0.217	670	40	140	220	×	100
18C			0.375	670	25	115	285	0.5	150
18C			2.08	340	105	40	110	×	105
18C			2.42	420	65	80	170	×	105
18C			0.150	620	80	340	160	0.5	85
18C			0.125	120	20	60	200	0.5	65
18C			0.008	50	10	20	130	1.0	45
18C			0.042	340	25	65	275	×	90
18d			0.067	170	15	100	35	0.5	70

AP...FORM 2

069

893075

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

1:250,000 Sheet Area: [illegible] Property or Prospect: [illegible]

Date: [illegible] Collected by: [illegible] Sample Batch No: Analyses by: [illegible]

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
18e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18e1			[illegible]	410	30	95	175	×	115
18e2			0.15	250	20	35	130	×	105
18e3			0.33	450	80	41	130	×	115
18e4			0.33	250	40	135	110	×	95
18e5			0.42	270	20	115	160	×	85
18e6			0.45	550	60	950	270	×	70
18e7			0.017	50	15	70	185	^	65
18e8			×	80	15	30	220	0.5	95
18f1			3.58	170	25	60	35	×	90
18f2			2.63	350	75	130	115	×	115
18f3			0.067	340	30	25	350	×	235
18f4			0.067	320	30	10	410	×	70
18f5			0.025	550	45	295	290	×	125
18f6			0.017	650	35	90	445	^	265
18f7			0.025	110	10	15	175	×	90
18f8			0.025	150	15	40	265	×	65
19a			0.475	140	30	150	80	0.5	110
19b1			0.002	200	15	100	70	0.5	120
19b2			×	180	15	55	35	×	55
19			0.133	250	20	85	70	0.5	60
19c1			1.23	250	35	85	130	0.5	95
19c2			3.00	320	55	55	105	×	105
19c3			0.742	2400	280	180	490	×	130
19c4			0.633	270	45	35	235	×	85
19c5			0.075	240	35	15	200	0.5	100
19c6			0.017	230	35	70	230	^	80
19c7			0.042	180	20	30	175	^	75
19c8			0.025	90	20	60	200	×	85
19d			0.025	210	15	155	185	0.5	80
19e			0.058	340	30	125	55	1.0	115
19e1			×	250	35	65	155	1.0	75
19e2			0.183	210	20	60	190	0.5	95
19e3			0.317	340	55	60	155	1.0	100
19e4			2.33	550	70	70	280	0.5	115
19e5			0.250	450	50	25	335	0.5	155

FORM 3

070

893076

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White — Office
Yellow — Project Geologist
Green — Sampler

1:250,000 Sheet Area

Property or Prospect

Date:

Collected by:

Sample Batch No.

Analyses by:

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
19a			0.03	40	5	420	305	1.0	55
19c			0.054	170	15	70	145	1.0	95
19d			×	140	20	30	145	0.5	60
20a			0.155	130	25	160	175	0.5	95
20b			×	120	15	225	0.5	×	70
20c			0.017	220	40	140	110	0.5	70
20d			0.017	125	10	125	50	0.5	100
20e			0.025	320	30	95	75	1.0	55
21			×	330	30	235	155	1.0	250
21b			×	230	15	315	165	0.5	150
21c			×	130	10	125	1.0	0.5	95
21d			0.033	530	30	580	210	0.5	255
21e			0.035	410	25	900	150	1.0	140
22a			0.017	270	15	125	120	0.5	230
22b			0.008	580	25	300	250	0.5	240
22c			×	35	5	150	60	0.5	60
22d			×	55	5	180	90	0.5	65
22e			0.017	100	5	275	65	0.5	45
23a			0.242	140	15	160	145	1.0	95
23b			0.008	190	10	310	305	×	195
23c			0.025	110	10	90	75	0.5	105
23d			0.042	280	10	585	155	0.5	80
23e			0.083	410	15	355	175	1.0	100
24a			8.92	320	20	220	90	2.5	85
24b			×	210	10	355	195	×	185
24c			0.008	120	10	265	275	0.5	140
24d			0.008	140	10	290	215	0.5	80
24e			0.025	190	10	350	170	1.0	40
25a			0.329	230	20	300	45	1.0	90
25b			0.030	64	5	450	45	×	30
25c			0.008	145	5	555	355	0.5	70
25d			0.160	210	15	335	40	0.5	50
25e			0.035	80	5	450	90	0.5	30
26a			0.012	170	20	145	45	1.5	60
26b			0.033	75	5	210	200	×	55
26c			0.008	60	5	170	35	×	40

1 OHM 2

071

893077

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area [illegible] Property or Prospect [illegible]

Date [illegible] Collected by [illegible] Sample Batch No. [illegible] Analyses by [illegible]

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26 d			[illegible]	55	[illegible]	[illegible]	[illegible]	0·5	35
26 e			0·092	150	[illegible]	300	0·5	1·0	30
27a			2·067	65	10	150	30	0·5	70
27b			×	45	5	335	30	×	25
27c			0·067	240	25	250	465	0·5	55
27d			0·017	120	10	250	170	0·5	50
27e			0·117	190	10	110	70	1·0	40
26			0·133	320	20	645	415	0·5	75
28 b			×	180	10	200	125	×	40
28 c			0·006	210	15	185	160	0·5	40
28d			0·092	80	5	210	70	0·5	45
28e			0·017	140	10	255	35	1·0	40
29a			0·617	310	55	580	45	0·5	60
29 b			0·025	110	10	400	50	×	30
29c			×	70	10	220	30	0·5	30
29d			0·100	27	5	235	15	0·5	35
29e			0·017	50	5	225	60	0·5	35
30a			1·83	90	10	185	30	0·5	50
30 b			0025	58	5	180	30	×	25
30 c			0·042	48	10	175	45	0·5	35
30 d			0·075	53	10	170	55	0·5	40
30 [illegible]			0·017	38	5	200	60	0·5	35
31a			4·00	130	25	130	135	×	55
31 b			0·003	170	25	315	140	×	30
31 c			0·083	80	10	105	35	×	50
31 d			0·025	150	30	145	120	0·5	45
31e1			0·067	140	15	115	100	1·0	55
31e2			0·042	140	10	115	130	1·0	70
32a			2·08	170	40	140	60	0·5	55
32 b			0·025	90	10	210	60	×	20
32 c			0·500	85	10	160	20	×	35
32 d			0·008	55	15	90	35	0·5	35
32e			0·017	55	5	200	20	1·0	30
33a			1·92	240	35	160	100	0·5	65
33 b1			0·092	190	25	150	115	0·5	55
33 b2			0·016	250	10	270	155	0·5	25

M.A. FORM 3

072

893078

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geolo...
Green: Sampler

1:250,000 Sheet Area [illegible] Property or Prospect [illegible]

Date: [illegible] Collected by: [illegible] Sample Batch No. Analyses by: [illegible]

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
33b2			0.07	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
33c			0.017	90	10	165	40	0.5	40
33d			0.175	110	10	115	25	0.5	50
33e			0.024	220	15	275	60	0.5	50
34a			0.142	300	35	120	195	0.5	175
34b			0.075	170	25	540	115	0.5	75
34b2			0.016	130	10	220	80	0.5	45
34b3			0.033	270	25	645	245	1.0	90
34b4			0.005	130	10	210	110	0.5	50
34b5			0.016	85	10	155	25	0.5	40
34c			0.092	260	15	125	30	0.5	50
34d			0.150	45	5	60	5	0.5	20
34e			0.008	90	10	90	25	0.5	55
35a			0.692	100	10	25	110	x	85
35b1			0.167	220	25	195	55	0.5	35
35b2			0.217	260	35	260	35	0.5	40
35b3			0.100	230	15	60	45	0.5	55
35b4			0.108	470	35	170	65	0.5	65
35b5			0.008	190	25	200	70	0.5	70
35b6			0.275	340	35	210	55	0.5	70
35b7			0.233	450	55	100	75	0.5	65
35b8			0.083	340	25	250	80	0.5	85
35c			0.142	510	40	230	115	0.5	80
35d			0.333	140	10	45	20	0.5	45
35e			0.070	340	35	320	85	0.5	65
36a			0.025	38	5	35	20	0.5	70
36b1			0.005	27	5	60	10	0.5	40
36b2			x	22	5	30	5	10	40
36b3			0.159	90	10	90	75	0.5	95
36b4			0.067	60	5	60	10	x	50
36b5			0.217	120	15	120	35	0.5	40
36b6			1.07	210	25	85	60	0.5	40
36b7			12.00	350	40	115	50	1.5	30
36b8			3.33	400	50	120	60	0.5	50
36b9			4.08	900	50	575	350	10	105
36b10			1.29	510	100	220	115	10	55

F.-FORM 2

073

893079

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area [illegible] Property or Project [illegible]

Date [illegible] Collected by: [illegible] Sample Batch No [illegible] Analyses by [illegible]

Sample No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cu	Pb	Zn	Ag	Mn	Comments
36b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	50	
36c			[illegible]	1100	160	[illegible]	[illegible]	[illegible]	[illegible]	
36d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35	
36e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37b2			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37b3			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
37e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
38a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
38b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
38c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
38d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
38e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
39a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
39b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
39c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
39d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
39e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
40a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
40b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
40c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
40d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
40e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
41a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
41b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
41c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
41d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
41e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
42a			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
42b			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
42c			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
42d			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
42e			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

AP... FORM 3

074

893080

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

1:250,000 Sheet Area

Property or Prospect

Date Collected by Sample Batch No Analyses by

Sample No.	Description	Location	Analyses (ppm unless otherwise stated)						Comments
43a			0.125	34	5	30	60	0.5	45
43b			0.05	30	5	90	25	0.5	30
43c			0.500	55	10	20	25	0.5	30
43d			0.017	22	5	40	5	0.5	35
43e			0.008	41	5	30	20	x	40
44a			0.005	23	5	50	15	x	50
44b			0.005	36	5	70	40	0.5	25
44c			0.042	40	5	60	25	0.5	25
44d			0.005	18	5	70	15	x	25
44e			0.005	41	5	25	20	x	45
45a			0.005	17	5	20	10	0.5	55
45b			0.050	59	5	30	110	0.5	50
45c			0.225	49	5	70	35	x	20
45d			0.017	14	x	35	20	0.5	20
45e			x	49	5	80	15	x	35
46a			x	10	x	35	10	x	50
46b			x	21	5	45	15	0.5	25
46c			0.017	35	5	25	25	x	35
46d			x	14	x	35	10	x	30
46e			x	55	15	50	80	x	60
47a			x	13	5	65	5	x	20
47b			x	23	5	60	15	0.5	25
47c			0.008	250	25	155	115	0.5	100
47d			x	8	x	25	5	0.5	30
47e			x	26	5	75	25	x	55
48a			x	3	x	20	5	0.5	15
48b			x	7	x	15	5	0.5	35
48c			x	7	x	35	5	0.5	30
48d			x	3	x	25	5	0.5	15
48e			x	8	5	40	10	x	5
49a			x	2	x	20	x	x	10
49b			x	6	x	15	5	0.5	20
49c			x	6	x	25	x	1.0	20
49d			x	2	x	20	5	0.5	15
50a			x	2	x	10	5	x	15

FORM 2

075

893081

SAMPLE RECORD

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Samples

1:250,000 Sheet Area Launceston — Property Name Salisbury Hill Dyke Tunnel

Date 8th May — Collected by D.F. and D.W. — Sample Batch No SDT — Analyses by Analab

Salisbury Dyke Tunnel

Sample No	Description	Location	Analyses (ppm unless otherwise stated)								
			Au	Ag	Cu	Pb	Zn	Sb	Sr	Ni	[illegible]
DT 1			x	17	65	65	185	x	390	[illegible]	19
2			x	14	65	60	130	x	290	[illegible]	22
3			x	13	60	55	125	x	65	[illegible]	13
4			x	9	60	60	100	x	30	[illegible]	[illegible]
5			x	11	60	45	90	x	55	100	56
5A			0.008	13	50	45	110	0.5	10	130	13
6			x	8	50	35	105	x	25	100	[illegible]
7			x	5	45	30	115	x	15	90	[illegible]
8			x	6	60	25	105	x	20	90	[illegible]
9			x	4	110	15	35	x	15	70	24
10			x	5	40	20	60	x	20	55	[illegible]
10A			x	9	35	30	50	0.5	10	50	[illegible]
11			x	4	30	20	45	x	15	50	[illegible]
12			x	3	35	20	70	x	15	50	[illegible]
13			x	3	25	25	55	0.5	10	60	[illegible]
14			x	4	35	20	60	x	15	75	[illegible]
15			x	43	25	65	220	x	390	670	[illegible]
15B			0.008	32	30	70	175	x	230	545	[illegible]
DT 16			x	30	35	10	170	x	630	885	[illegible]
17			x	18	35	15	125	x	525	850	[illegible]
18			x	16	35	20	115	x	435	780	[illegible]
19			x	17	40	5	160	x	420	450	[illegible]
20			x	37	50	15	75	x	50	170	[illegible]
20A			0.008	33	40	25	130	0.5	200	570	[illegible]
21			x	37	35	30	50	x	25	70	[illegible]
22			x	19	40	30	85	0.5	25	95	[illegible]
23			x	12	35	25	60	0.5	20	55	[illegible]
24			0.008	8	45	20	65	0.5	20	60	[illegible]
25			x	8	35	25	65	x	25	[illegible]	[illegible]
25A			0.008	21	35	20	85	x	10	90	13
26			x	7	20	25	90	0.5	20	75	[illegible]
27			x	8	30	25	100	0.5	25	[illegible]	[illegible]
28			x	6	35	25	95	0.5	30	90	[illegible]
29			x	9	35	30	90	0.5	20	75	[illegible]
30			x	8	70	35	210	0.5	20	120	[illegible]
30A			0.008	11	55	25	145	0.5	10	90	42

A.M. - FORM 3

076

893082

AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White Office
Yellow Project Geologist
Green Sampler

AMPLE RECORD

50000 Sheet Area Lancaster Property or Project Salisbury Hill Dyke Tunnel

11th May 1981 Collected by DOC and DOH Sample Batch No. SDT Analyses by Analabs

le No.	Description	Location	Analyses (ppm unless otherwise stated)								
			Au	Ag	Cu	Pb	Zn	Mg	Co	Ni	Mn
31			x	7	15	40	225	0.5	15	110	400
32			0.008	27	35	25	50	0.5	35	60	45
33			0.033	97	25	25	60	0.5	15	70	3
34			0.008	29	25	40	45	0.5	20	60	3
35			x	90	15	30	65	0.5	15	100	625
35A			x	220	20	30	70	0.5	10	120	345
36			x	120	40	30	125	0.5	25	185	1350
37			x	540	55	10	130	x	630	335	1850
38			x	190	45	15	135	x	615	450	605
39			x	66	40	15	95	x	720	390	460
40			x	98	45	15	95	x	460	465	830
40A			0.008	200	50	10	115	x	505	530	1850
41			x	36	70	25	90	0.5	385	860	4000
42			0.008	16	70	30	70	0.5	300	560	1050
43			x	63	55	20	100	1.0	815	410	2450
44			x	370	65	20	105	1.5	535	460	2900
45			x	190	65	30	100	1.0	295	515	1250
45A			x	310	75	45	100	x	255	525	2100
T-46			x	310	65	25	80	0.5	170	465	1100
47			x	800	115	30	120	1.5	290	610	2500
48			x	800	110	35	130	1.0	340	410	2400
49			x	550	70	25	125	1.0	875	375	2950
50			x	1000	90	25	150	1.0	525	385	3150
50A			0.009	860	65	x	120	x	720	560	3500
51			x	1150	45	20	105	1.0	930	545	2350
52			x	900	70	30	100	0.5	715	605	2050
53			x	88	90	50	130	0.5	395	440	1700
54			0.008	300	185	105	285	0.5	540	525	4150
55			0.017	460	115	25	230	1.0	305	415	6900
55A			0.008	230	180	30	300	x	450	820	1.4%
56			x	290	215	25	340	x	515	910	1.7%
57			0.025	310	150	60	235	0.5	1250	930	1.5%
58			0.008	32	25	35	50	1.0	215	250	450
59			0.008	25	15	50	25	0.5	90	170	155
60			0.008	17	25	45	15	0.5	235	335	230
60A			0.008	27	15	15	5	0.5	95	115	130
61			x	15	10	15	5	1.0	40	130	65
62			x	21	10	5	20	0.5	115	200	105
63			0.008	21	10	x	20	x	60	215	90

077

893083

AMPLE RECORD

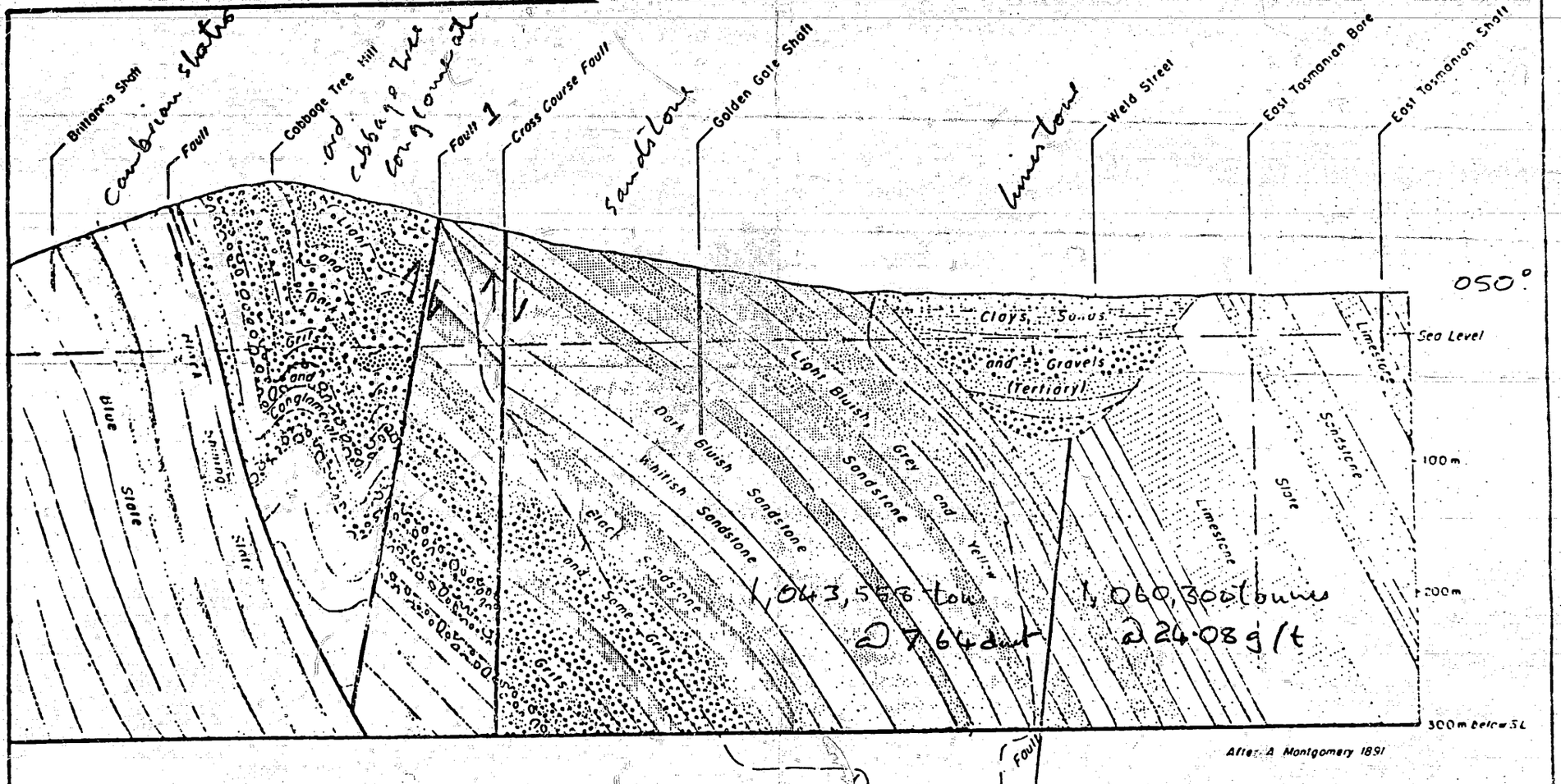
AMAX IRON ORE CORPORATION
(MINERALS EXPLORATION DIVISION)

White: Office
Yellow: Project Geologist
Green: Sampler

50,000 Sheet Area Launceston Property or Prospect Salisbury Hill A to P 6/80

e: 21st April 1981 Collected by: D.A.H. & D.A.E. Sample Batch No. SH Analyses by: Analabs

ple No.	Description	Location	Analyses (ppm unless otherwise stated) Au	As	Cr	Ni	Cu	Pb	Zn	Ag
1	Creamy clay from fault zone	in Salisbury Hill adit (Dyke Tunnel)	x	97	35	450	40	30	35	1.0
2	Quartz possible Gladstone reef		0.03%	20	170	215	20	30	20	x



DRAWN	REVISIONS				NOTES
TRACED	No	Date		Appd	
APPROVED					

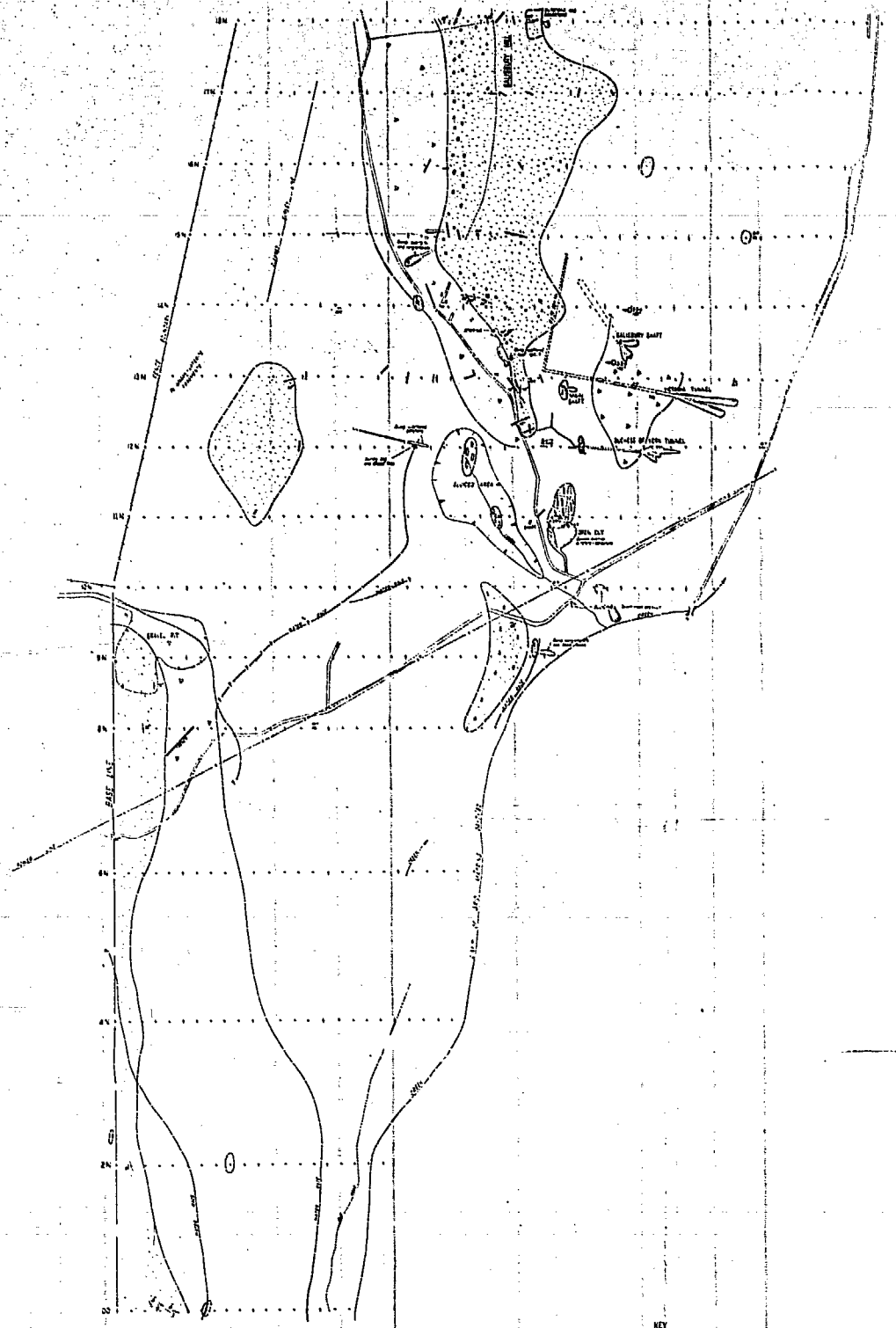
Australian Groundwater Consultants Pty Limited
Geohydrologists and Engineers

ALLSTATE EXPLORATIONS N.L.
HYDROGEOLOGICAL APPRAISAL
of
TASMANIA GOLD MINE
Beaconsfield Tasmania
GEOLOGICAL SECTION
at Cabbage Tree Hill

DRG No 3

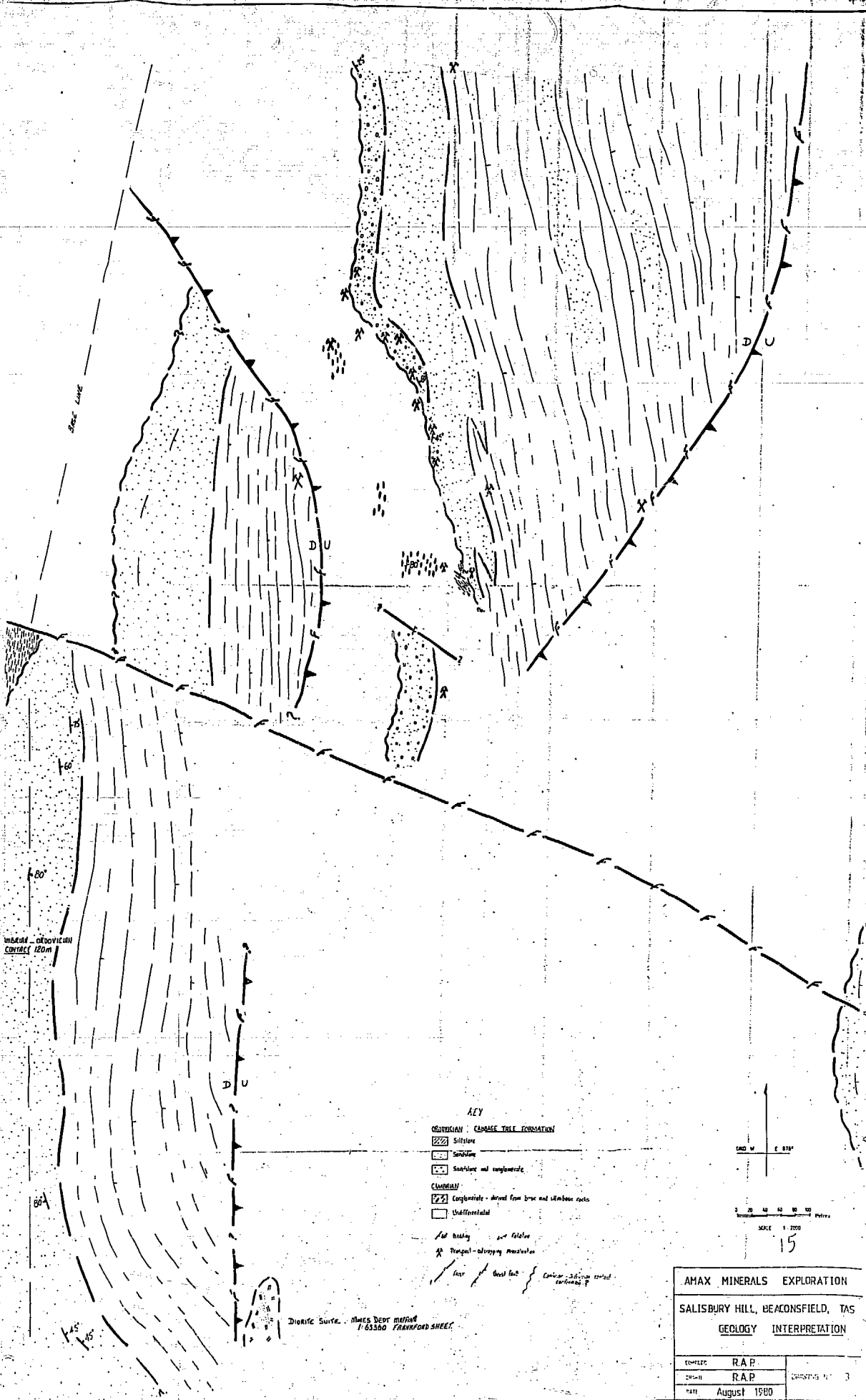
82-1681

Fig (19) 6884

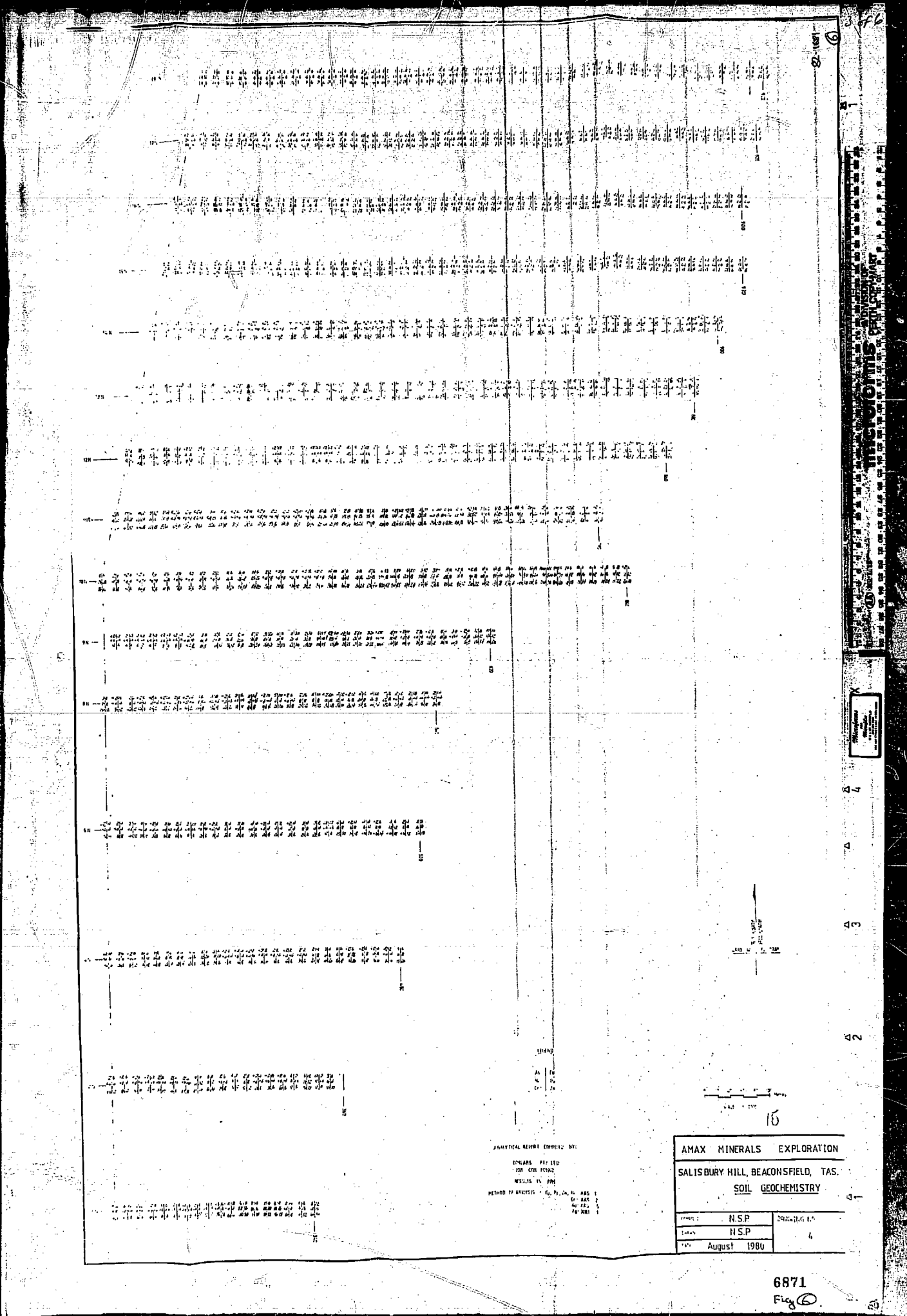


AMAX MINERALS EXPLORATION
SALISBURY HILL, BEACONSFIELD, TAS.
GEOLOGY FACT PLAN

Fig 5
6870



AMAX MINERALS EXPLORATION	
SALISBURY HILL, BEACONSFIELD, TAS	
GEOLOGY INTERPRETATION	
COMPILED R.A.P.	
DRAWN R.A.P.	DRAWING No. 3
DATE August 1980	



AMAX MINERALS EXPLORATION

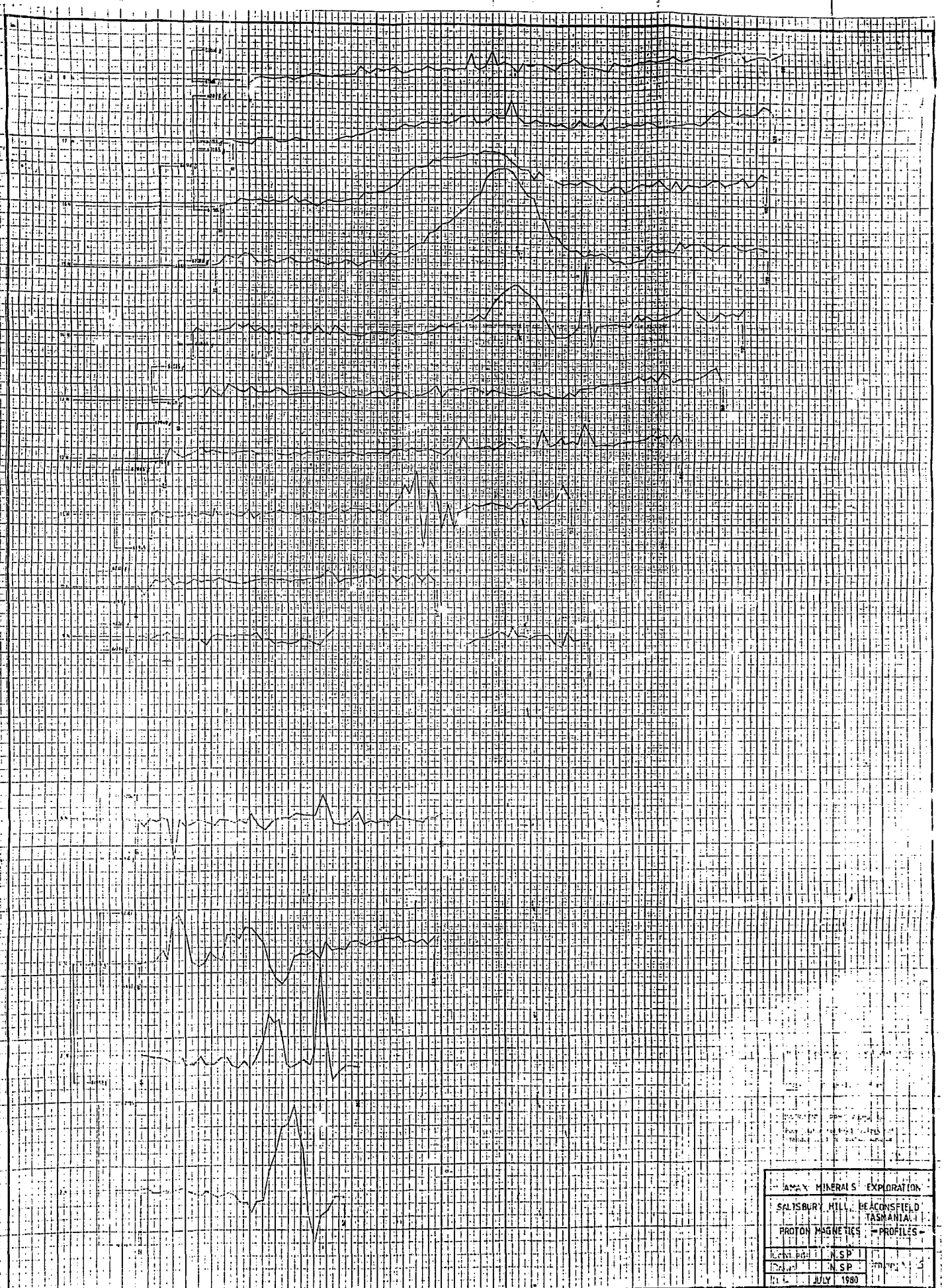
SALISBURY HILL, BEACONSFIELD, TAS.

SOIL GEOCHEMISTRY

N.S.P.	
N.S.P.	
August 1980	4

6871

Fig 6.

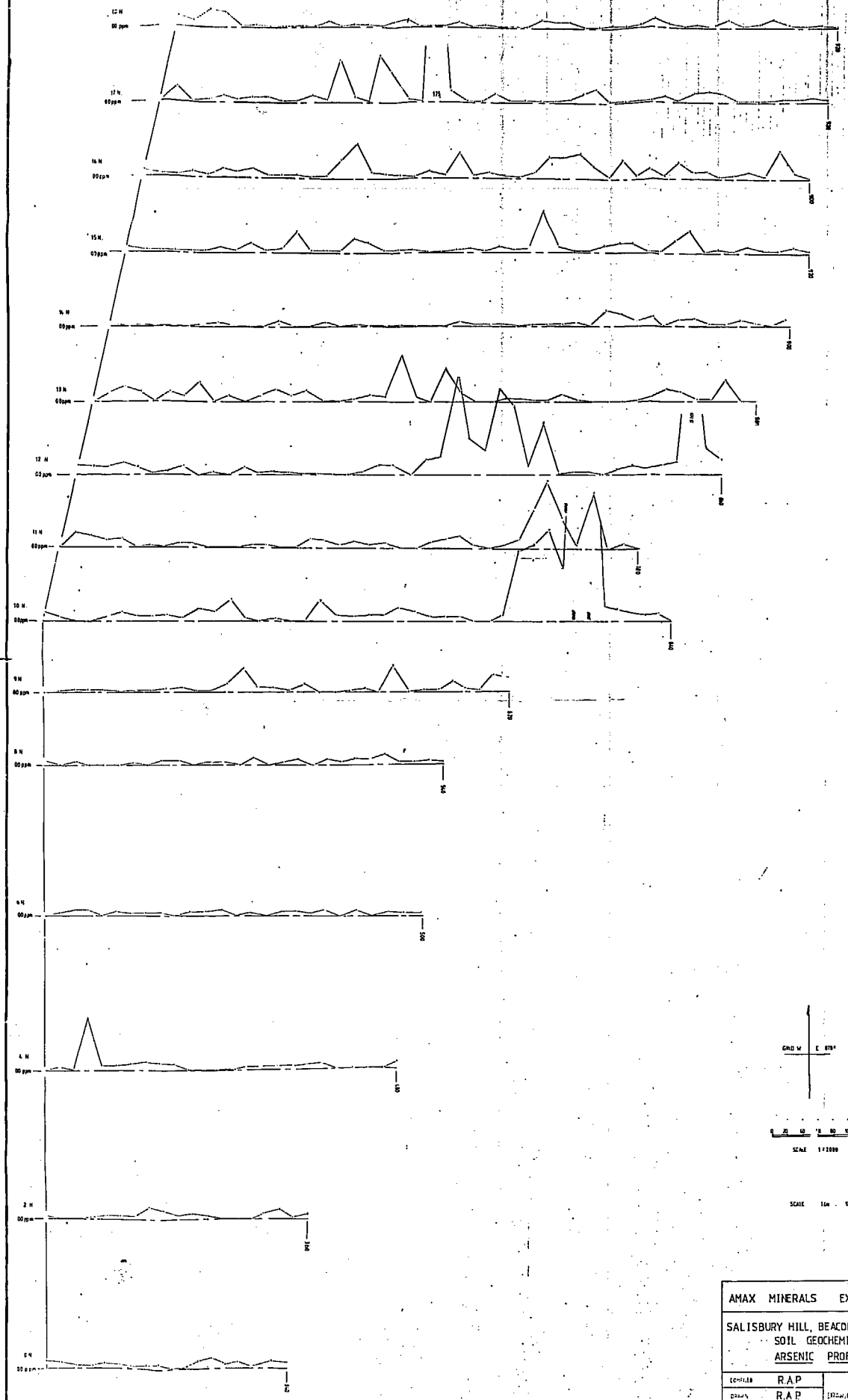


AMAX MINERALS EXPLORATION

SALISBURY HILL, BEACONSFIELD TASMANIA

PROTON MAGNETICS - PROFILES -

Logged	N.S.P
Drawn	N.S.P
Date	JULY 1980

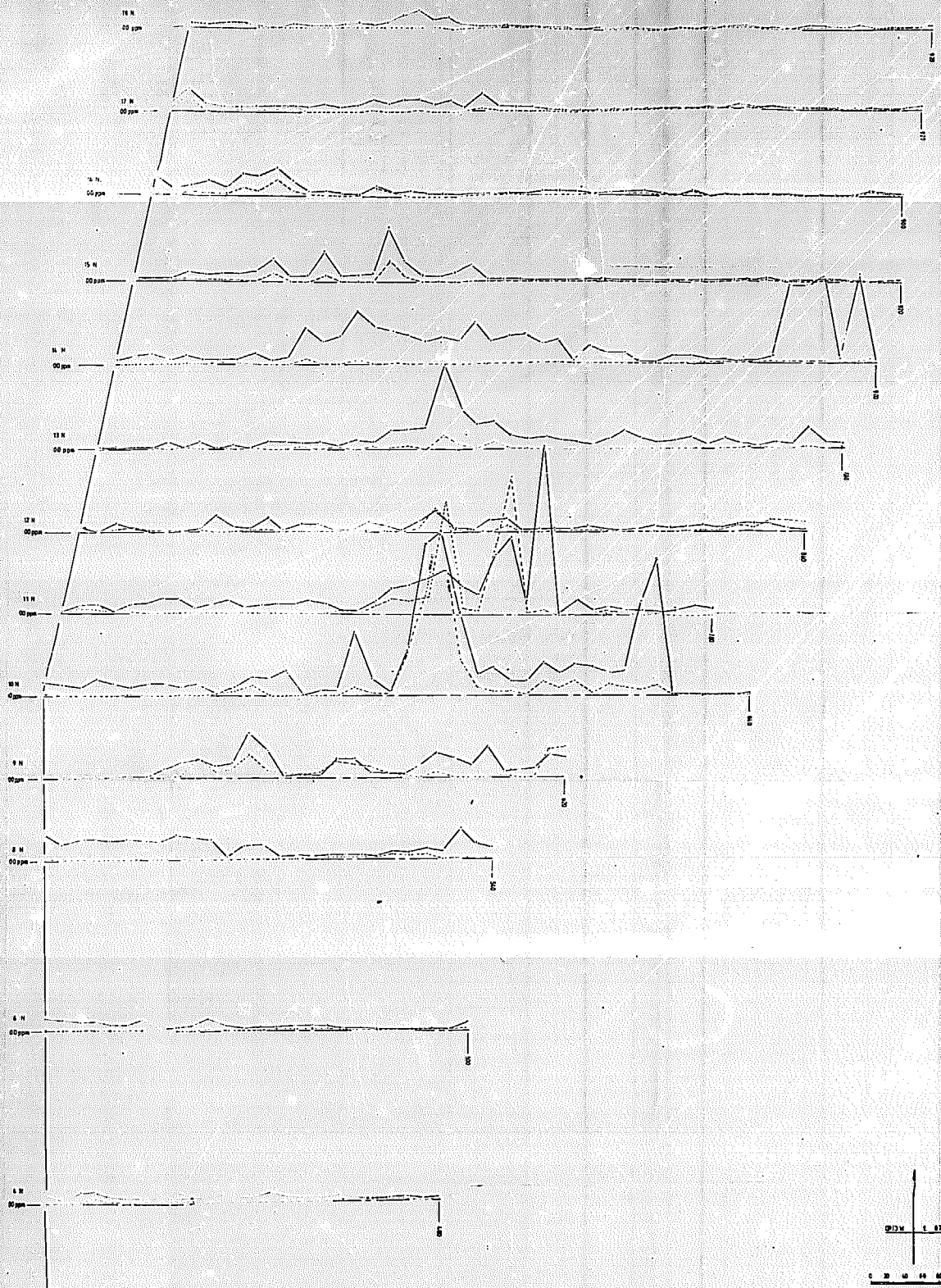


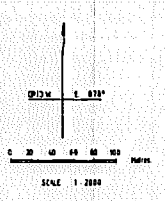
AMAX MINERALS EXPLORA

SALISBURY HILL, BEACONSFIELD
SOIL GEOCHEMISTRY
ARSENIC PROFILES

COMPILED	R.A.P
DRAWN	R.A.P
DATE	August 1980

DRAWING NO





LEGEND Nickel ——— Chromium - - - - -

SCALE 1cm = 100 ppm

10

AMAX MINERALS EXPLORATION

SALISBURY HILL, BEACONSFIELD, T

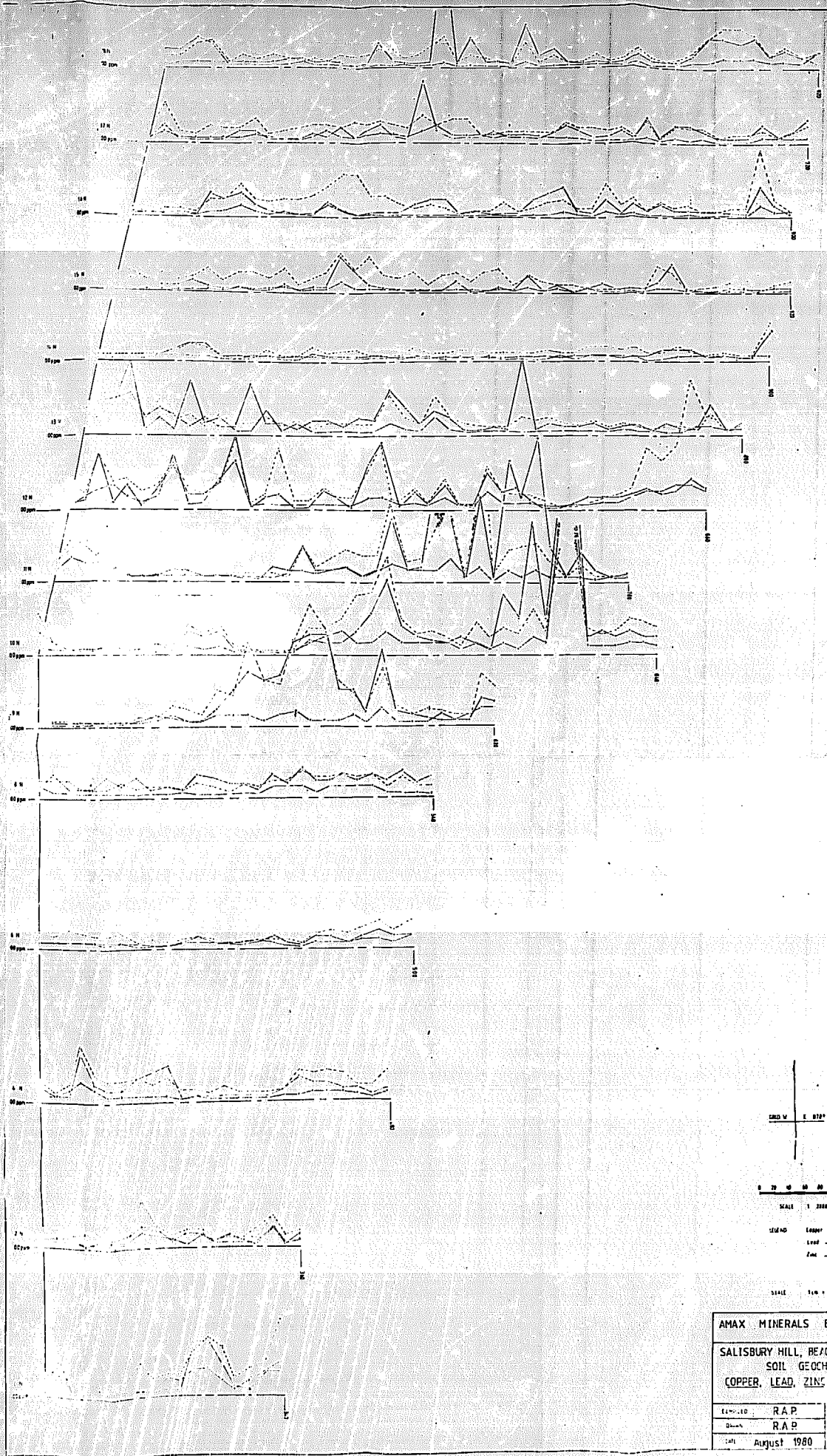
SOIL GEOCHEMISTRY

NICKEL & CHROMIUM PROFILES

DRAWN	R.A.P.	
TRACED	R.A.P.	DRAWING NO 4 B
DATE	August 1980	

82-168

Flow
6876



AMAX MINERALS EXPLORATION

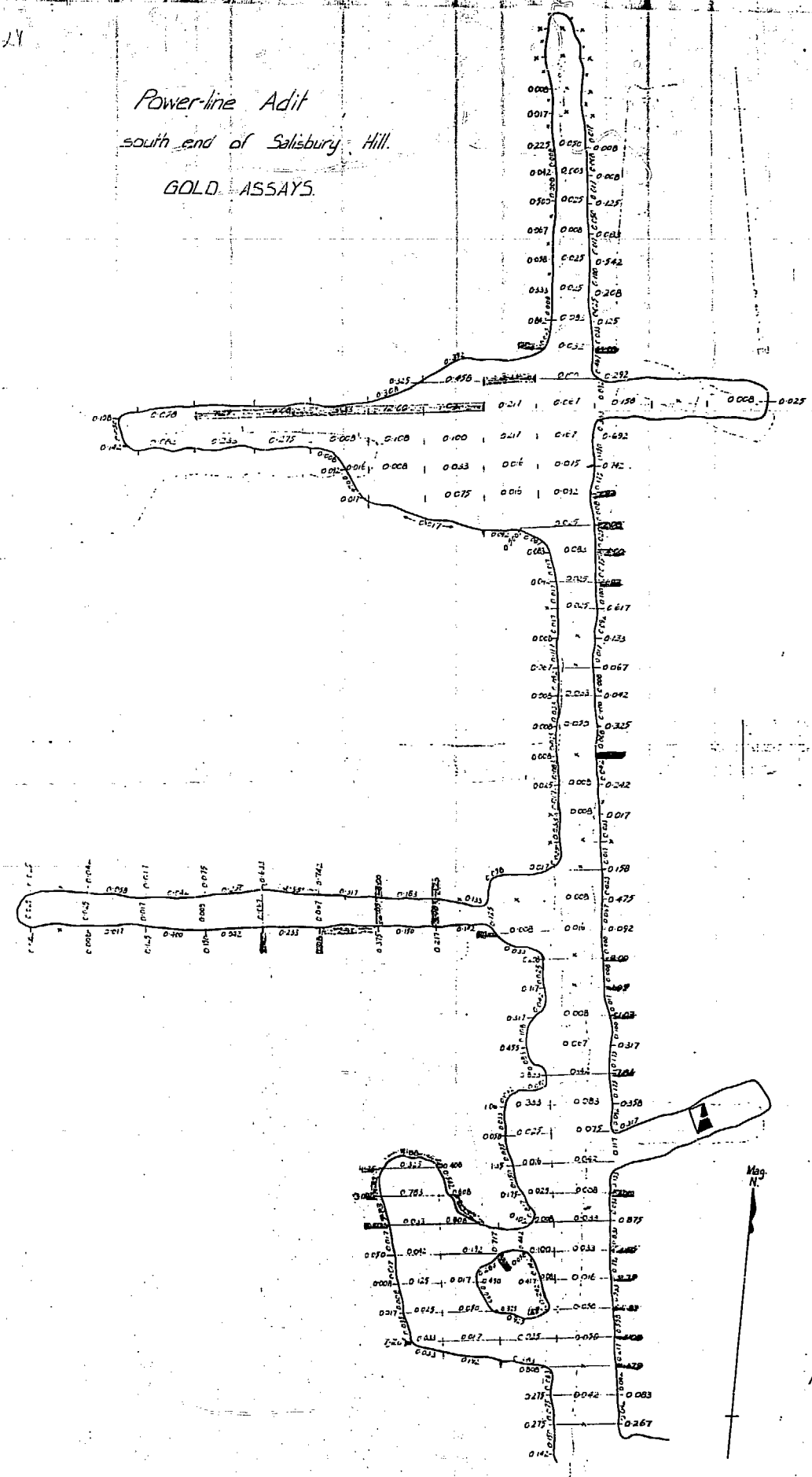
SALISBURY HILL, BEACONSFIELD, T
SOIL GEOCHEMISTRY
COPPER, LEAD, ZINC PROFILES

Compiled	R.A.P.
Drawn	R.A.P.
Date	August 1980

Power-line Adit

south end of Salisbury Hill.

GOLD ASSAYS.



SCALE

1 : 100.

22

5 of 6

Power-line Adit

Salisbury Hill

MANGANESE ASSAYS.

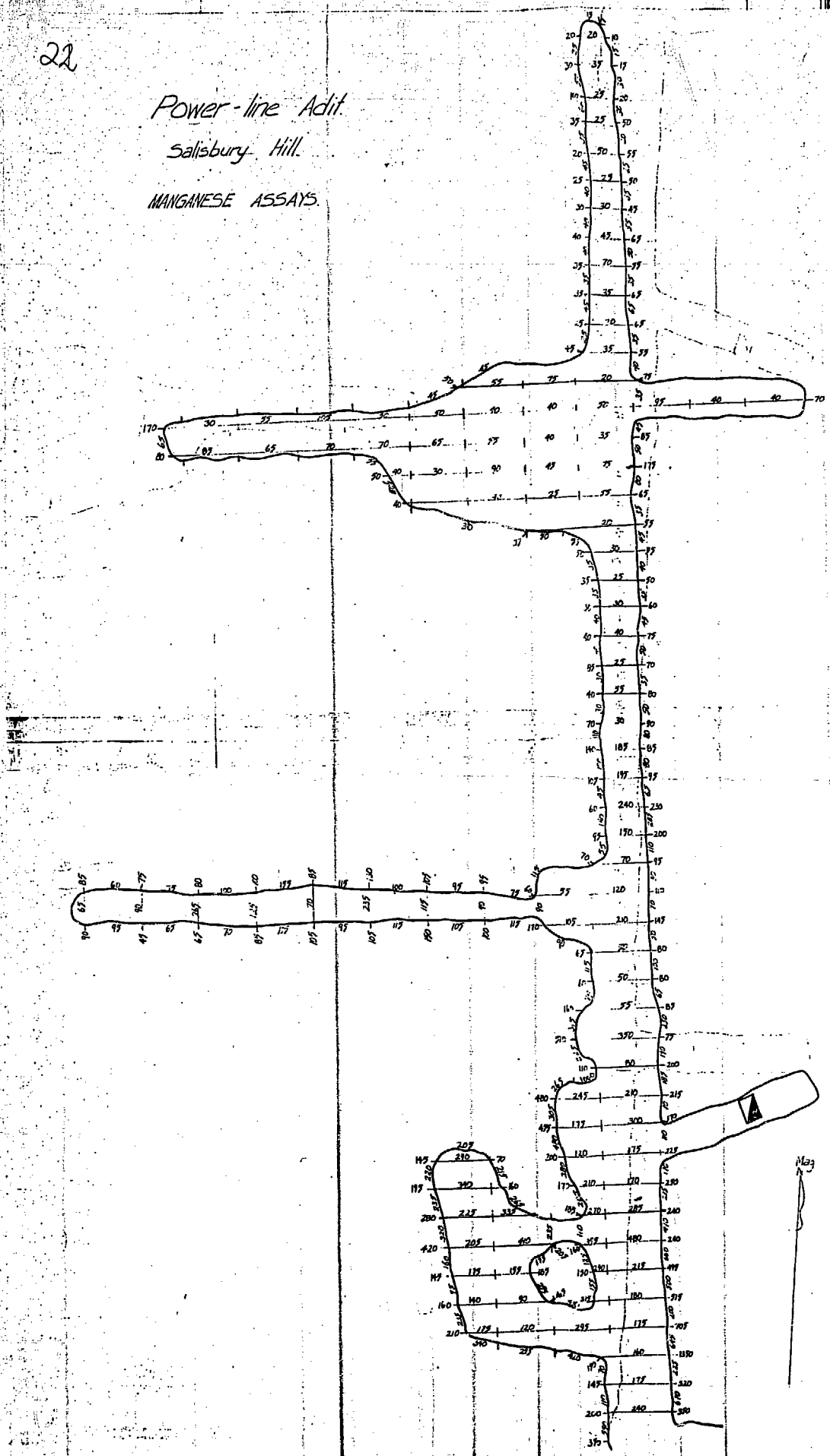


FIG 3.
6878

22

Power-line Adit

ARSENIC ASSAYS.

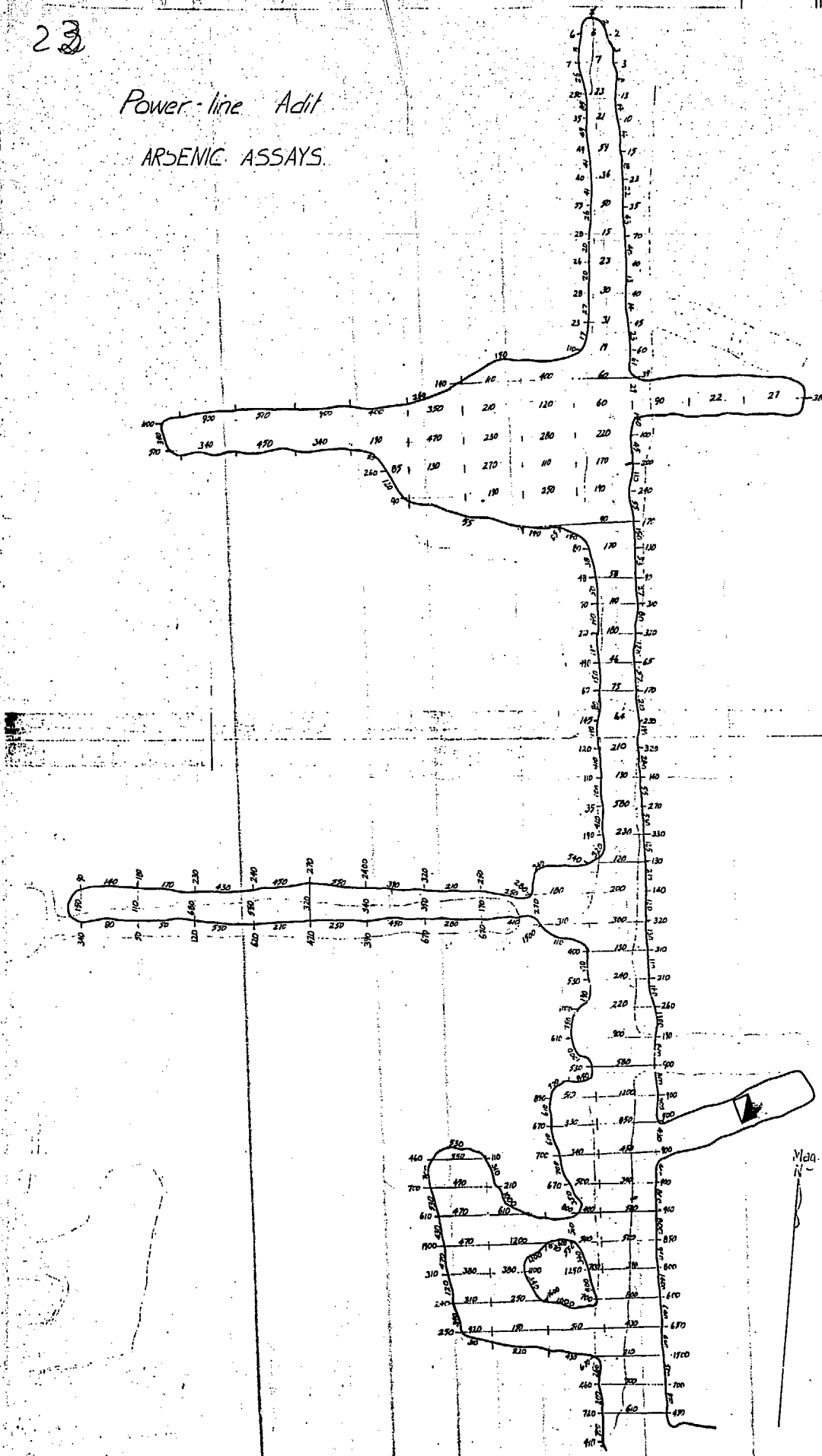


Fig 14.
6879

2.4

Power-line Adit
Salisbury Hill
COPPER ASSAYS.

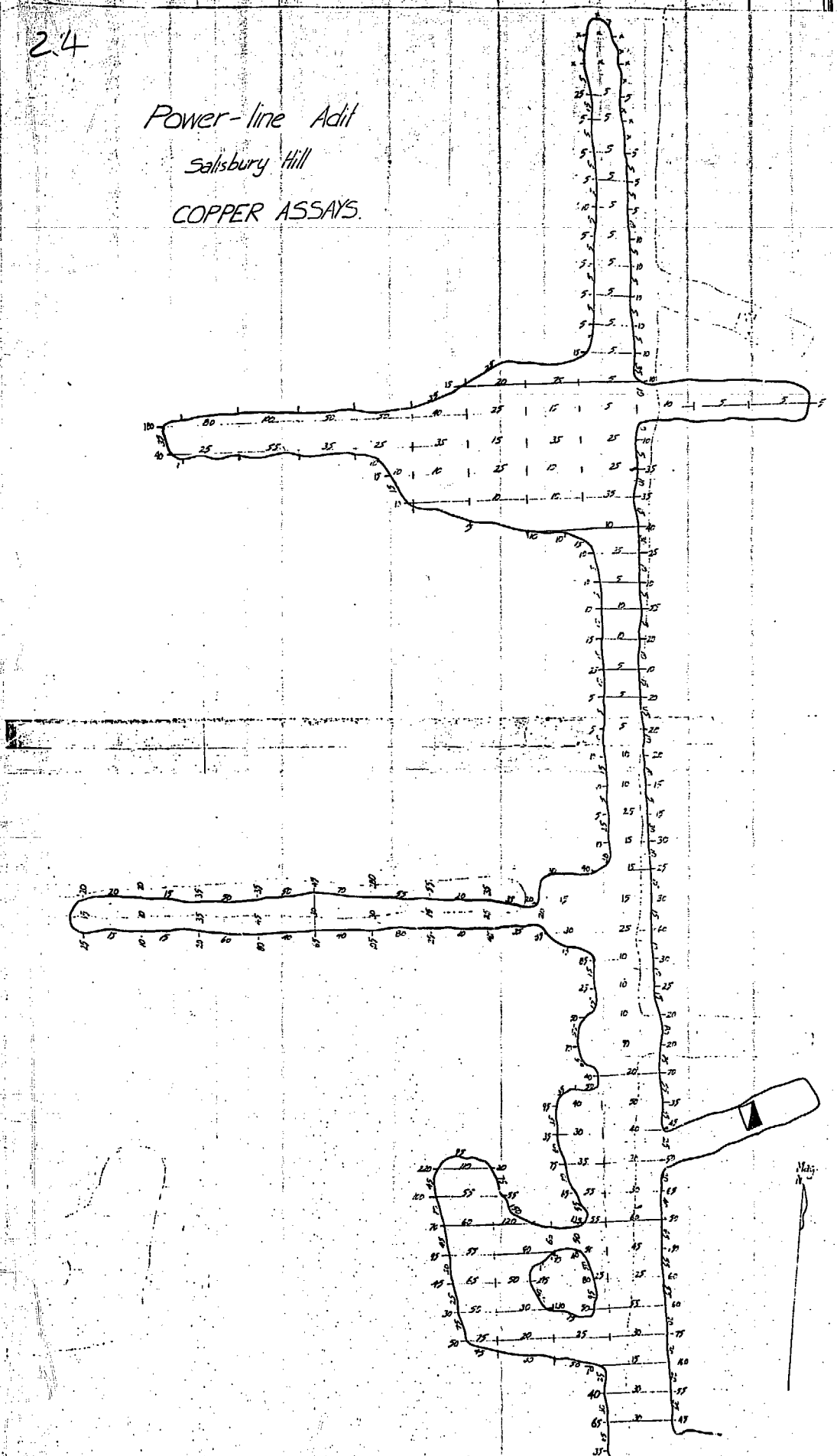


Fig 15.

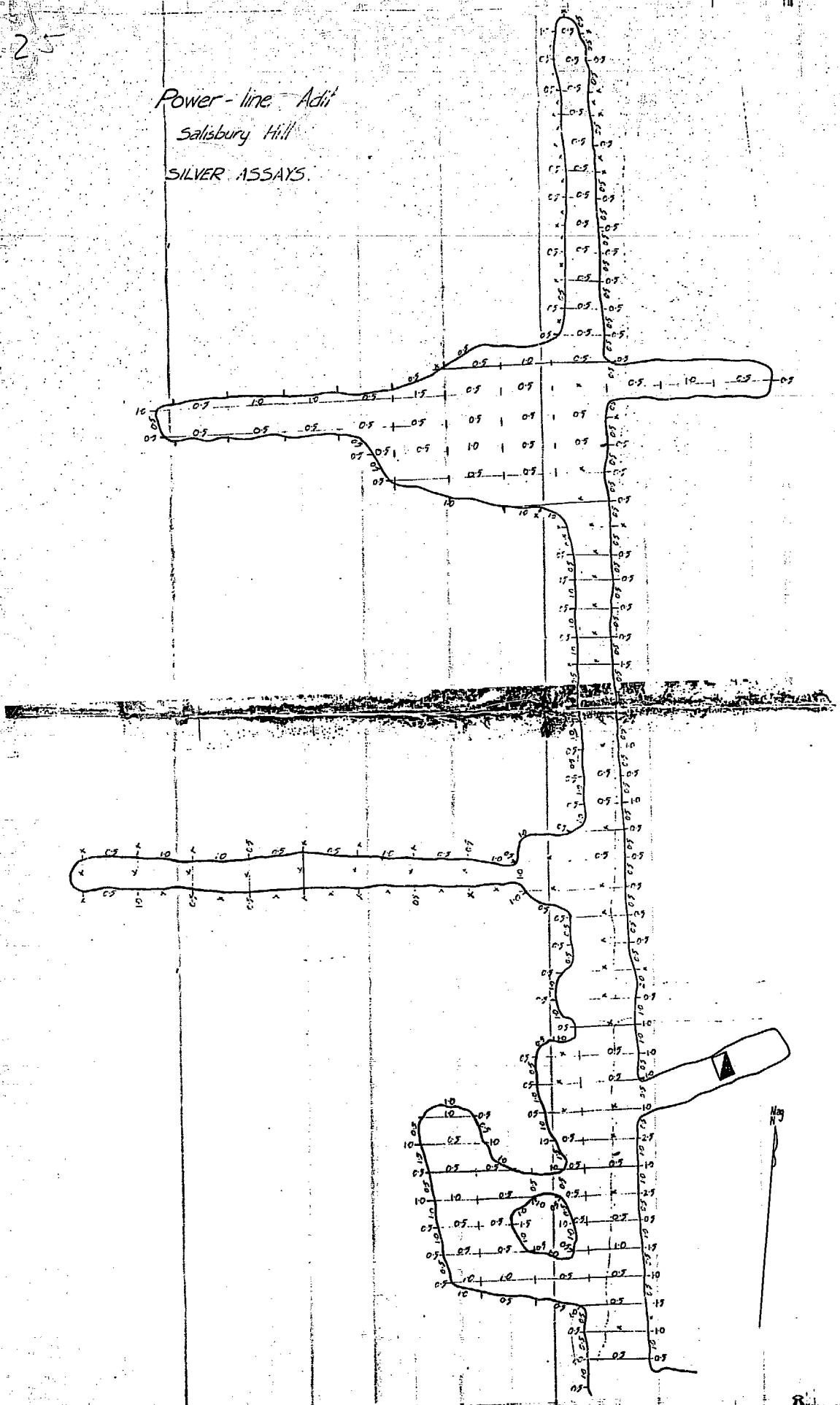
6880

2

Power-line Adit

Salisbury Hill

SILVER ASSAYS.



6881

Fig 16